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U. S. Nuclear Regulatory Commission  
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Subject: Arkansas Nuclear One - Units 1 and 2  
Docket Nos. 50-313/50-368  
License Nos. DPR-51 and NPF-6  
Response to Inspection Report  
50-313/90-45; 50-368/90-45

Gentlemen:

Pursuant to the provisions of 10 CFR Part 2, Appendix C (1990), attached is the response to the deviation which resulted from the failure to log core exit thermocouple data hourly at all times the reactor coolant system level was below 390 feet.

Should you have any questions, please call me at 501-964-8601.

Very truly yours,

*James J. Fisicaro*  
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JJF/DWB/mmg  
Attachment

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Notice of Deviation

Letter OCAN078903, Arkansas Power & Light Company to NRC, "Response to Additional Questions Regarding Implementation of GL 88-17," dated July 6, 1989, contained the following statement in the second paragraph on page 4: "The ANO procedure governing decay heat removal (DHR) and low temperature over pressure (LTOP) system control has been revised to require operator logging of independent CETs once per hour when the reactor coolant system level is below 390 feet."

In deviation from the above, Procedure 1015.002, Revision 11, "DHR and LTOP System Control," approved on November 24, 1990, stated in Step 5.5.1: "If reactor vessel head is removed, CET data is not required." Consequently, core exit thermocouple (CET) data was not being logged hourly at all times the RCS level was below 390 feet. (313/9045-01)

Response to Deviation 313/9045-01

(1) Reason For The Deviation

ANO's letter dated July 6, 1989 (OCAN078903), was in response to additional questions regarding implementation of Generic Letter (GL) 88-17, "Loss of Decay Heat Removal". In this response, ANO stated the actions already taken to implement the GL 88-17 requirements to support an upcoming outage requiring a draindown of the Reactor Coolant System (RCS). This action included a temporary change to the Decay Heat Removal (DHR) and Low Temperature Over Pressure (LTOP) System Control procedure to implement a temporary log in which RCS level and Core Exit Thermocouple (CET) data could be recorded during the upcoming draindown condition. Since this was not a refueling outage, and the CETs would not be disconnected, the temporary change did not address the option to not require CET data if the reactor vessel head were removed (as allowed by GL 88-17).

The July 6, 1989, letter also states that "Procedures to maximize availability of CETs have not been fully evaluated at this time in that the next scheduled reactor vessel head removal CET disconnect is not planned until early 1990. This evaluation will be completed prior to that time." It was our intent to communicate that CETs would be monitored at all times whenever the reactor vessel head was in place. It was not our intent to imply that CETs would be monitored at all times when the RCS was drained.

Subsequently, in preparation for the refueling outage in which the reactor vessel head would be removed and CETs disconnected, the procedures governing RCS draindown and DHR and LTOP system control were revised to include a change which resulted from a more detailed review of the GL 88-17 requirements and the evaluation mentioned in the preceding paragraph. This change included the option to not require CET data if the reactor vessel head was removed, as allowed by the Generic Letter.

The reason for the deviation is attributed to a miscommunication. Our July 6, 1989, letter did not adequately indicate that our defined measures were preliminary and appropriate for the outage which was pending at that time. Additionally, we failed to update our response to the generic letter upon completion of our evaluation and implementation of our final measures.

(2) Corrective Steps Which Have Been Taken And The Results Achieved

The reactor vessel head is currently installed. There is no need for immediate procedure changes since the existing procedures already require CET data to be obtained hourly. During refueling outage 1R9 (October 1, 1990 - January 6, 1991) no problems related to monitoring reactor core temperatures during reduced inventory conditions were experienced. No adverse safety impact has resulted due to the conditions of this deviation.

(3) Corrective Steps That Will Be Taken To Avoid Further Deviations

A review of the situation has led to the conclusion that two independent continuous temperature indications should be available any time there is fuel in the core and the RCS is drained to a reduced inventory condition (i.e., <375'). The plant design of Unit One requires disconnecting CETs only when fuel handling is required. This can be accomplished without entering a reduced inventory condition. Procedure changes are currently being developed to reflect this change.

Procedures 1103.011, "Draining and Nitrogen Blanketing of the RCS," 1015.03A, "Unit One Operations Logs," and, 1015.002, "Decay Heat Removal and LTOP Systems Control," will be revised to require operability of two independent continuous temperature indications any time there is fuel in the core and the RCS is drained to a reduced inventory condition.

Additionally, our July 6, 1989, response (OCAN078903) to additional questions regarding the implementation of Generic Letter 88-17 will be amended to clarify ANO's position regarding question three (page 3 of the response).

(4) Date When Corrective Actions Will Be Completed

The amended July 6, 1989, response to additional questions regarding the implementation of Generic Letter 88-17 will be submitted by March 31, 1991.

The procedure changes noted in Section 3, above, will be implemented prior to the next reduced inventory condition but no later than December 31, 1991.