| | |
|---|---|
| **From:** | Ward, William |
| **Sent:** | Friday, March 11, 2016 5:10 PM |
| **To:** | apr1400rai@khnp.co.kr; KHNPDCDRAIsPEm Resource; daegeun.ahn@gmail.com; Andy Jiyong Oh; Mannon, Steven (steven.mannon@aecom.com) |
| **Cc:** | Williams, Donna; Ciocco, Jeff; Harbuck, Craig; Dias, Antonio; Umana, Jessica |
| **Subject:** | APR1400 Design Certification Application RAI 439-8524 [16 - Technical Specifications)] |
| **Attachments:** | APR1400 DC RAI 439 SPSB 8524.pdf |

KHNP,

The attachment contains the subject request for additional information (RAI). This RAI was sent to you in draft form. Your licensing review schedule assumes technically correct and complete responses within 30 days of receipt of RAIs. However, KHNP requests, and we grant, the following RAI question response times. We may adjust the schedule accordingly.

**16-124 : 30days**
**16-125 : 30days**
**16-126 : 45days**
**16-127 : 45days**
**16-128 : 45days**
**16-129 : 30days**
**16-130 : 45days**

Please submit your RAI response to the NRC Document Control Desk.

Thank you,

**William R. Ward, P.E.**
**Senior Project Manager**
**U.S. Nuclear Regulatory Commission**
**m/s T6-D38M**
**Washington, DC, 20555-0001**
NRO/DNRL/Licensing Branch 2
ofc  T6-D31
ofc (301) 415-7038

**U.S. NRC  PROTECTING PEOPLE AND THE ENVIRONMENT**
*Please consider the environment before printing this email.*

**Hearing Identifier:**    KHNP_APR1400_DCD_RAI_Public
**Email Number:**    488

**Mail Envelope Properties**    (8815697ff625410fb19281a911328c9f)

**Subject:**    APR1400 Design Certification Application RAI 439-8524 [16 - Technical Specifications)]
**Sent Date:**    3/11/2016 5:10:08 PM
**Received Date:**    3/11/2016 5:10:09 PM
**From:**    Ward, William

**Created By:**    William.Ward@nrc.gov

**Recipients:**
"Williams, Donna" <Donna.Williams@nrc.gov>
Tracking Status: None
"Ciocco, Jeff" <Jeff.Ciocco@nrc.gov>
Tracking Status: None
"Harbuck, Craig" <Craig.Harbuck@nrc.gov>
Tracking Status: None
"Dias, Antonio" <Antonio.Dias@nrc.gov>
Tracking Status: None
"Umana, Jessica" <Jessica.Umana@nrc.gov>
Tracking Status: None
"apr1400rai@khnp.co.kr" <apr1400rai@khnp.co.kr>
Tracking Status: None
"KHNPDCDRAIsPEm Resource" <KHNPDCDRAIsPEm.Resource@nrc.gov>
Tracking Status: None
"daegeun.ahn@gmail.com" <daegeun.ahn@gmail.com>
Tracking Status: None
"Andy Jiyong Oh" <jiyong.oh5@gmail.com>
Tracking Status: None
"Mannon, Steven (steven.mannon@aecom.com)" <steven.mannon@aecom.com>
Tracking Status: None

**Post Office:**    HQPWMSMRS05.nrc.gov

| Files | Size | Date & Time |
|---|---|---|
| MESSAGE | 900 | 3/11/2016 5:10:09 PM |
| APR1400 DC RAI 439 SPSB 8524.pdf | 159079 | |

**Options**
**Priority:**    Standard
**Return Notification:**    No
**Reply Requested:**    No
**Sensitivity:**    Normal
**Expiration Date:**
**Recipients Received:**

# REQUEST FOR ADDITIONAL INFORMATION 439-8524

Issue Date: 03/11/2016
Application Title: APR1400 Design Certification Review – 52-046
Operating Company: Korea Hydro & Nuclear Power Co. Ltd.
Docket No. 52-046
Review Section: 16 - Technical Specifications
Application Section: 16.1.1, 16.3.0, 16.3.1, 16.3.3.13

