February 22, 2002

Mr. J. S. Keenan
Vice President
Brunswick Steam Electric Plant
Carolina Power & Light Company
Post Office Box 10429
Southport, North Carolina 28461

SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2, CHANGES TO EMERGENCY ACTION LEVEL CLASSIFICATIONS (TAC NOS. MB2827 AND MB2828)

Dear Mr. Keenan:

By letter dated August 1, 2001, and supplemented by letters dated January 9 and January 24, 2002, Carolina Power & Light Company (CP&L) submitted proposed changes to the Brunswick Steam Electric Plant Emergency Plan emergency action level (EAL) system. You stated that the EAL changes were submitted for Nuclear Regulatory Commission (NRC) staff review and approval prior to implementation.

The NRC has completed its review of the proposed EAL changes and supporting documentation. We conclude the revised EAL system meets the planning standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR Part 50. The basis for our conclusions is contained in the enclosed Safety Evaluation. In the letter dated August 1, 2001, you indicated these changes have been discussed with and agreed to by the State and local governments. Therefore, CP&L may implement the proposed changes. An implementation date of August 1, 2002, has been discussed and agreed upon with your licensing staff.

If you have any questions, please fell free to contact me at (301) 415-1390.

Sincerely,

***/RA by J.Goshen Acting for/***

Allen G. Hansen, Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-325
and 50-324

Enclosure: As stated

cc w/encl: See next page

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

ON PROPOSED CHANGES TO EMERGENCY ACTION LEVEL CLASSIFICATIONS

CAROLINA POWER & LIGHT COMPANY

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2

DOCKET NOS. 50-325 AND 50-324

## 1.0 INTRODUCTION

This Safety Evaluation addresses proposed changes to the Brunswick Steam Electric Plant Emergency Plan (BSEPEP) emergency action level (EAL) scheme submitted by Carolina Power & Light Company (the licensee) in a letter dated August 1, 2001, as supplemented by letters dated January 9 and 24, 2002. The proposed changes improve the classification scheme by minimizing over-classification of events. Formatting and editorial changes were also proposed.

## 2.0 APPLICABLE REGULATIONS AND GUIDANCE

Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.54(q) states, in part: "A licensee authorized to possess and operate a nuclear power reactor shall follow and maintain in effect emergency plans which meet the standards of §50.47(b) and the requirements of Appendix E to this part ..."

10 CFR 50.47(b)(4) states, in part: "A standard emergency classification and emergency action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided ..."

Section IV.B of Appendix E to 10 CFR Part 50 states, in part: "The means ... for determining ... and for continually assessing ... the release of radioactive material[s] 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 the plant conditions and instrumentation in addition to onsite and offsite monitoring. These emergency action levels shall be discussed and agreed on by the applicant and State and local governmental authorities and approved by [the Nuclear Regulatory Commission (NRC)] NRC."

Regulatory Guide 1.101, Revision 2, "Emergency Planning and Preparedness for Nuclear Power Reactors," states, in part: "The criteria and recommendations contained in Revision 1 of

NUREG-0654/FEMA-REP-1 are considered by the NRC staff to be acceptable methods for complying with the standards in 10 CFR 50.47 that must be met in on-site and off-site emergency response plans."

Section II.D, “Emergency Classification System,” of NUREG-0654/FEMA-REP-1, Rev 1, “Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,” includes the following evaluation criteria:

1. An emergency classification and emergency action level scheme as set forth in Appendix 1 must be established by the licensee...

2. The initiating conditions shall include the example conditions found in Appendix 1 [of NUREG-0654]...

Regulatory Guide 1.101, Revision 3, endorsed NUMARC/NESP-007, “Methodology for Development of Emergency Action Levels,” as an acceptable alternative to NUREG-0654 for developing EAL schemes.

Emergency Preparedness Position No. 1, “Emergency Preparedness Position on Acceptable Deviations from Appendix 1 of NUREG-0654 Based upon the Staff’s Regulatory Analysis of NUMARC/NESP-007, ‘Methodology for Development of Emergency Action Levels’,” dated June 6, 1995, states that licensees could utilize the technical bases under the example EALs in NUMARC/NESP-007 to enhance and clarify some of their site-specific EALs developed from NUREG-0654. (The chosen classification scheme, whether based on Appendix 1 to NUREG-0654 or NUMARC/NESP-007, must remain internally consistent.)

