ARKANSAS POWER & LIGHT COMPANY
POST OFFICE BOX 551 LITTLE ROCK, ARKANSAS 72203 (501) 371-4000

October 31, 1984

ØCAN1Ø84Ø4

Mr. D. R. Hunter, Chief
Reactor Project Branch #2
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
Additional Information Relative
to IE Inspection Report 84-11

Gentlemen:

By letter dated June 29, 1984, (ØCANØ68420), AP&L responded to IE Inspection Report 84-11. The purpose of this letter is to provide additional information as discussed with various members of your staff during several telephone conversations.

One error has been noted in the subject response. In response to Item A.3 the original stud material was erroneously referred to as ASTM-A-194, Grade 7. The material specification should have read "ASTM-A-540, Grade B23." The original nut material was ASTM-A-194, Grade 7.

In response to Item A.4 it was stated that a review of cleanliness controls was being conducted to determine if overall system cleanliness controls are adequately addressed. This review has been completed. As a result of this review AP&L has concluded that the present administrative procedures provided adequate cleanliness control. Several potential procedural improvements were identified for consideration during future procedure revision; however, these items are not considered important for ensuring adequate system cleanliness is maintained during and following maintenance. Therefore, AP&L has determined that no procedure changes are necessary at this time.

Several specific items relative to threaded fastener torquing and lubrication practices as well as AP&L's overall maintenance program were also discussed with your staff. Responses to these specific items are included as an attachment to this letter.

Very truly yours,

J. Ted Enos
Manager, Licensing

Attachment

JTE/DH/ac

ATTACHMENT

FASTENER TORQUE AND LUBRICATION REQUIREMENTS

Violation 313/8411-02 was issued for failure to provide instructions for torque values or thread lubricant requirements during maintenance accomplished on valves CV-1219 and CV-1220. In AP&L's response, the following statement was made:

> "It is recognized that some component fasteners on safety related systems may not be covered by a technical manual or drawing. Procedures are being instituted to ensure that vendor or AP&L engineering assistance is obtained regarding fastener lubrication and torquing requirements for safety related ASME code class I, II, III components in this category."

Per telephone conversations with the NRC/Region IV staff we understand this response was considered inadequate in that the staff felt AP&L should improve controls on all major safety-related fasteners, not just ASME code class I, II, and III components. The staff agreed that long range plans to address this problem are desirable but felt prompt interim action is necessary since this is an identified safety concern. NRC considerd it necessary that added steps be taken prior to the 1R6 outage.

AP&L Response

As an interim measure, AP&L will conduct a review of safety-related (Q) job orders to be worked during the 1R6 refueling outage. This review will be conducted to identify those activities which affect major threaded fasteners on safety-related (Q) components; for example:

- pressure boundary threaded fasteners
- load bearing joint threaded fasteners
- threaded fasteners required to properly maintain environmental qualifications
- seismic structure threaded fasteners
- bus-bar threaded fasteners
- threaded fasteners on valve torque/limit switch mountings

For these threaded fasteners, AP&L will provide instructions to craft personnel on torque, lubrication (if applicable) and documentation requirements. These will be obtained from vendor technical manuals, ergineering review, vendor technical assistance and/or general industrial fastener manuals as applicable. Concurrently, general guidance and development of general torque and lubrication specifications for safety-related (Q) components will be developed. AP&L cannot accurately predict the completion schedule for this program but will strive for completion during the first quarter of 1985. The intent would be to utilize these general specifications at least in-part during the 2R4 outage (now anticipated to begin in February or March, 1985), to be supplemented by Q job order review as proposed for 1R6 as necessary. AP&L intends to follow the progress of the AIF/Materials Properties Council as well as EPRI bolting

task force efforts. It is understood that those groups will produce industry guidance relative to threaded fastener controls in the 2nd quarter of 1985. AP&L will consider utilization of this material as it becomes available and will adjust our schedule for completion of general instructions on threaded fasteners accordingly.

TECHNICAL MANUAL REVIEW QUESTIONS

Following are responses to specific NRC questions relative to AP&L's current and planned efforts to review vendor technical manuals.

Question 1:

What is the status of AP&L efforts to review and control Vendor Technical Manuals?

Response:

AP&L has completed cataloging of vendor supplied technical manuals. We have collected and catalogued approximately 19,000 distinct documents. These documents, for both safety-related (Q) and non-safety-related equipment, are being copied and placed in the appropriate plant libraries for controlled distribution. This activity will finish the first phase of the Vendor Technical Manual Improvement Project and is expected to complete early in the first quarter of 1985.

Question 2:

Does AP&L have a procedure for the technical review of the vendor equipment manuals?

Response:

A procedure is under development currently which will detail the steps and criteria for the detailed vendor technical manual review. AP&L is reviewing the first draft at this time.

Question 3:

How will AP&L address components which are currently installed in the plant but for which you do not have a technical manual?

Response:

AP&L is developing an equipment database for use with the computerized Maintenance Management System. This database will identify the discrete components installed at ANO using a set of classification criteria. The technical manual review will include a review for applicability to the components installed at ANO. Our intent is to provide a reference in the equipment database to applicable technical manuals. For components which do not have an equipment instruction manual available, an attempt will be made to obtain a manual from the vendor.

Consideration will be given to the need to develop a technical manual for equipment where no vendor supplied document is available. For complex, safety-related (Q) equipment a technical manual or equivalent instructions (such as a procedure) will be developed.

Question 4:

How will AP&L resolve discrepancies between vendor recommendations for equipment compared to AP&L practice? For example a pump vendor recommends in the technical manual that bearings be replaced each 5 years but AP&L has not followed this recommendation.

