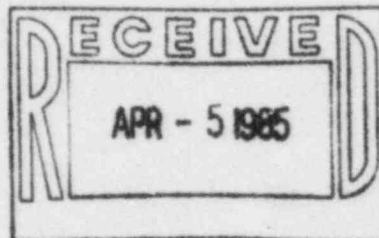




ARKANSAS POWER & LIGHT COMPANY

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

March 29, 1985



ØCANØ3851Ø

Mr. Richard P. Denise, Director  
Division of Reactor Safety and Projects  
U. S. Nuclear Regulatory Commission  
Region IV  
611 Ryan Plaza Drive, Suite 1000  
Arlington, TX 76011

SUBJECT: Arkansas Nuclear One - Units 1 & 2  
Docket Nos. 50-313 and 50-368  
License Nos. DPR-51 and NPF-6  
Response to Inspection Reports  
50-313/85-01 and 50-368/85-01

Gentlemen:

The subject inspection reports have been reviewed. A response to the Notice of Violation is attached.

Very truly yours,

*J. Ted Enos*  
J. Ted Enos  
Manager, Licensing

JTE:RJS:ds

Attachment

cc: Mr. Richard C. DeYoung  
Office of Inspection and Enforcement  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

Mr. Norman M. Haller, Director  
Office of Management & Program Analysis  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

8505170258 850514  
PDR ADOCK 05000313  
G PDR

IC-021/85

NOTICE OF VIOLATIONA. Failure to Provide Instructions for a Quality-Related Design Change Activity (Unit 1)

"10 CFR Part 50, Appendix B, Criterion V and Section 5.1.1 of the AP&L Quality Assurance Manual for Operations (APL-TOP-1A) require that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings.

Contrary to the above, the licensee's design change control procedure did not provide adequate control for the temporary removal of interferences during plant modification and/or maintenance activities."

This is a Severity Level IV Violation. (313/8501-01)

Response

The incident which occurred that brought this concern to the inspector's attention involved a failure to reinstall two valves in the bearing cooling water line for the Unit 1 turbine-driven EFW pump following modification work on the EFW system prior to release of the equipment to Operations. As recognized in the inspection report, it was concluded that there is no safety function provided by these valves, thus, the safety significance of this specific incident is negligible. In any case, the deletion of these valves was detected by Operations personnel during lineup for testing and the valves were reinstalled prior to plant startup.

This incident was reviewed by the Plant Safety Committee (PSC) on January 11, 1985, and the concern subsequently expressed by the NRC inspectors was recognized by the PSC members during that meeting. The PSC initiated action to address the concern of inadequate control for the removal of interferences during plant modification and/or maintenance activities as a result of that meeting.

Procedures for the control of station work and conduct of maintenance activities have been modified to require that separate clearance and work controls be provided for item(s) that are encountered during a work activity which is outside the clearance boundary of the job order or involves removal, disassembly or disconnection of a component(s) in a different system, train or channel. The mechanism for initiating these controls is the requirement that a new job order be written for such items. In cases where an interference is within the work clearance boundary and is in the same system, and train, or channel, as the original work, the revised procedures allow work to continue under the same job order provided the job order work scope is revised. Based on the implementation of these procedures, AP&L considers that the concern has been adequately addressed to assure future compliance.

B. Failure to Follow Procedural Requirements for Design Change Control (Unit 1)

"10 CFR Part 50, Appendix B, Criterion V and Section 5.1.1 of the AP&L Quality Assurance for Operations (APL-TOP-1A) require that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these procedures, instructions, and drawings.

Plant Engineering Administrative Procedure 1032.02, "Installation Technical Support" has been established in accordance with Criterion V.

Section 6.3.7 of Procedure 1032.02 requires that the responsible engineer ensure that piping and instrumentation drawings (P&IDs) affected by an outage design change package (DCP) be updated prior to returning the system/component to service after the modification has been completed.

Contrary to the above, system modifications were made to the Unit 1 emergency feedwater system in accordance with DCP 80-1083A; however, two P&IDs which were affected (M-204, Sheet 3 and M-206, Sheet 1) were not updated prior to returning the system to service."

