

September 16, 1991

Mr. Ross P. Barkhurst
Vice President Operations
Entergy Operations, Inc.
Post Office Box B
Killona, Louisiana 70066

Dear Mr. Barkhurst:

SUBJECT: ISSUANCE OF AMENDMENT NO. 70 TO FACILITY OPERATING LICENSE
NPF-38 - WATERFORD STEAM ELECTRIC STATION, UNIT 3
(TAC NO. 79116)

The Commission has issued the enclosed Amendment No. 70 to Facility Operating License No. NPF-38 for the Waterford Steam Electric Station, Unit 3. The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated November 9, 1990, and March 5, 1991.

The amendment changes the Appendix A Technical Specifications by deleting the reference to the movable incore detector system (MICDS) and removing requirements for the associated containment penetration conductor over-current protective devices. It should be noted that any permanent use of the disconnected and spared cable should first be subjected to a license amendment to restore over-current protective device testing for the new application. This is required by our acceptance to delete the tests for the MICDS application.

A copy of our related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,
Original signed by
David L. Wigginton, Project Manager
Project Directorate IV-1
Division of Reactor Projects III, IV, and V
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 70 to NPF-38
- 2. Safety Evaluation

cc w/enclosures:
See next page

DISTRIBUTION

Docket File	NRC/Local PDR	PD4-1 Reading	D. Wigginton(2)
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OGC(MS15B18)	D. Hagan	G. Hill(4)	
Wanda Jones(MS7103)	C. Grimes(11E22)	PD4-1 Plant File	
GPA/PA(MS2G5)	ARM/LFMB(MS4503)	T. Westerman,RIV	

OFC : PD4-1/LA	: PD4-1/PM	: OGC	: PD4-1/D	:	:	:
NAME : PNoonan	: DWigginton:	: Rbachman	: TQuay	:	:	:
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

September 16, 1991

Docket No. 50-382

Mr. Ross P. Barkhurst
Vice President Operations
Entergy Operations, Inc.
Post Office Box B
Killona, Louisiana 70066

Dear Mr. Barkhurst:

SUBJECT: ISSUANCE OF AMENDMENT NO. 70 TO FACILITY OPERATING LICENSE
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A copy of our related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

A handwritten signature in cursive script, appearing to read "D. Wigginton".

David L. Wigginton, Project Manager
Project Directorate IV-1
Division of Reactor Projects III, IV, and V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 70 to NPF-38
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. Ross P. Barkhurst
Entergy Operations, Inc.

Waterford 3

cc:

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Radiation Protection Division
Office of Air Quality and Nuclear Energy
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Baton Rouge, Louisiana 70884-2135

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

ENERGY OPERATIONS, INC.

DOCKET NO. 50-382

WATERFORD STEAM ELECTRIC STATION, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 70
License No. NPF-38

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Entergy Operations, Inc. (the licensee) dated November 9, 1990, and March 5, 1991, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. NPF-38 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 70 , and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Theodore R. Quay, Director
Project Directorate IV-1
Division of Reactor Projects III, IV, and V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 16, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 70
TO FACILITY OPERATING LICENSE NO. NPF-38
DOCKET NO. 50-382

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain vertical lines indicating the areas of change. The corresponding overleaf pages are also provided to maintain document completeness.

REMOVE PAGES

3/4 3-33
3/4 3-34
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INSERT PAGES

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*Overleaf Page

TABLE 4.3-3 (Continued)

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
3. EFFLUENT ACCIDENT MONITORS				
a. Containment High Range	S	R	M	1, 2, 3, & 4
b. Plant Stack High Range	S	R	M	1, 2, 3, & 4
c. Condenser Vacuum Pump High Range	S	R	M	1, 2, 3, & 4
d. Fuel Handling Building Exhaust High Range	S	R	M	1*, 2*, 3*, & 4*
e. Main Steam Line high Range	S	R	M	1, 2, 3, & 4

*With irradiated fuel in the storage pool.

INSTRUMENTATION

INCORE DETECTORS

LIMITING CONDITION FOR OPERATION

3.3.3.2 The incore detection system shall be OPERABLE with:

- a. At least 75% of all incore detector locations, and
- b. A minimum of two quadrant symmetric incore detector locations per core quadrant.

An OPERABLE incore detector location shall consist of a fuel assembly containing a fixed detector string with a minimum of four OPERABLE rhodium detectors.

