LOSS OF OR DAMAGE TO FACILITY (43)

TYPE DESCRIPTION

PUBLICITY

SSUED DESCRIPTION (45)

NA

PDR ADDCK 05000327

PDR

NA

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Sequoyah Nuclear Plant

-100 4

LER SUPPLEMENTAL INFORMATION

SQRO-50-327/82112 Technical Specification Involved: 3.5.1.2

Reported Under Technical Specification: 6.9.1.13.b

Date of Occurrence: 09/11/82 Time of Occurrence: 1511 CST

Identification and Description of Occurrence:

On 09/11/82, sampling of the upper head injection (UHI) water accumulator indicated that the dissolved gas concentration was greater than the 80 standard cubic feet allowable limit. This event rendered the UHI system inoperable and the unit entered action statement (a) of LCO 3.5.1.2.

Conditions Prior to Occurrence:

Unit 1 in mode 3 at 0% Rx power.

Apparent Cause of Occurrence:

During review of operating experience on the UHI system, sampling and analytical techniques to determine the amount of dissolved gases in the water accumulator were found to be inadequate. Discussions with nuclear central office personnel, vendor personnel, and personnel from another utility with the UHI system led to the conclusion that accumulated data on UHI dissolved gases were unreliable. This led to resampling and reanalysis of the UHI water accumulator which resulted in declaring the UHI system inoperable.

Analysis of Occurrence:

From approximately April of 1980, the plant has operated with the UHI water to nitrogen accumulator rupture membrane broken. Periodic sampling and analysis of the UHI water during this time period indicated no significant accumulations of dissolved gases. During a review of UHI systems, sampling methods were questioned and after discussions with another utility, special tests were conducted using different sampling and analysis procedural techniques. These analyses showed dissolved gas concentrations to be above technical specification limits. The presence of excessive dissolved gases is attributed to the known failure of the rupture membrane between the water and nitrogen accumulators in combination with thermal mixing of the water in the tank. The RCS system pressure was reduced to 1800 psig and the UHI system was isolated at 1700 on 09/11/82.

Corrective Action:

Sampling and analytical procedures have been revised to use a more refined technique to assure accurate results.

During the present refueling outage, the UHI rupture membrane will be replaced prior to exceeding 1900 psig in mode 3.

Failure Data:

None.