

**ARKANSAS NUCLEAR ONE,  
UNIT 1**

**INITIAL EXAMINATIONS  
DECEMBER 13-19, 1999**

**INSPECTION REPORT**



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-8064

JAN 13 2000

C. Randy Hutchinson, Vice President  
Operations  
Arkansas Nuclear One  
Entergy Operations, Inc.  
1448 S.R. 333  
Russellville, Arkansas 72801-0967

SUBJECT: NRC INSPECTION REPORT NO. 50-313/99-301; 50-368/99-301

Dear Mr. Hutchinson:

This refers to the inspection conducted on December 13 to 16, 1999, at the Arkansas Nuclear One, Unit 1 facility. The enclosed report presents the results of this inspection.

The inspection included an evaluation of four applicants for reactor operator and four applicants for senior reactor operator licenses. We determined that all applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

A handwritten signature in black ink, appearing to read "John L. Pellet".

John L. Pellet, Chief  
Operations Branch  
Division of Reactor Safety

Docket Nos.: 50-313; 50-368  
License Nos.: DPR-51; NPF-6

Enclosure:  
NRC Inspection Report No.  
50-313/99-301; 50-368/99-301

Entergy Operations, Inc.

-2-

cc w/enclosure **(w/Attachments 1 and 2):**

Sherrie R. Cotton, Manager, Training  
Arkansas Nuclear One  
Entergy Operations, Inc.  
1448 S.R. 333  
Russellville, Arkansas 72801-0967

cc w/enclosure **(w/Attachment 1):**

Executive Vice President  
& Chief Operating Officer  
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P.O. Box 31995  
Jackson, Mississippi 39286-1995

Vice President  
Operations Support  
Entergy Operations, Inc.  
P.O. Box 31995  
Jackson, Mississippi 39286

Manager, Washington Nuclear Operations  
ABB Combustion Engineering Nuclear  
Power  
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Rockville, Maryland 20852

County Judge of Pope County  
Pope County Courthouse  
100 West Main Street  
Russellville, Arkansas 72801

Winston & Strawn  
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Washington, DC 20005-3502

David D. Snellings, Jr., Director  
Division of Radiation Control and  
Emergency Management  
Arkansas Department of Health  
4815 West Markham Street, Mail Slot 30  
Little Rock, Arkansas 72205-3867

Entergy Operations, Inc.

-3-

Manager  
Rockville Nuclear Licensing  
Framatome Technologies  
1700 Rockville Pike, Suite 525  
Rockville, Maryland 20852

E-Mail report to D. Lange (DJL)  
 E-Mail report to NRR Event Tracking System (IPAS)  
 E-Mail report to Document Control Desk (DOCDESK)  
 E-Mail notification of report issuance to the ANO SRI and Site Secretary (RLB3, VLH).  
 E-Mail notification of issuance of all documents to Nancy Holbrook (NBH).

bcc to DCD (IE01)(IE42)

bcc distrib. by RIV (**w/Attachment 1 only**):

Regional Administrator  
 Resident Inspector  
 DRP Director  
 RIV File  
 DRS Director  
 Branch Chief (DRP/D)  
 Project Engineer (DRP/D)

**(w/Attachments 1, and 2):**

Laura Hurley  
 D. Trimble (IOLB)

DOCUMENT NAME: R:\\_ANO\an9301rp-mem.wpd

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C:OB									
JLPellet									
01/13/00									

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- Regional Administrator
- Resident Inspector
- DRP Director
- RIV File
- DRS Director
- Branch Chief (DRP/D)
- Project Engineer (DRP/D)

(w/Attachments 1, 2, and 3):

- Laura Hurley
- D. Trimble (IOLB)

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U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

Docket Nos.: 50-313; 50-368  
License Nos.: DPR-51; NPF-6  
Report No.: 50-313/99-301; 50-368/99-301  
Licensee: Entergy Operations, Inc.  
Facility: Arkansas Nuclear One, Units 1 and 2  
Location: Junction of Hwy. 64W and Hwy. 333 South  
Russellville, Arkansas  
Dates: December 13-16, 1999  
Inspectors: M. E. Murphy, Senior Reactor Engineer, Operations Branch  
T. F. Stetka, Senior Reactor Engineer, Operations Branch  
R. E. Lantz, Reactor Engineer, Operations Branch  
Approved By: J. L. Pellet, Chief, Operations Branch  
Division of Reactor Safety

ATTACHMENTS:

Attachment 1: Supplemental Information  
Attachment 2: Licensee Written Examination Analysis  
Attachment 3: Final Written Examination and Answer Key

