



ARKANSAS POWER & LIGHT COMPANY

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May 27, 1988

ØCANØ58813

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

SUBJECT: Arkansas Nuclear One - Units 1 & 2
Docket Nos. 50-313 and 50-368
License Nos. DPR-51 and NPF-6
Boric Acid Corrosion of Carbon Steel
Reactor Pressure Boundary Components
in PWR Plants (Generic Letter 88-05)

Gentlemen:

In your letter dated March 17, 1988 (ØCNAØ38819), you requested that AP&L provide assurances that a program has been or will be implemented to address the corrosive effects of RCS leakage at less than Technical Specification limits. As stated in Generic Letter 88-05 Arkansas Nuclear One - Unit 1 had experienced boric acid corrosion on a high pressure injection nozzle. As a result of this incident and as committed in LER 86-006-00 (1CAN1286Ø7) AP&L has previously taken actions to address boric acid corrosion of the RCS which meet the intent of this new NRC staff position.

The first guideline involves identifying principal locations where smaller than allowable Technical Specification leaks could cause boric acid corrosion on pressure boundary surfaces. We have evaluated this recommendation and have determined that AP&L's requirement to evaluate all RCS leaks regardless of location is more conservative than concentrating on specific locations on the pressure boundary. This requirement was developed as a result of our previous boric acid corrosion incident.

The second guideline was for procedures to identify small coolant leaks. AP&L had previously evaluated our RCS leak detection procedures considering the potential for boric acid corrosion. As a result our procedure discusses the potential for severe corrosion of carbon steel components due to very small RCS leaks and stresses the need for detection and identification of such leaks.

AP&L
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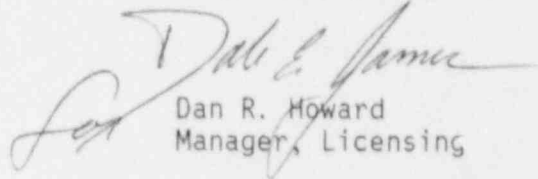
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The next guideline deals with conducting examinations for RCS leaks and evaluations when leakage is found. In addition to standard leak detection methods during operation, ANO requires that a RCS walkdown be performed after normal opening of the RCS. A procedural modification requiring a RCS walkdown each time the unit is placed in cold shutdown is being developed. Additionally, although it is not required by procedure, ANO routinely performs a RCS walkdown whenever possible after a unit trip. If leaks or evidence of past leaks are found, an evaluation is required to be performed. This evaluation must determine if any high temperature carbon steel could be contacted by the leakage and if so the impact of the leakage and/or resulting corrosion.

The final guideline concerns corrective actions to prevent recurrence and modifications to design procedures. As a result of our previous incident modifications have been made to the ANO-1 HPI line insulation to prevent boric acid corrosion to the HPI nozzle as a result of leakage in the upstream valves of the HPI system. Additionally, AP&L is developing a design modification guideline which addresses the potential for boric acid corrosion. This guideline will include the design methods to minimize the potential for RCS leakage and maximize the ability to detect RCS leakage that does occur. Also, the use of corrosion resistant materials when possible will be addressed. This guideline will be completed by December 15, 1988.

As you can see from the above comparison, our program, although it is not an exact match of your guideline, does meet the intent of your guideline which is to address the potential for boric acid corrosion due to RCS leakage at less than Technical Specification limits.

Very truly yours,

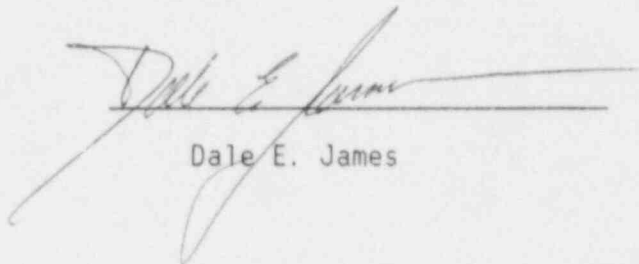


Dan R. Howard
Manager, Licensing

DRH/MCS/mb

STATE OF ARKANSAS)
)
COUNTY OF PULASKI) SS

I, Dale E. James, being duly sworn, subscribe to and say that I am Supervisor of Licensing for Arkansas Power & Light Company; that I have full authority to execute this oath; that I have read the document numbered ØCANØ58813 and know the contents thereof; and that to the best of my knowledge, information and belief the statements in it are true.



Dale E. James

SUBSCRIBED AND SWORN TO before me, a Notary Public in and for the County and State above named, this 27th day of May, 1988.

Sharon Kaye Hendrix
Notary Public

My Commission Expires:
9-19-89