



**Entergy
Operations**

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August 28, 1992

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

Subject: Arkansas Nuclear One - Unit 2
Docket No. 50-368
License No. NP-6
Individual Plant Examination for
Severe Accident Vulnerabilities -
Generic Letter 88-20 (TAC No. M74377)

Gentlemen:

By NRC Generic Letter (GL) 88-20 dated November 23, 1988 (OCNA118827), licensees were requested to perform an Individual Plant Examination (IPE) for severe accident vulnerabilities and submit the results to the NRC. By letter dated March 13, 1992 (OCAN039204), Entergy Operations at Arkansas Nuclear One (ANO) informed the Staff that we would complete the IPE for ANO-2 and submit the results by August 31, 1992.

Enclosed is the ANO-2 Probabilistic Risk Assessment (PRA) summary report as required by GL 88-20, IPE for Severe Accident Vulnerabilities. The IPE scope included a Level I PRA, a limited Level II PRA, and an internal flooding analysis. Objectives for the ANO-2 IPE were established consistent with GL 88-20 and the submittal guidance of NUREG-1335. Entergy Operations' personnel were involved in all aspects of the development, quantification, and documentation of the PRA models used in the ANO-2 IPE. Entergy Operations' personnel also contributed well over 50% of the total engineering effort (approximately 8 person-years) to the project.

As a result, the IPE provided a comprehensive, detailed analysis of the severe accident behavior for ANO-2 and quantified the overall likelihood of core damage and fission product release. The IPE results show no indication that any plant unique severe accident vulnerabilities exist at ANO-2, and no plant unique modifications are deemed necessary based on the results of our evaluation. The overall core damage frequency of 3.4×10^{-5} per year is below the NRC's Severe Accident Policy Statement goal of less than 1×10^{-4} per reactor year and is consistent with other PWR PRAs. The potential for early (relative to core damage) large off-site releases was conservatively determined to exist for 6.9% of the core melt frequency. The ANO-2 IPE also estimates the risk for Unresolved Safety Issue A-45, Generic Issue (GI)-23, and GI-105 which are discussed in the enclosed summary report.

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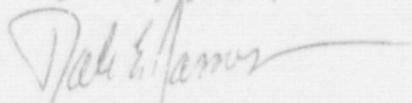
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Although no plant specific vulnerabilities have been identified, a number of insights have been gained pertaining to sensitive plant features (i.e., areas where changes can have significant impact on plant risk) and regarding areas of potential plant improvement (both procedural and hardware). These areas are also discussed in detail in the attached report.

This information is being provided to you under affirmation pursuant to 10CFR50.54(f). If you have any further questions, please do not hesitate to contact me or my staff.

Very truly yours,



JJF
James J. Fisicaro
Director, Licensing

JJF/NBM/sjf
Enclosure

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STATE OF ARKANSAS)
)
COUNTY OF LOGAN) SS

Affirmation

I, Dale E. James, being duly sworn, subscribe to and say that I am Supervisor, Licensing at ANO for Entergy Operations, that I have full authority to execute this affirmation; that I have read the document numbered 2CAN089201 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 28th day of August, 1992.



Notary Public

My Commission Expires:
May 11, 2000