



ARKANSAS POWER & LIGHT COMPANY

POST OFFICE BOX 551 LITTLE ROCK, ARKANSAS 72203 (501) 371-4000

December 13, 1983

2CAN118303

Director of Nuclear Reactor Regulation
ATTN: Mr. James R. Miller, Chief
Operating Reactors Branch #3
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: Arkansas Nuclear One - Unit 2
Docket No. 50-368
License No. NPF-6
Responses to ANO-2 ICC Safety
Evaluation Outstanding Questions

Gentlemen:

In our letter (2CAN098306) dated September 12, 1983, we provided responses to questions transmitted by your letter (2CNA088302) dated August 9, 1983, and indicated that additional information on certain questions would be provided at a later date.

In our letter (2CAN048306) dated April 15, 1983, we provided a schedule for work associated with the ICC system and indicated that installation was planned for the fourth refueling outage during September-December 1985. Since that submittal, ANO-2 began the third refueling outage earlier than planned, and, as a result, the fourth refueling outage has been rescheduled for April-July 1985. Therefore, in order to meet our original plans to install the instrumentation during the fourth refueling outage, expedient design finalization, equipment delivery, emergency operating procedure development, and review and approval by the NRC is vital.

Currently, we are scheduled to submit the final design description and the emergency operating guidelines for NRC review and approval by March 1, 1985. Every attempt will be made to submit this information at an earlier date. We intend to provide an updated schedule for the fourth refueling outage by June 1, 1984, at which time more definite schedule data will be available.

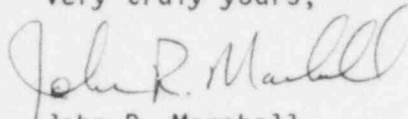
8312160130 831213
PDR ADOCK 05000368
P PDR

A001
11

December 13, 1983

Attachment 1 provides additional information relating to the Core Exit Thermocouple (CET) system connectors' environmental qualifications. Attachment 2 provides the currently scheduled dates for completion of milestones.

Very truly yours,

A handwritten signature in dark ink, appearing to read "John R. Marshall". The signature is fluid and cursive, with the first name "John" being the most prominent.

John R. Marshall
Manager, Licensing

JRM:JC:ac

Attachments

ATTACHMENT 1

RESPONSE TO OUTSTANDING ICC SER QUESTIONS

7. The CET system, which will not be upgraded before 1987 according to the licensee submittal, has electrical connectors within containment which are not qualified. Provide details concerning the design of these connectors to address our concern that they will not survive the adverse environments which may be associated with accidents requiring the use of ETs for monitoring of ICC. Confirm also the type and expected environmental design capability of the existing thermocouple cable inside containment. Evaluate the feasibility and schedule limitations for early upgrading of 15 of these electrical connectors (associated with 4 thermocouples per core quadrant).

Response

As indicated in our September 12, 1983 response (2CAN098306), the ANO-2 incore instrument cables and connectors were procured as prefabricated cable assemblies. The procurement specification required that the assemblies be manufactured and tested in accordance with IEEE Standards 323-1974, 344-1971, and 383-1974. Bendix Corporation supplied the prefabricated assemblies and developed test procedures to demonstrate that the materials and assemblies complied with the procurement specification.

Radiation, LOCA, and seismic tests were performed by Wyle Laboratories in Huntsville, Alabama. The results of this testing are documented in Test Report #43117 according to Test Plan #541/3996/CP and show that the cable assemblies are capable of withstanding, without compromise of structural or electrical integrity, the prescribed simulated environments.

The incore instrument assemblies, which contain the core exit thermocouples, have been designed to withstand the operating environment inside the reactor. This has been demonstrated by our day to day operating experience.

Based on the above, we have concluded that the existing electrical connectors and cabling inside containment are qualified. Thus, we have a high degree of confidence that the presently installed system will survive an ICC event.

ATTACHMENT 2

MILESTONE SCHEDULE FOR ANO-2

1. Submit final design description (by licensee) (complete the documentation requirements of NUREG 0737. Item II.F.2., including all plant specific information items identified in applicable NRC evaluation reports for generic approved systems.)

Response

The final design description for ICC instrumentation is currently scheduled to be submitted to the NRC by March 1, 1985. This item is shown on Figure 4 of our letter (2CANØ483Ø6) dated April 15, 1983, as the completion date for design and procurement.

2. Approval of Emergency Operating Procedure (EOP) technical guidelines (by NRC).

Note: This EOP technical guideline which incorporates the selected system must be based on the intended uses of that system as described in approved generic EOP technical guidelines relevant to the selected system.

Response

The Emergency Operating Procedure Technical Guidelines are to be revised to incorporate the ICC system and the revision is currently scheduled to be submitted to the NRC by March 1, 1985.

3. Inventory Tracking System (ITS) installation complete (by licensee).

Response

Installation of the ICC instrumentation is currently scheduled for the fourth refueling outage to begin in April 1985. This item is shown on Figure 4 of our letter (2CANØ483Ø6) dated April 15, 1983, as September 1985; however, the outage schedule has been changed since that submittal.

4. ITS functional testing and calibration complete (by licensee).

Response

Functional testing and calibration of the ICC system are scheduled to be complete prior to restart after the fourth refueling outage currently planned for April-July 1985. This item is shown on Figure 4 of our letter (2CANØ483Ø6) dated April 15, 1983, as September-December 1985; however, the outage schedule has been changed since that submittal.

5. Prepare revisions to plant operating procedures and emergency procedures based on approved EOP guidelines (by licensee).

Response

Revisions to plant operating and emergency procedures to incorporate details of use of the ICC system are to be completed prior to declaring the system "fully" operational.

6. Implementation letter report to NRC (by licensee).

Response

The ICC system implementation letter is currently scheduled to be submitted to the NRC 60 days after completion of the fourth refueling outage planned for April-July 1985.

7. Perform procedure walk-through to complete task analysis portion of ICC system design (by licensee).

Response

The procedure walk-through is currently scheduled to be completed 60 days after the restart of ANO-2 from the fourth refueling outage planned for April-July 1985.

8. Turn on system for operator training and familiarization.

Response

The ICC system is currently scheduled for availability for operator training and familiarization after installation during the fourth refueling outage planned for April-July 1985.

9. Approval of plant-specific installation (by NRC).

Response

This milestone is based on NRC schedules.

10. Implement modified operating procedures and emergency procedures (by licensee). - System Fully Operational -

Response

Full implementation of revised, ICC system descriptive operating and emergency procedures is currently scheduled for 60 days after NRC approval of the plant-specific installation. At that time, the system will be declared fully operational. The December 15, 1985 operational date shown on Figure 4 of our letter (2CAN048306) dated April 15, 1983, has been changed to July 10, 1985, and indicates currently scheduled completion of all hardware installation, calibration, testing, and

operator training. The system will not be declared "fully" operational until completion of procedure walkthrough, transmittal of the implementation letter, and NRC approval of the plant-specific installation.