

Part 21 (PAR)

Event # 46568

Rep Org: CATAWBA NUCLEAR SITE	Notification Date / Time: 01/24/2011 18:11 (EST)
Supplier: ELECTRICAL POWER SYSTEMS	Event Date / Time: 06/05/2010 (EST)
	Last Modification: 01/24/2011
Region: 1	Docket #:
City: YORK	Agreement State: Yes
County:	License #:
State: SC	
NRC Notified by: GARY BURGESS	Notifications: MARVIN SYKES R2DO
HQ Ops Officer: VINCE KLCO	Part 21 GRP by email
Emergency Class: NON EMERGENCY	
10 CFR Section:	
21.21	UNSPECIFIED PARAGRAPH

POTENTIAL PART 21 - BUS DISCONNECT STAB ASSEMBLY - 600V ESSENTIAL MOTOR CONTROL CENTERS

"During 2004, 2006 and 2010, Duke Energy Corporation (Duke) ordered spare parts for the 600V Essential Auxiliary Power System (EPE) motor control center, installed at the McGuire and Catawba Nuclear Stations. The spare parts were ordered under Purchase Orders 15488,38585, 132512 and 134626 from Electrical Power Systems, Inc. (EPSI). The specific part is a NEMA Size 1 stab (disconnect) assembly for connecting motor control center feeder circuits to the motor control center main bus. The McGuire and Catawba motor control centers were manufactured by Nelson Electric in Tulsa, OK. Spare stab assemblies were needed for QA-1 applications but they were no longer available to purchase from an approved vendor. The parts were evaluated and approved for Commercial Grade procurement.

"When the stab assemblies were received they were dedicated on site at Duke for Commercial Grade application at McGuire and also at Catawba. Inspection of the parts and application of the commercial grade process did not identify that the parts were not manufactured to the specifications used in the commercial grade evaluation process. The manufacturer, who was different from the original parts manufacturer, had revised the detail drawing of the stab assembly. The revised drawing allowed a different method for soldering the lead wire to the stab. During parts dedication, the new stab assemblies passed basic electrical checks, but there was no visual inspection of the soldering because the connections had been inserted into the stab assembly molding.

"Catawba Unit 1 experienced a failure of the Jacket Water Keep Warm Pump Motor circuit for Diesel Generator (D/G) 1B on June 05, 2010 due to failure of the soldered connection on a stab assembly that had just been installed. The pump motor is QA Condition 1 and it is powered from a QA Condition 1 motor control center. The failure of the Catawba Unit 1 D/G Keep Warm Pump Motor was not significant from a plant risk standpoint.

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"Of the 21 spare stab assemblies purchased and dedicated for use at Catawba and McGuire, only one was placed in service. That stab assembly was installed at Catawba on 6/3/2010 and failed on 6/5/2010. The remaining suspect stab assemblies at Catawba and McGuire were put on HOLD shortly after this failure. Other than the failed Catawba stab assembly, no other suspect stab assemblies were placed in service in the past or currently at McGuire or Catawba Nuclear Stations. None of these dedicated stab assemblies were sold or transferred to another nuclear utility. Following the failure of the stab assembly at Catawba, stab assemblies were tested, a failure investigation was performed, design information was requested from the vendor and the commercial grade program implications were investigated. It was not until January 2011 that the issue was determined to be reportable per 10 CFR Part 21."

The licensee provided courtesy notifications to the North Carolina and South Carolina Warning Points and York, Gaston and Mecklenburg County agencies.

The licensee has notified the NRC Resident Inspector.