## 3.0 BACKGROUND

By letter dated August 1, 2001, and as supplemented by letters dated January 9 and 24, 2002, the licensee submitted changes to the BSEPEP EALs for NRC staff approval prior to implementation. In the enclosure to the letter dated August 1, 2001, the licensee states that the BSEPEP uses the guidance of Regulatory Guide 1.101 (RG 1.101), "Emergency Planning and Preparedness for Nuclear Power Reactors," Revision 3, dated August 1, 1992, for the development of the EAL classification scheme. The licensee also states that following the criteria in RG 1.101, the criteria and standards contained in Revision 1 of NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" (NUREG-0654) are implemented for the Brunswick Steam Electric Plant (BSEP) onsite and offsite emergency response plans. The licensee further states in the enclosure that selected EALs have been enhanced or clarified using the technical bases provided by example EALs contained in NUMARC/NESP-007, Rev. 2, "Methodology for Development of Emergency Action Levels" (NUMARC/NESP-007).

## 4.0 EVALUATION

The NRC staff reviewed the proposed EAL changes using NUREG-0654 and NUMARC\ NESP-007.

4.1 Proposed EAL 01.03.01 - Abnormal Leak Rate - Site Area Emergency

"Loss of coolant accident requiring the initiation of Low Pressure Coolant Injection, Core Spray, or the Automatic Depressurization System, AND REQUIRED FOR ADEQUATE CORE COOLING."

NRC Staff Evaluation - The second part of the EAL (i.e., loss of two-out-of-three fission product barriers) was administratively relocated to a new proposed "EAL 12.03.01 - Fission Product Barriers and Specific LCOs - Site Area Emergency" to consolidate the fission product barrier EALs into one category. This administrative change is acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of a Site Area Emergency (SAE).

4.2 Proposed EAL 01.04.01 - Abnormal Primary Leak Rate - General Emergency

"Loss of coolant accident requiring the initiation of Low Pressure Coolant Injection, Core Spray, or the Automatic Depressurization System, AND REQUIRED FOR ADEQUATE CORE COOLING; -AND- Inability to provide makeup water to the Reactor Coolant System (i.e., failure of HPCI, Core Spray A and B, RCIC, condensate, and feedwater) as indicated by falling or low rector vessel level with attempts to inject water not successful."

NRC Staff Evaluation - The revised wording restates the Site Area Emergency (SAE) in Section 4.1 above, and adds an "AND" portion from the current EAL. The second part of the current EAL (i.e., Loss of two-out-of-three fission product barriers listed in Step 2.4.1 of this Attachment with the potential to lose the third barrier.) was administratively relocated to the new proposed "EAL 12.04.01 - Fission Product Barriers and Specific LCOs - General Emergency" to consolidate the fission product barrier EALs into one category. This administrative change is acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of a General Emergency (GE).

4.3 Proposed EAL 02.02.01 - Steam Line Break or Safety/Relief Valve Failure - Alert

"Main steam, HPCI, or RCIC steam line break inside the primary containment without (full) line isolation valve closure."

NRC Staff Evaluation - In part, the licensee provided the following bases:

1) The existing EAL locates the break downstream of the Main Steam Isolation Valves (MSIVs) outside of primary containment. This condition is consistent with "loss of two-out-of-three fission product barriers" and, therefore, should be declared an SAE.

2) Steam leaking past the MSIVs is contained within the piping system boundary. The condition outside the containment in this situation is similar to plant normal operation with steam passing through the piping to various components.

3) This condition is more consistent with the loss of fission product barrier - Reactor Coolant System - inside primary containment.

4) The proposed EAL includes significant steam lines that penetrate the containment boundary - Main Steam, Reactor Core Isolation Cooling (RCIC), and High Pressure Coolant Injection (HPCI) systems.

5) Since there is no immediate direct release of radioactive material to the environment, as would be the case with a break downstream of the MSIVs, a declaration of an Alert is appropriate for the proposed EAL. These changes are acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of an Alert.

