

Docket No. 50-368

April 22, 1992

Mr. Neil S. Carns
Vice President, Operations ANO
Entergy Operations, Inc.
Route 3 Box 137G
Russellville, Arkansas 72801

Dear Mr. Carns:

SUBJECT: ISSUANCE OF AMENDMENT NO. 133 TO FACILITY OPERATING LICENSE
NO. NPF-6 - ARKANSAS NUCLEAR ONE, UNIT NO. 2 (TAC NO. M83030)

The Commission has issued the enclosed Amendment No. 133 to Facility Operating License No. NPF-6 for the Arkansas Nuclear One, Unit No. 2 (ANO-2). This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated March 30, 1992, as supplemented April 10, 1992 and April 16, 1992.

The amendment revises the Surveillance Requirements for the ANO-2 steam generator (SG) tubing to allow installation of tube sleeves as an alternative to plugging defective tubes.

Your letter of April 16, 1992, requested that the amendment be issued by April 25, 1992, prior to the end of the 30-day notice period. Your letter stated that the proposed change must be approved in order for ANO-2 to commence plant heatup from the current unanticipated forced outage. Due to your recent best estimate for completion of the SG tube repairs and commencement of plant heatup to be April 25, 1992, the staff has determined that the amendment can be issued prior to the end of the 30-day notice period.

A copy of our related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

Sheri R. Peterson, Project Manager
Project Directorate IV-1
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 133 to NPF-6
- 2. Safety Evaluation

cc w/enclosures:

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

April 22, 1992

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Sincerely,

Handwritten signature of Sheri R. Peterson in cursive.

Sheri R. Peterson, Project Manager
Project Directorate IV-1
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 133 to NPF-6
2. Safety Evaluation

cc w/enclosures:

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Facility Operating License No. NPF-6 is hereby amended to read as follows:

2. Technical Specifications

- The Technical Specifications contained in Appendix A, as revised through Amendment No. 133, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. The license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Paul W. O'Connor

for John T. Larkins, Director
Project Directorate IV-1
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 22, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 133

FACILITY OPERATING LICENSE NO. NPF-6

DOCKET NO. 50-368

Revise the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

REMOVE PAGES

3/4 4-9

3/4 4-10

3/4 4-12

B 3/4 4-3

INSERT PAGES

3/4 4-9

3/4 4-10

3/4 4-12

B 3/4 4-3

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

4.4.5.4 Acceptance Criteria

a. As used in this Specification

1. Tubing or Tube means that portion of the tube or sleeve which forms the primary system to secondary system pressure boundary.
2. Imperfection means an exception to the dimensions, finish or contour of a tube from that required by fabrication drawings or specifications. Eddy-current testing indications below 20% of the nominal tube wall thickness, if detectable, may be considered as imperfections.
3. Degradation means a service-induced cracking, wastage, wear or general corrosion occurring on either inside or outside of a tube.
4. Degraded Tube means a tube containing imperfections $\geq 20\%$ of the nominal wall thickness caused by degradation.
5. % Degradation means the percentage of the tube wall thickness affected or removed by degradation.
6. Defect means an imperfection of such severity that it exceeds the plugging or repair limit. A tube containing a defect is defective.
7. Plugging or Repair Limit means the imperfection depth at or beyond which the tube shall be removed from service by plugging or repaired by sleeving because it may become unserviceable prior to the next inspection and is equal to 40% of the nominal tube wall thickness.
8. Unserviceable describes the condition of a tube if it leaks or contains a defect large enough to affect its structural integrity in the event of an Operating Basis Earthquake, a loss-of-coolant accident, or a steam line or feedwater line break as specified in 4.4.5.3.c, above.
9. Tube Inspection means an inspection of the steam generator tube from the point of entry (hot leg side) completely around the U-bend to the top support of the cold leg.