QUESTIONS

**16-124**

Paragraph (a)(11) of 10 CFR 52.47 and paragraph (a)(30) of 10 CFR 52.79 state that a design certification (DC) applicant and a combined license (COL) applicant, respectively, are to propose TS prepared in accordance with 10 CFR 50.36 and 50.36a. 10 CFR 50.36 sets forth requirements for technical specifications to be included as part of the operating license for a nuclear power facility. NUREG-1432, "Standard Technical Specifications-Combustion Engineering Plants," Rev. 4, provides NRC guidance on format and content of technical specifications as one acceptable means to meet 10 CFR 50.36 requirements. Staff needs to evaluate all technical differences from standard TS (STS) NUREG-1432, STS Combustion Engineering Plants, Rev. 4, which is referenced by the DC applicant in DCD Tier 2 Section 16.1, and the docketed rationale for each difference because conformance to STS provisions is used in the safety review as the initial point of guidance for evaluating the adequacy of the generic TS to ensure adequate protection of public health and safety, and the completeness and accuracy of the generic TS Bases.

The applicant is requested to rephrase SR 3.1.~~5~~**4**.5 so that its meaning is clearer and consistent with the Bases, as follows: "Verify each full strength CEA drop time **from the fully withdrawn position to the**~~at~~ 90 % insert**ion**~~ed~~ position **is** ≤ 4 seconds."

Regarding SR 3.1.~~5~~**4**.5, the Deviation Report states: "This SR confirms the required CEA drop time assumed in the safety analysis." This CEA drop time is in Figure 4.2-14 of DCD Tier2. The applicant is requested to add FSAR Section 4.2 as a reference in the Bases for Subsection 3.1.**4**.

Regarding the Bases for SR 3.1.~~5~~**4**.5, second paragraph, suggest revising the first sentence to reflect that 4 seconds is the upper limit for an operable CEA drop time, as follows: "The 4 second CEA drop time is the maximum time ~~it takes~~ **allowed** for a fully withdrawn individual full strength CEA to reach its 90% insertion position when electrical power is interrupted to the CEA drive mechanism with RCS $T_{cold}$ greater than or equal to [286.7 °C (548 °F)] and all reactor coolant pumps operating." Also, do the square brackets around the temperature criterion imply this is a COL Action Item?

**16-125**

In LCO 3.1.~~12~~**11**, "Special Test Exceptions (STE) – Reactivity Coefficient Testing," the applicant is requested to replace the last phrase "limits specified in their LCOs" with:

> "... may be suspended, provided **Linear Heat Rate (**LHR**)** and **Departure from Nucleate Boiling Ratio (**DNBR**)** do not exceed the limits specified in: ~~their LCOs.~~
>
> **LCO 3.2.1, "Linear Heat Rate (LHR)"; and**
> **LCO 3.2.4, "Departure from Nucleate Boiling Ratio (DNBR)."**

With the above change to the LCO statement, Condition A can be simplified as indicated: "LHR or DNBR outside ~~the~~ limits ~~specified in their LCOs~~.

# REQUEST FOR ADDITIONAL INFORMATION 439-8524

The Frequency of SR 3.1.**11**.1 is "Continuously," which is impractical if COLSS is out of service.  It should be replaced by a short time interval that is greater than the typical time needed to perform SR 3.2.1.1 (Verify LHR, as indicated on ==each== OPERABLE local power density channel, is within its limit. | 2 hours) and SR 3.2.4.1 (Verify DNBR, as indicated on ==all== OPERABLE DNBR channels, is within limit of Figure 3.2.4-2 or 3.2.4-3 of COLR, as applicable. | 2 hours). Each of these surveillances is only applicable when COLSS is not monitoring parameters (out of service), because COLSS monitors LHR and DNBR continuously.  Also, if just one of the four LHR and DNBR channels is operable with COLSS out of service, can the LHR and DNBR verifications required by SR 3.1.**11**.1 by performing SR 3.2.1.1 and SR 3.2.4.1 be met?

