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Duane Arnold Energy Center

July 20, 2007

NG-07-0536
10 CFR 50.90

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

Duane Arnold Energy Center
Docket 50-331
License No. DPR-49

Technical Specification Change Request (TSCR-068): "Add An Action Statement for Two Inoperable Control Building Chiller Subsystems To Technical Specifications Using Consolidated Line Item Improvement Process TSTF-477, Rev. 3 – Add Action for Two Inoperable Control Room AC Subsystems"
Affected Technical Specifications: Section 3.7.5

Pursuant to 10 CFR 50.90, FPL Energy Duane Arnold, LLC (FPL Energy Duane Arnold) hereby requests revision to the Technical Specifications (TS) for the Duane Arnold Energy Center (DAEC).

The proposed Amendment consists of a Consolidated Line Item Improvement that adopts changes to TS section 3.7.5, Control Building Chiller (CBC) System, consistent with Technical Specifications Task Force (TSTF) Change Traveler TSTF-477, Rev. 3. The proposed Amendment modifies the TS by adding an action statement for two inoperable CBC subsystems to the plant specific TS. The new Action Statement allows 72 hours to restore one CBC subsystem to operable status and requires verification that control building temperatures are maintained $< 90^{\circ}\text{F}$ once every 4 hours.

Attachment A provides a description of the proposed change, the requested confirmation of applicability, and plant-specific verifications. Attachment B provides the existing TS and TS bases pages marked-up to show the proposed change. Attachment C provides the revised (clean typed) TS and TS bases pages. This letter makes one new commitment as described in Attachment D.

The proposed Amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c). Associated TS Bases changes will be completed per the TS Bases Control Program (TS 5.5.10).

FPL Energy Duane Arnold requests an implementation period of 60 days after issuance of the license amendment.

A001

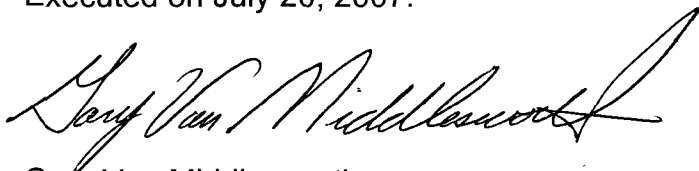
NRR

This application has been reviewed by the DAEC Plant Operations Review Committee, and the Company Nuclear Review Board. A copy of this submittal, along with the 10CFR50.92 evaluation of "No Significant Hazards Consideration," is being forwarded to our appointed state official pursuant to 10 CFR Section 50.91.

If you have any questions or require additional information, please contact Mr. Steve Catron at (319) 851-7234.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on July 20, 2007.



Gary Van Middlesworth
Site Vice President, Duane Arnold Energy Center
FPL Energy Duane Arnold, LLC

ATTACHMENTS:

- A) EVALUATION OF PROPOSED CHANGE
- B) PROPOSED TECHNICAL SPECIFICATION AND BASES CHANGES (MARK-UP)
- C) PROPOSED TECHNICAL SPECIFICATION PAGES (RETYPE)
- D) REGULATORY COMMITMENTS

cc: Administrator, Region III, USNRC
Project Manager, DAEC, USNRC
Resident Inspector, DAEC, USNRC
D. McGhee (State of Iowa)

ATTACHMENT A

EVALUATION OF PROPOSED CHANGE

Subject: Technical Specification Change Request (TSCR-068): “Add An Action Statement For Two Inoperable Control Building Chiller Subsystems To Technical Specifications Using Consolidated Line Item Improvement Process TSTF-477, Rev. 3 – Add Action for Two Inoperable Control Room AC Subsystems”

1.0 DESCRIPTION

2.0 ASSESSMENT

- 2.1 Applicability of Published Safety Evaluation
- 2.2 Optional Changes and Variations

3.0 REGULATORY ANALYSIS

- 3.1 No Significant Hazards Consideration Determination
- 3.2 Verification and Commitments

4.0 ENVIRONMENTAL EVALUATION

5.0 REFERENCES

1.0 DESCRIPTION

This letter is a request to amend Operating License DPR-49 for the Duane Arnold Energy Center (DAEC). The proposed Amendment would modify Technical Specifications by adding an Action Statement to the Limiting Condition for Operation (LCO). The new Action Statement allows a finite time to restore one Control Building Chiller subsystem to operable status and requires verification that control building temperatures remain < 90 °F every 4 hours.