This is a Severity Level IV Violation. (313/8501-02)

Response

The handswitch panel location, alarm and position indication discrepancies identified in the inspection report have been corrected by revision of drawings M-204 and M-206. The modifications of the Unit 1 Emergency Feedwater System resulted in an almost total replacement of the active components in the system along with the new EFIC control and actuation logic and circuitry. This was a difficult and complex change and was implemented during two outages when many other modifications were being installed. As a result of other modification related discrepancies noted by AP&L in the mechanical portion of this design a thorough independent review of the EFW design change packages was conducted by design engineers and a walkdown of the system was performed by ANO engineers. This review confirmed the adequacy of the design, but the walkdown indicated minor drawing discrepancies when comparing P&IDs, isometric drawings and hanger sketches. These discrepancies are not considered safety significant but were apparently indicative of a lack of adequate attention to detail in several phases of the modification process.

AP&L has recognized that the modification process we have employed in the past has been strained to handle the large volume of design changes undertaken as a result of numerous regulatory requirements following the Three Mile Island accident and other self initiated changes aimed at improving station availability, performance and maintainability. As a result, the company initiated a thorough review of the modification



process several months ago. Although the review is incomplete, a number of conclusions have been reached which have already changed the design change philosophy for Arkansas Nuclear One. The recommendations resulting from this review are anticipated to be available by May 15, 1985, for management consideration. Implementation of recommendations which are accepted will proceed soon thereafter.

It is now realized that the number and scale of modifications incorporated during refueling outage periods must be reduced to a more manageable level. The design change packages which are to be installed need to be completed earlier allowing more time for plant review, preparation of installation plans, and for pre-outage fabrication of equipment prior to final installation. In addition, AP&L is now attempting to schedule and perform as many modifications as practical during non-outage periods or in stages which allow a combination of outage and non-outage installation. The 2R refueling outage modifications have incorporated this philosophy as evidenced by the fact that compared to previous outages, a greater percentage of DCPs were issued before the outage began, much more pre-outage modification work was completed and several modifications are being partially installed to facilitate non-outage completion.

Additionally, AP&L has reassigned organizational responsibilities and augmented and expanded site staff (e.g., Construction Management Organization, Work Control Center) in order to provide better planning, installation instructions and control of contractor personnel.

AP&L considers that we are presently in compliance with the requirements of 10CFR50, Appendix B Criterion V and Section 5.1.1 of APL-TOP-1A. We believe that improvement in the modification process is being realized by the philosophy and organization changes which have been implemented and that continued improvement can be expected as these changes mature.

C. Failure to Follow Procedure for Design Change Completion and System Turnover (Unit 1)

"Technical Specification 6.8.1 requires that, "Written procedures shall be established, implemented, and maintained covering the ... applicable procedures recommended in Appendix A of Regulatory Guide 1.33, November, 1972..."

Appendix A of Regulatory Guide 1.33 includes, "General Procedures for the control of maintenance, repair, replacement, and modification work ..."

Overall Plant Administrative Procedure 1000.24, "Control of Maintenance," has been established in accordance with this requirement. Sections 7.7 and 7.8 of this procedure include the following requirements concerning the completion of Sections 4 and 5 of the job order form:

- 7.7.9 When the job has been completed, including post maintenance checkouts prior to releasing the system to Operations, fill in the date and time and sign the "work completed, system released" blocks.
- 7.8.2 When all testing and/or maintenance of the repaired equipment is completed, the Operations Shift Supervisor or his designated representative, indicates acceptance of the system for operation by signing the "work accepted" block of the job order.

Contrary to the above, on January 17, 1985, and January 30, 1985, the NRC inspectors identified several job orders for design changes or maintenance on systems required for plant heatup which did not have Sections 4 or 5 completed. On January 17, 1985, the first post-refueling reactor criticality was reached, and on January 30, 1985, the unit was being cooled down following power operation. The required systems were operable, but the administrative procedure intended to ensure operability was not followed."

This is a Severity Level V Violation. (313/8501-03)

#### Response

AP&L concurs that job orders should be completed through Sections 4 and 5 to ensure that work is complete and testing requirements are identified prior to acceptance of equipment by Operations. However, your notice of violation implies that the Control of Maintenance procedure (1000.24) provides controls over equipment operability. AP&L considers that the controls specified in 1000.24 are primarily for clearance to work and status control and that they do not necessarily relate to controlling operability. Some job orders are written and performed which never affect the operability of equipment, in other cases job orders are completed but work assigned to another group remains open and must be completed before operability can be established. Equipment operability is determined through successful completion of surveillance, inspection and test procedures. The monitoring of status of equipment at any given time is the responsibility of Operations personnel and several interrelated mechanisms are used to monitor and control status.

