October 18, 2004

Mark A. Peifer
Site Vice President
Duane Arnold Energy Center
Nuclear Management Company, LLC
3277 DAEC Road
Palo, IA 52324-0351

SUBJECT: DUANE ARNOLD ENERGY CENTER RE: REQUEST FOR ADDITIONAL INFORMATION RELATED TO TECHNICAL SPECIFICATION CHANGE REQUEST (TSCR-029) TO ADOPT FOUR NUCLEAR REGULATORY COMMISSION-APPROVED GENERIC CHANGES TO IMPROVED TECHNICAL SPECIFICATIONS (TAC NO. MC2023)

Dear Mr. Peifer:

The Nuclear Management Company, LLC's (NMC's) letter of January 28, 2004, requested U.S. Nuclear Regulatory Commission (NRC) approval for the Duane Arnold Energy Center to revise four technical specifications (TSs) that adopt NRC-approved generic changes (TS Task Force Nos. 264, 273, 284, and 299) to the improved standard TSs. The NRC staff is reviewing your request and finds that additional information is needed as shown in the request for additional information (RAI) in Enclosure 1.

On May 4, 2004, the NRC provided an initial RAI to your staff via e-mail. The NRC has not previously docketed this initial RAI and accordingly, you have not docketed a response. Based on subsequent additional review, the NRC staff decided that an alternate RAI would better suit our needs. The enclosed alternate RAI supercedes the initial RAI that was e-mailed to you on May 4, 2004. The initial e-mailed RAI is included in Enclosure 2 for information purposes only — no response is necessary.

I discussed the enclosed alternate RAI with Mr. Tony Browning of your organization on October 14, 2004, who stated that NMC would respond within 30 days of receipt of the RAI. Please contact me at (301) 415-3243 if you have questions.

Sincerely,

/RA/

David P. Beaulieu, Project Manager, Section 1
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-331

Enclosures: 1. Request for Additional Information
2. Initial Request for Additional Information

cc w/encls: See next page

October 18, 2004

Mark A. Peifer
Site Vice President
Duane Arnold Energy Center
Nuclear Management Company, LLC
3277 DAEC Road
Palo, IA 52324-0351

SUBJECT: DUANE ARNOLD ENERGY CENTER RE: REQUEST FOR ADDITIONAL INFORMATION RELATED TO TECHNICAL SPECIFICATION CHANGE REQUEST (TSCR-029) TO ADOPT FOUR NUCLEAR REGULATORY COMMISSION-APPROVED GENERIC CHANGES TO IMPROVED TECHNICAL SPECIFICATIONS (TAC NO. MC2023)

Dear Mr. Peifer:

The Nuclear Management Company, LLC's (NMC's) letter of January 28, 2004, requested U.S. Nuclear Regulatory Commission (NRC) approval for the Duane Arnold Energy Center to revise four technical specifications (TSs) that adopt NRC-approved generic changes (TS Task Force Nos. 264, 273, 284, and 299) to the improved standard TSs. The NRC staff is reviewing your request and finds that additional information is needed as shown in the request for additional information (RAI) in Enclosure 1.

On May 4, 2004, the NRC provided an initial RAI to your staff via e-mail. The NRC has not previously docketed this initial RAI and accordingly, you have not docketed a response. Based on subsequent additional review, the NRC staff decided that an alternate RAI would better suit our needs. The enclosed alternate RAI supercedes the initial RAI that was e-mailed to you on May 4, 2004. The initial e-mailed RAI is included in Enclosure 2 for information purposes only — no response is necessary.

I discussed the enclosed alternate RAI with Mr. Tony Browning of your organization on October 14, 2004, who stated that NMC would respond within 30 days of receipt of the RAI. Please contact me at (301) 415-3243 if you have questions.

Sincerely,
/RA/
David P. Beaulieu, Project Manager, Section 1
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-331
Enclosures: 1. Request for Additional Information
2. Initial Request for Additional Information
cc w/encls: See next page

DISTRIBUTION:

PUBLIC	RidsNrrPMDBeaulieu	RidsRgn3MailCenter
PD3-1 R/F	RidsNrrLATHarris	RidsAcrsAcnwMailCenter
RidsNrrDlpmLpdiii1	RidsOgcRp	RidsNrrDlpmDpr

ADAMS Accession No.: ML042710239

OFFICE	PDIII-1/PM	PDIII-1/LA	PDIII-1/SC
NAME	DBeaulieu	THarris	LRaghavan
DATE	10/14/04	09/30/04	10/18/04

OFFICIAL RECORD COPY

Duane Arnold Energy Center

cc:

Mr. John Paul Cowan
Executive Vice President &
Chief Nuclear Officer
Nuclear Management Company, LLC
700 First Street
Hudson, MI 54016

John Bjorseth
Plant Manager
Duane Arnold Energy Center
3277 DAEC Road
Palo, IA 52324

Steven R. Catron
Manager, Regulatory Affairs
Duane Arnold Energy Center
3277 DAEC Road
Palo, IA 52324

U.S. Nuclear Regulatory Commission
Resident Inspector's Office
Rural Route #1
Palo, IA 52324

Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

Jonathan Rogoff
Vice President, Counsel & Secretary
Nuclear Management Company, LLC
700 First Street
Hudson, WI 54016

Bruce Lacy
Nuclear Asset Manager
Alliant Energy/Interstate Power
and Light Company
3277 DAEC Road
Palo, IA 52324

