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 WASHINGTON,S.L. Washington Public Power Supply System
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 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 88-022-00:on 880616,Tech Spec violation of cable
 spreading room fire barrier.

W/8 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 5
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Washington Nuclear Plant - Unit 2										DOCKET NUMBER (2) 0 5 0 0 0 3 9 7 1 OF 0 4										PAGE (3) 1 OF 0 4		
TITLE (4) Technical Specification Violation of Cable Spreading Room Fire Barrier Caused by Missing Thermo-Lag Insulation Due to Personnel Error																						
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 6	1	6 8	8 8	0 2	2	0	0	0 7	1 5 8 8						0 5 0 0 0							
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																				
4		20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)								
POWER LEVEL (10)		20.405(a)(1)(i)				50.36(a)(1)				50.73(a)(2)(v)				73.71(c)								
0 0 0		20.405(a)(1)(ii)				50.36(a)(2)				50.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)								
		20.405(a)(1)(iii)				X 50.73(a)(2)(i)				50.73(a)(2)(viii)(A)												
		20.405(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)												
		20.405(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(ix)												
LICENSEE CONTACT FOR THIS LER (12)																						
NAME										TELEPHONE NUMBER												
Steven L. Washington, Compliance Engineer										5 0 9 3 7 7 - 1 2 0 8 1 0												
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																						
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs												
SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR						
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)												<input checked="" type="checkbox"/> NO										

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

On June 16, 1988 it was determined that a problem documented on June 10, 1988 was a violation of a WNP-2 Plant Technical Specification and is reportable per 10CFR50.73(a)(2)(i). On June 10, 1988 an NRC Inspector, while on a Plant inspection tour, determined that the required 20 foot non-combustible zone (Fire Zone RC-IIC) in the Radwaste Building Cable Spreading Room was in some cases only 18 1/2 feet. Three cable trays were identified which jog into and out of the 20 ft. non-combustible zone, and two cable trays that parallel Fire Zone RC-IIC have approximately one and a half feet of the two foot wide tray in the Fire Zone RC-IIC. Cables in the trays within Fire Zone RC-IIC were not insulated with thermo-lag. One problem found outside the 1-1/2 foot corridor was a dedicated Division 2 cable tray which was missing thermo-lag insulation on the side rail of the cable tray. One small spot and a two foot strip of insulation was missing. Immediate corrective actions included verifying operability of the fire detection and suppression systems in Fire Zone RC-IIC and placing the cable spreading room on the hourly fire tour. The root cause of this event is personnel error in that the Plant Fire Protection Engineer knew the non-combustible zone was not 20 feet wide in all places and he failed to take appropriate corrective action. A contributing cause was inappropriate corrective action when a similar problem was identified by an NRC Inspector during a Plant inspection in March, 1986. The cable tray side rail thermo-lag problem was due to poor workmanship in that the two locations were missed when the insulation was sprayed on. Corrective actions to be taken include: an outline of the twenty foot non-combustible zone will be taped on the floor of the cable spreading room, cable trays and conduits that intrude into the Fire Zone RC-IIC will be inspected to insure proper fire

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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 (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Washington Nuclear Plant - Unit 2	05000397	88	022	00	02	OF	04

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

Abstract (Continued)

barriers or coatings are installed, and any deficiencies found will be corrected. Fire Zone RC-IIC was inspected to identify any other combustibles in the area. Combustibles found in Fire Zone RC-IIC will be justified or removed from the zone, trays with metal covers that require thermo-lag will be labeled, and a sign that describes the requirements of Fire Zone RC-IIC will be posted near the non-combustible area. There are no adverse safety significant consequences associated with this event.

Plant Conditions

- a) Power Level - 0%
- b) Plant Mode - 4 (Cold Shutdown)

Event

On June 16, 1988 it was determined that a problem documented on June 10, 1988 was a violation of a WNP-2 Plant Technical Specification and is therefore reportable per 10CFR50.73(a)(2)(i). On June 10, 1988 an NRC Inspector while on a Plant inspection tour determined that the required 20 foot non-combustible zone (Fire Zone RC-IIC) in the Radwaste Building Cable Spreading Room was in some cases only 18 1/2 feet.

The Radwaste Building Cable Spreading Room (Fire Area RC-II) is divided into three Fire Zones RC-IIA, RC-IIB, and RC-IIC. Fire Zone RC-IIA contains Appendix R Division 1 Safe Shutdown components and Fire Zone RC-IIB contains Appendix R Division 2 Safe Shutdown components. Fire Zone RC-IIC is a 20 foot wide area separating Fire Zones RC-IIA and RC-IIB. Within Fire Zone RC-IIC there should be no intervening combustible fire loading, cable in trays are coated with a one-hour thermo-lag covering, and the area is protected by an automatic sprinkler and detection system.