The changes are consistent with Nuclear Regulatory Commission (NRC) approved Industry /Technical Specification Task Force (TSTF) TSTF-477 Revision 3. The availability of this TS improvement was published in the Federal Register on March 26, 2007 as part of the consolidated line item improvement process (CLIIP).

2.0 ASSESSMENT

2.1 Applicability of TSTF-477, and Published Safety Evaluation

FPL Energy Duane Arnold has reviewed TSTF-477 (Reference 1), and the NRC model safety evaluation (SE) (Reference 2) as part of the CLIIP. FPL Energy Duane Arnold has concluded that the information in TSTF-477, as well as the SE prepared by the NRC staff are applicable to DAEC and justify this amendment for the incorporation of the changes to the DAEC TS.

2.2 Optional changes and variations

FPL Energy Duane Arnold proposes the following variations from the TS changes described in TSTF-477 and the NRC staff's model safety evaluation dated December 18, 2006. At DAEC, TS 3.7.5 provides the requirements for the Control Building Chiller (CBC) System. The control room is served by the CBC System that also serves the rest of the control building, which includes the cable spreading room, battery rooms and essential switchgear rooms. Therefore, Required Action B.1 specifies actions to verify control building area temperatures versus control room area temperature. The Bases for Required Actions B.1 and B.2 of TS 3.7.5 refers to control building area temperatures versus control room area temperature, and also lists the control room and both essential switchgear rooms as the areas to be monitored to ensure equipment in the control building is not adversely affected.

3.0 REGULATORY ANALYSIS

3.1 No Significant Hazards Consideration Determination

FPL Energy Duane Arnold has reviewed the proposed no significant hazards consideration determination (NSHC) published in the Federal Register as part of the CLIIP. FPL Energy Duane Arnold has concluded that the proposed NSHC presented in the Federal Register notice is applicable to DAEC and is hereby incorporated by

reference to satisfy the requirements of 10 CFR 50.91(a).

3.2 Verification and Commitments

As discussed in the notice of availability published in the Federal Register on March 26, 2007 for this TS improvement, plant-specific verifications were performed as follows:

FPL Energy Duane Arnold has reviewed TSTF-477 (Reference 1), and the NRC model safety evaluation (SE) (Reference 2). FPL Energy Duane Arnold has concluded that the information in TSTF-477, as well as the SE prepared by the NRC staff are applicable to Duane Arnold Energy Center (DAEC).

FPL Energy Duane Arnold has proposed TS Bases consistent with TSTF-477 which provide guidance and details on how to implement the new requirements. Finally, FPL Energy Duane Arnold has a Bases Control Program consistent with Section 5.5 of the Standard Technical Specifications (STS).

4.0 ENVIRONMENTAL EVALUATION

The amendment changes requirements with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment adopting TSTF-477, Rev 3, 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 TSTF-477, Rev 3, involves no significant hazards considerations, and there has been no public comment on the finding in Federal Register Notice 71 FR 75774, December 18, 2006. 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.

5.0 REFERENCES

1. TSTF-477, Revision 3, "Adding an Action Statement for Two Inoperable Control Room Air Conditioning Subsystems."
2. NRC Model Safety Evaluation Report.

ATTACHMENT B
PROPOSED TECHNICAL SPECIFICATION
AND
BASES CHANGES
(MARK-UP)

