



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

December 22, 1992

Docket Nos. 50-313
and 50-368

Mr. Jerry W. Yelverton
Vice President, Operations ANO
Entergy Operations, Inc.
Route 3 Box 137G
Russellville, Arkansas 72801

Dear Mr. Yelverton:

SUBJECT: CORRECTION OF CORRESPONDENCE TO NRC FOR THE EMERGENCY FEEDWATER
SYSTEM AT ARKANSAS NUCLEAR ONE, UNITS 1 & 2 (ANO-1&2) (TAC NOS.
M84014 AND M84015)

In an effort to clarify and correct your January 31, 1980, response (regarding the ANO-2 emergency feedwater (EFW) system) to the recommendations of NRC letter dated November 6, 1992, Entergy Operations, Inc. (the licensee) provided additional information by letter dated June 19, 1992. The recommendations involved are Short Term Recommendation GS-6 and Additional Short Term Recommendation 4 (AST-4). GS-6 recommended that licensees propose Technical Specification (TS) changes to assure that prior to plant startup following an extended cold shutdown, a flow test would be performed to verify the normal flow path from the primary auxiliary feedwater (AFW) water supply to the steam generators. The flow test was to be conducted with the AFW system valves in their normal configuration. Recommendation AST-4 recommended that licensees with plants which require local realignment of valves to conduct periodic tests on one AFW train, and there is only one train left for automatic operation, should propose TS changes to provide a dedicated individual stationed at the local valves. At the request of the control room, this individual would realign the AFW train from the test mode to the operational mode.

Recommendation GS-6

The underlying major concern associated with GS-6 was that some plants had AFW systems which contained local manual valves located inside the containment. Because these valves could not be routinely checked during normal plant operation, the staff was concerned that they might be inadvertently closed or left closed as a result of containment entries during an extended cold shutdown. It was intended that at least one AFW flow path be assured by actual flow test to the steam generators prior to startup following an extended shutdown. Normal periodic tests and valve alignment checks would be relied on for proper operation of the remaining train or trains. However,

240017

9212300407 921222
PDR ADDCK 05000313
P PDR

NRC FILE CENTER COPY

JFol
110

Mr. Jerry W. Yelverton
Entergy Operations, Inc.

Arkansas Nuclear One, Units 1 & 2

cc:

Mr. Donald C. Hintz, President
and Chief Executive Officer
Entergy Operations, Inc.
P. O. Box 31995
Jackson, Mississippi 39286

Mr. John R. McGaha
Vice President, Operations Support
Entergy Operations, Inc.
P. O. Box 31995
Jackson, Mississippi 39286

Mr. R. A. Fenech
General Manager, Plant Operations
Entergy Operations, Inc.
Route 3 Box 137G
Russellville, Arkansas 72801

Mr. Robert B. McGohee
Wise, Carter, Child & Caraway
P. O. Box 651
Jackson, Mississippi 39205

Mr. Nicholas S. Reynolds
Winston & Strawn
1400 L Street, N.W.
Washington, D.C. 20005-3502

Mr. Charles B. Brinkman, Manager
Washington Nuclear Operations
ABB Combustion Engineering Nuclear Power
12300 Twinbrook Parkway, Suite 330
Rockville, Maryland 20852

Mr. Robert B. Borsum
Licensing Representative
B&W Nuclear Technologies
1700 Rockville Pike, Suite 525
Rockville, Maryland 20852

Mr. James J. Fisicaro
Director, Licensing
Entergy Operations, Inc.
Route 3, Box 137G
Russellville, Arkansas 72801

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
1 Nuclear Plant Road
Russellville, Arkansas 72801

Admiral Kinnaird R. McKee, USN (Ret.)
214 South Morris Street
Oxford, Maryland 21654

Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Honorable Joe W. Phillips
County Judge of Pope County
Pope County Courthouse
Russellville, Arkansas 72801

Ms. Greta Dicus, Director
Division of Radiation Control and
Emergency Management
Arkansas Department of Health
4815 West Markham Street
Little Rock, Arkansas 72205-3867

most licensees interpreted this recommendation to mean a flow test should be conducted on all AFW trains except any train that was used for a normal startup. The startup flow path would suffice to verify flow path availability for this train.