4.4 Proposed EAL 02.03.01 - Steam Line Break or Safety /Relief Valve Failure - Site Area Emergency

"Main Steam, HPCI or RCIC steam line break outside the primary containment and line isolation valve(s) fail to close indicated by valid area radiation and/or temperature alarms."

NRC Staff Evaluation - In part, the licensee provided the following bases:

1) The proposed EAL clarifies that the break is outside primary containment, which represents a loss of two of the three fission product barriers (i.e., Reactor Coolant System and primary containment).

2) This EAL provides the distinction between the Alert (proposed EAL 02.02.01) and SAE classifications by defining the location of the steam line break (i.e., inside or outside of the primary containment). This proposed change is consistent with SAE guidance in NUREG-0654 for steam line breaks outside containment without isolation. The second part of the current EAL (i.e., following the "OR") is being relocated to the new proposed "EAL 12.03.01 - Fission Product Barriers and Specific LCOs - Site Area Emergency" to consolidate the fission product barrier EALs into one category. These changes are acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of a SAE.

4.5 Proposed EAL 02.04.01 - Steam Line Break or Safety /Relief Valve Failure - General Emergency

This EAL is proposed to be relocated to new proposed EAL 12.04.01.

NRC Staff Evaluation - This EAL is being administratively relocated to new proposed EAL 12.04.01, "Fission Product Barriers and Specific LCOs - General Emergencies" to improve assessment evaluation. This change is acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of a GE.

4.6 Proposed EAL 03.02.01 - Abnormal Core Conditions and Core Damage - Alert

"Liquid: Reactor coolant activity greater than 300 µCi/gm I-131 dose equivalent." This EAL is based upon the licensee's supplement dated January 9, 2002.

NRC Staff Evaluation - The descriptor "Failed fuel as indicated by:" is being relocated to the procedure's definition section in order to provide a single location from which to obtain this information. In addition, the criteria for determination of the EAL declaration have been modified, and the units of measure are changed from µCi/ml to µCi/gm for consistency with the units presented as part of the chemical analysis results.

The Initiating Condition that NUREG-0654 uses for this EAL is 300 µCi/cc equivalent of I-131 as an example. In part, the licensee's basis for the proposed change states that the higher value (value was formerly 40 µCi/cc) does not decrease the effectiveness of the EAL scheme because it prevents the over-classification of the event and taking actions inconsistent with the event conditions as described in NUREG-0654. The licensee further states that the change at the SAE level, maintains the threshold distinction between the classifications at an appropriate level to ensure the response is consistent with the event needs. This change is acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of an Alert.

4.7 Proposed EAL 03.03.01 - Proposed EAL 03.02.01 - Abnormal Core Conditions and Core Damage - Site Area Emergency

"Reactor Coolant System activity is greater than 4000 µCi/gm I-131 dose equivalent."

NRC Staff Evaluation - In part, the licensee provided the following bases: 1) raising the threshold value for the SAE recognizes the coolant concentration "step" increase beyond the levels associated with clad damage at the Alert level (proposed 300 µCi/gm) and maintains an appropriate margin to the level that indicate a GE (i.e., any core melt); 2) this change will avoid over-classifying this type of event, which would result in unnecessary actions being taken by offsite emergency management organizations and 3) additionally, as a formatting change, the second part of the current EAL is being relocated to new proposed "EAL 12.03.01 - Fission Product Barriers and Specific LCOs - Site Area Emergency" in order to consolidate the fission product barrier EALs into one category. These changes are acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of a SAE.

4.8 Proposed EAL 03.04.01 - Abnormal Core Conditions and Core Damage - General Emergency

"Any two functional high range drywell radiation monitors (D22-RI-4195, 4196, 4197, and 4198) reading greater than 5000 R/hr."

