

10 CFR 50.90

March 28, 2002  
NG-02-0196

U.S. Nuclear Regulatory Commission  
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Subject: Duane Arnold Energy Center  
Docket No: 50-331  
Op. License No: DPR-49  
Technical Specification Change Request (TSCR-053)  
"Proposed Changes to DAEC Technical Specifications,  
Consolidated Line Item Improvement Process TSTF-358 –  
Missed Surveillance Requirements"

File: A-117

In accordance with the Code of Federal Regulations, Title 10 Section 50.90, Nuclear Management Company, LLC (NMC) is submitting a request for amendment to the Technical Specifications (TS) for the Duane Arnold Energy Center (DAEC). The proposed amendment would modify TS requirements for missed surveillances in SR 3.0.3.

Attachment 1 provides a description of the proposed change, the requested confirmation of applicability, and plant-specific verifications. Attachment 2 provides the existing TS pages marked up to show the proposed change. Attachment 3 provides the existing TS Bases pages marked up to show the proposed change (for information only). Attachment 4 provides revised (clean) TS pages. Attachment 5 provides a summary of the regulatory commitments made in this submittal.

There is no specific need date requested for this amendment. Please issue the amendment to be effective on the date of issuance and to be implemented within 60 days of receipt by NMC.

This application has been reviewed by the DAEC Operations Committee and the Offsite Review Committee. A copy of this submittal is being forwarded to our appointed state official pursuant to 10 CFR Section 50.91.

A001

This letter is true and accurate to the best of my knowledge and belief.

Nuclear Management Company, LLC

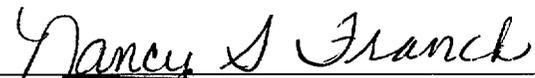
By   
Gary Van Middlesworth  
DAEC Site Vice-President

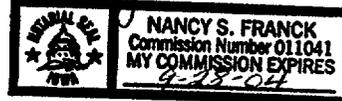
State of Iowa  
(County) of Linn

Signed and sworn to me before on this 28<sup>th</sup> day of March, 2002

By Gary Van Middlesworth

Notary Public in and for the State of Iowa





Commission Expires

- Attachment 1: Description and Assessment
- Attachment 2: Marked Up DAEC Technical Specifications Pages
- Attachment 3: Marked Up DAEC Technical Specifications Bases Pages
- Attachment 4: Revised (Clean) DAEC Technical Specifications Pages
- Attachment 5: List of Regulatory Commitments

CC: L. B. Swenzinski (w/a)  
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NRC Resident Office (w/a)  
Documaster

## **Attachment 1 Description and Assessment**

### **1.0 Description**

The proposed amendment will modify the Technical Specifications (TS) requirements for a missed surveillance in Surveillance Requirements (SR) 3.0.3. The changes are consistent with NRC approved Industry/Technical Specification Task Force (TSTF) STS change TSTF-358 Revision 6. TSTF-358 Revision 6 includes the NRC modifications described in Federal Register Notice 66FR32400, of June 14, 2001 and NRC changes made in response to public comments. The availability of this TS improvement was published in the Federal Register on September 28, 2001, as part of the consolidated line item improvement process (CLIP).

### **2.0 ASSESSMENT**

#### **2.1 Applicability of Published Safety Evaluation**

NMC has reviewed the safety evaluation dated June 14, 2001, as part of the CLIP. This review included a review of the NRC staff's evaluation, as well as the supporting information provided to support TSTF-358. NMC has concluded that the justifications presented in the TSTF proposal and the safety evaluation 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**

NMC is not proposing any variations or deviations from the TS changes described in the fully modified TSTF-358 Revision 6 or the NRC staff's model safety evaluation dated June 14, 2001 and as revised per Federal Register Notice 66FRN49714, of September 28, 2001.

### **3.0 REGULATORY ANALYSIS**

#### **3.1 No Significant Hazards Determination**

NMC has reviewed the proposed no significant hazards consideration determination (NSHCD) published in the Federal Register as part of the CLIP. NMC has concluded that the proposed NSHCD 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 September 28, 2001, for this TS improvement, plant-specific verifications were performed as follows:

NMC has established TS Bases for SR 3.0.3 which state that use of the delay period established by Surveillance Requirement 3.0.3 is a flexibility which is not intended to be used as an operational convenience to extend surveillance intervals, but only for the performance of missed surveillances.