Response:

AP&L will review vendor recommendations for preventive maintenance measures (such as the example given above) and will evaluate these for applicability at ANO based on the equipment's service condition, environment and the equipment's operating/maintenance history. This documented evaluation will receive an engineering review and the preventive maintenance schedules will be adjusted accordingly. If discrepancies are identified on safety-related (Q) equipment, this evaluation will include an evaluation of the equipment's acceptability for continued operation and impact upon the service life and reliability.

Question 5:

How will AP&L assure that the technical manual represents the as-built configuration of the equipment recognizing that some design modifications may have occurred since original procurement?

Response:

Design changes on safety-related (Q) equipment (and generally all plant equipment) have been documented on engineering change records. These records will be reviewed along with the original purchase records to ensure that modifications are properly documented in the vendor technical manuals/prints.

Question 6:

How will AP&L assure that vendor bulletins, 10CFR21 notifications, I&E notices, bulletins, etc. which affect AP&L equipment are addressed in the technical manuals?

Response

If design-related changes have been necessary as a result of AP&L review of vendor bulletins, NRC notifications, etc., AP&L will have documented these in our engineering change records. The review indicated in our answer to question 5 above would address changes needed as a result of vendor bulletins, 10CFR21 notifications, I&E notices, bulletins, etc.

GENERIC MAINTENANCE RELATED ITEMS

The following provides additional information relative to activities discussed in AP&L's initial response to IE Inspection Report 84-11. The original text is repeated below followed by additional information concerning the status and future plans.

Item 1 - Equipment Database:

"An equipment database will be established to aid in proper planning of work activities. This activity will require an extensive review of documentation and as-built verification. In conjunction with this effort, AP&L expects to achieve a component level Q-list, a basis for building equipment maintenance history, a ready access to information on a component level regarding engineering, quality, cleanliness, etc. requirements and should facilitate the identification of spare parts to components."

Status/Plans:

A scoping study has recently been completed which defined the information sources and methods to build and verify the equipment database. The scoping study for the component level Q-list is underway. Contractors to assist in compiling the equipment database are being evaluated and it is anticipated that the project will be initiated in 4th quarter of 1984. The database will be entered into the computer system as the data becomes available and it is anticipated the system will begin to provide significant assistance for work planning by the 3rd quarter of 1985. The entire database will not be complete and verified for the estimated 120,000 components to be included at that time. We anticipate 18-24 months from project initiation will be required to complete the database including component-level Q-list definition.

Item 2 - Computerized Maintenance Management System

"Nearly two years ago work was initiated to select and develop a computer system from which information can be retrieved quickly and utilized for detailed planning of work packages. The equipment database described above will be contained in this system."

Status/Plans:

The computer system is essentially complete at this time and several of the computer terminals are in place in their user locations. However, the equipment database mentioned above must be loaded prior to using the system for work planning. Currently, user training programs are being developed and the system will be used during Work Control Center procedure development and for entry of the equipment database over the next 8-10 months. We anticipate that the computer system will be usable for work planning on a limited basis by the 3rd quarter of 1985.

Item 3 - Technical Manual Controls Improvements:

"Efforts have been initiated to identify, collect and update vendor equipment technical manuals. Better methods for control and use of these manuals will be established."

Status/Plans:

Essentially all ANO Technical Manuals have been identified, collected and catalogued. Currently, we have identified in excess of 16,000 unique manuals. Copies of these manuals are being placed in the appropriate plant libraries for controlled distribution. This activity will finish the first phase of our technical manual improvement project and should be complete during the 1st quarter of 1985. Additional reviews of the technical manuals for specific applicability at ANO and to ensure preventive maintenance recommendations are addressed as appropriate are planned to follow during 1985 and reach completion in early 1986.

Item 4 - Administration of Procedures:

"The procedures governing the development, review and content of ANO procedures are in the process of being rewritten. Purposes of the rewrite are to strengthen requirements concerning procedure development and review by further detailing items to be considered and documented during this process and to improve and standardize an acceptable format and content for each type of procedure."

Status/Plans:

Drafts of these new guidance documents are currently undergoing management review and comment. It is anticipated that final versions of improved procedures for procedure development will be ready for employee training and indoctrination by January, 1985.

Item 5 - Revision of Plant Maintenance Procedures:

"Upon completion and implementation of these governing procedures, plant maintenance procedures will be revised to reflect the new requirements. The end product will be higher quality, user oriented, procedures."

Status/Plans:

Several human factors improvements and increased detail requirements will be implemented by use of the new administrative requirements mentioned in Item 4 above. Many of these requirements are being included in the maintenance procedures we are currently revising for use during the upcoming refueling outages. Upon implementation of the new procedure development guidelines affected maintenance procedures will be upgraded to the new requirements during their biennial review cycle.

Item 6 - Increased Engineering Support for Maintenance:

"Increased engineering support is being provided to the ANO maintenance department to facilitate resolution of technical issues."

Status/Plans:

Currently three new engineering positions have been added within the ANO maintenance department; one each to the I&C, electrical and mechanical disciplines. Two of these positions have been filled and the third individual has been identified. However, AP&L is currently conducting an evaluation of the design change process for ANO as previously described in our response to Inspection Report 84-15. It is quite possible that this evaluation will result in other changes that we feel are desirable to provide improved engineering support to ANO. Consequently, you should consider the organizational structure by which engineering support is provided to our maintenance department to be under evaluation and subject to change based on our conclusions.