Daniel McGhee
Utilities Division
Iowa Department of Commerce
Lucas Office Buildings, 5th floor
Des Moines, IA 50319

Chairman, Linn County
Board of Supervisors
930 1st Street SW
Cedar Rapids, IA 52404

Craig G. Anderson
Senior Vice President, Group Operations
700 First Street
Hudson, WI 54016

REQUEST FOR ADDITIONAL INFORMATION

TECHNICAL SPECIFICATION CHANGE REQUEST (TSCR-029)

NUCLEAR MANAGEMENT COMPANY, LLC

DUANE ARNOLD ENERGY CENTER

DOCKET NO. 50-331

The Nuclear Management Company, LLC's (NMC's) letter of January 28, 2004, requested U.S. Nuclear Regulatory Commission (NRC) approval for the Duane Arnold Energy Center (DAEC) to revise four technical specifications (TSs) that adopt NRC-approved generic changes to the improved standard TSs that are described in TS Task Force (TSTF) 264, 273, 284 and 299. The NRC staff is reviewing NMC's request and has determined that the following additional information is needed in order to complete the review:

1. The staff approved the use of TSTF-264, Rev. 0, which states "... IRMs [intermediate range monitors] are above mid-scale on range 1 before SRMs [source range monitors] have reached the upscale rod block." Since the agreement criterion includes an expectation of one decade of overlap, the staff believes that the values cited in TSTF-264, Rev. 0, ensure that there is sufficient overlap when transitioning between neutron flux instrumentation. However, in the proposed change to TS Surveillance Requirement (SR) 3.3.1.1.1, the application cites the plant's design basis as a basis for deviation from TSTF-264, Rev. 0, regarding the overlap between SRMs and IRMs. The application states, "Overlap between SRMs and IRMs similarly exists when, prior to withdrawing the SRMs from the fully inserted position, IRMs are indicating at least 5/40 on range 1 before SRMs have reached 10^6 counts per second" and "The agreement criteria includes an expectation of sufficient overlap when transitioning between flux instrumentation."

    a. Define "sufficient overlap" as stated in your proposed Insert 4 to TS Bases B 3.3.1.1.

    b. Provide a detailed justification why DAEC's nuclear instrumentation cannot satisfy TSTF-264, Rev. 0, as written with respect to SRM/IRM overlap. In your justification specifically address why IRM Range 1 might not read at least mid-scale prior to SRM reaching the rod block set point and why the expectation of a one decade overlap may not be satisfied. Also explain which specific hardware problems and/or limitations prevent DAEC from satisfying TSTF-264, Rev. 0, as written with respect to SRM/IRM overlap.

2. Describe your licensing and design basis (both current and past) with respect to SRM/IRM overlap.

Initial Request for Additional Information

The Nuclear Management Company, LLC's (NMC's) letter of January 28, 2004, requested U.S. Nuclear Regulatory Commission (NRC) approval for the Duane Arnold Energy Center (DAEC) to revise four technical specifications (TSs) that adopt NRC-approved generic changes to the improved standard TSs that are described in TS Task Force (TSTF) 264, 273, 284 and 299. Based on an initial review of NMC's request, the NRC staff determined that additional information was needed in order to complete the review. On May 4, 2004, the NRC e-mailed to NMC an initial request for additional information (RAI). Based on subsequent additional review, the NRC staff decided that an alternate RAI would better suit our needs. The initial RAI that was e-mailed is provided below for information purposes only — no response is necessary.

1. The staff approved the use of TSTF-264, Rev. 0, which states "... IRMs [intermediate range monitors] are above mid-scale on range 1 before SRMs [source range monitors] have reached the upscale rod block." Since the agreement criterion includes an expectation of one decade of overlap, the staff believes that the values cited in TSTF-264, Rev. 0, ensure that there is sufficient overlap when transitioning between neutron flux instrumentation. However, in the proposed change to Technical Specification Surveillance Requirement (SR) 3.3.1.1.1, the application cites the plant's design basis as a basis for deviation from TSTF-264, Rev. 0, regarding the overlap between SRMs and IRMs. The application states, "Overlap between SRMs and IRMs similarly exists when, prior to withdrawing the SRMs from the fully inserted position, IRMs are indicating at least 5/40 on range 1 before SRMs have reached 10^6 counts per second."

   a. Provide further technical justification (qualitative and quantitative, including figures, if appropriate) explaining the basis for the deviation between these proposed values of overlap between IRMs and SRMs specified in the application and the corresponding approved values stated in TSTF-264, Rev. 0.

   b. For IRMs, the proposed value of 5/40 is only 12.5 percent of range which deviates significantly from the mid-range (at least 50 percent) value stated in TSTF-264, Rev. 0. Provide justification for this deviation.

   c. TSTF-264, Rev. 0, states the IRMs must be above mid-scale before the SRMs have reached the upscale rod block. In the Duane Arnold Energy Center, Updated Final Safety Analysis Report, Table 7.6-1, the SRM upscale rod block has a nominal setpoint of $\leq 10^5$ counts per second. Provide justification explaining why the value of 10^6 counts per second was selected instead of the SRM upscale rod block nominal setpoint of $\leq 10^5$ counts per second. Is the proposed value of 10^6 counts per second an upscale rod block value?

   d. Provide the basis and explain the reasoning why the proposed range provides sufficient overlap.

2. Provide the applicable regulatory guidelines which are the bases for the above technical specifications and show how these guidelines are being adhered to by the proposed changes in the application.