NRC Staff Evaluation - The proposed EAL is the same as current EAL 3.4.1. Current EAL 3.4.2, "Reactor Coolant System activity is greater than 4000 µCi/ml I-131 dose equivalent" is being deleted since it has been captured in proposed new EAL 03.03.01 (above) as an SAE. Current EAL 3.4.3, "Loss of two-out-of-three fission product barriers listed in step 2.4.1 of the attachment with a potential for loss of the third barrier" references current EAL

2.4.1, which is being relocated to new proposed EAL12.04.01, "Fission Product Barriers and Specific LCOs - General Emergency" to consolidate the fission product barrier EALs into one category. These changes are acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of a GE.

4.9 Proposed EAL 04.02.03 - Abnormal Effluent or Radiation Levels - Alert

"Unplanned, valid direct area radiation (gamma and/or neutron) reading(s) increase by a factor of 1000 over normal levels."

NRC Staff Evaluation - This change is consistent with the radiation level guidance in NUREG-0654 Example Initiating Condition 6 for the Alert classification. The licensee states in the bases for this change that radiation level readings will be taken using instrumentation that has adequate range and stand-off capability to determine the actual value without undue radiation exposure to plant workers. This may be done by using installed equipment, if suitable, or obtained by other instruments, as necessary. Also, the licensee states the current EAL requires the declaration of an unwarranted emergency condition based upon the limited scale of the installed area radiation monitors.

In part, the licensee provides the following bases for deletion of part "B" of the current EAL which states: "Any site evacuation based on confirmed radiological conditions: 1) confirmed radiological conditions should be the protective action taken in response to a condition and not the point at which it is determined that a classification should be made and 2) if the radiological conditions are such that they warrant protective measures for personnel, such as evacuation, then the radiological conditions should determine the EAL, not the action resulting from the conditions."

In part, the licensee provides the following bases for the deletion of part "C" of the current EAL which states: "Reactor Building closed cooling monitor (D12-RM-K606) off-scale high and high activity is confirmed by sampling: 1) there is no initiating condition consistent with the condition described; 2) this condition would indicate the presence of radioactivity in a non-radioactive system; 3) the condition by itself does not warrant an Alert; 4) should the condition impact personnel access to an area due to radiation levels or result from the RCS (indicative of loss reactor coolant barrier), other EALs would provide classification guidance (e.g., EAL 01.02.01, "Small break LOCA with primary system leakage greater than 50 gpm", or EAL 04.02.03, "Unplanned, valid direct area radiation (gamma/or neutron) reading(s) increase by a factor of 1000 over normal level") and 5) eliminating this part of EAL 4.2.3 will preclude making an unnecessary declaration, which would require actions inappropriate to the actual conditions."

These changes are acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of an Alert.

4.10 Proposed EAL 05.03.02 - Loss of Shutdown Functions: Decay Heat and Reactivity - Site Area Emergency

"Complete loss of reactor heat removal capability indicated by inability to maintain Suppression Pool below Heat Capacity Temperature Limit curve."

NRC Staff Evaluation - This is a new EAL to address the example initiating condition SAE number 8 in NUREG-0654, "Complete loss of any function needed for plant hot shutdown."

In part, the licensee states the following in the bases for the change: this EAL addresses the impact of long term loss of decay heat removal (DHR) capability after the reactor has been shutdown. During a station blackout or other unlikely event that results in severe impairment of DHR capability, core melt conditions can occur which can ultimately lead containment failure. This EAL is anticipating these conditions when it is apparent that restoration of the DHR function is not imminent, thereby severely limiting the ability of the containment to absorb additional heat energy. These changes are acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of a SAE.

4.11 Proposed EAL 05.04.02 - Loss of Shutdown Functions: Decay Heat and Reactivity - General Emergency

"Containment pressure approaching Primary Containment Pressure Limit (PCLP), and containment venting will be required within the next six (6) hours."

NRC Staff Evaluation - This is a new EAL to address example initiating condition GE 6.d, "Shutdown occurs but requisite decay heat removal systems (e.g., RHR) or non-safety systems heat removal means are rendered unavailable. Core degradation or melt could occur in abut ten hours with subsequent containment failure." In part, the licensee provided the following bases for the proposed change: the new EAL recognizes the effects of a long-term loss of DHR capability. With the existing EALs, the "loss of fission product barriers" is the primary condition for declaration of a General Emergency. The GE declaration in turn would initiate protective measures for the public by offsite emergency management organization officials. By early recognition of the impact from extended loss of DHR and initiation of the appropriate response to ensure public protective measures can be effective. These changes are acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of a GE.