The modification will also include changes to the Bases for SR 3.0.3 that provide details on how to implement the new requirements. The Bases changes provide guidance for surveillance frequencies that are not based on time intervals but are based on specified unit conditions, operating situations, or requirements of regulations. In addition, the Bases changes state that NMC is expected to perform a missed surveillance test at the first reasonable opportunity, taking into account appropriate considerations, such as the impact on plant risk and accident analysis assumptions, consideration of unit conditions, planning, availability of personnel, and the time required to perform the surveillance. The Bases also state that the risk impact should be managed through the program in place to implement 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, "Assessing and Managing Risks Before Maintenance Activities at Nuclear Power Plants," and that the missed surveillance should be treated as an emergent condition, as discussed in Regulatory Guide 1.182. In addition, the Bases state that the degree of depth and rigor of the evaluation should be commensurate with the importance of the component and that missed surveillances for important components should be analyzed quantitatively. The Bases also state that the results of the risk evaluation determine the safest course of action. In addition, the Bases state that all missed surveillances will be placed in the licensee's Corrective Action Program. Finally, NMC has a Bases Control Program consistent with Section 5.5 of the STS.

### **4.0 ENVIRONMENTAL EVALUATION**

NMC has reviewed the environmental evaluation included in the model safety evaluation dated June 14, 2001, as part of the CLIIP. NMC has determined that the staff's findings presented in that evaluation are applicable to DAEC and the evaluation is hereby incorporated by reference for this application.

**Attachment 2**  
**Marked Up DAEC Technical Specifications Pages**

### 3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

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SR 3.0.1 SRs shall be met during the MODES or other specified conditions in the Applicability for individual LCOs, unless otherwise stated in the SR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified Frequency shall be failure to meet the LCO except as provided in SR 3.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

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SR 3.0.2 The specified Frequency for each SR is met if the Surveillance is performed within 1.25 times the interval specified in the Frequency, as measured from the previous performance or as measured from the time a specified condition of the Frequency is met.

For Frequencies specified as "once," the above interval extension does not apply.

If a Completion Time requires periodic performance on a "once per . . ." basis, the above Frequency extension applies to each performance after the initial performance.

Exceptions to this Specification are stated in the individual Specifications.

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SR 3.0.3 If it is discovered that a Surveillance was not performed within its specified Frequency, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Frequency, whichever is ~~less~~. This delay period is permitted to allow performance of the Surveillance. Insect T1 greater.

If the Surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered.

When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered.

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(continued)

Insert T1 to TS SR 3.0.3

A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

**Attachment 3**  
**Marked Up DAEC Technical Specifications Bases Pages**

BASES

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SR 3.0.2  
(continued)

transient conditions or other ongoing Surveillance or maintenance activities).

The 25% extension does not significantly degrade the reliability that results from performing the Surveillance at its specified Frequency. This is based on the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the SRs. The exceptions to SR 3.0.2 are those Surveillances for which the 25% extension of the interval specified in the Frequency does not apply. These exceptions are stated in the individual Specifications. The requirements of regulations take precedence over the TS. Therefore, when a test interval is specified in the regulations, the test interval cannot be extended by TS, and the SR includes a Note in the Frequency stating, "SR 3.0.2 is not applicable."

As stated in SR 3.0.2, the 25% extension also does not apply to the initial portion of a periodic Completion Time that requires performance on a "once per..." basis. The 25% extension applies to each performance after the initial performance. The initial performance of the Required Action, whether it is a particular Surveillance or some other remedial action, is considered a single action with a single Completion Time. One reason for not allowing the 25% extension to this Completion Time is that such an action usually verifies that no loss of function has occurred by checking the status of redundant or diverse components or accomplishes the function of the inoperable equipment in an alternative manner.

The provisions of SR 3.0.2 are not intended to be used repeatedly merely as an operational convenience to extend Surveillance intervals (other than those consistent with refueling intervals) or periodic Completion Time intervals beyond those specified.

SR 3.0.3

SR 3.0.3 establishes the flexibility to defer declaring affected equipment inoperable or an affected variable outside the specified limits when a Surveillance has not been completed within the specified Frequency. A delay period of up to 24 hours or up to the limit of the specified Frequency, whichever is ~~less~~, applies from the point in time that it is discovered that the Surveillance has not been

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BASES

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SR 3.0.3  
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performed in accordance with SR 3.0.2, and not at the time that the specified Frequency was not met.

This delay period provides adequate time to complete Surveillances that have been missed. This delay period permits the completion of a Surveillance before complying with Required Actions or other remedial measures that might preclude completion of the Surveillance.

