



June 30, 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 315/2000-005-00, "Control of Auxiliary Building Crane Main Load Block Over Spent Fuel Pool".

The following commitments were identified in this submittal:

- Procedure 12-MHP 4030.048.001, "Auxiliary Building Crane Interlock Verification," will be revised to include guidance to verify that the SFP ventilation system is operable as required by TS 3.9.12, or if not operable, that the main load block be de-energized.
- Training will be provided to Operations personnel relative to TS 3.9.12 and operation of the auxiliary building cranes.
- A license amendment to delete the footnote to Technical Specification 3.9.12 will be submitted following the restart of Unit 1.

Should you have any questions regarding this correspondence, please contact Mr. Robert C. Godley, Director, Regulatory Affairs, at 616/465-5901, extension 2698.

Sincerely,

A handwritten signature in black ink, appearing to read 'A. Bakken III', written over a white background.

A. Christopher Bakken, III
Site Vice President

/mbd
Attachment

c: J. E. Dyer, Region III
R. C. Godley
D. Hahn
W. J. Kropp
R. P. Powers
R. Whale
NRC Resident Inspector
Records Center, INPO

IED2

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: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-8 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

FACILITY NAME (1) Donald C. Cook Nuclear Plant Unit 1		DOCKET NUMBER (2) 05000-315	PAGE (3) 1 of 3
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TITLE (4)
Control of Auxiliary Building Crane Main Load Block Over Spent Fuel Pool

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																																																																	
06	04	2000	2000	-- 005 --	00	06	30	2000	Cook Plant Unit 2	05000-316																																																																	
OPERATING MODE (9) -- THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)																																																																											
<table border="0"> <tr> <td colspan="3">POWER LEVEL (10) 00</td> <td colspan="2">20.2201 (b)</td> <td colspan="3">20.2203(a)(2)(v)</td> <td colspan="2"><input checked="" type="checkbox"/> 50.73(a)(2)(i)</td> <td colspan="1">50.73(a)(2)(viii)</td> </tr> <tr> <td colspan="3"></td> <td colspan="2">20.2203(a)(1)</td> <td colspan="3">20.2203(a)(3)(i)</td> <td colspan="2">50.73(a)(2)(ii)</td> <td colspan="1">50.73(a)(2)(x)</td> </tr> <tr> <td colspan="3"></td> <td colspan="2">20.2203(a)(2)(i)</td> <td colspan="3">20.2203(a)(3)(ii)</td> <td colspan="2">50.73(a)(2)(iii)</td> <td colspan="1">73.71</td> </tr> <tr> <td colspan="3"></td> <td colspan="2">20.2203(a)(2)(ii)</td> <td colspan="3">20.2203(a)(4)</td> <td colspan="2">50.73(a)(2)(iv)</td> <td colspan="1">OTHER</td> </tr> <tr> <td colspan="3"></td> <td colspan="2">20.2203(a)(2)(iii)</td> <td colspan="3">50.36(c)(1)</td> <td colspan="2">50.73(a)(2)(v)</td> <td colspan="1" rowspan="2">Specify in Abstract below or in NRC Form 366A</td> </tr> <tr> <td colspan="3"></td> <td colspan="2">20.2203(a)(2)(iv)</td> <td colspan="3">50.36(c)(2)</td> <td colspan="2">50.73(a)(2)(vii)</td> </tr> </table>											POWER LEVEL (10) 00			20.2201 (b)		20.2203(a)(2)(v)			<input checked="" type="checkbox"/> 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)		OTHER				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)	
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LICENSEE CONTACT FOR THIS LER (12)										
NAME M. B. Depuydt, Regulatory Affairs							TELEPHONE NUMBER (Include Area Code) 616 / 465-5901, x1589			