In addition, The LCO section of the Bases for Subsection 3.1.**11** says "The requirements of LCOs 3.1.7, 3.1.8 and 3.4.1 (for RCS cold leg temperature only) may be suspended during the performance of PHYSICS TESTS *provided COLSS is in service*." The Notes in SR 3.2.1.1 for LHR verification and SR 3.2.4.1 for DNBR verification say that these verifications are not required to be met if COLSS is in service. Therefore, this Bases statement renders SR 3.1.**11**.1 ambiguous. Staff suggests that reference to SR 3.2.1.1 and SR 3.2.4.1 not be used; rather SR 3.1.**11**.1 should be self-contained.  For example:

| SURVEILLANCE | | FREQUENCY |
|---|---|---|
| SR  3.1.**11**.1 | ----------------------------NOTE--------------------------<br>Only required to be met when COLSS is out of service. With COLSS in service, LHR is continuously monitored.<br>------------------------------------------------------------<br><br>Verify LHR, as indicated on ==each== OPERABLE **Core Protection Calaculator** local power density channel, is within ~~its~~ **the** limit **specified in the COLR**. | 15 minutes |
| SR  3.1.**11**.2 | ----------------------------NOTE--------------------------<br>Only required to be met when COLSS is out of service. With COLSS in service, DNBR is continuously monitored.<br>------------------------------------------------------------<br><br>Verify DNBR, as indicated on ==all== OPERABLE **Core Protection Calaculator** DNBR channels, is within **the** limit**s** of Figure 3.2.4-2 or **Figure** 3.2.4-3 of **the** COLR, as applicable. | 15 minutes |

These SRs seem ambiguous. Consider whether the high-lighted words "each" and "all" can be replaced by "one or more"; or "each" can be replaced by "all"; or "all" replaced by "each."

The 15 minute Frequency is a suggestion based on the 15 minute Completion Time of Required Action B.1 of Specifications 3.2.1 and 3.2.4.

Conforming changes to the Bases for Specifications 3.1.**11**, 3.2.1, and 3.2.4 should also be made.

# REQUEST FOR ADDITIONAL INFORMATION 439-8524

**16-126**

On page 30, the (Dec 2015) Deviation Report justifies adding RPS Functions 3.3.1.2, 3.3.1.14, 3.3.1.15, and 3.3.2.1 to the list of excepted LCO requirements in DCD Revision 0, generic TS LCO 3.1.10, as follows:

> RPS bypass setpoint change was determined as a STE during a previous plant startup test. RPS bypass setpoint changes need to prevent unnecessary reactor trip by RPS during criticality test. The criticality test and related SR are added.

Applicant is requested to explain in more detail what this paragraph means.

- Describe the changes to RPS bypass setpoints, and how that applies to including these Functions in the LCO 3.1.10 exception list;

- Describe the issue related to the criticality test that lead to a need for RPS bypass setpoint changes;

- Explain why APR1400 needs this exception while CE STS does not.


**16-127**

In the generic TS 1.1 definition of ESF Response Time, the STS 1.1 definition's phrase "((i.e., the valves travel to their required positions, pump discharge pressures reach their required values, etc.)" is revised to say "(e.g., valves travel to their required positions, pump discharge pressures reach their required values)"; which has a different meaning.  The applicant is requested to revise this definition to match the STS 1.1 definition.

The STS 1.1 definition of RPS Response Time ends with the sentence, "In lieu of measurement, response time may be verified for selected components provided that the components and methodology for verification have been previously reviewed and approved by the NRC."  In the Dec. 2015 Deviation Report, on page 24, this sentence is described as being omitted from the generic TS definition because "APR1400 has no approved methodology."  Since this sentence is included in both ESF and RPS Response Time definitions in the STS, regardless of the existence of any NRC approved methodology, the applicant is requested to include this phrase in the generic TS 1.1 definitions for ESF Response Time and RPS Response Time.


**16-128**

1. The applicant is requested to revise the generic TS 3.3.13 LCO statement as indicated:

    LCO 3.3.13      Two logarithmic power level monitoring instrumentation **channels** shall be OPERABLE.