7 pages follow

3.7 PLANT SYSTEMS

3.7.5 Control Building Chiller (CBC) System

LCO 3.7.5 Two CBC subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During movement of irradiated fuel assemblies in the secondary containment,
During CORE ALTERATIONS,
During Operations with a Potential for Draining the Reactor Vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One CBC subsystem inoperable.	A.1 Restore CBC subsystem to OPERABLE status.	30 days <i>te</i>
<i>INSERT 1</i> → <i>CB.</i> Required Action and associated Completion Time of Condition A, not met in MODE 1, 2, or 3.) <i>or B</i>	<i>C</i> <i>B.1</i> Be in MODE 3. <u>AND</u> <i>C</i> <i>B.2</i> Be in MODE 4.	12 hours 36 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>D/C. Required Action and associated Completion Time of Condition A not met during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.</p>	<p>-----NOTE----- LCO 3.0.3 is not applicable. -----</p> <p>D/C.1 Place OPERABLE CBC subsystem in operation.</p> <p><u>OR</u></p> <p>D/C.2.1 Suspend movement of irradiated fuel assemblies in the secondary containment.</p> <p><u>AND</u></p> <p>D/C.2.2 Suspend CORE ALTERATIONS.</p> <p><u>AND</u></p> <p>D/C.2.3 Initiate action to suspend OPDRVs.</p>	<p>Immediately</p> <p>Immediately</p> <p>Immediately</p> <p>Immediately</p>
<p>D. Both CBC subsystems inoperable in MODE 1, 2, or 3.</p>	<p>D.1 Enter LCO 3.0.3.</p>	<p>Immediately</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>E. Both CBC subsystems inoperable during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.</p> <p><i>Required Action and associated Completion Time of Condition B not met</i></p>	<p>-----NOTE----- LCO 3.0.3 is not applicable. -----</p> <p>E.1 Suspend movement of irradiated fuel assemblies in the secondary containment.</p> <p><u>AND</u></p> <p>E.2 Suspend CORE ALTERATIONS.</p> <p><u>AND</u></p> <p>E.3 Initiate action to suspend OPDRVs.</p>	<p>Immediately</p> <p>Immediately</p> <p>Immediately</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.7.5.1 Verify each CBC subsystem has the capability to remove the available heat load.</p>	<p>92 days</p>

INSERT 1

B. Two CBC subsystems inoperable.	B.1 Verify control building area temperatures < 90°F. <u>AND</u> B.2 Restore one CBC subsystem to OPERABLE status.	Once per 4 hours 72 hours
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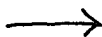
BASES (continued)

ACTIONS

A.1

With one CBC subsystem inoperable, the inoperable CBC subsystem must be restored to OPERABLE status within 30 days. With the unit in this condition, the remaining OPERABLE CBC subsystem is adequate to perform the control building air conditioning function. However, the overall reliability is reduced because a single failure in the OPERABLE subsystem could result in loss of the control building air conditioning function. The 30 day Completion Time is based on the low probability of an event occurring requiring control building isolation, the consideration that the remaining subsystem can provide the required protection, and the availability of alternate cooling methods.

INSERT 2



C.1 and C.2



In MODE 1, 2, or 3, if the inoperable CBC subsystem ^(S) cannot be restored to OPERABLE status within the associated Completion Time, the unit must be placed in a MODE that minimizes risk. To achieve this status, the unit must be placed in at least MODE 3 within 12 hours and in MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

D.1, D.2.1, D.2.2, and D.2.3

LCO 3.0.3 is not applicable in MODE 4 or 5. However, since irradiated fuel assembly movement can occur in MODE 1, 2, or 3, the Required Actions of Condition ~~C.1~~ are modified by a Note indicating that LCO 3.0.3 does not apply. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Therefore, inability to suspend movement of irradiated fuel assemblies is not sufficient reason to require a reactor shutdown.

During movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs, if Required Action A.1 cannot be completed within the required Completion Time, the OPERABLE CBC subsystem may be placed immediately in operation. This action ensures that the remaining subsystem is OPERABLE, that no failures that would prevent actuation will occur, and that any active failure will be readily detected.

(continued)

BASES

ACTIONS

^DC.1, ^DC.2.1, ^DC.2.2, and ^DC.2.3 (continued)

An alternative to Required Action ^DC.1 is to immediately suspend activities that present a potential for releasing radioactivity that might require isolation of the control room. This places the unit in a condition that minimizes risk.

If applicable, CORE ALTERATIONS and movement of irradiated fuel assemblies in the secondary containment must be suspended immediately. Suspension of these activities shall not preclude completion of movement of a component to a safe position. Also, if applicable, actions must be initiated immediately to suspend OPDRVs to minimize the probability of a vessel draindown and subsequent potential for fission product release. Actions must continue until the OPDRVs are suspended.