APPLICABILITY: When the incore detection system is used for monitoring:

- a. AZIMUTHAL POWER TILT,
- b. Radial Peaking Factors,
- c. Local Power Density,
- d. DNB Margin.

ACTION:

- a. With the incore detection system inoperable, do not use the system for the above applicable monitoring or calibration functions.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.2 The incore detection system shall be demonstrated OPERABLE:

- a. By performance of a CHANNEL CHECK within 24 hours prior to its use and at least once per 7 days thereafter when required for monitoring the AZIMUTHAL POWER TILT, radial peaking factors, local power density or DNB margin:
- b. At least once per 18 months by performance of a CHANNEL CALIBRATION operation which exempts the neutron detectors but includes all electronic components. The neutron detectors shall be calibrated prior to installation in the reactor core.

Table 3.0-1 CONTAINMENT PENETRATION CONDUCTOR OVER-CURRENT PROTECTIVE DEVICES

OVER-CURRENT PROTECTIVE DEVICES					WITHIN EACH VOLTAGE LEVEL (ROMAN)				MODES FOR WHICH SURV IS REQUIR'D
BREAKER PROTECTION]	DRAWING	IDENTIFYING NUMBER OR DESCRIPTION	TYPE	TIME CURRENT CHARACTERISTIC	FUNCT TEST	CHAN CALIB	INTEG FUNCT TEST	INSP & PREV MAINT	
7	SAFETY INJECTION TANK 1B ISOLATION VALVE 1SI-V1506 TK 1B (SI-331B)								
a Primary	209-66 Note IV.1	Breaker	EF	Notes IV.2 & IV.3	10% of Type per R	NA	NA	\$ every 60 M	1, 2, 3, 4
b Backup	209-66	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4
8	SAFETY INJECTION TANK 2B ISOLATION VALVE 1SI-V1508 TK 2B (SI-332B)								
a Primary	209-66 Note IV.1	Breaker	EF	Notes IV.2 & IV.3	10% of Type per R	NA	NA	\$ every 60 M	1, 2, 3, 4
b Backup	209-66	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4
9	LP-310								
a Primary	209-66 Note IV.1	Breaker	EF	Notes IV.2 & IV.3	10% of Type per R	NA	NA	\$ every 60 M	1, 2, 3, 4
b Backup	209-66	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4
10	RCS LOOP 1 SDC ISOLATION VALVE 1SI-V1502B (SI-401B)								
a Primary	209-67 Note IV.1	Breaker	EF	Notes IV.2 & IV.3	10% of Type per R	NA	NA	\$ every 60 M	1, 2, 3, 4
b Backup	209-67	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4
11	CARS SUCTION VALVE 2KV-P204B (CAR-201B)								
a Primary	209-68 Note IV.1	Breaker	EF	Notes IV.2 & IV.3	10% of Type per R	NA	NA	\$ every 60 M	1, 2, 3, 4
b Backup	209-68	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4
12	HYDRAULIC PUMP FOR VALVE 1SI-V1501B (SI-406B)								
a Primary	209-68 Note IV.1	Breaker	EF	Notes IV.2 & IV.3	10% of Type per R	NA	NA	\$ every 60 M	1, 2, 3, 4
b Backup	209-68	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4

Table 3.8-1 CONTAINMENT PENETRATION CONDUCTOR OVER-CURRENT PROTECTIVE DEVICES

OVER-CURRENT PROTECTIVE DEVICES					WITHIN EACH VOLTAGE LEVEL (ROMAN)				MODES FOR WHICH SURV IS REQUIR'D
BREAKER PROTECTION]	DRAWING	IDENTIFYING NUMBER OR DESCRIPTION	TYPE	TIME CURRENT CHARACTERISTIC	FUNCT TEST 4.8.4.1 a.2	CHAN CALIB 4.8.4.1 a.1.a	INTEG FUNCT TEST 4.8.4.1.a.1.b	INSP & PREV MAINT 4.8.4.1.b	
13 Cont. 30KVA Transf. PDP 377A									
a Primary	289-71	Breaker	EF	Notes IV.2 & IV.3	10% of Type per R	NA	NA	§ every 60 M	1, 2, 3, 4
b Backup	289-71	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4
14 RCP 2A OIL LIFT PUMP A									
a Primary	289-71	Breaker	EF	Notes IV.2 & IV.3	10% of Type per R	NA	NA	§ every 60 M	1, 2, 3, 4
b Backup	289-71	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4
15 RCP 1A OIL LIFT PUMP A									
a Primary	289-71	Breaker	EF	Notes IV.2 & IV.3	10% of Type per R	NA	NA	§ every 60 M	1, 2, 3, 4
b Backup	289-71	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4
16 STEAM GENERATOR 1 VENT VALVE 2MS-V669 (MS-101A)									
a Primary	289-71	Breaker	EF	Notes IV.2 & IV.3	10% of Type per R	NA	NA	§ every 60 M	1, 2, 3, 4
b Backup	289-71	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4
17 MOVABLE DETECTOR DRIVE MACHINE 1									
THE MOVABLE DETECTOR DRIVE MACHINE 1 WAS DISCONNECTED.									
BOTH THE BREAKER AND FUSE ARE SPARED.									
18 STEAM GENERATOR 2 VENT VALVE 2MS-V667 (MS-101B)									
a Primary	289-74	Breaker	EF	Notes IV.2 & IV.3	10% of Type per R	NA	NA	§ every 60 M	1, 2, 3, 4
b Backup	289-74	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4
19 RCP 1B OIL LIFT PUMP A									
a Primary	289-74	Breaker	EF	Notes IV.2 & IV.3	10% of Type per R	NA	NA	§ every 60 M	1, 2, 3, 4
b Backup	289-74	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4