2. The applicant is requested to edit and format the generic TS 3.3.13 Applicability statement as indicated (see Writer's Guide Sections 2.5.4.b.1 and 4.1.5) by the following markup:

    APPLICABILITY:        MODES 3, 4, and 5 with the reactor trip switchgears (RTSGs) open or ~~control element assembly~~ **Control Element Assembly** (CEA) ~~drive system~~ **Drive System** not capable of CEA withdrawal.

3. The Bases for SR 3.3.13.2 of generic TS 3.3.13, contains a sentence, "At this unit, the channel trip Functions tested by the CHANNEL FUNCTIONAL TEST are as follows:" This sentence implies there is additional material, but the material is missing.  This sentence

corresponds to a bracketed sentence in the Bases for STS SR 3.3.13.2.  However, the sentence is not needed because the specified Channel Functional Test only applies to the required logarithmic power level monitoring channels.  The applicant is requested to remove this sentence.

4. The applicant is requested to make the following editorial and grammatical corrections to the Bases of generic TS 3.3.13, as indicated, for:

   - SR 3.3.13.2
     – revise first paragraph, last sentence

       **The 31 day** ~~This~~ Frequency is the same as that employed for the same channels in the other applicable MODES.

     – revise third paragraph by changing "as-left and as–found setting" to "as-left and as-found settings"

   - SR 3.3.13.3
     – revise last sentence of first paragraph by changing "as-left and as–found setting" to "as-left and as-found settings"

5. The applicant is requested to make the following editorial and grammatical corrections to the "Actions" section of the Bases of generic TS 3.3.13, by placing the material beginning with the second sentence under the heading "A.1 and A.2" right after the first sentence, instead of staring a new paragraph, to match the STS presentation.

6. The "Actions" section of the Bases for STS 3.3.13B addresses the Note for Required Action A.1 ("Suspend all operations involving positive reactivity additions. | Immediately") with the last sentence of the first paragraph under the heading "A.1 and A.2":

   > Required Action A.1 is modified by a Note to indicate that normal plant control operations that individually add limited positive reactivity (e.g., temperature or boron fluctuations associated with RCS inventory management or temperature control) are not precluded by this Action, provided they are accounted for in the calculated SDM.

   In the same location in the "Actions" section of the Bases for generic TS 3.3.13, the last sentence of the first paragraph under the heading "A.1 and A.2" instead says:

   > Required Action A.1 therefore requires that all positive reactivity additions that are under operator control, such as boron dilution or reactor coolant system temperature changes, be halted immediately to preserve SDM.

   Since the generic TS Note for Required Action A.1 is the same as the STS Note for Required Action A.1 ("Limited plant cooldown or boron dilution is allowed provided the change is accounted for in the calculated SDM."), the applicant is requested to make the generic TS Bases sentence consistent with the STS Bases sentence.

# REQUEST FOR ADDITIONAL INFORMATION 439-8524

**16-129**

The (Dec 2015) Deviation report justifies including LCO 3.4.1.b in the LCO 3.1.~~12~~**11** exception list by stating: "The LCO for cold leg temperature is narrow for the APR1400, so the LCO 3.4.1.b may be suspended."  LCO 3.4.1.b states

> RCS departure from nucleate boiling (DNB) parameters for pressurizer pressure, cold leg temperature, and RCS total flow rate shall be within the limits specified below:

> b.   RCS cold leg temperature ($T_{cold}$)
> ≥ 286.7 °C (548 °F) and ≤ 293.3 °C (560 °F) for < 90 % RTP
> ≥ 289.4 °C (553 °F) and ≤ 293.3 °C (560 °F) for ≥ 90 % RTP

This means that below 90 % RTP there is a 12 degree F band, and at or above 90 % RTP there is a 7 degree F band.  The applicant is requested to discuss how these temperature bands compare with the CE plant design assumed in CE STS 3.4.1.