## EXECUTIVE SUMMARY

Arkansas Nuclear One, Units 1 and 2  
NRC Inspection Report No. 50-313/99-301; 50-368/99-301

NRC examiners evaluated the competency of four reactor operator and four senior reactor operator applicants for issuance of operating licenses at the Arkansas Nuclear One Unit 1. The licensee developed the initial license examinations using the guidance in NUREG-1021, Revision 8, April 1999. NRC examiners reviewed and approved the examinations. The initial written examinations were administered to the applicants on December 10, 1999, by facility proctors in accordance with the guidance in NUREG-1021, Revision 8. The NRC examiners administered the operating tests December 13-16, 1999.

### Operations

- All applicants for operator licenses passed the licensing examinations and were issued the appropriate licenses. Overall applicant performance was good with adequate communications and very good peer and self checking.



## 04.2 Initial Operating Test

### a. Inspection Scope

The examination team administered the various parts of the operating examination to the applicants on December 13-16, 1999. Most applicants participated in at least two scenarios. Each of the applicants also received a control room and facilities walkthrough test. This test consisted of five tasks for current licensed operators and ten tasks for the instant senior operator and reactor operator applicants. Also, there was an administrative portion, which consisted of five tasks in four administrative areas for all applicants.

### b. Observations and Findings

All applicants passed all sections of the operating test. Overall operator performance was very good. Communications were in accordance with the licensee's procedures. The applicants use of peer checking and self checking were consistent and very good.

### c. Conclusions

All applicants passed all parts of the operating test. Overall operator performance was very good.

## 05 **Operator Training and Qualification**

### 05.1 Initial Licensing Examination Development

The facility licensee developed the initial licensing examination in accordance with NUREG-1021, Revision 8, "Operator Licensing Examination Standards for Power Reactors."

#### 05.1.1 Examination Outline

##### a. Inspection Scope

The facility licensee submitted the initial examination outline on August 2, 1999. The chief examiner reviewed the submittal against the requirements of NUREG-1021, Revision 8.

##### b. Observations and Findings

Region IV approved the initial examination outline with minor comments for enhancement, which were promptly resolved, and advised the licensee to proceed with examination development.

c. Conclusion

The licensee submitted an adequate examination outline.

05.1.2 Examination Package

a. Inspection Scope

The facility licensee submitted the completed draft examination package on September 24, 1999. The chief examiner and a peer reviewer reviewed the formal submittal against the requirements of NUREG-1021, Revision 8.

b. Observations and Findings

The examination as submitted was satisfactory. Some enhancements were suggested by the chief examiner, agreed upon by the licensee and effected according to NUREG-1021.

c. Conclusions

The examination as submitted was satisfactory.

05.2 Simulation Facility Performance

a. Inspection Scope

The examiners observed simulator performance with regard to fidelity during the examination validation and administration.

b. Observations and Findings

The simulation facilities supported the validation and administration of the examination well. No simulator fidelity problems were identified.

c. Conclusions

The simulation facilities and simulation facility staff supported the examinations well.

05.3 Examination Security

a. Scope

The examiners reviewed examination security during the examination administration for compliance with NUREG-1021 requirements.

b. Observations and Findings

Members of the licensee's operations and training staff signed onto the NUREG-1021 examination security agreement, acknowledging their responsibilities for examination security. The security plans were satisfactorily implemented. Applicants were maintained under constant supervision and were always escorted to and from examination points. Simulator security was strictly maintained.

c. Conclusions

Satisfactory examination security was maintained.

**V. Management Meetings**

**XI Exit Meeting Summary**

The chief examiner presented the inspection results to members of the licensee management at the conclusion of the inspection on December 16, 1999. The licensee acknowledged the findings presented.

The licensee did not identify as proprietary any information or materials examined during the inspection.

**ATTACHMENT 1**

**SUPPLEMENTAL INFORMATION**

**PARTIAL LIST OF PERSONS CONTACTED**

Licensee

- C. Anderson, General Manager, Plant Operations
- D. Bensen, Simulator Support Supervisor
- A. Clinkingbeard, Operations Shift Superintendent
- J. Cork, Unit 1 Operations Training
- S. Cotton, Training Manager
- G. Giles, Supervisor, Operations Training
- M. Little, Unit 1 Operations Manager
- T. Mitchell, Unit 2 Operations Manager
- D. Sealock, Simulator Training Supervisor
- C. Zimmerman, Unit 1 Plant Manager

**ATTACHMENT 2**

As-Given Written Examination and Answer Key