



ARKANSAS POWER & LIGHT COMPANY
POST OFFICE BOX 551 LITTLE ROCK, ARKANSAS 72203 (501) 371-4000
March 20, 1981

IR-0381-07

Director of Nuclear Reactor Regulation
ATTN: Mr. J. F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: Arkansas Nuclear One-Unit 1
Docket No. 50-313
License No. DPR-51
Failed Fuel Evaluation Scope
(File: 1510.5)



Gentlemen:

As committed to in our March 4, 1981 letter describing the overall ANO-1 failed fuel evaluation plans, we are submitting a more detailed scope of our efforts to determine the cause of the failed fuel that occurred during Cycle 4 operation. This evaluation will be done in a manner that will allow termination of the evaluation at any point in time that the mechanism leading to failed fuel is identified or that it is determined to be impracticable to pursue further.

Our initial efforts will include more detailed data acquisition than in the past with input from other B&W plants having experienced failed fuel. Analyses will be performed on the data to explain any unusual trends that have occurred, even though they appear to be within the bounds of present limits, to see if a combination of factors has led to the fuel failures. The fuel will then be visually examined as appropriate to verify any conclusions reached from the data analyses. Presently, this may include TV re-examination, periscope examination and crud sample analysis. Every effort will be made to complete this initial work prior to the submittal of the August 26, 1981 status report.

The second step will be a feasibility study of the various post irradiation examination methods other than those described above to better define the appropriateness of their usage. Probability type evaluations will be made so that if the initial examinations indicate that further examinations are needed, AP&L will be in a position to decide which alternative, if any, is most likely to result in ascertaining the cause of the failed fuel.

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The final step is the failure examination to be done if the method of failure has been identified. This could include simulation computer runs and studies of the impact of operational conditions leading to failed fuel.

The schedules for the second and final steps are dependent to some extent in each case on the initial results when they are completed. Therefore, when the August 26, 1981 status report is made, AP&L will be in a position to better define those schedules and will include that information.

The above information is provided to further clarify the continuing effort that AP&L is making to ensure a thorough investigation into the cause of ANO-1 failed fuel.

Very truly yours,

David C. Trimble

David C. Trimble
Manager, Licensing

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