**Enclosure 4.11
Event Notification Report**

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STATE: "THIS IS THE CATAWBA NUCLEAR SITE IN NRC REGION 2 MAKING AN EVENT NOTIFICATION REPORT"				EN #
NOTIFICATION TIME/DATE	UNIT	CALLER'S NAME	CALLBACK TELEPHONE #:	NRC OPERATIONS OFFICER CONTACTED
	1+2	GARY BURGESS	ENS 1-803-831-3920 (C/R) or 1-803-831-2674 (TSC)	
NRC OPERATION TELEPHONE NUMBER: PRIMARY - 1-301-816-5100 or 1-800-532-3469; BACKUPS - [1st] 1-301-951-0550 or 1-800-449-3694; [2nd] 1-301-415-0550; and [3rd] 1-301-415-0553				
EVENT TIME & ZONE	EVENT DATE	U-1 POWER/MODE BEFORE U-2	U-1 POWER/MODE AFTER U-2	
1032 Region II (time) (zone)	01/24/11	100% MODE 1	100% MODE 1	
IMMEDIATE	4-HR NON-EMERGENCY 10CFR72.75(b)ISFSI		8-HR NON-EMERGENCY 10CFR72.75(c) ISFSI	
EVENT CLASSIFICATION (GE, SAE, ALERT, NOUE) 50.72 or 72.75 (ISFSI)	(1) TS Deviation for ISFSI		(1) Defect in ISFSI SSC	
	(2) Offsite Notification for ISFSI		(2) ISFSI Confinement System	
PHYSICAL PROTECTION OF PLANT OR MATERIALS			(3) Offsite medical (ISFSI)	
	8-HR NON-EMERGENCY 10 CFR 50.72(b)(2)			
TRANSPORTATION (10 CFR 20)	(ii)(A) Degraded Condition		24-HOUR NON-EMERGENCY ISFSI	
MATERIAL/EXPOSURE (10 CFR 20)	(ii)(B) Unanalyzed Condition		Radiological Exposure 10CFR20.2202	
	(iv)(A) Valid System Actuation		Fitness For Duty 10CFR26.73	
1-HR NON-EMERGENCY 10CFR50.72(b)(1)	(v)(A) Safe S/D Capability		Operating License Deviation	
TS Deviation pursuant to 10CFR50.54(x)	(v)(B) RHR Capability			
Accidental Criticality or Loss/Theft of Material	(v)(C) Control of Radiological		24-HOUR NON-EMERGENCY ISFSI	
	(v)(D) Accident Mitigation		ISFSI Lost Safety Function 72.75(d)(1)	
4-HR NON-EMERGENCY 10CFR50.72(b)(2)	(xii) Offsite Medical			
(i) TS Required S/D	(xiii) Lost ENS		30 DAY NON EMERGENCY 10CFR20.2201	
(iv)(A) ECCS Discharge to RCS	(xiii) Lost Emergency Assessment			
(iv)(B) RPS Actuation when Rx is critical	(xiii) Lost Offsite Communications		Theft, Lost or Missing Material	
(xi) Offsite Notification	(xiii) Emergency Siren Inoperable			
NOTIFICATION OF POTENTIAL PART 21 ISSUE				60-DAY OPTIONAL 10CFR50.730s(1) Invalid Specified System Actuation
				<input checked="" type="checkbox"/> OTHER UNSPECIFIED REQUIREMENT (IDENTIFY) Retraction
EVENT DESCRIPTION (Include: Systems affected, actuations & their initiating signals, causes, effect of event on plant, actions taken or planned, PARs etc.)				
CATEGORY	INITIATION SIGNAL			
N/A REACTOR TRIP	_____			
N/A ESF ACTUATION	_____			
N/A ECCS ACTUATION	_____			
N/A SI FLOW	_____			
N/A LCO	_____			
SYSTEM	600 Volt ESSENTIAL MOTOR CONTROL CENTERS			
COMPONENT	BUS DISCONNECT STAB ASSEMBLY			
CAUSE:	<input checked="" type="checkbox"/> MECHANICAL	<input type="checkbox"/> ELECTRICAL		
	<input type="checkbox"/> PERSONNEL ERROR	<input type="checkbox"/> OTHER		
Continue on Enclosure 4.11 page 2 of 2 if necessary.				
NOTIFICATIONS	YES	NO	WILL BE	ANYTHING UNUSUAL OR NOT UNDERSTOOD? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (Explain above)
NRC RESIDENT	✓			
STATE(s) NC SC			✓	DID ALL SYSTEMS FUNCTION AS REQUIRED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (Explain above)
LOCAL York County Gaston County Mecklenburg County			✓	MODE OF OPERATION UNTIL CORRECTED:
OTHER GOV AGENCIES				ESTIMATED RESTART DATE
MEDIA/PRESS RELEASE				N/A