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

10. Preservice Inspection means an inspection of the full length of each tube in each steam generator performed by eddy current techniques prior to service to establish a baseline condition of the tubing. This inspection shall be performed after the field hydrostatic test and prior to initial POWER OPERATION using the equipment and techniques expected to be used during subsequent inservice inspections.

b. The steam generator shall be determined OPERABLE after completing the corresponding actions (plug or repair all tubes exceeding the plugging or repair limit and all tubes containing through-wall cracks) required by Table 4.4-2. Defective tubes may be repaired in accordance with B&W Topical Report BAW-2045PA-00 as supplemented by the information provided in B&W Report 51-1212539-00, "BWNS Kinetic Sleeve Design-Application to ANO Unit 2".

4.4.5.5 Reports

- a. Following each inservice inspection of steam generator tubes the number of tubes plugged or sleeved in each steam generator shall be reported to the Commission within 15 days.
- b. The complete results of the steam generator tube inservice inspection shall be reported on an annual basis for the period in which the inspection was completed. This report shall include:
1. Number and extent of tubes inspected.
 2. Location and percent of wall-thickness penetration for each indication of an imperfection.
 3. Identification of tubes plugged or sleeved.
- c. Results of steam generator tube inspections which fall into Category C-3 shall be reported in a Special Report pursuant to Specification 6.9.2 as denoted by Table 4.4-2. Notification of the Commission will be made prior to resumption of plant operation. The written Special Report shall provide a description of investigations conducted to determine cause of the tube degradation and corrective measures taken to prevent recurrence.

TABLE 4.4-1

MINIMUM NUMBER OF STEAM GENERATORS TO BE
INSPECTED DURING INSERVICE INSPECTION

Preservice Inspection	Yes
No. of Steam Generators per Unit	Two
First Inservice Inspection	One
Second & Subsequent Inservice Inspections	One ¹

Table Notation:

1. The inservice inspection may be limited to one steam generator on a rotating schedule encompassing 3 N % of the tubes (where N is the number of steam generators in the plant) if the results of the first or previous inspections indicate that all steam generators are performing in a like manner. Note that under some circumstances, the operating conditions in one or more steam generators may be found to be more severe than those in other steam generators. Under such circumstances the sample sequence shall be modified to inspect the most severe conditions.

TABLE 4.4-2

STEAM GENERATOR TUBE INSPECTION

1ST SAMPLE INSPECTION			2ND SAMPLE INSPECTION		3RD SAMPLE INSPECTION	
Sample Size	Result	Action Required	Result	Action Required	Result	Action Required
A minimum of S Tubes per S.G.	C-1	None	N/A	N/A	N/A	N/A
	C-2	Plug or sleeve defective tubes and inspect additional 2S tubes in this S.G.	C-1	None	N/A	N/A
			C-2	Plug or sleeve defective tubes and inspect additional 4S tubes in this S.G.	C-1	None
			C-2	Plug or sleeve defective tubes and inspect additional 4S tubes in this S.G.	C-2	Plug or sleeve defective tubes
	C-3	Inspect all tubes in this S.G., plug or sleeve defective tubes and inspect 2S tubes in each other S.G. Special Report to NRC per Specification 6.9.2	C-3	Perform action for C-3 result of first Sample	C-3	Perform action for C-3 result of first sample
			All other S.G.s are C-1	None	N/A	N/A
			Some S.G.s C-2 but no additional S.G. are C-3	Perform action for C-2 result of second sample	N/A	N/A
			Additional S.G. is C-3	Inspect all tubes in each S. G. and plug or sleeve defective tubes. Special Report to NRC per Spec. 6.9.2.	N/A	N/A

$S = 3 \frac{N}{n} \%$ Where N is the number of steam generators in the unit, and n is the number of steam generators inspected during an inspection

