ACCESSION #: 9807300244

NON-PUBLIC?: N

LICENSEE EVENT REPORT (LER)

FACILITY NAME: Quad Cities Unit One PAGE: 1 OF 4

DOCKET NUMBER: 05000254

TITLE: Control Room Emergency Air Conditioning Compressor

Tripped on Loss of Cooling Water During Monthly

Surveillance Due to Inadequate Configuration Control Due

to Miscommunication Between Operators.

EVENT DATE: 06/26/1998 LER #: 1998-017-00 REPORT DATE: 07/22/1998

OTHER FACILITIES INVOLVED: Quad Cities Unit Two DOCKET NO: 05000265

OPERATING MODE: POWER LEVEL: 100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR SECTION:

50.73(a)(2)(v)

LICENSEE CONTACT FOR THIS LER:

NAME: Charles Peterson, Regulatory TELEPHONE: (309) 654-2241

Affairs Manager, ext. 3609

COMPONENT FAILURE DESCRIPTION:

CAUSE: SYSTEM: COMPONENT: MANUFACTURER:

REPORTABLE TO EPIX:

SUPPLEMENTAL REPORT EXPECTED:

ABSTRACT:

On 06261998 at 1413, Unit 1 and Unit 2 were in Power Operation at approximately

100% power when the 2A Residual Heat Removal Service Water (RHRSW) pump was secured resulting in a loss of cooling water to the B-Train Control Room Air Conditioning Compressor and causing the compressor to trip. The Unit 1 Administrative Nuclear Station Operator (ANSO), who was coordinating a monthly surveillance for the emergency ventilation system, believed that Service Water was aligned to provide cooling when he informed a Unit 2 ANSO that the RHRSW pump could be secured. An Equipment Attendant (EA) who was performing in-plant steps for the surveillance had aligned the RHRSW system to provide cooling instead. The procedure allowed either Service Water or RHRSW to provide cooling following an initial flush with RHRSW and the EA entered "NA" for the Service Water alignment as he believed RHRSW was to be used.

The cause of this event was miscommunication between the ANSO and EA related to both the expected alignment during the prejob brief and the actual steps completed following completion of the portion of the procedure aligning cooling water. Corrective actions included counseling for both the ANSO and EA, increased supervisory review when procedure steps are marked "NA", and changes to the affected procedure.

The safety significance of this event is minimal. Both sources of cooling water remained available to the compressor if the Control Room emergency ventilation system was required to be initiated and the A-Train of Control Room ventilation was also available.

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PLANT AND SYSTEM IDENTIFICATION:

General Electric - Boiling Water Reactor - 2511 MWt rated core thermal

power.

EVENT IDENTIFICATION: Control Room Emergency Air-Conditioning Compressor

Tripped on Loss of Cooling Water During Monthly Surveillance Due to

Inadequate Configuration Control Due to Miscommunication Between Operators.

A. CONDITIONS PRIOR TO EVENT:

Unit: 1 Event Date: 06261998 Event Time: 1413

Reactor Mode: 1 Mode Name: Power Operation Power Level: 100%

Unit: 2 Event Date: 06261998 Event Time: 1413

Reactor Mode: 1 Mode Name: Power Operation Power Level: 100%

This report was initiated by Licensee Event Report 254/98-017

Power Operation (1) - Mode switch in the RUN position with average reactor coolant temperature at any temperature.

B. DESCRIPTION OF EVENT:

On 06261998 at approximately 0700, Unit 1 and Unit 2 were in Power Operation at approximately 100% power. A prejob brief was held for the performance of QCOS 5750-02, "Control Room Emergency Filtration System Monthly Test". The Unit One Administrative Nuclear Station Operator (ANSO) conducted the brief in the Control Room with the Unit 1 Supervisor and the assigned Equipment Attendant (EA) present. The Unit One ANSO independently briefed the Unit Two ANSO. In this surveillance procedure, a Residual Heat Removal. Service Water (RHRSW) pump is started to flush out the Control Room Heating, Ventilation and Air Conditioning (14VAC) [VI] "B" train Refrigeration Condensing Unit (RCU). Following the flush, the procedure may be performed using either Service Water (normal) or RHRSW (emergency) to provide cooling, although Service Water is normally used in routine performance. Step H.1.1 states, if RHRSW is not to be used for the surveillance, to stop the RHRSW pump. The following step, H.2.a states, if RHRSW is to be used for cooling and is not running to then start a RHRSW pump. Step H.2.b states if Service Water is to be used for cooling, to ensure the cooling water selector switch was in "Normal." During the brief, the Unit 1 ANSO commented that the step about securing the RHRSW pump