In addition, the Applicable Safety Analyses section of the Bases for Rev. 0 of generic TS 3.1.~~12~~**11** refers to "cold leg temperature ($T_{cold}$)" as "reactor inlet temperature (Tc)," which is inconsistent.  The applicant is requested to use the former terminology, despite the latter being used in this location in the Bases for STS.


**16-130**

1.   Deviation Report Table III-1 should also list LCO 3.0.9.  In addition, the applicant is requested to include the Reviewer's Notes contained in the Bases for STS 3.0.4, and bracket LCO 3.0.9 and its Bases (including anywhere LCO 3.0.9 is referred to).

   Alternatively, the applicant is requested to cite the DCD location that says the DC applicant (and all COL applicants who incorporate by reference the APR1400 deign certification rule DCD) commits to the guidance of:

   - NUMARC 93–01, Revision 3, Section 11, which provides guidance and details on the assessment and management of risk during maintenance; and

   - NEI 04–08, "Allowance for Non Technical Specification Barrier Degradation on Supported System OPERABILITY (TSTF–427) Industry Implementation Guidance," March 2006.

2.   Deviation Report Table III-1 should also list LCO 3.0.4.  The row on page 25 that lists SR 3.0.4 should be corrected to say LCO 3.0.4, and moved up to the previous section of the table..  The associated justification for LCO 3.0.4 should cite TSTF-359-A, 'Increase Flexibility in Mode Restraints," to point out that it is not being adopted in the generic TS, and that Revision 2.2 of NUREG-1432, SR 3.0.4 is being adopted.

   The row addressing SR 3.0.4 should quote Rev. 4 of STS SR 3.0.4, and the generic TS SR 3.0.4, and cite TSTF-359-A and Revision 2.2 of NUREG-1432, SR 3.0.4, in its justification field.

   The statement that ends generic TS SR 3.0.4 is appropriate for the pre-TSTF-359-A versions of LCO 3.0.4 and SR 3.0.4.  However, this means that the version of LCO 3.0.4 and SR 3.0.4 in STS Rev. 2.2 along with its Reviewer's Notes and exceptions to LCO 3.0.4 / SR 3.0.4, which are stated in Notes in individual Specifications, must be compared against the generic TS to ensure any differences are addressed / justified.

   A.   The following lists are provided to facilitate evaluation of differences in LCO 3.0.4 exception Notes:

# REQUEST FOR ADDITIONAL INFORMATION 439-8524

Generic TS, Revision 0, includes an LCO 3.0.4 exception Note, as follows, in the following locations:

```
----------------NOTE----------------
LCO 3.0.4 is not applicable
----------------------------------------
```

Required Action Note......... 3.3.1 Actions B and D...... RPS Instrumentation - Operating
Required Action Note......... 3.3.5 Actions B and D...... ESFAS Instrumentation
Actions Table Note 1.......... 3.3.11 Actions.................. Accident Monitoring Instrumenta-tion (AMI)
Actions Table Note 1.......... 3.3.12 Actions................. Remote Shutdown Display and Control
Required Action Note........ 3.4.15 Actions A and B.... RCS Specific Activity (Note that TSTF-490-A is incorporated)

NUREG-1432, Revision 2.2, (Digital) includes an LCO 3.0.4 exception Note, as follows, in the following locations; <span style="color:maroon">maroon font denotes STS Note locations not included in generic TS Rev. 0</span>:

```
------------------NOTE---------------
LCO 3.0.4 is not applicable
----------------------------------------
```