REACTOR COOLANT SYSTEM

BASES

Wastage-type defects are unlikely with proper chemistry treatment of the secondary coolant. However, even if a defect should develop in service, it will be found during scheduled inservice steam generator tubes examinations. Plugging or sleeving will be required for all tubes with imperfections exceeding the plugging or repair limit as defined in Surveillance Requirement 4.4.5.4.a. Defective tubes may be repaired by sleeving in accordance with the B&W Topical Report BAW-2045PA-00 as supplemented by the information provided in B&W Report 51-1212539-00, "BWNS Kinetic Sleeve Design-Application to ANO Unit 2". Steam generator tube inspections of operating plants have demonstrated the capability to reliably detect degradation that has penetrated 20% of the tube wall thickness. For sleeved tubes, the adequacy of the system that is used for periodic inservice inspection will be validated. Additionally, upgraded testing methods will be evaluated and appropriately implemented as better methods are developed and validated for commercial use.

Whenever the results of any steam generator tubing inservice inspection fall into Category C-3 certain results will be reported in a Special Report to the Commission pursuant to Specification 6.9.2 as denoted by Table 4.2-2. Notification of the Commission will be made prior to resumption of plant operation. Such cases will be considered by the Commission on a case-by-case basis and may result in a requirement for analysis, laboratory examinations, tests, additional eddy-current inspection, and revision of the Technical Specifications, if necessary.

3/4.4.6 REACTOR COOLANT SYSTEM LEAKAGE

3/4.4.6.1 LEAKAGE DETECTION SYSTEMS

The RCS leakage detection systems required by this specification are provided to monitor and detect leakage from the Reactor Coolant Pressure Boundary. These detection systems are consistent with the recommendations of Regulatory Guide 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems" May 1973.

3/4.4.6.2 REACTOR COOLANT SYSTEM LEAKAGE

Industry experience has shown that while a limited amount of leakage is expected from the RCS, the unidentified portion of this leakage can be reduced to a threshold value of less than 1 GPM. This threshold value is sufficiently low to ensure early detection of additional leakage.

The 10 GPM IDENTIFIED LEAKAGE limitation provides allowances for a limited amount of leakage from known sources whose presence will not interfere with the detection of UNIDENTIFIED LEAKAGE by the leakage detection systems.

The Surveillance Requirements for RCS Pressure Isolation Valves provide added assurance of valve integrity thereby reducing the probability of gross valve failure and consequent intersystem LOCA. Leakage from the RCS Pressure Isolation Valves is IDENTIFIED LEAKAGE and will be considered as a portion of the allowed limit.

REACTOR COOLANT SYSTEM

BASES

The total steam generator tube leakage limit of 1 GPM for all steam generators ensures that the dosage contribution from the tube leakage will be limited to a small fraction of Part 100 limits in the event of either a steam generator tube rupture or steam line break. The 1 GPM limit is consistent with the assumptions used in the analysis of these accidents. The 0.5 GPM leakage limit per steam generator ensures that steam generator tube integrity is maintained in the event of a main steam line rupture or under LOCA conditions.

PRESSURE BOUNDARY LEAKAGE of any magnitude is unacceptable since it may be indicative of an impending gross failure of the pressure boundary. Therefore, the presence of any PRESSURE BOUNDARY LEAKAGE requires the unit to be promptly placed in COLD SHUTDOWN.

3/4.4.7 CHEMISTRY

The limitations on Reactor Coolant System chemistry ensure that corrosion of the Reactor Coolant System is minimized and reduce the potential for Reactor Coolant System leakage or failure due to stress corrosion. Maintaining the chemistry within the Steady State Limits provides adequate corrosion protection to ensure the structural integrity of the Reactor Coolant System over the life of the plant. The associated effects of exceeding the oxygen, chloride and fluoride limits are time and temperature dependent. Corrosion studies show that operation may be continued with contaminant concentration levels in excess of the Steady State Limits, up to the Transient Limits, for the specified limited time intervals without having a significant effect on the structural integrity of the Reactor Coolant System. The time interval permitting continued operation within the restrictions of the Transient Limits provides time for taking corrective actions to restore the contaminant concentrations to within the Steady State Limits.