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RADIOLOGICAL RELEASES: CHECK OR FILL IN APPLICABLE ITEMS (specific details/explanations should be covered in event description)						
LIQUID RELEASE	GASEOUS RELEASE	UNPLANNED RELEASE	PLANNED RELEASE	ONGOING	TERMINATED	
MONITORED	UNMONITORED	OFFSITE RELEASE	T.S. EXCEEDED	RM ALARMS	AREAS EVACUATED	
PERSONNEL EXPOSED OR CONTAMINATED		OFFSITE PROTECTIVE ACTIONS RECOMMENDED		State release path in description		

NOTE: Contact Radiation Protection Shift to obtain the following release information. IF the notification is due and the information is not available, mark "Not Available" and complete the notification.

	Releases Rate (CI/sec)	% T.S. LIMIT	HOO GUIDE	Total Activity (CI)	% T.S. LIMIT	HOO GUIDE
Noble Gas			0.1 CI/sec			1000 CI
Iodine			10 uCi/sec			0.01 CI
Particulate			1 uCi/sec			1 mCI
Liquid (excluding tritium & dissolved noble gases)			10 uCI/min			0.1 CI
Liquid (tritium)			0.2 CI/min			5 CI
Total Activity						

CIRCLE RAD MONITORS IN ALARM	PLANT STACK (EMF 35, 36, 37)	CONDENSER/AIR EJECTOR (EMF 33)	MAIN STEAM LINE (UNIT 1-EMF 26,27,28,29 UNIT 2-EMF 10, 11, 12,13)	SG BLOWDOWN (EMF 34)	OTHER
RAD MONITOR READINGS					
ALARM SETPOINTS: TRIP II					
% T.S. LIMIT (if applicable)	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	

RCS OR SG TUBE LEAKS: CHECK OR FILL IN APPLICABLE ITEMS (specific details/explanations should be covered in event description)


LOCATION OF THE LEAK (e.g. SG#, valve, pipe, etc.):		T.S. LIMITS EXCEEDED:	SUDDEN OR LONG TERM DEVELOPMENT:
LEAK RATE: gpm/gpd	TIME		COOLANT ACTIVITY (Last Sample): PRIMARY SECONDARY-
LEAK START DATE:			

LIST OF SAFETY RELATED EQUIPMENT NOT OPERATIONAL: **NONE**

EVENT DESCRIPTION (Continued from Enclosure 4.11 Page 1 of 2)

SEE ATTACHED SHEETS

ADDITIONAL INFORMATION MAY BE ATTACHED.

APPROVED BY:  TIME/DATE: 1717 / 01.24.11
 Operations Shift Manager/Emergency Coordinator (eastern) mm dd yy

Reportability Determination Pursuant to 10 CFR Part 21

Bus Disconnect Stab Assembly – 600V Essential Motor Control Centers Problem Investigation Report PIP G-10-1494

During 2004, 2006 and 2010, Duke Energy Corporation (Duke) ordered spare parts for the 600V Essential Auxiliary Power System (EPE) motor control centers installed at the McGuire and Catawba Nuclear Stations. The spare parts were ordered under Purchase Orders 15488, 38585, 132512 and 134626 from Electrical Power Systems, Inc. (EPSI). The specific part is a NEMA Size 1 stab (disconnect) assembly for connecting motor control center feeder circuits to the motor control center main bus. The McGuire and Catawba motor control centers were manufactured by Nelson Electric in Tulsa, OK. Spare stab assemblies were needed for QA-1 applications but they were no longer available to purchase from an approved vendor. The parts were evaluated and approved for Commercial Grade procurement.

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