Required Action Note ...... 3.3.1 Actions B and.D..... RPS Instrumentation - Operating
<span style="color:maroon">Required Action Note ...... 3.3.2 Actions B and D..... RPS Instrumentation – Shutdown</span>
Required Action Note ...... 3.3.5 Actions B and D..... ESFAS Instrumentation
<span style="color:maroon">Required Action Note ...... 3.3.7 Action.B.2 ............. DG-LOVS</span>
Actions Table Note 1 ....... 3.3.11 Actions ............... Post Accident Monitoring (PAM) Instrumentation
Actions Table Note 1 ....... 3.3.12 Actions ............... Remote Shutdown System
<span style="color:maroon">Actions Table Note 2 ....... 3.4.11 Actions ............... Pressurizer Power Operated Relief Valves (PORVs)</span>
<span style="color:maroon">Actions Table Note .......... 3.4.15 Actions ............... RCS Leakage Detection Instrumentation</span>
Required Action Note....... 3.4.16 Action A .............. RCS Specific Activity
<span style="color:maroon">Required Action Note ...... 3.6.8 Action A.1.............. Hydrogen Recombiners (Atmospheric and Dual) (if permanently installed)</span>
<span style="color:maroon">Required Action Note ...... 3.6.9 Action A.1.............. Hydrogen Mixing System (HMS) (Atmospheric and Dual)</span>
<span style="color:maroon">Required Action Note ...... 3.7.4 Action A.1.............. Atmospheric Dump Valves (ADVs)</span>

► The applicant is requested to provide justification of the differences between the generic TS and STS Rev. 2.2 regarding the use of LCO 3.0.4 exception Notes. The applicant is also referred to RAI-Questions

(a) **16-99 Sub-questions 5 and 7** regarding LCO 3.3.1 Actions B and D; and

(b) **16-111 Sub-questions 5 and 7** regarding LCO 3.3.5 Actions B and D.

B. Generic TS, Revision 0, includes an SR 3.0.4 exception Note as follows, in the following location:
```
-----------------------------NOTE-----------------------------
```
Only required to be performed ~~in MODE 3~~**after MODE 3 entry**. In case of entering MODES 3 and 4 for lift setting and test of MSSV, SR 3.0.4 would not apply.
```
-----------------------------------------------------------------
```
Surveillance column Note.. 3.7.1 SR 3.7.1.1............... Main Steam Safety Valves (MSSVs)

This Note in STS Revision 2 is presented as follows in the same location:
```
-----------------------------NOTE-----------------------------
```
Only required to be performed in MODES 1 and 2.
```
-----------------------------------------------------------------
```
Surveillance column Note.. 3.7.1 SR 3.7.1.1.............. Main Steam Safety Valves (MSSVs)

The meaning of the STS version of the Note is explained by Revision 2, 3, and 4 of STS Section 1.4, "Frequency"; in Example 1.4-5, which says in part (with changes to match values of SR 3.7.1.1:

> As the Note modifies the required <u>performance</u> of the Surveillance, the Note is construed to be part of the "specified Frequency." Should the ~~7 day~~ **Inservice Testing Program** interval be exceeded while operation is not in MODE 1 **or 2**, this Note allows entry into and operation in MODE~~S 2 and~~ 3 to perform the Surveillance. The Surveillance is still considered to be performed within the "specified Frequency" if completed prior to entering MODE ~~1~~ **2**. . . .
>
> Once the unit reaches MODE ~~1~~ **2**, the requirement for the Surveillance to be performed within its specified Frequency applies and would require that the Surveillance had been performed. If the Surveillance were not performed prior to entering MODE ~~1~~ **2**, there would then be a failure to perform a Surveillance within the specified Frequency, and the provisions of SR 3.0.3 would apply.

(1) The applicant stated the first sentence of the proposed surveillance column Note for generic TS SR 3.7.1.1, and the only sentence of the surveillance column Note for SR 3.7.2.1 and 3.7.2.2 as, "Only required to be performed in MODES 3." This is incorrect. The applicant is requested to conform to the STS version of these surveillance column Notes: "Only required to be performed in MODES 1 and 2."

(2) The intended meaning of the <u>second sentence</u> of the proposed surveillance column Note for SR 3.7.1.1 may be appropriate for inclusion in the associated Bases discussion, but is not appropriate in the Specification. There is no need to explicitly state that the Note is an exception to the SR 3.0.4 restriction on operational MODE entry. The STS version of the Note is sufficient. Niether the STS nor the generic TS, Rev. 0, include other surveillance column Notes that say SR 3.0.4 would or does not apply, or is not applicable.

