

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Washington Nuclear Plant - Unit 2										DOCKET NUMBER (2) 0 5 0 0 0 3 9 1 7 1										PAGE (3) 1 OF 014							
TITLE (4) 10CFR50 Appendix "R" Cable Fire Protection and Electrical Separation																											
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 NAMES									
																		DOCKET NUMBER(S)									
																		0 5 0 0 0 0 0 0									
0 3		1 8		8 5		5 8 5		0 2		3 0		1 0 7		1 1 8		5		0 5 0 0 0 0 0 0									
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)																									
POWER LEVEL (10)		20.402(a) 20.406(a) 50.73(a)(2)(iv) 73.71(b)																									
11010		20.406(a)(1)(i) 50.38(a)(1) X 50.73(a)(2)(v) 73.71(c)																									
		20.406(a)(1)(ii) 50.38(a)(2) 50.73(a)(2)(vi) OTHER (Specify in Abstract below and in Text, NRC Form 365A)																									
		20.406(a)(1)(iii) 50.73(a)(2)(i) 50.73(a)(2)(vii)(A)																									
		20.406(a)(1)(iv) 50.73(a)(2)(ii) 50.73(a)(2)(vii)(B)																									
		20.406(a)(1)(v) 50.73(a)(2)(iii) 50.73(a)(2)(viii)																									
		20.406(a)(1)(vi) 50.73(a)(2)(iv) 50.73(a)(2)(ix)																									
LICENSEE CONTACT FOR THIS LER (12)																											
NAME										TELEPHONE NUMBER																	
R. L. Koenigs, Compliance Engineer										5101 931 171 3501																	
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																											
CAUSE		SYSTEM		COMPONENT		MANUFACTURER		REPORTABLE TO NRC		CAUSE		SYSTEM		COMPONENT		MANUFACTURER		REPORTABLE TO NRC		Ext. 2279							
A		FACIBLE		I I I I		N																					
B		FACIBLE		I I I I		N																					
SUPPLEMENTAL REPORT EXPECTED (14)																				EXPECTED SUBMISSION DATE (15)		MONTH		DAY		YEAR	
YES (if yes, complete EXPECTED SUBMISSION DATE)																				NO							

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

While evaluating a Non-Conformance Report (NCR) for Electrical Separation or Appendix R infraction, a general walkdown was made on 3/18/85 to observe any additional instances similar to the ones already encountered. The walkdown resulted in identifying 4 types of possible infractions with no design impact and one type which may have design impact. A Maintenance Work Request (MWR) was implemented to eliminate any infractions which were readily correctable. All items were put on the fire watch until either corrected or it was determined that an electrical separation or Appendix R condition did not exist.

Further evaluations were made regarding Prime raceway separation. These evaluations resulted in additional walkdowns, field changes via PMR (Plant Modification Record), and some plant areas being put on the fire watch until the problem has been alleviated. All items uncovered to-date have not been Appendix R violations.

8507260115 850711
PDR ADOCK 05000397
S PDRIE22
1/1

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (8)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Washington Nuclear Plant - Unit 2	0 5 0 0 0 3 9 7 8 5	-	0 2 3	-	0 1 0 2	OF 0 4

TEXT (If more space is required, use additional NRC Form 368A's) (17)

Plant Conditions

- a) Power Level 100%
- b) Reactor Mode 1

Event

In February, 1985, 4 cables were discovered (3 in the cable spreading room and 1 in the cable chase area) which appeared to be infractions of the Electrical Separation criteria or Appendix R. The first investigation resulted in an evaluation which showed no infraction of Electrical Separation or Appendix R had occurred. However, further discussions with Engineering, Tech. Staff and Maintenance personnel uncovered other areas of concern with respect to cable separation criteria which needed evaluation. Due to the general concerns surfacing, a walkdown was made on 3/18/85 to observe any additional instances similar to the cable spreading/cable chase rooms conditions. A total of 28 items of concern were found which were potential violations of separation criteria and can be categorized as follows:

1. Spared cables hanging out of conduits/raceways.
2. Temporary cables, ie., extension cords.
3. Communication cables.
4. Cables which run out of and back into raceways.
5. Spatial separation involving raceways carrying prime circuits (Non-Class 1E circuits connected to Class 1E power supply).

All 28 items were put on the fire watch until the problem could be alleviated. A Maintenance Work Request (MWR) was processed and implemented to alleviate as many items as possible. Twenty-three items were eliminated as electrical separation concerns by removing non-permanent installations and verifying that spared cables were coiled back, stored in the raceway and had no power supply source connected. None of the 28 items were Appendix R infractions.

