

Power Reactor

Event # 46681

Site: MCGUIRE		Notification Date / Time: 03/18/2011 14:40 (EDT)	
Unit: 1 2	Region: 2	State : NC	Event Date / Time: 03/18/2011 (EDT)
Reactor Type: [1] W-4-LP,[2] W-4-LP		Last Modification: 03/18/2011	
Containment Type: ICE COND ICE COND			
NRC Notified by: JIM DAIN		Notifications: REBECCA NEASE R2DO	
HQ Ops Officer: CHARLES TEAL		PART 21 GROUP	
Emergency Class: NON EMERGENCY			
10 CFR Section:			
21.21	UNSPECIFIED PARAGRAPH		

Unit	Scram Code	RX Crit	Init Power	Initial RX Mode	Curr Power	Current RX Mode
1	N	Yes	100	Power Operation	100	Power Operation
2	N	No	0	Refueling	0	Refueling

PAINT CHIPS DISCOVERED IN WOODWARD GOVERNORS

Woodward governors purchased as nuclear safety related items for use in turbine driven auxiliary feedwater pumps and emergency diesel generators, were found to have paint chips on internal surfaces. These governors were manufactured by Woodward Governor Company, Loveland, CO for use at the McGuire Nuclear Station.

The NRC Resident Inspector has been informed.

JEG
NRC

Enclosure 4.2

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NRC Event Notification Worksheet

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STATE: "THIS IS THE MCGUIRE NUCLEAR SITE IN NRC REGION 2 MAKING AN EVENT NOTIFICATION REPORT"				
NOTIFICATION TIME/DATE 3/18/11	UNIT N/A	CALLER'S NAME Jim Daw	CALLBACK TELEPHONE #: ENS 1-888-270-0173 or (704) - 875-6044	NRC OPERATIONS OFFICER CONTACTED C teal
EVENT TIME & ZONE 1440 (time)	Region II (zone)	EVENT DATE 3/18/11	POWER/MODE BEFORE N/A	POWER/MODE AFTER N/A

EVENT CLASSIFICATIONS	
<input type="checkbox"/>	GENERAL EMERGENCY
<input type="checkbox"/>	SITE AREA EMERGENCY
<input type="checkbox"/>	ALERT
<input type="checkbox"/>	UNUSUAL EVENT
<input type="checkbox"/>	TRANSPORTATION (10 CFR 20)
<input type="checkbox"/>	MATERIAL/EXPOSURE (10 CFR 20)
<input checked="" type="checkbox"/>	OTHER 10CFR PART 21.21

1-Hr Non-Emergency	
<input type="checkbox"/>	(50.72 b1(a)) TS Deviation
<input type="checkbox"/>	(70.52) (a) and (b) Accidental Criticality OR
<input type="checkbox"/>	(72.74) (a) Loss or theft of SNM

4-Hr Non-Emergency	
<input type="checkbox"/>	(50.72 b2 (I)) TS Required S/D
<input type="checkbox"/>	(50.72 b2 (IV)(A)) ECCS Discharge to RCS
<input type="checkbox"/>	(50.72 b2 (IV)(B)) RPS Actuation - critical scram
<input type="checkbox"/>	(50.72 b2 (XI)) Offsite Notification
<input type="checkbox"/>	(72.75)(b1) Deviation from ISFSI T.S.
<input type="checkbox"/>	(70.50(a)) SNM Protective action(s)
<input type="checkbox"/>	PHYSICAL SECURITY (73.71)

8-Hr Non-Emergency 10CFR 50.72(b)3	
<input type="checkbox"/>	(72.75)(c1) Spent Fuel Storage SSC defect.
<input type="checkbox"/>	(72.75)(c2) Spent Fuel Storage degradation.
<input type="checkbox"/>	(72.75)(c3) Fuel Storage related offsite medical.
<input type="checkbox"/>	(50.72 b3 (XII)) Offsite Medical
<input type="checkbox"/>	(50.72 b3 (II)(A)) Degraded Condition
<input type="checkbox"/>	(50.72 b3 (II)(B)) Unanalyzed Condition
<input type="checkbox"/>	(50.72 b3 (IV)(A)) Valid Actuation of System listed in Encl. 4.3.
<input type="checkbox"/>	(50.72 b3 (V)(A)) Safe S/D Capability
<input type="checkbox"/>	(50.72 b3 (V)(B)) RHR Capability
<input type="checkbox"/>	(50.72 b3 (V)(C)) Control of Rad Release
<input type="checkbox"/>	(50.72 b3 (V)(D)) Accident Mitigation
<input type="checkbox"/>	(50.72 b3 (X)(III)) Lost ENS
<input type="checkbox"/>	(50.72 b3 (X)(III)) Lost Other Assess./Comms
<input type="checkbox"/>	(50.72 b3 (X)(III)) Emergency Siren INOP

24-Hr. Non-Emergency	
<input type="checkbox"/>	Material/Exposure (10CFR20)
<input type="checkbox"/>	(72.75)(d1) Fuel Storage equipment failure.
<input type="checkbox"/>	(73 App G) safeguards vulnerabilities
<input type="checkbox"/>	26.73 Significant events involving fitness for duty.
<input type="checkbox"/>	(70.50(b1)) Contamination event restrictions.
<input type="checkbox"/>	(70.50(b2)) Equipment failure
<input type="checkbox"/>	(70.50(b3)) Unplanned medical treatment
<input type="checkbox"/>	(70.50(b4)) Fire/explosion damage to licensed material
<input type="checkbox"/>	ISFI Certificate of Compliance

EVENT DESCRIPTION

Include: Systems affected, actuation's & their initiating signals, causes, effect of event on plant, actions taken or planned, etc.