Table 3.6-1 CONTAINMENT PENETRATION CONDUCTOR OVER-CURRENT PROTECTIVE DEVICES

OVER-CURRENT PROTECTIVE DEVICES					WITHIN EACH VOLTAGE LEVEL (ROMAN)				MODES FOR WHICH SURV IS REQUIR'D
BREAKER PROTECTION]	DRAWING IDENTIFYING NUMBER OR DESCRIPTION	TYPE	TIME CURRENT CHARACTERISTIC	FUNCT TEST 4.8.4.1 a.2	CHAN CALIB 4.8.4.1 a.1.a	INTEG FUNCT TEST 4.8.4.1.a.1.b	INSP & PREV MAINT 4.8.4.1.b		
20 RCP 2B OIL LIFT PUMP A									
a Primary	209-74 Note IV.1	Breaker	EF	Notes IV.2 & IV.3	100% of Type per R	NA	NA	5 every 60 M	1, 2, 3, 4
b Backup	209-74	Fuse	TRB	Note IV.4	NA	NA	NA		1, 2, 3, 4
21 MOVABLE DETECTOR DRIVE MACHINE 2									
THE MOVABLE DETECTOR DRIVE MACHINE 2 HAS BEEN DISCONNECTED. BOTH THE BREAKER AND FUSE ARE SPARED.									
22 Cont. 30EVA Transf. PDP 378B									
a Primary	209-75 Note IV.1	Breaker	EF	Notes IV.2 & IV.3	100% of Type per R	NA	NA	5 every 60 M	1, 2, 3, 4
b Backup	209-75	Fuse	TRB	Note IV.4	NA	NA	NA		1, 2, 3, 4
23 H2 RECOMBINER POWER SUPPLY A									
a Primary	209-77 Note IV.1	Breaker	FJ	Notes IV.2 & IV.3	100% of Type per R	NA	NA	5 every 60 M	1, 2, 3, 4
b Backup	209-77	Fuse	TRB	Note IV.4	NA	NA	NA		1, 2, 3, 4
24 REACTOR CAVITY COOLING SYSTEM FAN B-2 (3A)									
a Primary	209-78 Note IV.1	Breaker	EF	Notes IV.2 & IV.3	100% of Type per R	NA	NA	5 every 60 M	1, 2, 3, 4
b Backup	209-78	Fuse	TRB	Note IV.4	NA	NA	NA		1, 2, 3, 4
25 RADIATION REMOVAL UNIT B-13 (3A)									
a Primary	209-78 Note IV.1	Breaker	EF	Notes IV.2 & IV.3	100% of Type per R	NA	NA	5 every 60 M	1, 2, 3, 4
b Backup	209-78	Fuse	TRB	Note IV.4	NA	NA	NA		1, 2, 3, 4