At ANO-2, TSs exist for the A train of emergency feedwater (EFW), but none for the B train, which was used for startup, but did not use its primary water source. The licensee has subsequently installed a third train of backup feedwater at ANO-2, the AFW pump, which is normally used for plant startup. In addition, the B train is tested by procedures during each cold shutdown prior to heatup.

At ANO-1, prior to a plant startup following a refueling shutdown, a combination of EFW tests are performed that verify the normal flow path from the condensate storage tank (CST) to the steam generators.

The staff has reviewed the licensee's operation of the EFW system at both ANO-1 and ANO-2 and agrees with the licensee's conclusion that no further TSs are required to satisfy the recommendations of GS-6 because each train is tested and the major concern (manual valves inside containment) does not exist.

Recommendation AST-4

For ANO-2, the licensee's initial response to AST-4 was that local realignment of valves was not necessary to perform periodic tests of the EFW system. However, subsequent review by the licensee determined that local realignment of valves was necessary to test the A train of the system. Currently, an operator is stationed at the local valves during A train testing. The licensee has since changed the procedures for testing the B train of EFW to also require local realignment of valves during periodic testing. However, procedures were not initially revised to require stationing an operator at the local valves during the tests. According to the licensee's submittal, the procedures for train B have now been revised to station an operator at the local valves during the tests. Also, a third train of backup feedwater, the AFW system, has been installed to supplement the EFW system at ANO-2.

At ANO-1, the licensee's reevaluation of the applicability of AST-4 confirmed that local realignment of local valves was not necessary to perform periodic testing of the EFW system trains. Therefore, Recommendation AST-4 is not applicable to ANO-1.

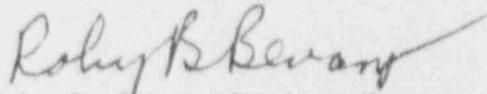
The staff has reviewed the licensee's operation of the EFW system with respect to AST-4 and agrees with their conclusion that no further TSs are necessary.

Mr. Jerry W. Yelverton

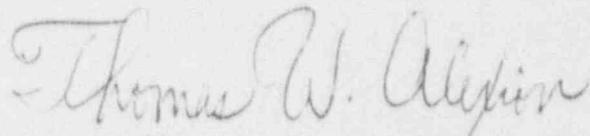
- 3 -

For ANO-2, this conclusion is based on the procedural controls in place plus the added third train of AFW which provides another backup to the train in test. For ANO-1, this recommendation is not applicable because no local realignment of valves takes place during periodic testing.

Sincerely,



Roby B. Bevan, Project Manager
Project Directorate IV-1
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation



Thomas W. Alexion, Project Manager
Project Directorate IV-1
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

cc: See next page

Mr. Jerry W. Yelverton

- 3 -

For ANO-2, this conclusion is based on the procedural controls in place plus the added third train of AFW which provides another backup to the train in test. For ANO-1, this recommendation is not applicable because no local realignment of valves takes place during periodic testing.

Sincerely,

ORIGINAL SIGNED BY:

Roby B. Bevan, Project Manager
Project Directorate IV-1
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

ORIGINAL SIGNED BY:

Thomas W. Alexion, Project Manager
Project Directorate IV-1
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

cc: See next page

DISTRIBUTION:

Docket File
NRC & LPDRs
PDIV-1 r/f
JRoe
MVirgilio
JLarkins
PNoonan
RBevan
HRathbun
TAlexion
OGC
ACRS (10)
PDIV-1 p/f
ABeach, RIV

OFC	LA/PDIV-1	I/PDIV-1	PM/PDIV-1	PM/PDIV-1	D/PDIV-1
NAME	PNoonan	HRathbun	TAlexion	RBevan	JLarkins
DATE	12/8/92	12/8/92	12/18/92	12/21/92	12/22/92

OFFICIAL RECORD COPY

Document Name: AR84014.COR