

May 30, 2003
NG-03-0355

10 CFR 50.90

Office of Nuclear Reactor Regulation
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-061)
Eliminate Requirements for Post Accident Sampling Systems Using the
Consolidated Line Item Improvement Process

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 delete Technical Specification 5.5.3, "Post Accident Sampling," in the DAEC TS and thereby eliminate the requirements to have and maintain the Post Accident Sampling System (PASS) at DAEC. This change is consistent with NRC approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-413, "Elimination of Requirements for a Post Accident Sampling System (PASS)." The availability of this technical specification improvement was announced in the *Federal Register* on March 20, 2002, as part of the consolidated line item improvement process (CLIP). As discussed in the model safety evaluation (SE) for this TS improvement, this request also revises TS 5.5.2, "Primary Coolant Sources Outside Containment" to reflect that a plant modification is planned for completion beyond the implementation period of this proposed Amendment to eliminate PASS as a potential leakage path outside of containment for highly radioactive fluids.

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 revised (clean) TS pages. Attachment 4 provides a summary of the regulatory commitments made in this submittal.

NMC requests approval of the proposed license amendment by September 1, 2003. Please issue the amendment to be effective on the date of issuance and to be implemented within 180 days of receipt by NMC.

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

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

Nuclear Management Company, LLC

By 
Mark A. Peifer
DAEC Site Vice-President

State of Iowa
(County) of Linn

Signed and sworn to me before on this 30 day of May, 2003

By Mark A. Peifer

Notary Public in and for the State of Iowa





Commission Expires

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

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Description and Assessment

License Amendment Request TSCR-061

Technical Specification Improvement to Eliminate Requirements for Post Accident Sampling Systems Using the Consolidated Line Item Improvement Process

1. Description

The proposed license amendment deletes the program requirements of Technical Specifications (TS) 5.5.3, "Post Accident Sampling." The proposed license amendment also revises TS 5.5.2, "Primary Coolant Sources Outside Containment," to reflect the future planned elimination of the Post Accident Sampling System (PASS) as a potential leakage path outside of containment for highly radioactive fluids.

The changes are consistent with Nuclear Regulatory Commission (NRC) approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-413. The availability of this Technical Specification improvement was announced in the *Federal Register* on March 20, 2002, as part of the consolidated line item improvement process (CLIIP).

2. Assessment

2.1 Applicability of Published Safety Evaluation

NMC has reviewed the safety evaluation published on December 27, 2001 (66 FR 66949) as part of the CLIIP. This verification included a review of the NRC staff's evaluation (as modified slightly by the notice of availability) as well as the supporting information provided to support TSTF-413 (i.e., NEDO-32991, "Regulatory Relaxation for BWR Post Accident Sampling Stations (PASS)," submitted November 30, 2000, and the associated NRC safety evaluation dated June 12, 2001). NMC has concluded that the justifications presented in the TSTF proposal and the safety evaluation prepared by the NRC staff are applicable to Duane Arnold Energy center (DAEC) and justify this amendment for incorporation of the changes to the DAEC TS.

2.2 Optional Changes and Variations

NMC is not proposing any variations or deviations from the Technical Specification changes described in TSTF-413 or the NRC staff's model safety evaluation published on December 27, 2001. The DAEC TS include an administrative requirement for a program to minimize the leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident. PASS is specifically listed in TS 5.5.2 as falling under the scope of this requirement. As described in the staff's model safety evaluation published on December 27, 2001, NMC is proposing to implement a plant modification at a later date to eliminate PASS as a potential leakage path outside containment for highly radioactive fluids. Therefore, until the plant modification is implemented, PASS will continue to be a potential leakage path outside containment for highly radioactive fluids (e.g., the PASS piping will penetrate the containment with valves or other components in the system from which highly

radioactive fluid could leak). It is proposed that TS 5.5.2 be revised to indicate that PASS will remain a potential leakage path until modified.

The proposed TS change does not result in an associated TS Bases change.

