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NRC Form 366 (9-83)

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U.S. NUCLEAR REGULATORY COMMISSION APPROVED OMB NO. 3150--0104 EXPIRES: 8/31/86

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DESCRIPTION OF EVENT

NRC Form 386A

This LER is being revised to change the scope of the corrective action and the corrective action due date.

On December 7, 1986, at 0820 CST with unit 2 in mode 5 (0 percent power, 330 psig, 122 degrees F), a containment ventilation isolation (CVI) (EIIS Code JM) occurred.

Operations personnel were responding to an instrument malfunction alarm for low sample line flow through the Containment Building lower compartment air monitor 2-RM-90-106. They were making adjustments to the sample line throttle valve on the radiation monitor (RM) in accordance with System Operating Instruction (SOI)-55-0M12-XA-55-12A, "Annunciator Response," when the CVI occurred.

Further investigation revealed that the charcoal filter for the iodine channel was partially clogged and that the roll filter paper for the particulate channel had run out. These filter problems restricted flow and produced the low flow alarm.

After the Operations personnel verified that no high levels of radiation existed, they performed recovery operations by realigning the air ventilation valves and the radiation monitor air sample valves.

CAUSE OF EVENT

The immediate cause of the CVI was a spike on the RM. Adjusting the sample line flow by the throttle valve caused the sample line flow switch to chatter generating electromagnetic interference (EMI) which initiated a high radiation signal.

Chemical Laboratory personnel's failure to replace a partially clogged charcoal filter and to allow the particulate paper to run out were the root causes of this event. The filters on this RM are checked daily by Chemical Laboratory personnel and are normally replaced as necessary. Technical Instruction (TI)-16, "Sampling Methods," gives instructions on the replacement of the filters. Chemical Laboratory personnel use "rules of thumb" in determining if a filter needs replacing. They visually inspect the charcoal filter and replace it when it appears dirty, and they replace the particulate filter when the roll is approximately two-thirds used. The same TI is used for replacing the filters on RMs for both units 1 and 2.

A contributing cause to this event could be the lack of arc suppression on the flow switch contacts which set up the EMI and results in the CVI. This problem had been previously identified, and corrective actions have already been established to address this problem.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

EXPIRES: 8/31/88

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ANALYSIS OF EVENT

WRC Form 386A

A CVI is an engineered safety feature (ESF) actuation and is reportable for all modes of operation in accordance with 10 CFR 50.73, paragraph a.2.iv.

Upon receipt of the CVI signal, all equipment functioned properly as the supply and exhaust valves that allow air to pass in and out of containment for ventilation closed and the air monitor sample valves closed. Since this was an inadvertent actuation of an ESF and no high radiation levels existed, there was no threat to plant personnel or to the general public. The effects of this event would have been the same for all modes of operation.

CORRECTIVE ACTION

A design change request has been approved to install capacitors and metal oxide variators to provide arc suppression for the RM. Addition of this arc suppression equipment should reduce the number of CVIs caused by EMI.

Chemical Laboratory personnel have been counseled on the importance of replacing filters in a timely manner, and TI-16 has been revised to provide guidelines for determining when roll filter replacement is needed. Additionally, the daily duty log sheets of TI-37, "Radiochemical Laboratory Sampling and Log Sheets," will be revised by October 31, 1987, to require the daily changeout of the prefilters and charcoal filters in the Containment Building upper and lower compartment air monitors 1(2)-RE-90-112 and 1'2)-RE-90-106, respectively.

ADDITIONAL INFORMATION

There have been 29 previous LERs reporting CVIs of which 5 were caused by personnel error and 14 were caused by EMI.

Events caused by personnel error were - SQR0-50-327/85039, SQR0-50-328/86008, 86002, 85011, and 84003.

Events caused by EMI were - SQR0-50-327/86022, 84058, 84027, 84022, 84020, 84012, 84003, 84001, SQR0-50-328/86005, 86003, 84011, 84006, 84002, and 84001.

These RMs are manufactured by General Atomic Company: Model No. RP-30.

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TENNESSEE VALLEY AUTHORITY Sequoyah Nuclear Plant Post Office Box 2000 USNRC-DS Soddy-Daisy, Tennessee 37379 1981 OCI 27 A 10: 15

October 21, 1987

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

Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT UNIT 2 - DOCKET NO. 50-328 - FACILITY OPERATING LICENSE DPR-79 - REPORTABLE OCCURRENCE REPORT SQR0-50-328/86011 REVISION 2

The enclosed revised licensee event report provides details concerning a containment ventilation isolation from electromagnetic interference on a radiation monitor due to personnel error. This event was reported in accordance with 10 CFR 50.73, paragraph a.2.iv, on January 6, 1987, and revised on April 20, 1987.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Nobles Acting Plant Manager

Enclosure cc (Enclosure):

> J. Nelson Grace, Regional Administrator U. S. Nuclear Regulatory Commission Suite 2900 101 Marietta Street, NW Atlanta, Georgia 30323

Records Center Institute of Nuclear Power Operations Suite 1500 1100 Circle 75 Parkway Atlanta, Georgia 30339

NRC Inspector, Sequoyah Nuclear Plant

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