

UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV
1717 AVENUE PLAZA DRIVE, SUITE 400
DALLAS, TEXAS 75201-5000

May 21, 1997

C. Randy Hutchinson, Vice President
Operations
Arkansas Nuclear One
Entergy Operations, Inc.
1448 SR 333
Russellville, Arkansas 72801-0967

SUBJECT: NRC INSPECTION REPORT 50-368/97-12; 72-13/97-01 AND NOTICE OF VIOLATION

Dear Mr. Hutchinson:

An NRC special inspection was conducted April 7-9, 1997, at your Arkansas Nuclear One, Unit 2 reactor facility. The enclosed report presents the scope and results of that inspection.

This special inspection was conducted to review the recent weld cracking problem encountered during the welding of the shield lid on cask No. AMSB-005 and to observe the welding process during the loading of cask No. AMSB-006. Arkansas Nuclear One had loaded three casks and was in the process of loading the fourth cask during this inspection.

During routine testing, cracks associated with shield lid welds were found on two of the three casks loaded. The cracks had been repaired, and both dye penetrant examination and helium leak testing verified the integrity of the welds prior to movement of the casks to the on-site Independent Spent Fuel Storage Installation (ISFSI). Arkansas Nuclear One completed an evaluation of the causes of the cracks and determined that changes in the welding process and the use of preheating of the weld area would reduce the potential for future weld defects. The NRC inspection team that consisted of a Region IV inspector and two materials engineers from NRC headquarters reviewed the proposed changes to the Arkansas Nuclear One welding program. The team found the changes to be appropriate. The welding and testing of the fourth cask were observed. No weld defects or cracks were detected on the fourth cask.

Based on the results of this inspection, the NRC has determined that one violation of NRC requirements occurred which was unrelated to the weld cracking problem. The violation involved the lack of an adequate pre-operational inspection process to ensure that the shield lid drain line was not plugged prior to utilization in the dry cask storage program. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding this violation is described in detail in the enclosed report. This violation resulted in the unnecessary handling of the heavy shield lid during the loading process. Please note that you are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. The NRC will use your

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response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In addition to your response to the violation, we request that you provide information related to three unresolved items identified in the report. Unresolved items are items that require additional information to determine the cause and or acceptability of the item. The first unresolved item is referenced in Section 2 of the report and concerns whether hydrogen cracking occurred on the shield lid weld of the third cask. The second unresolved item is referenced in Section 3 and concerns the adequacy of changes made in your welding program to preclude or reduce the chances of hydrogen cracking. The third unresolved item is referenced in Section 5 and concerns whether the first cask loaded may have experienced hydrogen cracking. The first two unresolved items noted above are closely linked to the information being sought by the Confirmatory Action Letter (CAL) dated May 16, 1997, which was issued to Arkansas Nuclear One, the cask vendor, and other users of this cask. As referenced in that letter, these issues must be addressed prior to further cask loading activity. If information you provide in response to the CAL also addresses the unresolved items discussed in this report, you may respond by referencing the applicable sections of the CAL response. If appropriate, you may supplement your CAL response to respond to the unresolved items.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response will be placed in the NRC Public Document Room (PDR). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,



Ross A. Scarano, Director
Division of Nuclear Materials Safety

Docket Nos.: 50-368
72-13
License No.: NPF-6

Enclosures:

1. Notice of Violation
2. NRC Inspection Report
50-368/97-12, 72-13/97-01

Entergy Operations, Inc.

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cc w/enclosures:

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& Chief Operating Officer

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Arkansas Department of Health

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Little Rock, Arkansas 72205-3867

Manager

Rockville Nuclear Licensing

Framatome Technologies

1700 Rockville Pike, Suite 525

Rockville, Maryland 20852

Entergy Operations, Inc.

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E-Mail report to T. Boyce (THB)

E-Mail report to NRR Event Tracking System (IPAS)

E-Mail report to Document Control Desk (DOCDESK)

bcc to DMB (IE01)

bcc distrib. by RIV:

EW Merschoff, RA

TPGwynn, DRP/D

KMKennedy, ANO/SRI

ECollins, DRP/PBC

LTremper, OC/LFDCB (9E10)

*CLCain, C/NMLB

*DBSpitzberg, C/NMI&FCDB

*JVEverett, NMLB

WDReckley, NRR/DRPW/PDIII-3 (013E21)

GHMarcus, NRR/DRPW/PDIII-3 (013E21)

CJHaughney, NMSS/SFPO (06D4)

PLEng, NMSS/SFPO (06F1)

TJKobetz, NMSS/SFPO (06G22)

CKBattige, NMSS/SFPO (06C17)

VLTharpe, NMSS/SFPO (06G22)

MGVassilaros, RES/DET/EMMEB (T10E10)

*MIS System

*RIV Files (2) - 4th floor (Dockets 50-368 and 50-313)

*RIV Files (2) - 5th floor (Docket 72-13)

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