Power Reactor Event # 50191

Site: WATERFORD		**Notification Date / Time:** 06/12/2014	09:31 (EDT)
Unit: 3 **Region:** 4 **State :** LA		**Event Date / Time:** 04/18/2014	04:29 (CDT)
Reactor Type: [3] CE		**Last Modification:** 06/12/2014	
Containment Type: DRY AMB			
NRC Notified by: JOHN JARRELL	**Notifications:** GREG WERNER		R4DO
HQ Ops Officer: JOHN SHOEMAKER	PART 21 GROUP		EMAIL
Emergency Class: NON EMERGENCY			
10 CFR Section:			
21.21(d)(3)(i) DEFECTS AND NONCOMPLIANCE			

Unit	Scram Code	RX Crit	Init Power	Initial RX Mode	Curr Power	Current RX Mode
3	N	No	0	Refueling	0	Refueling

MASONEILAN ACTUATORS DISCOVERED TO FAIL-CLOSED INSTEAD OF THE REQUIRED FAIL-OPEN CONFIGURATION

"This is a non-emergency notification from Waterford 3 required under 10 CFR PART 21 concerning the deviation of a basic component from manufacturing purchase specifications.

"On 04/18/2014, during pneumatic actuator replacement for Emergency Feedwater [EFW] valve EFW-224A (EFW to Steam Generator #1 Primary Flow Control Valve), it was identified that the fail action of the actuator was incorrect in that it was in a fail-closed instead of fail-open configuration. The actuator model, as identified in Waterford 3 site receipt/acceptance document and the actuator's name plate data, was a Masoneilan model 47 Sigma-F, which is specified as a fail-open actuator. However, the actuator was discovered to have a fail closed action, which is indicative of a Masoneilan model 48 actuator.

"The fail-action of these Masoneilan Sigma-F actuators can be changed in accordance with its technical manual TDM120.0565 with no additional parts; therefore, Waterford 3 corrected the fail action of EFW-224A's replacement actuator (to fail-open) and ensured the handwheel indicator was corrected prior to entering mode 4.

"Two of these actuators were received and accepted as Masoneilan model 47 Sigma-F (fail-open) actuators in September of 2010, both of which were labeled as such, yet configured in the fail-closed action. One of these two actuators remains in the warehouse and has been placed on hold. The vendor, Dresser Masoneilan, has been notified in writing on May 12, 2014.

"On 6/9/2014 at approximately 1600 CDT, Entergy concluded that for those potential applications of this valve operator model in the EFW system, had they been installed without correcting the deviation, it could have resulted in a substantial safety hazard in that it could have prevented fulfillment of EFW safety function, and therefore

IE19
NRR

reportable under 10CFR PART 21. The Waterford 3 Site VP was informed on 06/11/2014."

The licensee has notified the NRC Resident Inspector.

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NRC FORM 361
(12-2000)

REACTOR PLANT
EVENT NOTIFICATION WORKSHEET

U.S. NUCLEAR REGULATORY COMMISSION
OPERATIONS CENTER

EN # 50191

NRC OPERATION TELEPHONE NUMBER: PRIMARY -- 301-816-5100 or 800-532-3469*, BACKUPS -- [1st] 301-951-0550 or 800-449-3694*, [2nd] 301-415-0550 and [3rd] 301-415-0553 *Licensees who maintain their own ETS are provided these telephone numbers.

NOTIFICATION TIME	FACILITY OR ORGANIZATION	UNIT	NAME OF CALLER	CALL BACK #
0831 CDT	Waterford	3	John Jarrell	504-739-6685

