

From: Brenda Mozafari
To: sidney.powell@pgnmail.com
Date: 03/01/2005 4:24:22 PM
Subject: Fwd: Draft RAls for Crystal River

As we discussed. This may take some time to digest before we have a call.

Brenda L. Mozafari
Senior Project Manager
Brunswick Units 1 & 2 and Crystal River Unit 3
O-8H21 301-415-2020

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From: Brenda Mozafari

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From: Martin Stutzke
To: Brenda Mozafari
Date: 03/01/2005 3:22:25 PM
Subject: Draft RAls for Crystal River

Attached.

Marty

M.A.Stutzke
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(301) 415-4105

MEMORANDUM TO: Michael L. Marshall, Jr., Chief
Project Directorate, II-2
Division of Licensing Project Management

FROM: Mark P. Rubin, Chief
Safety Program Section
Probabilistic Safety Assessment Branch
Division of Systems Safety and Analysis

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION (RAI) REGARDING
CRYSTAL RIVER UNIT 3 LICENSE AMENDMENT REQUEST #289 FOR
ONE-TIME INCREASES IN VARIOUS ALLOWED OUTAGE TIMES TO
SUPPORT DECAY HEAT SEAWATER PUMP RWP-3B REFURBISHMENT
(TAC MC5631)

The Probabilistic Safety Assessment Branch (SPSB) has reviewed Progress Energy Florida's risk assessment submitted in support of its request to increase, on a one-time basis, the allowed outage times (AOTs) in the Emergency Core Cooling System, Reactor Building Spray and Containment Cooling System, Decay Heat Closed Cycle Cooling Water System, and the Decay Heat Seawater System to support online refurbishment of Decay Heat Seawater Pump RWP-3B. SPSB has identified areas where additional information is needed to complete its review. The Request for Additional Information is provided as an attachment to this memorandum.

Attachment: As stated.

CONTACT: Martin Stutzke, NRR/DSSA/SPSB
415-4105

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CONTACT: Martin Stutzke, NRR/DSSA/SPSB
415-4105

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**SPSB REQUEST FOR ADDITIONAL INFORMATION REGARDING REGARDING
CRYSTAL RIVER UNIT 3 LICENSE AMENDMENT REQUEST #289 FOR ONE-TIME
INCREASES IN VARIOUS ALLOWED OUTAGE TIMES TO SUPPORT DECAY HEAT
SEAWATER PUMP RWP-3B REFURBISHMENT (TAC MC5631)**

1. In both Attachment A (Page 12, first paragraph) and Attachment E (Calculation No. P-05-0001, Table 1, Note 2), it is stated that the PRA evaluation of the proposed license amendment assumed no maintenance will be scheduled on risk-sensitive equipment beyond that required for the refurbishment of RWP-3B (Nuclear Services and Decay Heat Seawater System, Decay Heat System, Decay Heat Closed Cycle Cooling Water System, Nuclear Services Closed Cycle Cooling Water, Emergency Diesel Generators, Emergency Feedwater System, Emergency Feedwater Initiation and Control System, and the Auxiliary Feedwater Pump). However, there is no regulatory commitment in Attachment F to forbid or limit maintenance on risk-sensitive equipment during the refurbishment of RWP-3B. Please resolve this apparent contradiction.
2. On Page 12 of Attachment A, it is stated that "...the bounding risk due to internal events for this activity [the proposed license amendment] is estimated with a Change in Core Damage Frequency (Δ CDF) of 1.5E-6 and a sensitivity based on fire risk add about 2.72E-6." However, Attachment E (Calculation No. P-05-0001, Table 1) indicates that the value "1.5E-6" is the incremental conditional core-damage probability (ICCDP) for internal events. Attachment E (Calculation No. P-05-0001, Section 5.2) also indicates that the value "2.72E-6" is an estimate of the ICCDP due to internal fires. Please explain what the values "1.5E-6" and "2.72E-6" signify (Δ CDF or ICCDP).

Comment: If these values are ICCDPs, then it is not appropriate to compare them to the risk acceptance guidelines in RG 1.174 as was done on Page 12 of Attachment A; rather, they should be compared to the risk acceptance guidelines in RG 1.177.

3. On Page 12 of Attachment A, only one type risk metric was provided (apparently the internal events and internal fires ICCDP values associated with the proposed license amendment). Attachment E (Calculation No. P-05-0001, Table 1) also provides the incremental conditional large early release probability (ICLERP) for internal events. Please provide either the ICLERP associated with internal fires or a qualitative assessment of the proposed license amendment's impact on the likelihood of large early release following internal fires. In addition, in accordance with RG 1.177, Section 2.4, "Acceptance Guidelines for TS Changes," please provide the risk metrics discussed in RG 1.174 (total Δ CDF versus total CDF, and total Δ LERF versus total LERF) associated with the proposed license amendment.
4. Attachment A, Page 12 and Attachment F indicate that compliance procedure CP-253, "Power Operation Risk Assessment and Management" will be performed. Either provide CP-253 or summarize its contents, indicating how it satisfies the guidance in RG 1.177, Section 2.3, "Tier 3: Risk-Informed Configuration Risk Management" and RG 1.177, Section 2.3.7, "Contemporaneous Configuration Control." The following questions should be addressed:
 - a. Is CP-253 intended to satisfy the requirements of 10 CFR 50.65, i.e., is CP-253 the mechanism for complying with Paragraph (a)(4) of the Maintenance Rule?

- b. Does CP-253 relate to Chapter 11 of NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants?" If so, describe any differences between CP-253 and NUMARC 93-01, Chapter 11.
- c. In CP-253, what provisions are provided for assessing the need for additional actions after the discovery of additional equipment-out-of-service conditions while RWP-3B is being refurbished? What criteria or guidelines are provided to help decide whether or not additional actions are either needed or not needed? Who makes the decision (the operating crew, plant management, utility management)? Does CP-253 impose any timeliness limits on reaching the decision about additional actions?
- d. What tools or techniques are used to help assess the risk of various plant configurations, e.g., real-time risk monitoring software. What quality assurance activities have been taken to ensure that these tools and techniques are adequate, e.g., periodic updates, reviews, etc.