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August 2, 2002

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

Operating Licenses DPR-58
Docket Nos. 50-315

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 315/2002-006-00: "Switchyard Fire Results in Essential Service Water System being Inoperable"

No new commitments are identified in this submittal.

Should you have any questions regarding this correspondence, please contact Mr. Gordon P. Arent, Manager, Regulatory Affairs, at (616) 697-5553.

Sincerely,


Joseph E. Pollock
Site Vice President

INJ/pae

Attachment

IE22

c: G. P. Arent
A. C. Bakken
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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 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose 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.

1. FACILITY NAME Donald C. Cook Nuclear Plant Unit 1	2. DOCKET NUMBER 05000-315	3. PAGE 1 of 3
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4. TITLE
Switchyard Fire Results in Violation of Technical Specification 3.0.5

5. EVENT DATE			6. LER NUMBER				7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER	
06	12	2002	2002	-- 006 --	00	08	02	2002	Unit 2	05000-316	
									FACILITY NAME	DOCKET NUMBER	

9. OPERATING MODE	1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)								
10. POWER LEVEL	69%	20.2201(b)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)					
		20.2201(d)	20.2203(a)(4)	50.73(a)(2)(iii)	50.73(a)(2)(x)					
		20.2203(a)(1)	50.36(c)(1)(i)(A)	50.73(a)(2)(iv)(A)	73.71(a)(4)					
		20.2203(a)(2)(i)	50.36(c)(1)(ii)(A)	50.73(a)(2)(v)(A)	73.71(a)(5)					
		20.2203(a)(2)(ii)	50.36(c)(2)	50.73(a)(2)(v)(B)	OTHER Specify in Abstract below or in NRC Form 366A					
		20.2203(a)(2)(iii)	50.46(a)(3)(ii)	50.73(a)(2)(v)(C)						
		20.2203(a)(2)(iv)	50.73(a)(2)(i)(A)	50.73(a)(2)(v)(D)						
		20.2203(a)(2)(v)	X 50.73(a)(2)(i)(B)	50.73(a)(2)(vii)						
		20.2203(a)(2)(vi)	50.73(a)(2)(i)(C)	50.73(a)(2)(viii)(A)						
		20.2203(a)(3)(i)	50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(B)						

12. LICENSEE CONTACT FOR THIS LER

NAME I. N. Jackiw, Compliance Engineer	TELEPHONE NUMBER (Include Area Code) (616) 465-5901, x 1602
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13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
X	EA	XTC	Alsthom	Y					

14. SUPPLEMENTAL REPORT EXPECTED				15. EXPECTED SUBMISSION DATE		
YES (If Yes, complete EXPECTED SUBMISSION DATE).	X	NO		MONTH	DAY	YEAR

16. Abstract (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)
 On June 12, 2002, at 1345 hours, the "BC" 34.5 kilovolt (kV) circuit breaker opened and a trouble alarm for the TR101CD reserve auxiliary transformer was received in the control room. This was caused by an explosion in the 345 kV switchyard and oil fire in the "L" switchyard output feeder breaker. This resulted in the loss of the preferred offsite power source to the Unit 1 East Essential Service Water (ESW) pump. Since the Unit 2 East ESW pump was out of service for planned maintenance to replace the pump, Unit 1 entered the 2-hour action requirement of Technical Specification (TS) 3.0.5 at 1345 hours. Subsequent protective switching by the system load dispatcher resulted in the loss of the preferred offsite power source to the Unit 2 West ESW pump and Unit 2 also entered the 2-hour action requirement of TS 3.0.5 at 1359 hours. Donald C. Cook Nuclear Plant (CNP) requested and received enforcement discretion from the NRC to extend the 2-hour allowed action time by 10 hours to allow sufficient time to restore the Unit 2 East ESW pump to an operable status and exit TS 3.0.5. This Licensee Event Report (LER) is being submitted in accordance with the requirements of 10 CFR 50.73 (a)(2)(i)(B) for operation or condition prohibited by the TS.

CNP determined that compliance with TS 3.0.5 to place both Unit 1 and Unit 2 in Mode 3 within the time required by the action statement could initiate an undesirable transient. In addition, due to the degraded material condition of the switchyard at the time of the event, the risk associated with maintaining both units on line for an additional 10 hours was less than the risk associated with taking both Unit 1 and Unit 2 off line. Therefore, there was no net increase in risk associated with operating the plant for approximately 10 additional hours. CNP completed replacement and testing of the Unit 2 East ESW pump and exited TS 3.0.5.