All but one of the problems identified are located in a 1 1/2 foot corridor where cable trays associated with Division 2 Safe Shutdown System intrude into Fire Zone RC-IIC and the cables within Fire Zone RC-IIC are not covered with thermo-lag. Three cable trays were identified which jog into and out of the 20 foot non-combustible zone. The cables in these cable trays were not thermo-lagged in the areas that protruded into Fire Zone RC-IIC. Two cable trays that parallel Fire Zone RC-IIC have approximately one and one-half feet of the two foot wide tray in the Fire Zone RC-IIC. Cables in the trays within zone IIC were not thermo-lagged. The only problem found outside the 1 1/2 foot corridor was a dedicated Division 2 cable tray which was missing thermo-lag on the side rail of the cable tray. Thermo-lag is applied to exposed metal surfaces such as cable tray side rails to eliminate a potential heat path to the thermo-lagged cables within the tray. One small spot and a two foot strip of insulation was missing.

Immediate Corrective Action

The fire detection and suppression systems in the cable spreading room fire areas were verified operable and the cable spreading room was placed on the hourly fire tour.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

Further Evaluation and Corrective Action

A. Further Evaluation

This event is reportable per 10CFR50.73(a)(2)(i)(B) a condition prohibited by Plant Technical Specification.

Other than the missing thermo-lag in the 20 foot non-combustible zone there were no structures, systems or components that were inoperable prior to this event that affected this event.

The root cause of this event is personnel error. The Plant Fire Protection Engineer knew, from prior to Plant Startup, that Fire Zone RC-IIC was less than 20 feet wide in some places; however, he believed that this configuration was acceptable. The engineer failed to take appropriate corrective action by either initiating a Final Safety Analysis Report (FSAR) change, which would have justified and documented the actual configuration, or initiating work orders to bring the Plant configuration into agreement with the FSAR description.

A contributing cause was ineffective corrective action. In March 1986 an NRC Inspector identified cable trays in Fire Zone RC-IIC which traversed the zone and were not thermo-lagged for the entire 20 feet, the worst case identified was one cable tray with only 17 feet of thermo-lag. The identified deficiencies were corrected within thirty days of the finding. The problems identified by the June, 1988 NRC inspection were not addressed apparently because the Supply System Fire Protection Engineer and a Plant Engineer thought the parallel trays intruding into the zone were acceptable.

The cause of the missing cable tray side rail insulation is poor workmanship in that two small areas were missed when the sprayed on insulation was applied.

B. Corrective Actions To Be Taken

An outline of the twenty foot non-combustible zone will be taped on the floor of the cable spreading room.

Cable trays and conduits that intrude into the area will be inspected to insure proper fire barriers or coatings are installed, and any deficiencies found will be corrected, including the missing cable tray side rail insulation.

Fire Zone RC-IIC was inspected to identify any other combustibles in the area. The inspection found two telephones, two light controlling clocks, an emergency battery-operated light, and a barometric pressure transmitter in the area. The location of this equipment in the Fire Zone RC-IIC will either be justified or be removed from the area.

Trays with metal covers that require thermo-lag will be labeled as such.

A sign that describes the requirements of Fire Zone RC-IIC will be posted near the non-combustible area.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

Safety Significance

There are no adverse safety significant consequences associated with this event. No actual fire occurred in the cable spreading room during this event period. The increase in safety provided by a 20 foot non-combustible zone compared to an 18 1/2 foot zone is minimal, and Fire Zone RC-IIC is protected by an automatic fire detection and sprinkler system. The safety significance of the missing side rail thermo-lag is also minimal. The purpose of the side rail insulation is to eliminate a heat path to the thermo-lagged cables within the cable tray. In this case since only two small segments were missing it is estimated that at least a half-hour fire barrier existed and, depending on the location of the thermo-lag covered cables in the cable tray, the full one hour barrier may have existed. The health and safety of the public and plant personnel were not affected by this event.

Similar Events

LERs 84-031 Revisions 0, 1, 2 and 5, and 85-043

EIIS InformationText ReferenceEIIS Reference

Radwaste Building
Automatic Sprinkler System
Automatic Detection
Dedicated Division 2 Cable Tray
Cable

System	Component
NE	----
KP	SRNK
KP	28
ME	TY
----	CBL



WASHINGTON PUBLIC POWER SUPPLY SYSTEM

P.O. Box 968 • 3000 George Washington Way • Richland, Washington 99352

Docket No. 50-397

July 15, 1988

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

Subject: NUCLEAR PLANT NO. 2
LICENSEE EVENT REPORT NO. 88-022

Dear Sir:

Transmitted herewith is Licensee Event Report No. 88-022 for the WNP-2 Plant. This report is submitted in response to the report requirements of 10CFR50.73 and discusses the items of reportability, corrective action taken, and action taken to preclude recurrence.

Very truly yours,

S.L. McKay

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

CMP:lg

Enclosure:
Licensee Event Report No. 88-022

cc: Mr. John B. Martin, NRC - Region V
Mr. C.J. Bosted, NRC Site (M/D 901A)
INPO Records Center - Atlanta, GA
Ms. Dottie Sherman, ANI
Mr. D.L. Williams, BPA (M/D 399)

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