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April 10, 1996

1CAN049604

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Mail Station P1-137  
Washington, DC 20555

Subject: Arkansas Nuclear One - Unit 1  
Docket No. 50-313  
License No. DPR-51  
Licensee Event Report 50-313/96-003-00

Gentlemen:

In accordance with 10CFR50.73(a)(2)(i)(B), enclosed is the subject report concerning charcoal filter testing.

Very truly yours,

*for*  
Dwight C. Mims  
Director, Nuclear Safety

DCM/rhs

enclosure

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U. S. NRC  
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cc: Mr. Leonard J. Callan  
Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region IV  
611 Ryan Plaza Drive, Suite 400  
Arlington, TX 76011-8064

Institute of Nuclear Power Operations  
700 Galleria Parkway  
Atlanta, GA 30339-5957

**LICENSEE EVENT REPORT (LER)**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MHBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

|  |                               |                    |
|--|-------------------------------|--------------------|
| FACILITY NAME (1)<br>Arkansas Nuclear One - Unit 1 | DOCKET NUMBER (2)<br>05000313 | PAGE (3)<br>1 OF 4 |
|--|-------------------------------|--------------------|

TITLE (4) Charcoal Filter Sample Analysis Not Conducted In Accordance With The Literal Requirements Of Technical Specifications As A Result Of A Misinterpretation Of The Requirements Necessary To Achieve Compliance With The Specifications

| EVENT DATE (5) |     |      | LER NUMBER (6) |                   |                 | REPORT DATE (7) |     |      | OTHER FACILITIES INVOLVED (8) |               |
|----------------|-----|------|----------------|-------------------|-----------------|-----------------|-----|------|-------------------------------|---------------|
| MONTH          | DAY | YEAR | YEAR           | SEQUENTIAL NUMBER | REVISION NUMBER | MONTH           | DAY | YEAR | FACILITY NAME                 | DOCKET NUMBER |
| 03             | 13  | 96   | 96             | 003               | 00              | 04              | 10  | 96   | FACILITY NAME                 | DOCKET NUMBER |

|                         |   |                  |                      |                                       |
|-------------------------|---|------------------|----------------------|---------------------------------------|
| OPERATING MODE (9)<br>N | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR: (Check one or more) (11) |                  |                      |                                       |
| POWER LEVEL (10)<br>100 | 20.402(b)   | 20.405(c)        | 50.73(a)(2)(iv)      | 70.71(b)                              |
|                         | 20.405(a)(1)(i)   | 50.36(c)(1)      | 50.73(a)(2)(v)       | 70.71(c)                              |
|                         | 20.405(a)(1)(ii)  | 50.36(c)(2)      | 50.73(a)(2)(vii)     | OTHER                                 |
|                         | 20.405(a)(1)(iii)   | X 50.73(w)(2)(i) | 50.73(a)(2)(viii)(A) | Specify in Abstract Below and in Text |
|                         | 20.405(a)(1)(iv)  | 50.73(a)(2)(ii)  | 50.73(a)(2)(viii)(B) |                                       |
|                         | 20.405(a)(1)(v)   | 50.73(a)(2)(iii) | 50.73(a)(2)(x)       |                                       |

LICENSEE CONTACT FOR THIS LER (12)

|   |  |
|---|--|
| NAME<br>Richard H. Scheide, Nuclear Safety and Licensing Specialist | TELEPHONE NUMBER (Include Area Code)<br>501-858-5000 |
|---|--|

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NRPDS | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NRPDS |
|-------|--------|-----------|--------------|---------------------|-------|--------|-----------|--------------|---------------------|
|       |        |           |              |                     |       |        |           |              |                     |
|       |        |           |              |                     |       |        |           |              |                     |

SUPPLEMENTAL REPORT EXPECTED (14)

|  |         |                               |       |     |      |
|--|---------|-------------------------------|-------|-----|------|
| YES<br>(If yes, complete EXPECTED SUBMISSION DATE) | NO<br>X | EXPECTED SUBMISSION DATE (15) | MONTH | DAY | YEAR |
|--|---------|-------------------------------|-------|-----|------|

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On March 13, 1996, it was identified by ANO personnel that the ANO-2 Control Room Ventilation/Filtration unit (2VSF-9), which is credited in the ANO-1 Technical Specifications (TS), was not being tested to the literal requirements of the ANO-1 TS. In 1994, ANO began testing the ANO-1 fan/filtration unit (VSF-9) to the more restrictive ANO-2 TS requirements while continuing to test it to the ANO-1 requirements to ensure that it met the TS requirements of both units. It was not believed that 2VSF-9 should be tested to the less restrictive ANO-1 TS requirements. The ANO-2 surveillance test satisfies all of the testing requirements of the ANO-1 TS with the exception of relative humidity. 2VSF-9 was tested at 70 percent relative humidity, not 95 percent as required by the ANO-1 TS. Therefore, The 2VSF-9 surveillance did not meet the literal requirements of the ANO-1 TS. ANO-1 declared 2VSF-9 inoperable and entered a seven day TS action statement. A charcoal sample was taken and sent for laboratory analysis. Satisfactory results were received on March 15, 2VSF-9 was declared operable, and the action statement was exited. The root cause of this event was a misinterpretation of the requirements necessary to achieve TS compliance. It was believed that meeting the intent of the surveillance was sufficient to constitute compliance. Procedures were revised to require both fan/filtration units to be tested to the requirements of both units' TS.

