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CHAMBERS,R.H. Carolina Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 92-019-01:on 920924,discovered potential for TS violation due to inadequately defined operability requirements for WCCU-1A.Plant procedures will be revised to provide WCCU sys design requirements.W/921223 ltr.

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United States Nuclear Regulatory Commission
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H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-2612
LICENSE NO. DPR-23
LICENSEE EVENT REPORT NO. 92-019-01

Gentlemen:

The enclosed Supplemental Licensee Event Report (LER), is submitted in accordance with 10 CFR 50.73 and NUREG 1022, Supplements No. 1 and 2. This report describes additional information concerning the cause and corrective actions for the event. The revised portions are identified with a vertical bar in the right hand margin.

Very truly yours,

Rex H. Chambers

R. H. Chambers
General Manager
H. B. Robinson S. E. Plant

RDC:sgk

Enclosure

cc: Mr. S. D. Ebneter
Mr. L. W. Garner
INPO

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NRC FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95

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LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2	05000 261	1 OF 3

TITLE (4) POTENTIAL FOR TECHNICAL SPECIFICATION VIOLATION DUE TO INADEQUATELY DEFINED OPERABILITY REQUIREMENTS FOR WCCU-1A.

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
09	24	92	92	-- 019 --	01					05000
									FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	N
POWER LEVEL (10)	100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)

	20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)
	20.405(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(c)
	20.405(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)	X	OTHER
	20.405(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		(Specify in Abstract below and in Text, NRC Form 366A)
	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 (Include Area Code)
DAVID CROOK, SENIOR SPECIALIST-COMPLIANCE	(803) 383-1179

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).	X NO				

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

On September 24, 1992, during an evaluation of Control Room Air Conditioning Systems Water Cooled Condensing Unit (WCCU) operation, licensee Technical Support Engineers discovered that due to the system's design, operability of the unit should have been considered on September 18, 1992, when Unit 2 was taken above 200 degrees during startup activities. The conservative position was then taken that, by not questioning operability of the equipment under such circumstances, a violation of Technical Specification (TS) 3.15.2 was created.

A Root Cause Investigation was initiated to document this condition and to determine if the requirements for system operability are adequately defined. The results of the investigation concluded that the system was in fact operable when the plant was taken above 200 degrees F, and no violation of Technical Specifications occurred. However, the investigation identified that existing procedures did not adequately provide system design and operating information. This report is provided for information to document the results of the investigation for this potential Technical Specification violation.

I. DESCRIPTION OF EVENT

On August 24, 1992, H. B. Robinson Unit No. 2 was in hot shutdown condition and preparing for startup following maintenance activities. During unrelated troubleshooting activities on the Water Cooled Condensing Unit (WCCU) for the Control Room Air Conditioning System, licensee Corporate Engineering personnel noted that the systems "A" train (WCCU-1A) was operating with a high suction pressure. In addition, they found that the "cut-in" setpoint for the systems "B" train (WCCU-1B) was too low, causing the system to cycle. During troubleshooting activities, it was decided that the Suction Pressure Controller for each unit should be replaced. Because at the time parts were only available for one unit, Engineering personnel decided to allow WCCU-1A to continue to run in its current condition since it was adequately controlling temperature and humidity in the Control Room, and to replace the Suction Pressure Controller for WCCU-1B.

On August 25, 1992, Unit No. 2 was taken to cold shutdown condition because the Limiting Condition for Operation for the Safety Injection System could not be met. On September 18, 1992, repair activities had been completed for the Safety Injection System, and at 1642 hours Unit No. 2 was heated up above 200 degrees F.

On September 21, 1992, WCCU-1A tripped. On September 22, 1992, Operations personnel initiated an Operability Determination due to a High Return Air Temperature of 77 degrees F. Investigation of the concern discovered a failure of the internal components of the WCCU1-A compressor. The unit was declared inoperable, a new compressor was installed, and the unit was returned to service on September 23. During evaluation of the system for the Operability Determination, licensee Technical Support Engineers discovered that the WCCU was designed such that both cylinders must be operable to carry the maximum load requirements under accident conditions for the Control Room. Since the second cylinder on WCCU-1A was not functioning properly, the Unit was initially considered not have been operable on September 18, 1992, when Unit 2 was taken above 200 degrees during startup. As such, this condition would constitute a violation of Technical Specification (TS) 3.15.2, which requires both trains of the Control Room Air Conditioning System to be operable prior to exceeding 200 degrees. However, subsequent evaluation determined that WCCU-1A was operating normally during the time in question, and maintained the Control Room temperature within the temperature controller setpoint span. Therefore, WCCU-1A was operational on September 18 when the reactor exceeded 200 degrees F, and was not inoperable until failure of the unloader valve on September 21, 1992.

I. CAUSE OF EVENT

Event investigation has been completed, and corrective actions formulated. The investigation has identified that Field Revision 85 to Plant Modification M-994, which installed the Control Room Air Conditioning System, did not adequately describe the design of the system and its requirements for two cylinders to be operable at all times. Therefore, no procedural changes were made to incorporate action statements for this logic, and subsequently no standards for Operator action during periods of equipment malfunction were provided.

III. ANALYSIS OF EVENT

This condition had no adverse impact on safety. The basis for TS 3.15.2 states that operability of the Control Room Air Conditioning System ensures that the Control Room can remain habitable during an accidental atmospheric radiation release. The TS does not address the cooling function as a requirement for Control Room habitability. The Safety Evaluation Report provided with TS Amendment No. 134, which revised specification 3.15.2, states in part that the safety function of the system is accomplished by providing fully redundant safety-related active components.

The cooling system was conservatively designed with each train capable of producing forty tons of service. With the compressors modified to function on two of four cylinders, the cooling capacity of the system was reduced to twenty tons each. Automatic swap over logic from the priority unit to the standby unit was provided in the design when the priority unit shuts down. Design calculations for the Control Room Air Conditioning System were based on the capacity of the originally installed cooling units, plus heat loading for equipment, and a safety factor of ten percent, for a total capacity of seventeen tons.

IV. CORRECTIVE ACTIONS

Plant procedures will be revised to provide WCCU system design requirements and incorporate the necessary action statements for system operability.

V. ADDITIONAL INFORMATION

None