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January 20, 2004

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Ladies and Gentlemen:

Subject: VIRGIL C. SUMMER NUCLEAR STATION
DOCKET NO. 50-395
OPERATING LICENSE NO. NPF-12
LICENSEE EVENT REPORT (LER 2003-006-00)
MANUAL REACTOR SCRAM DUE TO DIGITAL ROD POSITION INDICATION FAILURE

Attached is Licensee Event Report (LER) No. 2003-006-00, for the Virgil C. Summer Nuclear Station (VCSNS). The report describes a manual reactor scram due to instrumentation failure and is being submitted in accordance with 10 CFR 50.73(a)(2)(iv)(A).

Should you have any questions, please call Mr. Ronald B. Clary at (803) 345-4757.

Very truly yours,

Robert M. Fowlkes
for
Stephen A. Byrne

CJM/SAB
Attachment

c: N. O. Lorick
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NSRC
RTS (0-C-03-4172)
File (818.07)
DMS (RC-04-0017)

IE22

NRC FORM 366 (7-2001) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES 7-31-2004

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.

LICENSEE EVENT REPORT (LER)

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

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Virgil C. Summer Nuclear Station	05000395	1 OF 3

4. TITLE

Manual Reactor Scram Due to Digital Rod Position Indication Failure

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
										05000395
11	21	2003	2003	-006	- 00	01	20	2004	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE	3
10. POWER LEVEL	00

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)

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)	X 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)	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	TELEPHONE NUMBER (Include Area Code)
R. B. Clary, Mgr., Nuclear Licensing	(803) 345-4757

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

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
X	AA	FCD	W120	Y					

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

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

On November 21, 2003, the V. C. Summer Nuclear Station was performing control rod testing (Mode 3) in preparation for plant start-up, following refueling outage-14. The testing is in accordance with Surveillance Test Procedure (STP) 106.002, Rod Position Indication Operational Test. The Reactor Trip Breakers were closed and Control Rod bank "C" was being withdrawn. When Control Rod bank "C" reached 36 steps, the Digital Rod Position Indication (DRPI) for Rod M-4 went to 18 steps. At 0835, control rod motion was stopped and Abnormal Operating Procedure (AOP) 403.5, Stuck or Misaligned Control Rod, was entered after verification that the procedure was applicable in the current plant condition. At 0910, while taking action per the AOP, it was determined that both channels of DRPI were not functioning properly. Per the V. C. Summer Nuclear Station Technical Specifications 3.1.3.3 and 3.10.5, with both channels of DRPI inoperable, the Reactor Trip Breakers must immediately be opened. This action was satisfied at approximately 0910.

The Emergency Operating Procedure (EOP) for a plant trip was entered. At 0915, the EOP was exited with the plant stable in Mode 3. This event is being reported under 10 CFR 50.73(a)(2)(IV)(A).

The cause of the DRPI failure was a failure in a data encoder card for rod M-4. After card replacement and additional testing the DRPI system was declared Operable and control rod testing re-commenced.

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

PLANT IDENTIFICATION

Westinghouse - Pressurized Water Reactor

EQUIPMENT IDENTIFICATION

Digital Rod Position Indicator Panel

IDENTIFICATION OF EVENT

The event was identified during performance of Surveillance Test Procedure (STP) 106.002, Rod Position Indication Operational Test. Rod Control bank "C" was being withdrawn (RCS boron concentration had been verified adequate to ensure the effective multiplication factor keff was less than or equal to 0.95). When control bank "C" reached 36 steps, the Digital Rod Position Indicator system (DRPI) panel went to 18 steps for rod M-4. This condition was identified in Condition Event Report (CER) 03-4172.

EVENT DATE

November 21, 2003

REPORT DATE

January 20, 2004

CONDITIONS PRIOR TO EVENT

The plant was in Mode 3, normal operating pressure and temperature, and preparations were being made for a plant start-up.

DESCRIPTION OF EVENT

On November 21, 2003, the V. C. Summer Nuclear Station was performing control rod testing (Mode 3) in preparation for plant start-up, following refueling outage-14. The testing is in accordance with Surveillance Test Procedure (STP) 106.002, Rod Position Indication Operational Test. The Reactor Trip Breakers were closed and Control Rod bank "C" was being withdrawn. When Control Rod bank "C" reached 36 steps, the Digital Rod Position Indication (DRPI) for Rod M-4 went to 18 steps. At 0835, control rod motion was stopped and Abnormal

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

Operating Procedure (AOP) 403.5, Stuck or Misaligned Control Rod, was entered after verification that the procedure was applicable in the current plant condition. At 0910, while taking action per the AOP, it was determined that both channels of DRPI were not functioning properly. Per the V. C. Summer Nuclear Station Technical Specifications (TS) Sections 3.1.3.3 and 3.10.5, with both channels of DRPI inoperable, the Reactor Trip Breakers must immediately be opened. This action was satisfied at approximately 0910.

The Emergency Operating Procedure (EOP) for a plant trip was entered. At 0915, the EOP was exited with the plant stable in Mode 3. This event is being reported under 10 CFR 50.73(a)(2)(iv)(A).

ANALYSIS OF EVENT

Plant TS ensures the health and safety of the public is maintained by providing actions to place the plant in a safe configuration, if specific equipment is inoperable for a predetermined amount of time, ranging from less than one hour to many hours. The TS assure the assumptions in the plant's safety analysis are satisfied. This is accomplished by having the correct equipment completely available or taking actions that may include placing the plant in a condition where the equipment is not required. In this particular case, the Control Rod indication is not required when all control rods are fully inserted and the Reactor Trip Breakers are open.

The condition was non-significant from a safety viewpoint. When conditions became abnormal, and once the determination of operability for the DRPI system was made, the TS action was completed in a timely manner. This was determined to be an indication problem and the actual position of the control rods were as required by TS and the testing procedure. The reactor had not been taken critical at this point however, the plant was shut down and boron concentration verified to ensure that additional margin was available to preclude inadvertent criticality. Only one bank of rods was partially out of the core, with the remaining control rods fully inserted as required by TS. When the Reactor Trip Breakers were opened, all control rods went to bottom as required and expected. There were no unexpected reactivity excursions and all equipment operated as expected.

CORRECTIVE ACTIONS

The DRPI system was repaired and tested to assure acceptable performance was obtained prior to closing the Reactor Trip Breakers. Investigation determined that an encoder card for rod M-4 had failed and was providing the incorrect indication. After card replacement, post maintenance testing determined that the condition was resolved, and rod testing recommenced.

PRIOR OCCURRENCES

None