The prime raceway separation evaluation resulted in additional concerns being identified, namely;

- o A total of approximately 10,000 feet of cable tray covers not installed. These tray covers are required in order to meet current WNP-2 commitments for physical separation of divisional circuits. The missing cable tray covers can be categorized as follows:

1. Between non-class 1E power trays and class 1E prime raceways.
2. Between redundant class 1E conduits and open non-class 1E trays which traverse across them.
3. Between redundant class 1E divisional and prime raceways.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1) Washington Nuclear Plant - Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 3 9 7 8 1 5	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 1 5	0 2 3	0 1	0 1 3	OF	0 4

TEXT (If more space is required, use additional NRC Form 388A's) (17)

- o Tray covers which had not been installed properly, i.e., excess gaps exists between tray covers.
- o Prime markers either missing on raceways or found on empty raceways.

Immediate Corrective Action

- o The 28 originally identified items, as well as all subsequently identified items, were placed on the fire watch tour until each problem is remedied.
- o An MWR was issued to remove those temporary cables which do not have design implications, whether they were Electrical Separation infractions or not. To date, 27 of the 28 originally identified items have been completed.
- o An MWR was issued and installation of tray covers and separation barriers for cables exiting the cable trays in radiation zones is now complete.

Future Corrective Action

- o The one item remaining to be completed from the original 28 items of concern, involves a cable which is utilized to transmit thermocouple signals. These electrical signals are extremely small and a Plant Modification Record (PMR) has been generated to obtain Engineering resolution.
- o Plant procedures have been revised to provide additional instructions which address electrical separation requirements.
- o Supply System and support contractor craft personnel will be trained on proper use of temporary cables with respect to Electrical Separation and Appendix R criteria.
- o Appendix 3 to the Engineering Design Criteria will be reviewed for possible areas of clarification in order to enhance the understanding of the electrical separation criteria.
- o A QA audit is presently being made to verify:
 - 1) prime cable upgrade status (a commitment contained in the WNP-2 electrical separation criteria),
 - 2) electrical separation criteria training adequacy for engineering and quality assurance personnel, and
 - 3) the adequacy of previous verification programs

The completion of this audit may identify further software/hardware type work to be accomplished.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (3)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Washington Nuclear Plant - Unit 2	0500039785	-02	3	-01	0	4	OF 04

TEXT (If more space is required, use additional NRC Form 388A's) (17)

- o A design evaluation task is underway to determine what field work remains to resolve the prime raceway separation issues. The evaluation consists of reviewing present industry standards and test results involving cable tray covers and evaluating the applicability to WNP-2. Upon completion of this design evaluation, work packages will be processed to restore the cable tray system to the required design configuration.

Safety Significance

The safety significance concerns the effects of violation of the spatial requirements between redundant divisional raceways. A raceway fire in one division could propagate and cause a failure in the opposite division. It should be noted that a review has shown that none of the infractions found had the capability to compromise the Plant's Appendix R dedicated safe shutdown path.

Recent industry position on the use of cable tray covers suggests that a portion of the missing cable tray covers may not be required. The fire detection and suppression systems were and are now, operable. Additionally, hourly fire watch tours are made in all areas with existing discrepancies to the WNP-2 electrical separation criteria. These discrepancies have no Appendix R implications. Therefore, no threat to the safety of the Plant, its personnel, or the public was created by this event.

Similar Events

Refer to LER-031-003

Washington Public Power Supply System

P.O. Box 968 3000 George Washington Way Richland, Washington 99352 (509) 372-5000

Docket No. 50-397

July 11, 1985

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

Subject: NUCLEAR PLANT NO. 2
LICENSEE EVENT REPORT NO. 85-023-01

Dear Sir:

Transmitted herewith is Licensee Event Report No. 85-023-01 for WNP-2 Plant. This report is submitted in response to the report requirements of 10CFR50.73 and discusses the item of reportability, corrective action taken, action taken to preclude recurrence and provides supplemental information to LER-85-023.

Very truly yours,

C.M. Powers
C.M. Powers (M/D 927M)
WNP-2 Plant Manager

CMP:1a

Enclosure:
Licensee Event Report No. 85-023-01

cc: Mr. John B. Martin, NRC - Region V
Mr. A. D. Toth, NRC - Site (901A)
Ms. Dottie Sherman, ANI
INPO Records Center - Atlanta, GA

IE 22
1/1