Table 3.8-1 CONTAINMENT PENETRATION CONDUCTOR OVER-CURRENT PROTECTIVE DEVICES

OVER-CURRENT PROTECTIVE DEVICES					WITHIN EACH VOLTAGE LEVEL (ROMAN)				MODES FOR WHICH SURV IS REQUIR'D
BREAKER PROTECTION]	DRAWING	IDENTIFYING NUMBER OR DESCRIPTION	TYPE	TIME CURRENT CHARACTERISTIC	FUNCT TEST 4.8.4.1 a.2	CHAN CALIB 4.8.4.1 a.1.a	INTEG FUNCT TEST 4.8.4.1.a.1.b	INSP & PREV MAINT 4.8.4.1.b	
26 RCP 1A OIL LIFT PUMP B									
a Primary	209-70	Breaker	EF	Notes IV.2 & IV.3	10% of Type per R	NA	NA	\$ every 60 M	1, 2, 3, 4
b Backup	209-70	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4
27 RCP 2A OIL LIFT PUMP B									
a Primary	209-70	Breaker	EF	Notes IV.2 & IV.3	10% of Type per R	NA	NA	\$ every 60 M	1, 2, 3, 4
b Backup	209-70	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4
28 H2 RECOMBINER POWER SUPPLY B									
a Primary	209-90	Breaker	FJ	Notes IV.2 & IV.3	10% of Type per R	NA	NA	\$ every 60 M	1, 2, 3, 4
b Backup	209-90	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4
29 REACTOR CAVITY COOLING SYSTEM FAN S-2 (3B)									
a Primary	209-81	Breaker	EF	Notes IV.2 & IV.3	10% of Type per R	NA	NA	\$ every 60 M	1, 2, 3, 4
b Backup	209-81	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4
30 RADIATION REMOVAL UNIT R-13 (3B)									
a Primary	209-81	Breaker	EF	Notes IV.2 & IV.3	10% of Type per R	NA	NA	\$ every 60 M	1, 2, 3, 4
b Backup	209-81	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4
31 RCP 1B OIL LIFT PUMP B									
a Primary	209-81	Breaker	EF	Notes IV.2 & IV.3	10% of Type per R	NA	NA	\$ every 60 M	1, 2, 3, 4
b Backup	209-81	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4
32 RCP 2B OIL LIFT PUMP B									
a Primary	209-81	Breaker	EF	Notes IV.2 & IV.3	10% of Type per R	NA	NA	\$ every 60 M	1, 2, 3, 4
b Backup	209-81	Fuse	TRS	Note IV.4	NA	NA	NA	NA	1, 2, 3, 4

Table 3.8-1 CONTAINMENT PENETRATION CONDUCTOR OVER-CURRENT PROTECTIVE DEVICES

OVER-CURRENT PROTECTIVE DEVICES					WITHIN EACH VOLTAGE LEVEL (ROMAN)				MODES FOR WHICH SURV IS REQUIR'D
BREAKER PROTECTION]	DRAWING NUMBER	IDENTIFYING OR DESCRIPTION	TYPE	TIME CURRENT CHARACTERISTIC	FUNCT TEST	CHAN CALIB	INTEG FUNCT TEST	INSP & PREV MAINT	
91 PRESSURIZER SPRAY VALVES 1RC-F1501A (RC-301A) & 1RC-F1502B (RC-301B)									
a Primary	209-150	Circuit 4	Breaker TEB	Note VI.2	10% of Type	NA	NA	5 every 60 M	1, 2, 3, 4
b Backup	424-296	F1	Fuse ATM		per R	NA	NA	NA	1, 2, 3, 4
92 MOVABLE INCORE DETECTOR DRIVE MACHINE #1 CONTROL									
THE MOVABLE INCORE DETECTOR DRIVE MACHINE #1 CONTROL HAS BEEN DISCONNECTED.									
BOTH THE BREAKER AND FUSE ARE SPARED.									
93 MOVABLE INCORE DETECTOR SWITCHING DEVICE									
THE MOVABLE INCORE DETECTOR SWITCHING DEVICE HAS BEEN DISCONNECTED.									
BOTH THE BREAKER AND THE FUSE HAVE BEEN SPARED.									
94 REFUELING MACHINE CONTROL									
a Primary	5017-4241	Fuse	TRS		NA	NA	NA	NA	1, 2, 3, 4
b Backup	5017-4241	Fuse	KTN/KTNR		NA	NA	NA	NA	1, 2, 3, 4
95 SPACE HEATER 1S1-V1506TK1B (S1-331B)									
THE SPACE HEATER WAS DISCONNECTED AT THE MCC AND PDP. BOTH THE BREAKER AND FUSE ARE SPARED.									
96 LIMIT SWITCH & INDICATING LIGHTS 1S1-V1506TK1B (S1-331B)									
a Primary	209-140	Circuit 6	Breaker CD	Note VI.2	10% of Type	NA	NA	5 every 60 M	1, 2, 3, 4
b Backup	209-140A	Circuit 6	Fuse FRN		per R	NA	NA	NA	1, 2, 3, 4