EVENT TIME & ZONE	EVENT DATE	POWER/MODE BEFORE	POWER/MODE AFTER
0429 CDT	04/18/2014	0.0% / MODE 6	0.0% / MODE 6

EVENT CLASSIFICATIONS		1-Hr. Non-Emergency 10 CFR 50.72(b)(1)					
☐ GENERAL EMERGENCY	GEN/AAEC	☐	TS Deviation	ADEV	☐	(v)(A)	Safe S/D Capability	AINA
☐ SITE AREA EMERGENCY	SIT/AAEC	**4-Hr. Non-Emergency 10 CFR 50.72(b)(2)**			☐	(v)(B)	RHR Capability	AINB
☐ ALERT	ALE/AAEC	☐	(i)	TS Required S/D	ASHU	☐	(v)(C)	Control of Rad Release	AINC
☐ UNUSUAL EVENT	UNU/AAEC	☐	(iv)(A)	ECCS Discharge to RCS	ACCS	☐	(v)(D)	Accident Mitigation	AIND
☐ 50.72 NON-EMERGENCY	(see next columns)	☐	(iv)(B)	RPS Actuation (scram)	ARPS	☐	(xii)	Offsite Medical	AMED
☐ PHYSICAL SECURITY (73.71)	DDDD	☐	(xi)	Offsite Notification	APRE	☐	(xiii)	Loss Comm/Asmt/Resp	ACOM
☐ MATERIAL/EXPOSURE	B???	**8-Hr. Non-Emergency 10 CFR 50.72(b)(3)**				**60-Day Optional 10 CFR 50.73(a)(1)**		
☐ FITNESS FOR DUTY	HFIT	☐	(ii)(A)	Degraded Condition	ADEG	☐	Invalid Specified System Actuation	AINV
☒ OTHER UNSPECIFIED REQMT.	(see last column)	☐	(ii)(B)	Unanalyzed Condition	AUNA	**Other Unspecified Requirement (Identify)**		
☐ INFORMATION ONLY	NNF	☐	(iv)(A)	Specified System Actuation	AESF	☒	10 CFR 21.21(d)(3)(i) Defect	NONR
						☐		NONR

DESCRIPTION

This is a non-emergency notification from Waterford 3 required under 10 CFR PART 21 concerning the deviation of a basic component from manufacturing purchase specifications.

On 04/18/2014, during pneumatic actuator replacement for Emergency Feedwater valve EFW-224A (EFW to Steam Generator #1 Primary Flow Control Valve), it was identified that the fail action of the actuator was incorrect in that it was in a fail-closed instead of fail-open configuration. The actuator model, as identified in Waterford 3 site receipt/acceptance document and the actuator's name plate data, was a Masoneilan model 47 Sigma-F, which is specified as a fail-open actuator. However, the actuator was discovered to have a fail closed action, which is indicative of a Masoneilan model 48 actuator.

The fail-action of these Masoneilan Sigma-F actuators can be changed in accordance with its technical manual TD-M120.0565 with no additional parts; therefore, Waterford 3 corrected the fail action of EFW-224A's replacement actuator (to fail-open) and ensured the handwheel indicator was corrected prior to entering mode 4.

Two of these actuators were received and accepted as Masoneilan model 47 Sigma-F (fail-open) actuators in September of 2010, both of which were labeled as such, yet configured in the fail-closed action. One of these two actuators remains in the warehouse and has been placed on hold. The vendor, Dresser Masoneilan, has been notified in writing on May 12, 2014.

On 6/9/2014 at approximately 1600 CDT, Entergy concluded that for those potential applications of this valve operator model in the EFW system, had they been installed without correcting the deviation, it could have resulted in a substantial safety hazard in that it could have prevented fulfillment of EFW safety function, and therefore reportable under 10CFR PART 21. The Waterford 3 Site VP was informed on 06/11/2014.

[Note: This notification was made on 6/12/2014 at 0931 EDT, received by officer John Shoemaker, being emailed to HOO.HOC@nrc.gov [Ref. WF3 CR-2014-1833].

NOTIFICATIONS	YES	NO	WILL BE			
NRC RESIDENT	☒	☐	☐	ANYTHING UNUSUAL OR NOT UNDERSTOOD?	☐ YES (Explain above)	☒ NO
STATE	☐	☒	☐	DID ALL SYSTEMS FUNCTION AS REQUIRED?	☒ YES	☐ NO (Explain above)
LOCAL	☐	☒	☐			
OTHER GOV AGENCIES	☐	☒	☐	MODE OF OPERATION UNTIL CORRECTED: N/A	ESTIMATED RESTART DATE: N/A	ADDITIONAL INFO ON BACK ☐YES ☒NO
MEDIA/PRESS RELEASE	☐	☒	☐			