(3) Staff also indentified that generic TS Section 1.4, Rev. 0, Example 1.4-5 incorrectly states the example's surveillance column Note as "*Not* required to be *met* in MODE 1." The applicant is requested to correct this error. The Deviation Report (Dec 2015) on page 24 indicates that generic TS Section 1.4 is same as NUREG-1432 [Rev. 4].

(4) The SR section of the Bases for Rev. 0 of generic TS 3.4.15, "RCS Specific Activity," discusses the surveillance column Note for SR 3.4.15.1 (Dose Equivalent Xe-133) and SR 3.4.15.2 (Dose Equivalent I-131), which states "Only required to be performed in MODE 1." The discussion states:

> A Note modifies the SR to allow entry into and operation in MODE 4, MODE 3, and MODE 2 prior to performing the SR. This allows the Surveillance to be performed in those MODES, prior to entering MODE 1.

Staff notes that this informative paragraph is not always included in the Bases of generic TS SRs with such Notes. In addition, Rev. 4 of STS 3.4.16, "RCS Specific Activity," includes this Note in SR 3.4.16.2 (Dose Equivalent I-131); however no explicit discussion of the Note is provided in the STS Bases for SR 3.4.16.2. The applicant is requested to include a similar paragraph in the generic TS Bases for all SRs with such Notes.

(5) Since the applicant proposes excluding the changes contained in TSTF-359-A, Rev. 9, from the generic TS and Bases, these documents should not contain material associated with those changes. Therefore, the applicant is requested to remove the first paragraph from the Actions section of the Bases for generic TS 3.8.1, "AC Sources – Operating," which states:

A Note prohibits the application of LCO 3.0.4b to an inoperable EDG. There is an increased risk associated with entering a MODE or other specified condition in the Applicability with an inoperable EDG and the provisions of LCO 3.0.4b, which allow entry into a MODE or other specified condition in the Applicability with the LCO not met after performance of a risk assessment addressing inoperable systems and components, should not be applied in this circumstance.

3. Additional Background Information:

A. NUREG-1432, Rev. 2.2 states LCO 3.0.4 as follows:

LCO 3.0.4 When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall not be made except when the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time. This Specification shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

Exceptions to this Specification are stated in the individual Specifications.

LCO 3.0.4 is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, 3, and 4.

------------------------------------REVIEWER'S NOTE----------------------------------
LCO 3.0.4 has been revised so that changes in MODES or other specified conditions in the Applicability that are part of a shutdown of the unit shall not be prevented. In addition, LCO 3.0.4 has been revised so that it is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, 3, and 4. The MODE change restrictions in LCO 3.0.4 were previously applicable in all MODES. Before this version of LCO 3.0.4 can be implemented on a plant-specific basis, the licensee must review the existing technical specifications to determine where specific restrictions on MODE changes or Required Actions should be included in individual LCOs to justify this change; such an evaluation should be summarized in a matrix of all existing LCOs to facilitate NRC staff review of a conversion to the STS.
-------------------------------------------------------------------------------------------

B. NUREG-1432, Rev. 2.2 states SR 3.0.4 as follows:

SR 3.0.4 Entry into a MODE or other specified condition in the Applicability of an LCO shall not be made unless the LCO's Surveillances have been met within their specified Frequency. This provision shall not prevent entry into MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

SR 3.0.4 is only applicable for entry into a MODE or other specified Condition in the Applicability in MODES 1, 2, 3, and 4.

------------------------------------REVIEWER'S NOTE----------------------------------
SR 3.0.4 has been revised so that changes in MODES or other specified conditions in the Applicability that are part of a shutdown of the unit shall not be prevented. In addition, SR 3.0.4 has been revised so that it is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, 3, and 4. The MODE change restrictions in SR 3.0.4 were previously applicable in all MODES. Before this version of SR 3.0.4 can be implemented on a plant-specific basis, the licensee must review the existing technical specifications to determine where specific restrictions on

MODE changes or Required Actions should be included in individual LCOs to justify this change; such an evaluation should be summarized in a matrix of all existing LCOs to facilitate NRC staff review of a conversion to the STS.

-------------------------------------------------------------------------------------------------