

September 21, 2005

NG-05-0483
10 CFR 50.46(a)(3)(ii)

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

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

Subject: 10 CFR 50.46 Annual Report of Changes in Peak Cladding Temperature for the Duane Arnold Energy Center

Reference: Letter from M. Peifer (NMC) to USNRC, "10 CFR 50.46 Annual Report of Changes in Peak Cladding Temperature for the Duane Arnold Energy Center," NG-04-0604, dated September 30, 2004.

In accordance with 10 CFR 50.46(a)(3)(ii), Nuclear Management Company, LLC (NMC) hereby submits the annual report regarding the changes in the calculated peak cladding temperature (PCT) of the GE14 fuel currently utilized at the Duane Arnold Energy Center (DAEC). This report covers the period from the last annual report (reference) through August 31, 2005.

Our fuel vendor has not notified NMC of any additional errors or changes that impact the PCT in the current Loss-of-Coolant Accident analysis for the DAEC subsequent to the referenced report. Enclosed is a current summary of the DAEC's analysis of record.



Gary Van Middlesworth
Site Vice President, Duane Arnold Energy Center
Nuclear Management Company, LLC

Enclosure

cc: Administrator, Region III, USNRC
Project Manager, Duane Arnold Energy Center, USNRC
Resident Inspector, Duane Arnold Energy Center, USNRC

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ENCLOSURE

10 CFR 50.46 ANNUAL REPORT for DAEC - 2005

Peak Cladding Temperature⁽¹⁾

Last Acceptable Model Results⁽²⁾: **1510°F**

Previously Reports Errors and Changes:

2001⁽³⁾: **+ 55°F**

2002 – 2004: **+ 10°F**

New Errors and Changes: **None**

Analysis of Record Results: **1575°F**

(1) Licensing Basis PCT (LBPCT), as defined in NEDE-23785-1-P-A, "The GESTR-LOCA and SAFER Models for the Evaluation of the Loss-of-Coolant Accident: Volume III - SAFER/GESTR Application Methodology," February 1985.

(2) General Electric Report, "Safety Analysis Report for Duane Arnold Energy Center Extended Power Uprate," NEDC-32980P, Revision 1, April 2001.

(3) 30-day Special Report submitted June 7, 2001 (NG-01-0754). This report concluded that no re-analysis was required and reset the 50°F reporting threshold under §50.46 (a)(3)(i) back to zero.