The surveillance requirements provide adequate assurance that concentrations in excess of the limits will be detected in sufficient time to take corrective action.

3/4.4.8 SPECIFIC ACTIVITY

The limitations on the specific activity of the primary coolant ensure that the resulting 2 hour doses at the site boundary will not exceed an appropriately small fraction of Part 100 limits following a



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO.133 TO

FACILITY OPERATING LICENSE NO. NPF-6

ENTERGY OPERATIONS, INC.

ARKANSAS NUCLEAR ONE, UNIT NO. 2

DOCKET NO. 50-368

1.0 INTRODUCTION

By letter dated March 30, 1992, as supplemented April 10, 1992, and April 16, 1992, Entergy Operations, Inc. (the licensee), submitted a request for changes to the Arkansas Nuclear One, Unit No. 2 (ANO-2) Technical Specifications (TS). The requested changes would revise the surveillance requirements of TS 4.4.5., "Steam Generators," to permit the option of using the Babcock & Wilcox (B&W) kinetic sleeving process for steam generator (SG) tube repair.

On March 9, 1992, the licensee began a forced outage due to a leaking SG tube. By March 15, 1992, the leaking tube was identified and plugged. As a result of the leaking tube, the licensee conducted additional SG eddy current testing (ECT) and discovered 420 defective tubes in the "A" SG and 67 defective tubes in the "B" SG. Based on the ECT results, the licensee requested a TS change to permit SG tube sleeving as a repair method. The staff has determined that, prior to the forced outage, the licensee could not have anticipated the need for extensive SG tube sleeving and that, on analyzing the situation, they promptly applied to the NRC for remedial action. The sleeving proceeded rapidly and the licensee is able to return the unit to power prior to the expiration of the 30-day comment period. The staff finds that an emergency situation exists as defined in 10 CFR 50.91(a)(5).

The April 10, 1992, letter provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

By letter dated April 16, 1992, the licensee requested that the amendment be issued by April 25, 1992, however, the 30-day notice period does not end until May 4, 1992. If the amendment is not issued in a timely manner, the licensee would not be able to commence plant heatup. Due to these circumstances, the staff has determined that the amendment can be issued prior to the end of the 30-day notice period.

2.0 BACKGROUND

The requested TS change will allow the use of B&W Nuclear Service Company (BWNS) sleeves for steam generator tube repair as an alternative to plugging degraded tubes. The purpose of a sleeve is to repair a degraded steam generator tube in order to maintain the function and integrity of the tube. The sleeve functions in essentially the same manner as the original tube. The B&W kinetic sleeve was originally designed for the Westinghouse Model D steam generator and over 3500 have been installed. The change references B&W Topical Report BAW-2045PA-00, "Recirculating Steam Generator Kinetic Sleeve Qualification for 3/4 Inch Steam Generator Tubes." The staff approved the Topical Report for referencing on January 4, 1990. A modified design and installation process that is bounded by the original parameters will be used for ANO-2. B&W Report 51-1212539-00, "BWNS Kenetic Sleeve Design - Application to ANO Unit 2," is an evaluation of the applicability of the use of a modified design and process to be applied to ANO-2, which is of Combustion Engineering (CE) design, whereas the original topical report covered the sleeves as applied to Westinghouse design steam generators. Both documents are described in the change to TS 4.4.5.4.b.

3.0 DISCUSSION

BAW-2045PA-00 contains the results of the sleeve design verification which included analysis and confirmatory testing to demonstrate the acceptability of the steam generator sleeving technique for defective tubes. The sleeve design to be used in ANO-2 is fabricated from the same material as was previously qualified, thermally treated Alloy 690. This material has been demonstrated to be resistant to corrosion phenomenon by test and service experience, as detailed in BAW-2045PA-00. The explosively welded sleeve-to-tube joint is produced by a kinetic weld/expansion which is subsequently stress relieved. The joint was qualified as both a strength and seal weld for use in a wide range of Alloy 600 tube material, including that used in CE steam generator tubes.

