NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES 8/31/85

# LICENSEE EVENT REPORT (LER)

| FACILITY NAME (1) | DOCKET NUMBER (2) | PAGE (3) |
|---|---|---|
| Sequoyah, Unit 1 | 0 5 0 0 0 3 2 7 | 1 OF 0 2 |

TITLE (4)

Water Pipes Not Supported With Seismic Hangers

| 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 NAMES | DOCKET NUMBER(S) |
| | | | | | | | | | | Sequoyah, Unit 2 | 0 5 0 0 0 3 2 8 |
| 0 5 2 4 | 8 5 | | 8 5 | – | 0 1 9 | – 0 0 | 0 6 1 7 | 8 5 | | | 0 5 0 0 0 |

| OPERATING MODE (9) | | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11) | | | |
|---|---|---|---|---|---|
| 4 | | 20.402(b) | 20.405(c) | 50.73(a)(2)(iv) | 73.71(b) |
| POWER LEVEL (10) | | 20.405(a)(1)(i) | 50.36(c)(1) | 50.73(a)(2)(v) | 73.71(c) |
| 0 1 0 1 0 | | 20.405(a)(1)(ii) | 50.36(c)(2) | 50.73(a)(2)(vii) | OTHER (Specify in Abstract below and in Text, NRC Form 366A) |
| | | 20.405(a)(1)(iii) | XX 50.73(a)(2)(i) | 50.73(a)(2)(viii)(A) | |
| | | 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 | TELEPHONE NUMBER |
|---|---|
| | AREA CODE |
| Glenn E. Duggin, Compliance Staff Engineer | 6 1 5 8 7 0 1 – 1 6 1 5 4 8 |

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

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

| SUPPLEMENTAL REPORT EXPECTED (14) | | EXPECTED SUBMISSION DATE (15) | MONTH | DAY | YEAR |
|---|---|---|---|---|---|
| YES (If yes, complete EXPECTED SUBMISSION DATE) | XX NO | | | | |

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

A design review has revealed that during a seismic event, a one-inch demineralized water pipe and a high pressure fire protection (HPFP) header could have failed. This failure could have caused water spray damage on motors and electrical control panels in the main control room air conditioning chiller system. The demineralized water pipe has been isolated, and there is ample time for repair if the HPFP header should fail. Since there was no seismic event, the subject piping retained its integrity and performed its intended function.

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NRC Form 366A (9-83)

U.S. NUCLEAR REGULATORY COMMISSION

# LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

| FACILITY NAME (1) | DOCKET NUMBER (2) | LER NUMBER (6) | | | PAGE (3) |
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| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | |
| Sequoyah, Unit 1 | 0 5 0 0 0 3 2 7 | 8 5 | — 0 1 9 | — 0 0 | 0 2 OF 0 2 |

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

Unit 1 in mode 4, 0 percent power, 360 psig, 208 degrees F.
Unit 2 in mode 1, 30 percent power, 2235 psig, 555 degrees F.

During a drawing review by TVA's Office of Engineering (OE), an apparent deficiency was found in the piping supports of two pipes that could affect the 'A' main control room (MCR) air conditioning chiller. A nonconformance report was initiated on May 1, 1985, when a review of design requirements verified that one pipe each in the mechanical equipment room, elevation 732' and 669' Control Building, is designed to be supported for position retention only and not for pressure boundary retention as required. This piping could break during a seismic event and the consequent water spray could damage motors and electrical control panels. A potential reportable occurrence report was written in accordance with Sequoyah Nuclear Plant's Standard Practice SQA 84 on May 24, 1985. This event was determined to be reportable at this time. A safety evaluation and justification for continued operation was also completed on May 24, 1985.

The first pipe is a one-inch demineralized water pipe on elevation 732' in the Control Building mechanical equipment room. It is not supported with a seismic category I hanger. The pipe could rupture in a seismic event and spray electrical equipment. Until a category I hanger can be installed, valve 1-HCV-59-512 has been closed and tagged to isolate this line to prevent spray down of equipment. Closure of this valve does not affect the operability of any safety-related equipment. The water pipe supplies water to a humidifier which has never been used.

The second pipe is a high pressure fire protection header on elevation 669' in the Control Building mechanical equipment room. During a seismic event, the start/stop switch, HS-31A-27B, would be sprayed with water and shorted out (damaged) if the pipe should rupture, therefore causing the MCR air chiller unit A-A to become inoperable. Analysis by OE indicates that 30 hours could lapse before the temperatures would rise enough to require the starting of the other air chiller. Plant experience indicates that greater than 72 hours is available before the air chiller is needed. There is available time to prepare a maintenance request, investigate the problem, repair or replace any damaged equipment, and return the air chiller to service.

A series of drawings that define areas where water sprinkler coverage or water spray coverage is required for fire protection is titled "Fire Protection Study-Fire Suppression System" and is numbered SK 1201 through 1206 and SK 1250 through 1254. These drawings were intended to serve as a guide for showing where piping containing water had to be seismically supported for pressure boundary retention to protect vital electrical equipment from water spray due to a broken pipe. The piping drawings, 47W491 and 47W492 series, were provided with heavy boundary lines to indicate the location of these pressure boundary retention areas. When these two pipes were drawn on the 47W prints referencing the SK series of prints, the designers and checkers failed to follow the supplemental fire protection design criteria and did not correctly revise the supplemental fire protection drawings to show pipe supports requirements. The drawing discrepancies involving both of these pipes will be corrected.

There was no effect on public health or safety.

Previous occurrences involving seismic events - SQRO-50-327/85005.

TENNESSEE VALLEY AUTHORITY
Sequoyah Nuclear Plant
Post Office Box 2000
Soddy Daisy, Tennessee 37379

June 17, 1985

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

Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT UNIT 1 - DOCKET NO. 50-327 - FACILITY OPERATING LICENSE DPR-77 - REPORTABLE OCCURRENCE REPORT SQRO-50-327/85019

The enclosed licensee event report provides details concerning two water pipes in the Control Building not supported properly for a seismic event. This event is reported in accordance with 10 CFR 50.73, paragraph a.2.i.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

P. R. Wallace
Plant Manager

Enclosure
cc (Enclosure):

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Suite 1500
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NRC Inspector, NUC PR, Sequoyah

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