The basis for this delay period includes consideration of unit conditions, adequate planning, availability of personnel, the time required to perform the Surveillance, the safety significance of the delay in completing the required Surveillance, and the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the requirements.

Insert TB1

~~When a Surveillance with a Frequency based not on time intervals, but upon specified unit conditions or operational situations, is discovered not to have been performed when specified, SR 3.0.3 allows the full delay period of 24 hours to perform the Surveillance.~~

SR 3.0.3 also provides a time limit for completion of Surveillances that become applicable as a consequence of MODE changes imposed by Required Actions.

Insert TB2

Failure to comply with specified Frequencies for SRs is expected to be an infrequent occurrence. Use of the delay period established by SR 3.0.3 is a flexibility which is not intended to be used as an operational convenience to extend Surveillance intervals.

If a Surveillance is not completed within the allowed delay period, then the equipment is considered inoperable or the variable is considered outside the specified limits and the Completion Times of the Required Actions for the applicable LCO Conditions begin immediately upon expiration of the delay period. If a Surveillance is failed within the delay period, then the equipment is inoperable, or the variable is outside the specified limits and the Completion Times of the Required Actions for the applicable LCO Conditions begin immediately upon the failure of the Surveillance.

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### Insert TB1 to TS Bases SR 3.0.3

When a Surveillance with a Frequency based not on time intervals, but upon specified unit conditions, operating situations, or requirements of regulations (e.g., prior to entering MODE 1 after each fuel loading, or in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions, etc.) is discovered to not have been performed when specified, SR 3.0.3 allows for the full delay period of up to the specified Frequency to perform the Surveillance. However, since there is not a time interval specified, the missed Surveillance should be performed at the first reasonable opportunity. SR 3.0.3 provides a time limit for, and allowances for the performance of, Surveillances that become applicable as a consequence of MODE changes imposed by Required Actions.

### Insert TB2 to TS Bases SR 3.0.3

While up to 24 hours or the limit of the specified Frequency is provided to perform the missed Surveillance, it is expected that the missed Surveillance will be performed at the first reasonable opportunity. The determination of the first reasonable opportunity should include consideration of the impact on plant risk (from delaying the Surveillance as well as any plant configuration changes required or shutting the plant down to perform the Surveillance) and impact on any analysis assumptions, in addition to unit conditions, planning, availability of personnel, and the time required to perform the Surveillance. This risk impact should be managed through the program in place to implement 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, 'Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants.' This Regulatory Guide addresses consideration of temporary and aggregate risk impacts, determination of risk management action thresholds, and risk management action up to and including plant shutdown. The missed Surveillance should be treated as an emergent condition as discussed in the Regulatory Guide. The risk evaluation may use quantitative, qualitative, or blended methods. The degree of depth and rigor of the evaluation should be commensurate with the importance of the component. Missed Surveillances for important components should be analyzed quantitatively. If the results of the risk evaluation determine the risk increase is significant, this evaluation should be used to determine the safest course of action. All missed Surveillances will be placed in the licensee's Corrective Action Program.

**Attachment 4**  
**Revised (Clean) DAEC Technical Specifications Pages**

3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

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SR 3.0.1 SRs shall be met during the MODES or other specified conditions in the Applicability for individual LCOs, unless otherwise stated in the SR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified Frequency shall be failure to meet the LCO except as provided in SR 3.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

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SR 3.0.2 The specified Frequency for each SR is met if the Surveillance is performed within 1.25 times the interval specified in the Frequency, as measured from the previous performance or as measured from the time a specified condition of the Frequency is met.

For Frequencies specified as "once," the above interval extension does not apply.

If a Completion Time requires periodic performance on a "once per . . ." basis, the above Frequency extension applies to each performance after the initial performance.

Exceptions to this Specification are stated in the individual Specifications.

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SR 3.0.3 If it is discovered that a Surveillance was not performed within its specified Frequency, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Frequency, whichever is greater. This delay period is permitted to allow performance of the Surveillance. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered.

When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered.

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**Attachment 5**  
**List of Regulatory Commitments**

The following table identifies those actions committed to by NMC in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments. Please direct comments regarding these commitments to Laura B. Swenzinski at 319-851-7724.

<b>COMMITMENT</b>	<b>Due Date/Event</b>
NMC will establish the Technical Specification Bases for SR 3.0.3 as adopted with the applicable license amendment.	Implemented with amendment