



December 21, 2000

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Operating Licenses DPR-58 and DPR-74
Docket Nos. 50-315 and 50-316

Document Control Manager:

In accordance with the criteria established by 10 CFR 50.73 entitled Licensee Event Report System, the following report is being submitted:

LER 315/98-018-03, "Retraction -- Use of Reactor Coolant Pump Seals as Alternate Boron Injection Flow Path"

No commitments were identified in this submittal.

Sincerely,

A handwritten signature in black ink that reads 'Joseph E. Pollock'.

Joseph E. Pollock
Plant Manager

/bwo
Attachment

c: J. E. Dyer, Region III
D. Hahn
T. P. Noonan
A. C. Bakken III
R. P. Powers
R. Whale
NRC Resident Inspector
Records Center, INPO

IF 22

LICENSEE EVENT REPORT (LER)

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

Estimated burden per response to comply with this mandatory information collection request 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001 and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FACILITY NAME (1) Donald C. Cook Nuclear Plant Unit 1	DOCKET NUMBER (2) 05000-315	PAGE (3) 1 OF 2
---	---------------------------------------	---------------------------

TITLE (4)
Retraction - Use of Reactor Coolant Pump Seals as Alternate Boron Injection Flow Path

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
05	05	1998	1998	018	03	12	21	2000	D.C. Cook Plant Unit 2	05000-316
OPERATING MODE (9) Defuel POWER LEVEL (10) N/A										
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)										
			20.2201(b)		20.2203(a)(2)(v)			50.73(a)(2)(i)		50.73(a)(2)(viii)
			20.2203(a)(1)		20.2203(a)(3)(i)			50.73(a)(2)(ii)		50.73(a)(2)(x)
			20.2203(a)(2)(i)		20.2203(a)(3)(ii)			50.73(a)(2)(iii)		73.71
			20.2203(a)(2)(ii)		20.2203(a)(4)			50.73(a)(2)(iv)		<input checked="" type="checkbox"/> OTHER Retraction
			20.2203(a)(2)(iii)		50.36(c)(1)			50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iv)		50.36(c)(2)			50.73(a)(2)(vii)		

LICENSEE CONTACT FOR THIS LER (12)

NAME Brenda W. O'Rourke, Compliance Engineer	TELEPHONE NUMBER (Include Area Code) (616) 465-5901 X2604
--	---

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE).	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
--	--	--------------------------------------	-------	-----	------

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

On March 6, 1998, it was identified that Updated Final Safety Analysis Report (UFSAR) Section 9.2.3 recognized the Reactor Coolant Pump (RCP) seals as an alternate emergency boration flow path, using the Boric Acid Storage Tank (BAST) as the injection source. The BAST is maintained at a temperature of 165 degrees Fahrenheit (F), however, this temperature is above the vendor's recommended maximum RCP seal water injection temperature of 150 degrees F. Extended use of this flow path could result in the seal water injection temperatures exceeding the recommended maximum, thus impacting RCP seal operation. After evaluation of the potential impact of this condition, it was determined that this represented an unanalyzed condition, reportable under 10CFR50.72(b)(2)(i), and an ENS notification was made to the NRC on April 1, 1998. Accordingly, interim LER 315/98-018-00 was submitted on April 13, 1998, in accordance with 10CFR50.73(a)(2)(ii).

Based on further investigation, it was determined that the RCP seal injection line was not designed to provide the required inventory of borated water during emergency boration operation. Neither system design basis documentation nor plant operating procedures support the use of the RCP seal injection line as an alternate emergency boration flowpath. As such, no reportable condition exists. A UFSAR change request has been submitted to clarify which flowpaths are required for emergency boration. This request will be processed in accordance with CNP's 10 CFR 50.59 process. Based on the above, LERs 315/98-018-00, 315/98-018-01 and 315/98-018-02 are being retracted.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Donald C. Cook Nuclear Plant Unit 1	05000-315	1998	018	03	2 OF 2

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

Conditions Prior To Event

Unit 1 was in Mode 5, Cold Shutdown
Unit 2 was in Mode 5, Cold Shutdown

Description Of The Event

On March 6, 1998, it was identified that Updated Final Safety Analysis Report (UFSAR) Section 9.2.3 recognizes the Reactor Coolant Pump (RCP) seals as an alternate emergency boration flow path, using the Boric Acid Storage Tank (BAST) as the injection source. The BAST is maintained at a temperature of 165 degrees Fahrenheit (F), however, this temperature is above the vendor's recommended maximum RCP seal water injection temperature of 150 degrees F. Extended use of this flow path could result in the seal water injection temperatures exceeding the recommended maximum, impacting RCP seal operation. After evaluation of the potential impact of this condition on the RCP seals, it was determined that this condition was reportable as an unanalyzed condition in accordance with 10CFR50.72(b)(2)(i), and an ENS notification was made to the NRC on April 1, 1998. As such, interim LER 50-315/98-018-00 was submitted on April 13, 1998, in accordance with 10CFR50.73(a)(2)(ii).

Based on further investigation, it was determined that the RCP seal injection line was not designed to provide the required inventory of borated water during emergency boration operation. Neither system design basis documentation nor plant operating procedures support the use of the RCP seal injection line as an alternate emergency boration flowpath. For this reason, LERs 50-315/98-018-01 and 50-315/98-018-02 are being retracted.

Basis for Retraction

UFSAR Section 9.2.3, which describes the malfunction analysis for CVCS, states that:

"At least two separate and independent flow paths are available for reactor coolant boration; the CCP line, or the RCP seal injection line. The malfunction or failure of one component does not result in the inability to borate the RCS. An alternate flow path is therefore available for emergency boration of the RCS. As a backup to the boration system, operators can align the RWST outlet to the suction of the CCPs."

The statement suggests that there are two flowpaths available for emergency boration: the normal CVCS charging line and the RCP seal injection lines. However, this statement is inaccurate because neither the system design nor the plant operating procedures support the use of the RCP seal injection pathway as a credible alternate emergency boration flowpath.

Technical Specification (TS) 3.1.2.2 requires two boration flow paths to be available to provide the required inventory of borated water to meet the temperature and solubility limits contained in Donald C. Cook Nuclear Plant's (CNP) accident analysis. The first flowpath is from the BAST, via a boric acid transfer pump, to the suction of a CCP, which injects borated water into the Reactor Coolant System (RCS) via the normal charging and letdown line. The second boration flowpath is from the Refueling Water Storage Tank (RWST) to the suction of a CCP, which injects into the RCS via the normal charging and letdown line.

CNP's reactivity control systems were designed to Criterion 27, "Redundancy of Reactivity Control" of the Atomic Energy Commission's proposed General Design Criteria. Criterion 27 states that at least two independent reactivity control systems, preferably of different principles, shall be provided. This design requirement is accomplished via the rod control system and emergency boration. These reactivity control systems are independent of each other and designed to meet single failure criteria.

In summary, the RCP seal injection line was never designed as an emergency boration flowpath. As such, the plant has operated within its design and licensing basis, and no reportable condition exists. A UFSAR change request has been submitted to clarify which flowpaths are required for emergency boration. This UFSAR request will be processed in accordance with CNP's 10 CFR 50.59 process. Based on the above, LERs 315/98-018-00, 315/98-018-01 and 315/98-018-02 are being retracted.