AP&L utilizes operating procedures for pre-heatup/pre-critical checklists to verify that restraints to heatup or criticality are cleared prior to plant startup. These procedures provide for signature authorization from each of the plant departments to proceed with heatup and/or criticality (unless the approach to criticality is a "hot restart" after a Reactor trip).

The plant pre-heatup/pre-critical checklist procedure for Unit 2 has been revised to incorporate detailed instructions for each department to clarify the intent of the signatures. The Unit 2 procedure was modified prior to the Unit 1 procedure since the 2R4 refueling outage

is currently in progress and it is expected that these controls will first be exercised during 2R4. Modification of the Unit 1 procedure will be complete by May 1, 1985. A significant element of this clarification is the requirement that assigned outage related job orders (including those implementing or supporting implementation of design changes) must be completed through section 5 prior to the sign-off authorizing heatup/criticality. A mechanism is also provided to allow portions of the work which can be deferred without adverse impact upon plant safety, personnel safety or license requirements/commitments to be delayed and "conditionally accepted" for operation. ANO procedures for control of work and conduct of maintenance have been revised for the "provisional" release of equipment to Operations in certain circumstances. It is anticipated that this mechanism will be used infrequently and that the preferred method will be to close the job order. Upon completion of the Unit 1 pre-heatup/pre-critical checklist procedure as mentioned above, full compliance will be achieved.

D. Unresolved Item 313/8429-02; 368/8429-02

"As discussed in Section 2 of the enclosed inspection report, you are requested to provide written information related to Unresolved Item 313/8429-02; 368/8429-02 within 30 days of the date of this letter. This response should describe your program for identifying and correcting discrepancies between piping and instrumentation drawings, operating procedure, and the as-built plant; and provide a schedule for the implementation of this program."

Response

In conjunction with the equipment database collection effort for the ANO Maintenance Management System, walkdowns of plant components (e.g., pumps, valves, valve operators, pump drivers, instruments, breakers, etc.) are underway. The P&IDs are being used as a primary input to walkdown packages and discrepancies such as tagging, location or description of components are being documented by the walkdown teams. These discrepancies are to be reviewed by ANO engineering and/or operations personnel to validate the finding and to determine corrective action. Valid discrepancies are then corrected by changes to P&IDs, procedures or tagging where applicable. If discrepancies are determined not to be in accordance with design, then the as found condition will be evaluated for impact on function and reportability and the plant will be modified if necessary.

The process described above is part of a long term effort and interfaces with several on-going or planned projects. Development of the equipment database for the Maintenance Management System has been underway since the beginning of the 1R6 refueling outage and will continue throughout 1985 and beyond. Resolution of discrepancies has lagged walkdown completions thus far due to the lack of available engineering and operations manpower resulting from 1R6 and 2R4 outage



support requirements. However, AP&L is in the process of establishing a review group to address the backlog. In the event there are discrepancies which are determined to have safety significance, immediate action will be initiated (e.g., to revise procedures and/or drawings).

The sequence of walkdowns has, of necessity, required prioritization based on accessibility during outages. Priority has also been placed on completing walkdowns of equipment based on its safety significance. Equipment in containment and in high radiation areas or areas otherwise restricted for access during unit operation has received the highest priority during refueling outages. NPRDS reportable equipment has provided our definition of safety significance. Because this sequence doesn't exactly match the structure of P&IDs and because we feel it is counter productive to change P&IDs several times for relatively minor discrepancies, we will accumulate such changes until the valid discrepancies from all walkdowns involving that system/P&ID are collected prior to issuing updated P&IDs. Any remaining unresolved discrepancies will be addressed and at that time necessary drawing changes will be completed within approximately 60 days.

These revised P&IDs will be checked against the valve lineup attachments in operating procedures to identify necessary procedure changes. Operating procedure revisions will be made based on the P&IDs for the affected system where errors are detected.

Valid tagging discrepancies indicating improper labeling will result in the correction of the appropriate plant labels. The target for completion of these changes will be within 30 days of determination of a valid discrepancy. Unlabeled components identified by this process will be punch-listed for later labeling in accordance with general plant labeling specifications which are under development.

Walkdowns for Unit 1 restricted access systems were completed during the 1R6 outage and considerable progress was made on the NPRDS components between 1R6 and 2R4. Of necessity the focus has shifted to Unit 2 restricted access systems. We anticipate completion of Unit 1 walkdowns by July 1985, and Unit 2 walkdowns by October 1985. Changes needed to procedures and P&IDs based on these walkdowns will be performed as described above with completion anticipated by January 1986.