4.12 Proposed EAL 07.01.01 - Fire - Notification of Unusual Event

"Fire located in or adjacent to the areas listed below NOT extinguished within 15 minutes of alarm verification or Control Room notification. Areas: Emergency Diesel Generator Building, Control Building, Central Alarm Station/Secondary Alarm Station, Reactor Building, Turbine Building, Unit Intake Structures, Service Water Building"

NRC Staff Evaluation - In part, the licensee provided the following bases for the change:

1) This change will allow additional time to assess a fire situation without unduly delaying a request for offsite assistance.

2) The intent of the 15-minute fire duration is to "size" the fire and to discriminate against small fires that are readily extinguished (e.g., smoldering waste paper basket). The areas included in the EAL are buildings or locations that house plant vital equipment. This is intended to exclude fires in administration buildings or small fires of no safety consequence.

3) Improving the evaluation and decision-making process in the event of a fire enhances the proper level of response.

4) Specific areas affected have been provided in order to further ensure the proper differentiation between abnormal events and emergency declarations.

Example initiating condition 10 for the Notification of Unusual Event (NOUE) in NUREG-0654 is a fire within the plant lasting more than 10 minutes. However, the licensee's proposed EAL includes a fire not extinguished within 15 minutes of alarm verification or control room notification, which is consistent with the guidance provided in NUMARC/NESP-007. Based upon the licensee's bases for the change, and since the licensee's classification scheme based on NUREG-0654 provides for escalation to a higher class in the event of a fire and the units do not share safety functions, the increased fire duration time is acceptable.

These changes are acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of a NOUE.

4.13 Proposed EAL 09.09.01 - Loss of Monitors or Alarms or Communication Capability - Notification of Unusual Event

"Site communications capability impaired as determined by loss of all of the following:

1. Loss of both site Private Branch Exchanges.

2. Loss of all private phone lines (not routed through Plant Branch Exchange; Control Room, Security, Site Vice President Office).

3. Loss of Selective Signaling.

4. Loss of the Decision Line.

5. Loss of State and Local emergency management radio system.

6. Loss of the cellular phone system access.

7. Satellite telephone."

NRC Staff Evaluation - This change is acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of a NOUE.

4.14 Proposed EAL 09.01.02 - Loss of Monitors or Alarms or Communication Capability - Notification of Unusual Event

"Unplanned loss of most or all annunciators on Panels P601, P603, XU-1, XU-2, XU-51, and XU-80 for greater than 15 minutes with the affected unit in Modes 1,2,or 3: -AND - Compensatory (non-alarming ) indications are available."

NRC Staff Evaluation - This is a human factoring change to place the time constraint closer to the beginning of the conditional statement. Also, "Operational Condition" in the current EAL is changed to "Mode." This is an editorial change for consistency with the BSEP Improved Technical Specifications. These changes are acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of an NOUE.

4.15 Proposed EAL 09.02.01 - Loss of Monitors or Alarms or Communication Capability - Alert

"Unplanned loss of most or all annunciators on Panels P601, P603, XU-1, XU-2, XU-51, and XU-80 for greater than 15 minutes with the affected unit in Modes 1,2,or 3: - AND - Either: Compensatory (non-alarming ) indications are NOT available - OR - A plant transient is in progress."

NRC Staff Evaluation - This is a human factoring change to place the time constraint closer to the beginning of the conditional statement. Also, "Operational Condition" in the current EAL is changed to "Mode." This is an editorial change for consistency with the BSEP Improved Technical Specifications. These changes are acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of an Alert.

4.16 Proposed EAL 11.03.01 - Security Threats - Site Area Emergency

"Physical attack on the plant involving imminent occupancy of the Control Room, auxiliary shutdown panels, or other vital areas."

