

02/27/07

Ref: TAC NO. MD2619

Subject: MD2619 RAI Chronology

Purpose: This document and attachments describes the draft RAI items provided to DAEC and their relationship to corresponding TSTF-478 information.

TAC MD2619 seeks adoption of TSTF-478.

01 - The application letter (ML062080521) dated July 17, 2006 requested approval by January 31, 2007. At the time of application DAEC planned to make the hardware changes involving the CAD System during the 2009 outage. The application letter stated that the CAD System had on-going maintenance problems.

02 - At the time of the application, and to the present time, TSTF-478 is under development and has not been approved. (The TAC number for the TSTF-478 effort is MC8336)

03 - Branch APLA produced RAI items for Duane Arnold on August 31, 2006. Ultimately, no other Branch requested RAI items.

04 - The RAI items for TSTF-478 were assembled and issued on November 9, 2006.

05 - The RAI Response for TSTF-478 (ML070380175) was issued on February 7, 2007.

06 - On February 8, 2007, Tony Browning (Duane Arnold) affirmed by email that the TSTF-478 RAI Response was the basis of MD2619.

07 - A faxed copy (dated February 9, 2007) of the draft Duane Arnold RAI items was sent to Browning to compare to the TSTF-478 Responses.

08 - Duane Arnold will use TSTF-478 Responses for its items 1, 2, 3 and reference calculations contained on page 5 of 9 of EXHIBIT A (last paragraph above Section 5) of its July 17, 2006 application.

09 - Therefore, all expected RAI Response content is docketed in either ML062080521 dated July 17, 2006 or ML070380175 dated February 7, 2007.

10 - A formal Duane Arnold RAI Response for MD2619 is expected on or about March 16, 2007.

Attachments:

- 1 - TSTF-478 RAI Responses (ML070380175, first page only for reference) dated February 7, 2007
- 2 - Email and properties sheet, Browning (DAEC) to Feintuch (NRC) dated February 8, 2007
- 3 - Draft Duane Arnold RAI Items, faxed February 9, 2007

*Karl Feintuch 2/27/07*  
*Project Manager, Duane Arnold*  
*301-415-3079*

**TSTF**

**TECHNICAL SPECIFICATIONS TASK FORCE**  
**A JOINT OWNERS GROUP ACTIVITY**

ATTACHMENT 1

February 7, 2007

TSTF-07-07

PROJ0753

Copy of 1<sup>st</sup> page only (Document is 46 pages)  
Full text is at MLO70380175

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555-0001

**SUBJECT:** Response to NRC Request for Additional Information Regarding TSTF-478, Revision 0, "BWR Technical Specification Changes that Implement the Revised Rule for Combustible Gas Control," dated November 9, 2006

**REFERENCE:** Letter from T. J. Kobetz (NRC) to the Technical Specifications Task Force, "Request for Additional Information Regarding TSTF-478, Revision 0, 'BWR Technical Specification Changes that Implement the Revised Rule for Combustible Gas Control'," dated November 9, 2006.

Dear Sir or Madam:

In the referenced letter, the NRC provided a Request for Additional Information (RAI) regarding TSTF-478, Revision 0, "BWR Technical Specification Changes that Implement the Revised Rule for Combustible Gas Control." This letter responds to the NRC's referenced request.

The TSTF is developing a revision to TSTF-478 that reflects the changes described in this response. We will submit the revised Traveler by March 1, 2007.

The TSTF requests a meeting with the NRC within 3 weeks of the receipt of this letter to discuss the RAI responses and the status of the review of TSTF-478.

Any NRC review fees associated with the review of TSTF-478 should continue to be billed to the Boiling Water Reactors Owners Group.

The TSTF requests that the Traveler be made available under the Consolidated Line Item Improvement Process.

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Administered by EXCEL Services Corporation



**From:** "Tony Browning" <Tony\_Browning@fpl.com>  
**To:** <kdf@nrc.gov>  
**Date:** Thu, Feb 8, 2007 3:35 PM  
**Subject:** RAI Response for TSTF-478 (CAD Elimination)

ATTACHMENT 2  
pg 1 of 2  
(pg 2 of 2 is  
properties sheet)

The Tech Spec Task Force (TSTF) submitted the following RAI response for TSTF-478, the basis for the DAEC LAR TSCR-083 (TAC# MD 2619).