~~D.1~~

~~If both CBC subsystems are inoperable in MODE 1, 2, or 3, the CBC System may not be capable of performing the intended function. Therefore, LCO 3.0.3 must be entered immediately.~~

E.1, E.2, and E.3

LCO 3.0.3 is not applicable in MODE 4 or 5. However, since irradiated fuel assembly movement can occur in MODE 1, 2, or 3, the Required Actions of Condition E are modified by a Note indicating that LCO 3.0.3 does not apply. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Therefore, inability to suspend movement of irradiated fuel assemblies is not a sufficient reason to require a reactor shutdown.

During movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs, ~~with two CBC subsystems inoperable~~, action must be taken immediately to suspend activities that present a potential for releasing radioactivity that might require isolation of the control building. This places the unit in a condition that minimizes risk.

if Required Actions B.1 and B.2 cannot be met within the required Completion Times

(continued)

INSERT 2

B.1 and B.2

If both CBC subsystems are inoperable, the CBC System may not be capable of performing its intended function. Therefore, the control building area temperatures are required to be monitored to ensure that temperatures are being maintained low enough that equipment in the control building is not adversely affected. To ensure temperatures in the control building are maintained low enough, temperatures are required to be monitored in the control room as well as both essential switchgear rooms. With the control building temperatures being maintained within the temperature limit, 72 hours is allowed to restore a CBC subsystem to OPERABLE status. This Completion Time is reasonable considering that the control building area temperatures are being maintained within limits and the low probability of an event occurring requiring control building isolation.

ATTACHMENT C
PROPOSED TECHNICAL SPECIFICATION PAGES
(RE-TYPED)

3 pages follow

3.7 PLANT SYSTEMS

3.7.5 Control Building Chiller (CBC) System

LCO 3.7.5 Two CBC subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During movement of irradiated fuel assemblies in the secondary
containment,
During CORE ALTERATIONS,
During Operations with a Potential for Draining the Reactor Vessel
(OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One CBC subsystem inoperable.	A.1 Restore CBC subsystem to OPERABLE status.	30 days
B. Two CBC subsystems inoperable.	B.1 Verify control building area temperatures < 90°F.	Once per 4 hours
	<u>AND</u> B.2 Restore one CBC subsystem to OPERABLE status.	72 hours
C. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, or 3.	C.1 Be in MODE 3.	12 hours
	<u>AND</u> C.2 Be in MODE 4.	36 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>D. Required Action and associated Completion Time of Condition A not met during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.</p>	<p>-----NOTE----- LCO 3.0.3 is not applicable. -----</p>	
	<p>D.1 Place OPERABLE CBC subsystem in operation.</p> <p><u>OR</u></p>	<p>Immediately</p>
	<p>D.2.1 Suspend movement of irradiated fuel assemblies in the secondary containment.</p> <p><u>AND</u></p>	<p>Immediately</p>
	<p>D.2.2 Suspend CORE ALTERATIONS.</p> <p><u>AND</u></p> <p>D.2.3 Initiate action to suspend OPDRVs.</p>	<p>Immediately</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>E. Required Action and associated Completion Time of Condition B not met during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.</p>	<p>-----NOTE----- LCO 3.0.3 is not applicable. -----</p>	<p>Immediately</p>
	<p>E.1 Suspend movement of irradiated fuel assemblies in the secondary containment.</p>	
	<p><u>AND</u></p>	
	<p>E.2 Suspend CORE ALTERATIONS.</p>	
	<p><u>AND</u></p>	<p>Immediately</p>
	<p>E.3 Initiate action to suspend OPDRVs.</p>	

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.7.5.1 Verify each CBC subsystem has the capability to remove the available heat load.</p>	<p>92 days</p>

ATTACHMENT D

LIST OF REGULATORY COMMITMENTS

The following table identifies those actions committed to by FPL Energy Duane Arnold in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments.

REGULATORY COMMITMENTS	DUE DATE/EVENT
FPL Energy Duane Arnold will establish the Technical Specification Bases for LCO 3.7.5 as adopted with the applicable license amendment.	Implemented with amendment.