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)					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 June 28, 1999, the Spent Fuel Pool (SFP) ventilation system was declared operable, but degraded because the system cannot react quickly enough to a high radiation signal to close the charcoal filter bypass dampers and prevent radioactive gases from a fuel handling accident from being released to atmosphere without passing through the charcoal filters. To maintain the system in an operable status, compensatory actions were required. These actions included placing the SFP ventilation system in the charcoal filter mode of operation prior to movement of fuel or any load within or over the SFP, and procedure changes. On June 4, 2000, during performance of crane interlock testing, the east Auxiliary Building crane was operated over the SFP without the SFP ventilation system in the charcoal filter mode of operation as required by the compensatory actions, and without the main load block de-energized as required by Technical Specification (TS) 3.9.12 footnote. On June 5, 2000, this condition was determined to be reportable in accordance with 10 CFR 50.73(a)(2)(i)(B), as a condition prohibited by TS.

The apparent cause for this event is the failure to establish adequate administrative controls for the degraded condition, with a contributing cause of an operator knowledge weakness. The crane interlock verification procedure will be revised, training will be provided to Operations personnel relative to the requirements of TS 3.9.12, and a license amendment request will be submitted to delete the TS 3.9.12 footnote.

Because the Auxiliary Building cranes are now single failure proof, under the provisions of NUREG-0612 the load blocks need not be considered heavy loads. Based on the single failure proof design of the cranes, the "+" footnote is no longer appropriate, and the event had no safety significance.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

FACILITY NAME (1)	DOCKET NUMBER(2)	LER NUMBER (6)				PAGE (3)
		YEAR	SEQUENTIAL NUMBER		REVISION NUMBER	
		2000	--	005	--	

Donald C. Cook Nuclear Plant Unit 1

05000-315

2 of 3

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

Conditions Prior to Event

Unit 1 was defueled
Unit 2 was in Mode 4, Hot Shutdown

Description of Event

On June 28, 1999, the SFP ventilation system was declared operable, but degraded. As a result of the degraded condition, to maintain the system in an operable status, compensatory actions were required. These actions required the placement of the SFP ventilation system in the charcoal filter mode of operation, prior to movement of fuel or any load within or over the SFP. In addition, several fuel handling and Auxiliary Building ventilation procedures were revised to require placement of the SFP ventilation system in the charcoal filter mode of operation prior to movement of fuel or any load within or over the SFP. This requirement is to ensure that in the event of a fuel handling accident, no unfiltered fission products will be released to the environment through the SFP ventilation exhaust system. Investigation determined the system to be in a degraded condition because the system was not capable of detecting a high radiation signal and closing the charcoal filter bypass dampers fast enough to prevent all of the radioactive gases from a fuel handling accident from being released to the atmosphere without being passed through the charcoal filters, which is taken credit for in the current offsite dose analysis.

On June 4, 2000, during performance of procedure 12 MHP-4030.048.001, "Auxiliary Building Crane Interlock Verification," it was identified that the east Auxiliary Building crane was being operated over the Spent Fuel Pool (SFP) with the main load block energized and without the SFP ventilation system in the charcoal filter mode of operation. Technical Specification (TS) 3.9.12, "Storage Pool Ventilation System," Action Statement requires that "with no fuel storage pool exhaust ventilation system operable, suspend all operations involving movement of fuel within the storage pool or crane operation with loads over the storage pool until at least one SFP exhaust ventilation system is restored to operable status." The "+" footnote associated with the TS Action Statement states: "This does not include the main load block. For purposes of this specification, a de-energized main load block need not be considered a crane load." The NRC Safety Evaluation Report which incorporated the "+" footnote into the TS concluded that by de-energizing the main hook, the load block becomes a passive, integral component of the Auxiliary Building crane and need not be considered a heavy load.

Since movement of the Auxiliary Building crane over the SFP occurred without the main load block de-energized as required by TS 3.9.12, and without the SFP ventilation system in the charcoal filter mode of operation as required by the compensatory measures, this condition was determined to be reportable in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by TS.

This is a single example of violation of the requirements of TS 3.9.12 since the "+" footnote was revised into TS. It is possible that there were other instances where the requirement was not met, however, this is the only documented one.