**LICENSEE EVENT REPORT (LER)
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17. TEXT (If more space is required, use additional copies of NRC Form (366A))

Conditions Prior to Event

Unit 1 – Mode 1, 69 percent power
Unit 2 – Mode 1, 100 percent power

Description of Event

On June 11, 2002, the Unit 2 East essential service water (ESW) pump was out of service for planned maintenance to replace the pump. Because the ESW crosstie valves were open between the units to support the pump maintenance, the Unit 1 West ESW pump was also inoperable in accordance with Technical Specification (TS) 3.7.4.1. The ESW crosstie valves were maintained open to preclude depressurizing the Unit 2 East ESW header and thereby rendering that train of ESW unavailable.

On June 12, 2002, at 1345 hours, the "BC" 34.5 kilovolt (kV) circuit breaker opened and a trouble alarm for the TR101CD reserve auxiliary transformer was received in the control room. This was caused by an explosion in the 345 kV switchyard and oil fire in the "L" switchyard output feeder breaker. As a result, the TR4 reserve feed transformer was rendered inoperable, affecting the CD bus of reserve feed. This resulted in a loss of the preferred offsite power source to the Unit 1 East ESW pump and the unit entered the 2-hour action requirement of TS 3.0.5 at 1345 hours. Subsequent protective switching by the system load dispatcher resulted in the TR5 reserve feed transformer being de-energized, affecting the AB bus of reserve feed. This resulted in a loss of the preferred offsite power source to the Unit 2 West ESW pump and Unit 2 also entered the 2-hour action requirement of TS 3.0.5 at 1359 hours. In accordance with the Donald C. Cook Nuclear Plant (CNP) emergency response procedure, an Alert was declared at 1404 hours due to the fire/explosion in the 345 kV switchyard. The Nuclear Regulatory Commission Operations Center was notified at 1418 hours (see event notification # 38983 for details of the switchyard event).

With both ESW trains and their power sources inoperable, the units entered the 2-hour action requirements of TS 3.0.5 to commence placing the units in cold shutdown. On June 12, 2002, at 2115 hours, CNP received enforcement discretion from the NRC to extend the 2-hour allowed action time by 10 hours to allow sufficient time to restore the Unit 2 East ESW pump to an operable status and exit TS 3.0.5. This Licensee Event Report is being submitted in accordance with the requirements of 10 CFR 50.73 (a)(2)(i)(B) for operation or condition prohibited by the TS.

On June 12, 2002, at 2123 hours, plant operators declared the Unit 1 West ESW pump operable and exited T.S. 3.0.5 when crosstie valve 2-WMO-708 was closed to allow for post-maintenance testing of the Unit 2 East ESW pump. At 2157 hours, the Unit 2 East ESW pump performed within required limits and plant operators declared the pump operable and exited TS 3.0.5.

Cause of Event

CNP determined that compliance with TS 3.0.5 to place both Unit 1 and Unit 2 in Mode 3 within the time required by the action statement could initiate an undesirable transient. A contributing cause was determined to be the explosion of the current transformer due to an internal fault.

**LICENSEE EVENT REPORT (LER)
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17. TEXT (If more space is required, use additional copies of NRC Form (366A))

Analysis of Event

The reserve auxiliary transformers are the preferred source of off-site power when the units are tripped or shut down. Following the switchyard event, Unit 1 and Unit 2 were stable with power being supplied by the unit main generators through the unit auxiliary transformers. The reserve source of offsite power was only available through a single transformer (TR5) and voltage output from this transformer was below the operability range, but stable. Additionally, the CNP switchyard and the local area grids were in a degraded voltage condition due to the tie-lines in the 345 kV switchyard being open. In this degraded condition, taking the units off line would change the electrical load flow patterns on the grid and would increase the probability of grid instability and the likelihood of a loss of offsite power. Additionally, in taking the units off line, unit loads would be transferred to the TR5 reserve transformer, further increasing the probability of a loss of power from this source due to its low voltage. Loss of offsite power would cause a significant plant transient, resulting in the emergency diesel generators (EDG) supplying the safety-related electrical buses, loss of forced flow through the reactor core, and a loss of the normal heat sink for the core (circulating water cooling of the main condensers).

CNP determined that compliance with TS 3.0.5 to place both Unit 1 and Unit 2 in Mode 3 within the time required by the action statement could initiate an undesirable transient. In addition, due to the current degraded material condition of the switchyard at the time of the event, the risk associated with maintaining both units on line for an additional 10 hours was less than the risk associated with taking both Unit 1 and Unit 2 off line. This analysis supported CNP's request for enforcement discretion that was verbally approved on June 12, 2002, at 2115 hours. Therefore, no corresponding health and safety benefit would be gained by requiring a plant shutdown.

Corrective Actions

CNP completed replacement and testing of the Unit 2 East ESW pump and exited TS 3.0.5. Actions to address the current transformer fault will be determined as part of the root cause investigation.

Previous Similar Events

None