Table 3.8-1 CONTAINMENT PENETRATION CONDUCTOR OVER-CURRENT PROTECTIVE DEVICES

OVER-CURRENT PROTECTIVE DEVICES					WITHIN FUNCT TEST	EACH VOLTAGE LEVEL (ROMAN)			MODES FOR WHICH SURV IS REQUIR'D	
BREAKER PROTECTION]	DRAWING	IDENTIFYING NUMBER OR DESCRIPTION	TYPE	TIME CURRENT CHARACTERISTIC		CHAN CALIB	INTEG FUNCT TEST	INSP & PREV MAINT		
97	SPACE HEATER 181-V1600TK2B (SI-332B)				4.8.4.1 a.2	4.8.4.1 a.1.a	4.8.4.1.a.1.b	4.8.4.1.b		
THE SPACE HEATER WAS DISCONNECTED AT THE MCC AND PDP. BOTH THE BREAKER AND FUSE ARE SPARED.										
98	LIMIT SWITCH & INDICATING LIGHTS 181-V1600TK2B (SI-332B)									
a	Primary	209-148	Circuit 8	Breaker CD	Note VI.2	10% of Type per R	NA	NA	≤ every 60 M	1, 2, 3, 4
b	Backup	209-148A	Circuit 8	Fuse FRN		NA	NA	NA		1, 2, 3, 4
99	RCP 1B SPEED SENSOR									
a	Primary	209-127	Circuit 5	Breaker EE	Note VI.2	10% of Type per R	NA	NA	≤ every 60 M	1, 2, 3, 4
b	Backup	209-127A	F6	Fuse ATM		NA	NA	NA		1, 2, 3, 4
100	RCP 2B SPEED SENSOR									
a	Primary	209-127	Circuit 7	Breaker EE	Note VI.2	10% of Type per R	NA	NA	≤ every 60 M	1, 2, 3, 4
b	Backup	209-127A	F5	Fuse ATM		NA	NA	NA		1, 2, 3, 4
101	RADIATION REMOVAL UNIT E-13 (3B) THERMISTOR									
a	Primary	209-134	Circuit 24	Breaker EE	Note VI.2	10% of Type per R	NA	NA	≤ every 60 M	1, 2, 3, 4
b	Backup	209-134A	F1	Fuse ATM		NA	NA	NA		1, 2, 3, 4
102	CONTAINMENT AIR LOCKS DOOR POSITION INDICATOR									
a	Primary	209-147	Circuit 33	Breaker CD	Note VI.2	10% of Type per R	NA	NA	≤ every 60 M	1, 2, 3, 4
b	Backup	209-147A	Circuit 33	Fuse FRN		NA	NA	NA		1, 2, 3, 4

Table 3.8-1 CONTAINMENT PENETRATION CONDUCTOR OVER-CURRENT PROTECTIVE DEVICES

OVER-CURRENT PROTECTIVE DEVICES					WITHIN EACH VOLTAGE LEVEL (ROMAN)				MODES FOR WHICH SURV IS REQUIR'D
BREAKER PROTECTION]	DRAWING	IDENTIFYING NUMBER OR DESCRIPTION	TYPE	TIME CURRENT CHARACTERISTIC	FUNCT TEST 4.8.4.1 a.2	CHAN CALIB 4.8.4.1 a.1.a	INTEG FUNCT TEST 4.8.4.1.a.1.b	INSP & PREV MAINT 4.8.4.1.b	
105 CONTAINMENT AIR LOCKS DOOR POSITION INDICATOR									
a Primary	209-140	Circuit 33	Breaker CD	Note VI.2	10% of Type per R	NA	NA	5 every 60 M	1, 2, 3, 4
b Backup	209-140A	Circuit 33	Fuse FRN		NA	NA	NA	NA	1, 2, 3, 4
104 POSITION INDICATOR 2BM-F100AB (BM-109)									
a Primary	209-133	Circuit 34	Breaker EE	Note VI.2	10% of Type per R	NA	NA	5 every 60 M	1, 2, 3, 4
b Backup	424-400 & 405	Circuit 2	Fuse NON		NA	NA	NA	NA	1, 2, 3, 4
103 POSITION INDICATOR 2WM-F157AB (GWM-104)									
a Primary	209-133	Circuit 33	Breaker EE	Note VI.2	10% of Type per R	NA	NA	5 every 60 M	1, 2, 3, 4
b Backup	424-480 & 400	Circuit 19	Fuse NON		NA	NA	NA	NA	1, 2, 3, 4
102 MOVABLE INCORE DETECTOR DRIVE MACHINE #2 CONTROL									
THE MOVABLE INCORE DETECTOR DRIVE MACHINE #2 CONTROL HAS BEEN DISCONNECTED.									
BOTH THE FUSE AND THE BREAKER HAVE BEEN SPARED.									
107 CEDM COOLING UNITS VIBRATION SWITCHES*									
a Primary	209-110A	Fuse	FB		NA	NA	NA	NA	1, 2, 3, 4
	424-771 & 2020								
b Backup	209-110A	Fuse	FB		NA	NA	NA	NA	1, 2, 3, 4
	424-771 & 2020								