NRC Staff Evaluation - This proposed change changes the word "and" in the current EAL to "or" for the purpose of clarifying the appropriate conditions. This change clarifies that if ANY one of the locations, versus ALL of the locations, is affected by the security threat, the SAE should be declared. The use of the word "areas" in the EAL is interpreted to mean any other vital area, not multiple vital areas. This change is acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of an SAE.

4.17 Proposed EAL 11.04.01 - Security Threats - General Emergency

"Physical attack on the plant has resulted in unauthorized personnel occupying the Control Room or other vital areas."

NRC Staff Evaluation - This proposed change changes the word "and" in the current EAL to "or" for the purpose of clarifying the appropriate conditions. This change clarifies that if ANY one of the locations, versus ALL of the locations, is affected by the security threat, the SAE should be declared. The use of the word "areas" in the EAL is interpreted to mean any other vital area, not multiple vital areas. This change is acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of an GE.

4.18 Proposed EAL 12.02.01 - Fission Product Barriers and Specific LCOs - Alert

"Loss of either Fuel Clad or the Reactor Coolant Boundary."

NRC Staff Evaluation - The licensee provided the following bases for this proposed new EAL. This is a new EAL used to bridge the Alert classification for the current fission product barrier EALs in the other classes. This is based on NUMARC/NESP-007 Category F, and is consistent with the current BSEP EALs which address the loss of fission product barriers. The descriptor for "Loss of the fission product barrier" is provided in the definitions section of the BSEP procedure OPEP-02.1, "Initial Emergency Actions." The definition states: "Fission Product Barrier Loss - Fission product barrier loss is indicated by one of the following conditions: A. Failed fuel causing RCS activity greater than 400 µCi/g I-131 dose equivalent. B. Loss of primary coolant boundary: 1. Loss of coolant accident (Step 1.2 of this Attachment - Alert) 2. Major steam line break (Step 2.2 of this Attachment - Alert) C. Loss of primary containment operability. A release path has been established." However, in the supplement dated January 9, 2001, the licensee revised the Alert initiating condition to read greater than 300 µCi/gm I-131 dose equivalent rather than 400 µCi/gm in condition A above. These changes are acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of an Alert.

4.19 Proposed EAL 12.03.01 - Fission Product Barriers and Specific LCOs - Site Area Emergency

"Loss of two-out-of-three fission product barriers."

NRC Staff Evaluation - The licensee provided the following bases for this proposed new EAL. This EAL is not a change in the terminology or criteria. This is a format change that places the fission product barrier EALs in one location for ease of identification and access. The criteria for each barrier are maintained in the definition section of BSEP procedure OPEP-02.1, "Initial Emergency Actions." These changes are acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of a Site Area Emergency.

4.20 Proposed EAL 12.04.01 - Fission Product Barriers and Specific LCOs - General Emergency

"Loss of any two-out-of-three fission product barriers with the potential loss of the third barrier."

NRC Staff Evaluation - The licensee provided the following bases for this proposed new EAL. This EAL is also being relocated from Category 2.0 to Category 12.0 as a formatting change in order to include all the fission product barrier EALs in one category for ease of access and identification. The descriptor for "Loss of the fission product barrier" is provided in the definitions section of the BSEP procedure OPEP-02.1, "Initial Emergency Actions." These changes are acceptable since there is no reduction in effectiveness of the classification scheme and the proposed EAL meets the intent of the declaration of a General Emergency.

5.0 STATE AND LOCAL GOVERNMENTS AGREEMENT

Appendix E to 10 CFR Part 50 states, in part, that EALs are to be discussed and agreed on by State and local government authorities. The licensee stated in its August 1, 2001, letter that these proposed changes were discussed with State and local governments and these authorities agreed to these proposed changes.

## 6.0 CONCLUSION

The NRC staff concludes, as discussed above, that the licensee's EP changes as proposed in its letter of August 1, 2001, and as supplemented by letters dated January 9 and 24, 2002, are consistent with guidance provided in NUREG-0654 and finds them acceptable. The NRC staff also concludes that the proposed revised EAL changes meet the requirements of 10 CFR 50.47(b)(4) and Appendix E to 10 CFR Part 50. Therefore, the licensee can implement the proposed changes.

Principal Contributor: Robert E. Moody, NRR

Date: February 22, 2002

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