3. Regulatory Analysis

3.1 No Significant Hazards Determination

NMC has reviewed the proposed no significant hazards consideration determination published on December 27, 2001 (66 FR 66949) as part of the CLIIP. NMC has concluded that the proposed determination presented in the notice is applicable to DAEC and the determination is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

3.2 Verification and Commitments

As discussed in the model Safety Evaluation published in the *Federal Register* on December 27, 2001, for this Technical Specification improvement, plant-specific verifications were performed as follows:

1. NMC will develop contingency plans for obtaining and analyzing highly radioactive samples from the reactor coolant system (RCS), the suppression pool, and the containment atmosphere. The contingency plans will be contained in the plant technical procedures and implementation will be completed within the 180-day implementation period for the Amendment when approved. Establishment and maintenance of contingency plans is considered a regulatory commitment.
2. The capability for classifying fuel damage events at the Alert level threshold will be established for DAEC at radioactivity levels of 300 $\mu\text{Ci/gm}$ dose equivalent iodine. This capability will be described in the emergency plan implementing procedures and implementation will be completed within the 180-day implementation period for the Amendment when approved. The capability for classifying fuel damage events is considered a regulatory commitment.
3. The NMC has developed an I-131 site survey detection capability, including an ability to assess radioactive iodines released to offsite environs by using effluent monitoring systems or portable sampling equipment. The capability for monitoring iodines is maintained within the emergency plan implementing procedures. The capability to monitor radioactive iodines is considered a regulatory commitment. Implementation of this commitment is complete.

4. Environmental Evaluation

NMC has reviewed the environmental evaluation included in the model safety evaluation published on December 27, 2001 (66 FR 66949) as part of the CLIIP. NMC has concluded that the staff's findings presented in that evaluation are applicable to DAEC and the evaluation is hereby incorporated by reference for this application.

Marked Up DAEC Technical Specification Page

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Technical Specification Improvement to Eliminate Requirements for Post Accident Sampling Systems Using the Consolidated Line Item Improvement Process

Current Technical Specification Page Marked Up with Proposed Changes

Page 5.0-8

5.5 Programs and Manuals

5.5.1 Offsite Dose Assessment Manual (ODAM) (continued)

markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (i.e., month and year) the change was implemented.

5.5.2 Primary Coolant Sources Outside Containment

This program provides controls to minimize leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to levels as low as practicable. The systems include Core Spray, High Pressure Coolant Injection, Residual Heat Removal, Reactor Core Isolation Cooling, Reactor Water Cleanup (only to second isolation valve), Post Accident Sampling, Containment Atmospheric Monitoring, Control Rod Drive (scram discharge volume only) and Liquid Radwaste (only Reactor Building Floor and Equipment Drain sump pumps, piping, and tanks up to and including collector tanks). The program shall include the following:

- a. Preventive maintenance and periodic visual inspection requirements; and
- b. System leak test requirements for each system at refueling cycle intervals or less.

(until such time as a modification eliminates PASS as a potential leakage path)

5.5.3 Post Accident Sampling

This program provides controls that ensure the capability to obtain and analyze reactor coolant, radioactive gases, and particulates in plant gaseous effluents and containment atmosphere samples under accident conditions. The program shall include the following:

- a. Training of personnel;
- b. Procedures for sampling and analysis; and
- c. Provisions for maintenance of sampling and analysis equipment.

(continued)

Revised (Clean) DAEC Technical Specification Page

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Technical Specification Improvement to Eliminate Requirements for Post Accident Sampling Systems Using the Consolidated Line Item Improvement Process

Revised Technical Specification Page

Page 5.0-8

5.5 Programs and Manuals

5.5.1 Offsite Dose Assessment Manual (ODAM) (continued)

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- a. Preventive maintenance and periodic visual inspection requirements; and
- b. System leak test requirements for each system at refueling cycle intervals or less.

5.5.3 DELETED

(continued)

List of Regulatory Commitments

License Amendment Request TSCR-061

Technical Specification Improvement to Eliminate Requirements for Post Accident Sampling Systems Using the Consolidated Line Item Improvement Process

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.

Regulatory Commitments	Due Date/Event
NMC will develop contingency plans for obtaining and analyzing highly radioactive samples from the reactor coolant system (RCS), the suppression pool, and the containment atmosphere. The contingency plans will be contained in the plant technical procedures and implementation will be completed within the 180-day implementation period for the Amendment when approved. Establishment and maintenance of contingency plans is considered a regulatory commitment.	Will be completed within 180 day implementation period for the Amendment
The capability for classifying fuel damage events at the Alert level threshold will be established for DAEC at radioactivity levels of 300 $\mu\text{Ci/gm}$ dose equivalent iodine. This capability will be described in the emergency plan implementing procedures and implementation will be completed within the 180-day implementation period for the Amendment when approved. The capability for classifying fuel damage events is considered a regulatory commitment.	Will be completed within 180 day implementation period for the Amendment
NMC has developed an I-131 site survey detection capability, including an ability to assess radioactive iodines released to offsite environs by using effluent monitoring systems or portable sampling equipment. The capability for monitoring iodines is maintained within the emergency plan implementing procedures. Implementation of this commitment is complete. The capability to monitor radioactive iodines is considered a regulatory commitment	Complete