(See attached file: TSTF-07-07 xmit RAI Resp on TSTF-478.pdf)

The revision to TSTF-478 mentioned in the cover letter does not impact the DAEC LAR, as the affected LCOs only apply to BWRs with Mark III containment. DAEC is a Mark I containment.

tb

ATTACHMENT 2  
pg 2 of 2**Mail Envelope Properties** (45CB8962.22D : 12 : 49709)**Subject:** RAI Response for TSTF-478 (CAD Elimination)**Creation Date** Thu, Feb 8, 2007 3:33 PM**From:** "Tony Browning" <Tony\_Browning@fpl.com>**Created By:** Tony\_Browning@fpl.com**Recipients**

nrc.gov

KDF (Karl Feintuch)

**Post Office****Route**

nrc.gov

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	386	Thursday, February 8, 2007 3:33 PM
TSTF-07-07 xmit RAI Resp on TSTF-478.pdf		717808
Mime.822	984477	

**Options****Expiration Date:** None**Priority:** Standard**ReplyRequested:** No**Return Notification:** None**Concealed Subject:** No**Security:** Standard**Junk Mail Handling Evaluation Results**

Message is eligible for Junk Mail handling

This message was not classified as Junk Mail

**Junk Mail settings when this message was delivered**

Junk Mail handling disabled by User

Junk Mail handling disabled by Administrator

Junk List is not enabled

Junk Mail using personal address books is not enabled

Block List is not enabled

2/9/2007  
To: 319-851-7364  
From: 301-415-1222

ATTACHMENT 3  
Page 1 of 2

**DRAFT DRAFT DRAFT**

**Request for Additional Information  
Regarding Proposed Technical Specification Changes  
at Duane Arnold Energy Center to Implement the  
Revised Rule for Combustible Gas Control  
TAC MD2619**

General Comment Regarding Extending the Completion Time from 24 hours to 72 hours

In the late 1980's, the U.S. Nuclear Regulatory Commission (NRC) pressed the industry to eliminate the 24-hour time period during which the containment could be de-inerted. In response, some licensees voluntarily limited the de-inerted periods to much less than the 24-hour limiting condition for operation (LCO) within their technical specifications. As discussed in SECY-89-017, the staff did not further pursue eliminating the time period on the basis that: (1) the probability of an accident occurring within the 24-hour de-inerted period is small, and (2) eliminating this time of de-inerting would not significantly reduce risk. The fact that licensees did not need the entire 24-hour period seems at odds with the current FPL Energy argument that 24 hours is insufficient. Furthermore, the staff is unaware of any plant-specific requests for a completion time greater than 24 hours. In this regard, please provide the additional information identified below to support the claim that a longer completion time is appropriate and would not substantially impact risk.

Specific Information Requested

1. Provide a more detailed description of the operational experience with the 24-hour completion time at Duane Arnold Energy Center (e.g., over the last 15 to 20 years), with supporting statistics. Include the following items in the response:
  - a. a typical timeline for a plant startup and a plant shutdown, showing the times at which inerting/de-inerting is initiated and completed, the times in each operating mode, and the times at which the LCO is entered/exited,
  - b. the number of startups and shutdowns in which inerting/de-inerting: caused a trip, became a critical path activity, or was perceived to have placed the plant in a less-safe state, and the total number of startups and shutdowns in the covered period,
  - c. a description of typical control room staffing during the startup and shutdown periods, whether the control room staffing is supplemented to address inerting and de-inerting, and how the responsibilities for inerting and de-inerting are distributed among the control staff, and
  - d. a discussion of any other operational hardships created by the current 24 hour "window" to perform inerting/de-inerting.

ENCLOSURE

2. Provide an anticipated typical timeline for a plant startup and a plant shutdown assuming a 72 hour completion time, showing the times at which inerting/de-inerting is initiated and completed, the times in each operating mode, and the times at which the LCO is entered/exited.
3. Provide justification that inerting/de-inerting would have a lower likelihood of causing a trip, becoming a critical path activity, or placing the plant in a less-safe state if the completion time is extended from 24 hours to 72 hours.
4. Based on a scoping assessment performed by the NRC staff for Duane Arnold Energy Center, the change in large early release frequency ( $\Delta$ LERF) for the proposed extension would exceed the  $1E-7$  per year value associated with a "very small change" in Regulatory Guide 1.174. (Note that the NRC's assessment of  $\Delta$ LERF is based on core damage frequency  $\times$   $\Delta$ LCO  $\times$   $\Delta$ conditional containment failure probability.) Provide an assessment of the approximate level of the risk increase associated with extending the completion time from 24 hours to 72 hours. This assessment should address the factors identified below.
  - a. the likelihood of either an internally-initiated or an externally-initiated core damage event occurring during the additional 96-hour period (i.e., 48 additional hours during startup and 48 additional hours during shutdown),
  - b. the potentially higher core damage frequency associated with transition risk during startup and shutdown, when the containment might be de-inerted, and
  - c. the increase in the conditional containment failure probability for a de-inerted containment (essentially 1.0) versus an inerted containment.

**DRAFT DRAFT DRAFT**