Cause of Event

The apparent cause for this event is failure to establish adequate administrative controls for the degraded condition of the SFP ventilation system. Specifically, there was no procedural guidance in procedure 12 MHP-4030.048.001 to ensure operability of the SFP ventilation exhaust system when operating the Auxiliary Building crane over the spent fuel pool. In addition, no guidance was provided during performance of the procedure to ensure that the main load block was de-energized as required by TS 3.9.12.

Contributing to this event is an operator knowledge weakness regarding the Auxiliary Building cranes. Although aware that no loads were to be carried over the SFP, operators were not aware that an energized main block had to be considered a load in accordance with TS 3.9.12.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

FACILITY NAME (1)	DOCKET NUMBER(2)	LER NUMBER (6)				PAGE (3)
		YEAR	SEQUENTIAL NUMBER		REVISION NUMBER	
		2000	--	005	--	

Donald C. Cook Nuclear Plant Unit 1

05000-315

3 of 3

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

Analysis of Event

The spent fuel pool ventilation system at the Donald C. Cook Nuclear Plant (CNP) consists of four supply fans and two 100% capacity exhaust fans. The two exhaust fans draw air from the spent fuel pool area through a common filter train that contains both HEPA and charcoal filters. Under normal conditions, varying numbers of supply fans and one exhaust fan would be operating. Only one exhaust fan at a time may operate because of limitations on iodine residence time in the filters. The exhaust fan would be drawing air through the filter unit, but the charcoal filters would be bypassed. In the event of a high-radiation signal from the spent fuel pool monitor, all supply fans would shut down and the charcoal filter bypass would be defeated. These actions help to mitigate a fuel-handling accident by minimizing unfiltered leakage out of the spent fuel pool area.

The East Auxiliary Building crane, located in the Auxiliary Building spent fuel pool area, is the primary crane for moving equipment into and out of the Auxiliary Building. This crane has two hooks, a main hook and an auxiliary hook. Both hooks have associated load blocks. The load block of the main hook weighs approximately 10 tons, and the auxiliary hook weighs approximately 3,200 pounds.

The "+" footnote was incorporated into Unit 1 and 2 TS 3.9.7 in 1986, to allow for movement of the main load block over the SFP to allow continued operation of the crane in support of refueling activities, and completion of an analysis for a postulated drop of the main load block over the SFP. In 1987, the main load block drop analysis was submitted to the NRC, and the "+" footnote was subsequently deleted from TS 3.9.7 on December 17, 1987. As part of CNP's 1988 steam generator repair project, both the east and west Auxiliary Building cranes were re-designed under the provisions of the NUREG-0554, "Single Failure Proof Cranes for Nuclear Power Plants," dated 5/1/79, to be single failure proof. NUREG-0612, "Control of Heavy Loads at Nuclear Power Plants," Section 5.1.2 exempts single failure proof cranes from the requirements of a load drop analysis. Because the Auxiliary Building cranes are single failure proof, the load blocks are not considered to be heavy loads under NUREG-0612.

The Auxiliary Building cranes are now single failure proof under the provisions of NUREG-0612; therefore, the load blocks are no longer considered heavy loads. Because of the single failure proof design of the cranes, the "+" footnote is no longer appropriate. Although the main load block was moved over the SFP without the load block de-energized, and without the SFP ventilation system operable as required by TS 3.9.12 footnote, this condition has no safety significance.

Corrective Actions

On June 5, 2000, the main load block was de-energized, and a clearance was placed on the Auxiliary Building crane to ensure that the main load block remains de-energized until the SFP ventilation system is returned to an operable status.

Procedure 12-MHP 4030.048.001, "Auxiliary Building Crane Interlock Verification," will be revised to include guidance to verify that the SFP ventilation system is operable as required by TS 3.9.12, or if not operable, that the main load block be de-energized.

Training will be provided to Operations personnel relative to TS 3.9.12 and operation of the Auxiliary Building cranes.

A license amendment to delete the footnote to TS 3.9.12 will be submitted following the restart of Unit 1.

Previous Similar Events

None