Analyses were performed on the previously approved topical report sleeve design to verify that it conforms to the requirements of the ANO-2 application. The analyses consist of a design stress analysis to support fatigue testing as defined in the ASME Code Section III, Appendix II; analysis of flow induced vibration of sleeved tubes; analysis of a plugging criteria for a degraded sleeve; analysis of the effects of sleeves on heat transfer and flow and a certified stress report.

The licensee has stated that available techniques are capable of providing 20 percent defect sensitivity in the required areas of the tube/sleeve pressure boundary. A proprietary method is described in the topical report with supporting validation data that demonstrates the inspectability of the sleeve and underlying tube.

4.0 EVALUATION

The staff reviewed the evaluation of the applicability of the use of the kinetic welded sleeve in CE-designed steam generators documented in B&W Report 51-1212539-00, "BWNS Kinetic Sleeve Design - Application to ANO Unit 2." The report includes a description and qualitative evaluation of the relevant differences between the sleeving procedure described in the topical report and installation of sleeves in ANO-2 steam generators. The licensee performed load tests on steam generator sleeves installed into ANO-2 size tubing in accordance with the written field installation procedures to provide design verification information. A series of sleeves were installed into ANO-2 mock-ups in order to validate the explosive welding process for the ANO-2 specific application. These tests demonstrated that the structural integrity of the weld is maintained by the sleeving process.

The mock-up assemblies were qualified by axial fatigue tests followed by leak tests to demonstrate the structural adequacy of the sleeves. The tests were performed to demonstrate that the sleeves would be leak-tight under all operating and accident conditions. In all cases, the results of the tests indicated that the sleeve conformed to the original design requirements of the steam generators.

The licensee performed analytical calculations using design and operating transient parameters selected to envelop the loads imposed during normal, upset, and accident conditions. Fatigue and stress analysis of steam generator sleeved tube assemblies was done in accordance with the requirements of the ASME Code, Section III. The staff considers that these tests and analyses demonstrate the structural adequacy of the kinetic sleeve for use in ANO-2.

The licensee established a plugging limit of 40 percent of the original sleeve wall based on Regulatory Guide 1.121, "Bases for Plugging Degraded PWR Steam Generator Tubes," guidelines for tube degradation limits. An additional 20 percent of wall thickness is incorporated as a combined allowance for postulated degradation due to corrosion and for eddy current inaccuracy in accordance with staff positions. The staff finds this acceptable.

As part of the topical report qualification, it was demonstrated that eddy current techniques are available to perform necessary sleeve/tube inspections for defect detection and to verify proper installation of the kinetic expanded sleeve. Since the installed configuration of the ANO-2 sleeve is the same as that originally qualified, the licensee warrants that the sensitivity of the eddy current inspections will be 20 percent of wall thickness at all locations. Since the staff has received a commitment from the licensee that they will validate the adequacy of any eddy current testing method that is used for periodic inservice inspections as well as a commitment to upgrade testing methods as better methods are developed and validated for commercial use, this is acceptable.

The staff's approval of the use of the BWNS kinetic sleeve design in ANO-2 is based upon the previous review and approval for referencing of B&W Topical Report BAW-2045PA-00, "Recirculating Steam Generator Kinetic Sleeve Qualification for 3/4 Inch Steam Generator Tubes," and the design verification analysis and testing of the kinetic welding process in ANO-2 steam generator tube mock-ups and load/fatigue testing presented in B&W Report 51-1212539-00, "BWNS Kinetic Sleeve Design - Application to ANO-2." The staff has concluded that there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner and the issuance of the amendment is acceptable.