SEE ATTACHED: "McGuire Nuclear Station Non-Emergency Notification"

Continue on Enclosure 4.2 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
NRC RESIDENT	X			(Explain above)
STATE(S)		X		DID ALL SYSTEMS FUNCTION AS REQUIRED YES <input type="checkbox"/> N/A <input type="checkbox"/> NO
LOCAL		X		(Explain above)
OTHER GOV AGENCIES		X		MODE OF OPERATION N/A EST. RESTART ADDITIONAL INFOR ON BACK N/A
MEDIA/PRESS RELEASE		X		UNTIL CORRECTED N/A DATE: <input type="checkbox"/> YES <input type="checkbox"/> NO

APPROVED BY: Wann M Hoyle TIME/DATE: 12:08 03, 18, 11
 Operations Shift Manager/Emergency Coordinator (eastern) mm dd yy

**Enclosure 4.2
NRC Event Notification Worksheet**

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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 information.

IF the notification is due and the information is not available,
THEN mark "Not Available" and complete the notification.

	Release 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						

RECORD MONITORS IN ALARM	PLANT STACK (EMF 35, 36, 37)	CONDENSER/AIR EJECTOR (EMF 33)	MAIN STEAM LINE (UNIT 1-EMF 24,25,26,27 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	

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.):

LEAK RATE: gpm/gpd	T.S. LIMITS EXCEEDED:	SUDDEN OR LONG TERM DEVELOPMENT:
LEAK START DATE: _____ TIME: _____	COOLANT ACTIVITY: PRIMARY SECONDARY (Last Sample) Xe eq _____ mCi/ml Xe eq _____ mCi/ml Iodine eq _____ mCi/ml Iodine eq _____ mCi/ml	

LIST OF SAFETY RELATED EQUIPMENT NOT OPERATIONAL:

EVENT DESCRIPTION (Continued from Enclosure 4.2 page 1 of 2)

Attachment

**McGuire Nuclear Station Non-Emergency Notification
10CFR21.21 Notification of Defect
Woodward Governors**

Duke Energy Carolinas, LLC (Duke Energy) herein makes the following notification under 10CFR21.21(d)(3)(i) of defective Woodward governor actuators (Part Numbers 9903-569 and 9903-438-ESI). The governor actuators were purchased as nuclear safety related items for use in turbine driven auxiliary feedwater pumps and emergency diesel generators, respectively, from Engine Systems, Incorporated (ESI), 175 Freight Road, Rocky Mount, NC 27804 and were manufactured by Woodward Governor Company, Loveland, CO.

One of the three new model EGB-35P Woodward governor actuators (Part Number 9903-438-ESI) was removed from storage on March 5, 2011 for installation in the 2B diesel engine, the sealed bag opened, and the Foreign Material Exclusion (FME) plugs removed from the oil cooler adapter plate. Paint chips were found in the threads of the adapter plate, on the FME plug, and at the base of the threads inside the adapter plate. The Nordberg diesel engine uses a remotely mounted governor oil cooler, and an adapter plate attached to the EGB-35P to allow tubing connections for routing governor oil to/from the remotely mounted oil cooler. The two other new governor actuators from the warehouse were removed for inspection and evaluation of extent of condition, paint chips were found in each of them in the same oil connection ports when the FME plugs were removed. These paint chips are large enough to interfere with the proper operation of the actuator, and therefore, the operation of the diesel generator.

The adapter plate (containing the paint chips) on the side of the actuator was removed, cleaned, inspected, and replaced before installation of the actuator on the 2B diesel engine. The new oil cooler supplied with the new actuator, was also disassembled, cleaned, inspected and reassembled before installation and use on the 2B diesel engine. During the 2B engine testing and governor tuning, there were no instances of improper governor actuator operation.

Additionally, two turbine driven auxiliary feedwater pump governors (Part Numbers 9903-569) were visually inspected in the warehouse for loose paint and/or foreign material. The oil fill cap on the top of the governor was examined, and the paint readily flaked off the cap when rubbed through the plastic bag, suggesting that this problem is a generic problem that also applies to these governors. When these paint chips flake off, as would be expected from applying pressure to remove the cap, there is a risk of introduction into the governor housing as the cap is removed, where these paint chips could then challenge the ability of the governor to adequately control the turbine speed.

None of these governor actuators have been sold or transferred to another nuclear facility. The remaining governor actuators in stock have been placed on hold.

The McGuire Senior NRC Resident Inspector was notified of this Part 21 notification on March 18, 2011.