**LICENSEE EVENT REPORT (LER)**  
**TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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| Arkansas Nuclear One - Unit 1 | 005000313         | 96             | 003               | 00              | 2 OF 4   |

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

**A. Plant Status**

At the time this condition was identified, Arkansas Nuclear One, Unit-1 (ANO-1) was operating at approximately 100 percent power. Reactor Coolant System (RCS)[AB] temperature was 579 degrees and pressure was 2155 psig.

**B. Event Description**

On March 13, 1996, it was identified by ANO personnel that the ANO-2 Control Room Ventilation/Filtration unit (2VSF-9), which is taken credit for in the ANO-1 Technical Specifications, was not tested to the literal requirements of the ANO-1 specifications.

The ANO-1 and ANO-2 Technical Specifications require that two independent circuits of the Control Room Emergency Air Conditioning and Isolation System (CREVS)[VI] be operable whenever reactor building integrity is required. Since both ANO units share a common control room, each unit credits the availability of the fan/filter unit of the other to meet the two circuit requirements of the specifications.

The operability requirements of the ANO-1 Technical Specifications stipulate, in part, that laboratory carbon sample analysis from the charcoal adsorber banks show  $\geq 90$  percent radioactive methyl iodide removal at a velocity within  $\pm 20$  percent of system design, 0.05 to 0.15 mg/cubic meter inlet iodide concentration,  $\geq 95$  percent relative humidity and  $\geq 125$  degrees Fahrenheit. The ANO-2 Technical Specifications require that the carbon sample analysis meet the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March, 1978. This guidance defines a test requiring 99.825 percent efficiency at laboratory conditions of 70 percent relative humidity and 80 degrees Celsius.

The differences in the surveillance test requirements for the two units were evaluated in 1989. ANO concluded at that time that each filtration unit should be proven operable by testing it to its corresponding Technical Specifications requirements. In 1991, ANO submitted a Technical Specifications amendment request to the NRC to change the ANO-1 specification to match that of ANO-2 to provide consistency. However, in 1993, that request was withdrawn in order to revise it in response to NRC questions and to make it more reflective of the Improved Standard Technical Specifications. The amendment request was resubmitted in April, 1995.

In 1994, ANO began testing the ANO-1 fan/filtration unit (VSF-9) to the ANO-2 requirements while continuing to test it to the ANO-1 requirements. This action was taken to ensure that the unit met the more restrictive ANO-2 requirements (99.825 percent efficient). It was not believed that 2VSF-9 should be tested to the less restrictive ANO-1 specification.

|  |  |                                    |                |   |                 |
|--|--|------------------------------------|----------------|---|-----------------|
| NRC FORM 366A<br>(5-92)  |  | U.S. NUCLEAR REGULATORY COMMISSION |                | APPROVED BY OMB NO. 3150-0104<br>EXPIRES 5/31/95  |                 |
| <b>LICENSEE EVENT REPORT (LER)</b><br><b>TEXT CONTINUATION</b> |  |                                    |                | ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503. |                 |
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

The March 1996, review identified that the ANO-2 surveillance test satisfies all of the testing requirements of the ANO-1 Technical Specifications with the exception of relative humidity. 2VSF-9 must meet higher efficiency requirements (99.825 percent) than the ANO-1 specification stipulates (90 percent); however, it is tested at 70 percent relative humidity, not 95 percent as required by the ANO-1 specification. Therefore, the ANO-2 surveillance does not meet the literal requirements of the ANO-1 Technical Specifications.

ANO-1 declared 2VSF-9 inoperable at 1808 on March 13 and entered the seven day action statement of Technical Specification 3.9.2. A charcoal sample was removed from 2VSF-9 and submitted for laboratory analysis. On March 15, laboratory analysis results were received documenting that the charcoal sample had tested to 99.87 percent efficient under the ANO-1 surveillance requirements. The fan/filtration unit was declared operable and the Technical Specifications action statement was exited at 1545 on March 15, 1996.

C. Root Cause

The root cause of this condition is attributed to a misinterpretation of the requirements necessary to achieve compliance with a Technical Specifications surveillance test. ANO believed that meeting the intent of the ANO-1 surveillance requirements by testing 2VSF-9 to the more restrictive ANO-2 requirements was sufficient to constitute compliance with the specification. However, ANO's current position is that both the intent and the literal wording of the specification must be met to achieve compliance.

D. Corrective Actions

Appropriate procedures were revised to require charcoal samples from each fan/filtration unit to be analyzed under the stipulated laboratory conditions of both the ANO-1 and 2 Technical Specifications.

A review of the ventilation/filtration system testing program will be conducted to ensure that no other Technical Specifications conflicts exist. This review will be completed by May 15, 1996.

E. Safety Significance

Failure to test the ANO-2 fan filtration unit to the less restrictive requirements of the ANO-1 Technical Specifications had no impact on the operability of the unit. Therefore, this condition is considered to be of no safety significance.

**LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION**

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

**F. Basis for Reportability**

The ANO-2 fan/filtration unit, which is credited by the ANO-1 Technical Specifications, was not tested in accordance with the literal wording of the ANO-1 specification. Therefore, this condition is reportable pursuant to 10CFR50.73(a)(2)(i)(B) as operation prohibited by the plant's Technical Specifications.

**G. Additional Information**

A previous similar event in which ANO concluded that meeting the intent of a surveillance requirement constituted compliance with the specification was reported in LER 50-313/96-001-00.

Energy Industry Identification System (EIIIS) codes are identified in the text as [XX].