* Two fused breakers, one each, + and - poles.

TABLE 3.8-1 (Continued)

NOTES

I. 6.9 KV POWER FROM MEDIUM VOLTAGE SWITCHGEAT

- I.1) Refer to drawing LOU-1564-B-289 sheet and line numbers as indicated.
- I.2) Refer to G.E. curve in GEI-68751A and GEI-19959 instruction books for IAC 66M3A and IAC57 relays.
- I.3) Relay testings to be performed in accordance with vendor's relay calibration procedures.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 70 TO

FACILITY OPERATING LICENSE NO. NPF-38

ENERGY OPERATIONS, INC.

WATERFORD STEAM ELECTRIC STATION, UNIT 3

DOCKET NO. 50-382

1.0 INTRODUCTION

By application dated November 9, 1990, and March 5, 1991, Entergy Operations, Inc. (the licensee) submitted a request for changes to the Waterford Steam Electric Station, Unit 3, Technical Specifications (TS). The requested changes would delete the reference to the movable incore detector system (MICDS) and remove requirements for the associated containment penetration conductor over-current protection devices. The fixed incore detector system will remain and the containment penetrations will continue to be protected for over-current when in use.

2.0 EVALUATION

Neutron flux data is necessary for reactor control and incore detectors are required to obtain this data. At Waterford, the incore detector system consists of the Movable Incore Detector System (MICDS) and the Fixed Incore Detector System (FICDS). However, the Technical Specifications allow either of these systems to meet the requirements for incore flux mapping and the MICDS has proven to be unreliable. The licensee has removed the MICDS, closed the remaining penetration tubes for the system, and has removed part of the control cables and fuses. This latter action on control cables is to protect the containment penetration against overcurrent accidents. The proposed license amendment is to remove reference to the MICDS and delete the requirement to test the associated over-current protective device on the containment penetration.

The MICDS at Waterford developed hardware problems early in plant life and reactor system leakage during late 1989 and early 1990. The licensee determined that the benefits of having two independent systems to perform flux mapping was outweighed by the repairs to the hardware and the potential for recurring leakage from the reactor coolant system. The movable incore detectors were removed in January 1990, and the MICDS tubes were pressure capped as a temporary alteration. During the outage in 1991, the temporary alteration was made permanent and the leakage paths were isolated. Since the FICDS is capable of meeting the requirements for flux mapping and the Technical Specifications are satisfied by either system, removal of the MICDS is acceptable. The permanent

alteration to remove the software controls, remove a section of each guide tube and cap each calibration tube to eliminate potential leakage paths is acceptable.

With removal of the MICDS, the licensee also requested the deletion of the requirement to periodically test the associated over-current protective device on the cables to the MICDS. The licensee has removed a section of the cables to the drive machines inside containment to prevent the inadvertent reconnection and has removed the fuses outside containment at the power source. The licensee has also disconnected the cables at the power source outside containment, coiled the cables, labeled them as "spare", and secured them in the Motor Control Center cable tray. This will eliminate any source of current on the cables and supports the licensee's request to delete the overcurrent protection device tests for these cables in this penetration. The licensee will use plant configuration control (i.e., the design change process) to control and ensure that any modification to the cable penetrations will include overcurrent devices and testing of the devices. Any permanent use of these cables in the penetration will require a license amendment to restore the overcurrent protection device testing to the Technical Specifications. The actions by the licensee and any that may be required for permanent use of the cables in the containment penetration are acceptable for removal of the overcurrent protective device testing at this time.

On the basis of the licensee's actions and the above evaluation the proposed license amendment and changes to the Technical Specifications are acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Louisiana State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes in surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding (56 FR 27044). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: D. Wigginton

Date: September 16, 1991