5.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92 state that the Commission may make a final determination that a license amendment involves no significant hazards considerations if operation of the facility in accordance with the amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

The Commission has determined that the amendment involves no significant hazards consideration per 10 CFR 50.92, based on the licensee's analysis provided in their March 30, 1992 letter and presented below:

- (1) The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed change to permit the use of SG tubing sleeves as an alternative to tube plugging is a safe and effective repair procedure that does not require removing a tube from service. Mechanical strength, corrosion resistance, installation methods, and inservice inspection techniques of sleeves have been shown to meet NRC acceptance criteria.

Analytical verification will be performed using design and operating transient parameters selected to envelop loads imposed during normal operating, upset and accident conditions. Fatigue and stress analysis of sleeved tube assemblies will be completed in accordance with the requirements of the ASME Boiler and Pressure Vessel Code, Section III. The results of the qualification testing, analyses and plant operating experience will demonstrate that the sleeving process is an acceptable means of maintaining SG tube integrity. Furthermore, the sleeve assemblies can be monitored through periodic inspections with eddy current test techniques.

The TSs continue to require isolation of a tube or sleeve containing a detected 40 percent reduction in the primary to secondary system pressure boundary.

The consequences of accidents previously analyzed are not increased as a result of sleeving activities. In the case of a tube rupture, the sleeve may actually result in a slightly reduced leak/flow rate through the broken tube due to the smaller effective flow area. The minor reduction in flow area associated with a tube sleeve has no significant effect on SG performance with respect to heat transfer or system flow resistance and pressure drop. In any case, all analytical impacts are clearly bounded by evaluations which demonstrate the acceptability of tube plugging which totally removes the tube from service. Therefore, in comparison to plugging, tube sleeving is considered a significant improvement with respect to steam generator performance. The cumulative impact of multiple sleeved tubes is evaluated to ensure the effects remain within the analytical design bases (both normal and accident). Therefore, based on the above, this change does not significantly increase the probability or consequences of an accident previously evaluated.

- (2) The proposed change does not create the possibility of a new or different kind of accident from any previously evaluated. A sleeved tube performs the same function, in the same passive manner, as an unsleeved tube. Tube sleeves are designed, qualified, and maintained under the stress and pressure limits of ASME Section III and Regulatory Guide 1.121. Eddy current testing is performed following installation of each sleeve. This is done to verify proper installation of the sleeve and to obtain a baseline eddy current reading for each sleeve in order to monitor for subsequent degradation of the primary to secondary pressure boundary.

Therefore, the possibility of a new or different kind of accident from any previously evaluated is not created.

- (3) The proposed change does not involve a significant reduction in the margin of safety.

SG tube integrity is maintained under the same limits for sleeved tubes as for unsleeved tubes; i.e., ASME Section III and Regulatory Guide 1.121. The degradation limit at which a tube is considered inoperable remains unchanged and is detectable for sleeves as well as tubes. The TSs continue to require monitoring and restriction of primary to secondary system leakage through the SGs, such that there remains reasonable assurance that a significant increase in leakage, due to failure of a sleeved (or unsleeved) tube, will be detected. The slight reduction in RCS flow, due to sleeving, is considered to have an insignificant impact on SG operation during normal operation

and accident conditions and is clearly bounded by tube plugging evaluations. The TSs will continue to contain reporting requirements for tubes which have had their degradation spanned (regardless whether the tube is plugged or sleeved).

Therefore, this change does not involve a significant reduction in the margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, concluded that the analysis demonstrates that the applicable criteria are met. Accordingly, the Commission has made a final determination that the amendment involves no significant hazards consideration.

6.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Arkansas State official was notified of the proposed issuance of the amendment. The State official had no comments.

7.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes in surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (57 FR 11526). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

8.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: H. Conrad

Date: April 22, 1992

Mr. Neil S. Carns
Entergy Operations, Inc.

Arkansas Nuclear One, Unit 2

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

ENTERGY OPERATIONS, INC.

DOCKET NO. 50-368

ARKANSAS NUCLEAR ONE, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 133
License No. NPF-6

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Entergy Operations, Inc. (the licensee) dated March 30, 1992, as supplemented April 10, 1992 and April 16, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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