(H.1.1) and then restarting the pump again in the next step (H.2.a) appeared confusing. The ANSO appropriately entered "NA" for step H.2.a, as this step is infrequently needed to be performed. The ANSO did not specifically state whether Service Water or RHRSW would be used for cooling, but requested the EA to call him at step H.1.1.

On 06261998 at 0755, the 2A RHRSW pump was started for flushing the RCU at the start of QCOS 5750-02. After the completion of the flushing portion of the procedure, the EA recalled the ANSO comment during the brief about stopping and restarting the RHRSW pump and misunderstood that RHRSW would be used for cooling. The EA had last performed the surveillance about a year ago and was not aware that Service Water was preferred for cooling during the actual run. The EA marked step H.1.1 and step H.2.b "N/A" based on his

misunderstanding that the RHRSW system was to remain on for cooling. This allowed the cooling water selector switch to remain in "emergency" and the 2A RHRSW pump to continue running. The EA called in to the ANSO that he had completed the surveillance through step H.2.b but did not communicate to the Unit 1 ANSO the additional steps he had marked "N/A". The Control Room HVAC Train B was then started as directed by procedure.

At approximately 1400, during preparations for shift turnover, the Unit 2 ANSO questioned the Unit 1 ANSO if it was still necessary to have the 2A

RHRSW pump running. The Unit One ANSO believed he had either forgotten to request the pump be stopped or that a Unit 2 NSO had not stopped the pump when requested earlier. The Unit 1 ANSO replied that the 2A RHRSW pump could be secured since the flush had been completed. The Unit 2 ANSO then secured the 2A RHRSW pump at 1413. The RCU eventually tripped on high discharge pressure due to the loss of cooling water. At 1545, Operators investigating the warming temperatures in the Control Room found the RCU tripped, which was then declared inoperable as of 1445. The "B" Train of the CR HVAC was secured due to the RCU being tripped and the "A" Train of the CR HVAC started. On 06261998 at 1830, the RCU of the "B" Train of the CR 14VAC was declared inoperable and a 4 hour Event Notification call was made.

CAUSE OF THE EVENT:

The cause of this event is miscommunication by both the ANSO and EA during the prejob brief and following the completion of the activity. Although there were two methods of providing cooling, the use of Service Water was not specifically mentioned in the brief or verified in the phone conversation following the completion of the steps. In addition, although it was permissible for the EA to enter "NA" for a conditional step, the EA should have communicated this action back to the Control Room.

D. SAFETY ANALYSIS:

The safety significance of this event was minimal. The B-Train of Control Room HVAC is a manually initiated system and both sources of cooling water

were available if the manual initiation was made necessary and the A-Train of Control Room ventilation was also available.

E. CORRECTIVE ACTIONS:

Corrective Actions Completed:

The affected EA and NSO were counseled on this event.

Operations shift personnel were notified through a Daily Order Book entry that Unit Supervisors were to initial "NA" procedure steps for steps normally performed by the licensed operators and the Shift Supervisors were to initial "NA" steps normally performed by non-licensed operators.

Corrective Actions to be Completed:

QCOS 5750-02 will be revised to clarify the sequence and preference for cooling with Service Water by 08251998 (Operations, NTS254180SCAQ0001701).

F. PREVIOUS OCCURRENCES:

A search conducted for similar events related to miscommunications over the last 2 years identified the following event:

265\97-010, Obtained a Once Every Eight Hour Compensatory Offgas Hydrogen Sample 30 Minutes Late Due to a Communication Error During Shift Turnover Between Two Chemistry Technicians.

This previous event was an isolated error within the Chemistry Department and the corrective actions did not impact the 06261998 event which was restricted to the Operations Department.

G. COMPONENT FAILURE DATA:

Not applicable.

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