Febraury 13, 1990

Docket No. 50-333

Mr. John C. Brons
Executive Vice President - Nuclear Generation
Power Authority of the State of New York
123 Main Street
White Plains, New York 10601

Dear Mr. Brons:

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. 73361)

The Commission has issued the enclosed Amendment No. 150 to Facility Operating License No. DPR-59 for the James A. FitzPatrick Nuclear Power Plant. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated May 31, 1989.

The amendment modifies and updates Technical Specification Table 3.7-1, "Process Pipeline Penetrating Primary Containment," for clarity and to reflect the as-built condition of the plant.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular bi-weekly Federal Register notice.

Sincerely,

ORIGINAL SIGNED BY:

David E. LaBarge, Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 150 to DPR-59
2. Safety Evaluation

cc w/enclosures:
See next page

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James A. FitzPatrick Nuclear
Power Plant

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

POWER AUTHORITY OF THE STATE OF NEW YORK

DOCKET NO. 50-333

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 150
License No. DPR-59

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Power Authority of the State of New York (the licensee) dated May 31, 1989, 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.

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. DPR-59 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 150, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance to be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert E Martin for

Robert A. Capra, Director
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical Specifications

Date of Issuance: February 13, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 150

FACILITY OPERATING LICENSE NO. DPR-59

DOCKET NO. 50-333

Revise Appendix A as follows:

Remove Pages	Insert Pages
vi	vi
198	198
199	199
200	200
201	201
202	202
203	203
204	204
205	205
206	206
206a	206a
206b	206b
206c	206c
206d	206d
206e	206e
206f	206f
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208	208
209	209

LIST OF TABLES (Cont'd)

TABLE 3.7-1
(Sh. 1 of 15)

PRIMARY CONTAINMENT ISOLATION VALVES

CONTAINMENT PENETRATION	PENETRATION FUNCTION	VALVE NUMBER	ISOLATION SIGNAL	CLOSE TIME (SEC) (5)	NORMAL STATUS (7)	REMARKS
7A 7B 7C 7D	Main Steam	29AOV-80A 29AOV-80B 29AOV-80C 29AOV-80D	B,C,D,E,M,P,R	3 to 5	Open	Note 1
		29AOV-86A 29AOV-86B 29AOV-86C 29AOV-86D	B,C,D,E,M,P,R	3 to 5	Open	Note 1
8	Main Steam Drain	29MOV-74	B,C,D,E,M,P,R	15	Closed	
		29MOV-77	B,C,D,E,M,P,R	15	Closed	
9A	Feedwater	34FWS-28A	Reverse Flow	N/A	Open	
		34NRV-111A	Reverse Flow	N/A	Open	
	RCIC-Disch.	13MOV-21	R	N/A	Closed	
	RWCU-Return	12MOV-69	A,F,J,R	20	Open	
9B	Feedwater	34FWS-28B	Reverse Flow	N/A	Open	
		34NRV-111B	Reverse Flow	N/A	Open	
	HPCI-Disch.	23MOV-19	R	N/A	Closed	
10	RCIC-Turbine Steam Supply	13MOV-15	K,R	12	Open	
		13MOV-16	K,R	12	Open	

TABLE 3.7-1
(Sh. 2 of 15)

PRIMARY CONTAINMENT ISOLATION VALVES

CONTAINMENT PENETRATION	PENETRATION FUNCTION	VALVE NUMBER	ISOLATION SIGNAL	CLOSE TIME (SEC) (5)	NORMAL STATUS (7)	REMARKS
11	HPCI-Turbine Steam Supply	23MOV-15	L,R	13.5	Open	
		23MOV-16	L,R	13.5	Closed	
		23MOV-60	L,R	13.5	Open	
12	RHR-Shutdown Cooling Suction	10MOV-18	A,F,R,U	38	Closed	
		10MOV-17	A,F,R,U	38	Closed	
13A	RHR-Shutdown Cooling and LPCI to Reactor	10AOV-68A	Reverse Flow	N/A	Closed	Testable check valve, Notes 3, 10.
		10MOV-25A	R,X	120	Closed	Note 6
		10MOV-27A	R	90	Open	Throttle valve, Note 6.
13B	RHR-Shutdown Cooling and LPCI to Reactor	10AOV-68B	Reverse Flow	N/A	Closed	Testable check valve, Notes 3, 10.
		10MOV-25B	R,X	120	Closed	Note 6.
		10MOV-27B	R	90	Open	Throttle valve, Note 6.
14	RWCU-Suction From Reactor	12MOV-15	A,F,J,R	20	Open	
		12MOV-18	A,F,J,R,V,Y	20	Open	
	RWCU-Suction From Reactor Warm-up	12MOV-80	A,F,J,R,V,Y	10	Closed	

TABLE 3.7-1
(Sh. 3 of 15)

PRIMARY CONTAINMENT ISOLATION VALVES

CONTAINMENT PENETRATION	PENETRATION FUNCTION	VALVE NUMBER	ISOLATION SIGNAL	CLOSE TIME (SEC) (5)	NORMAL STATUS (7)	REMARKS
16A	Core Spray	14AOV-13A	Reverse Flow	N/A	Closed	Testable check valve, Notes 3, 10.
		14MOV-12A	R	N/A	Closed	Note 6.
		14MOV-11A	R	N/A	Open	
16B	Core Spray	14AOV-13B	Reverse Flow	N/A	Closed	Testable check valve, Notes 3, 10.
		14MOV-12B	R	N/A	Closed	Note 6.
		14MOV-11B	R	N/A	Open	
17	RHR-Reactor Head Spray	10MOV-32	A,F,R,U	20	Closed	
		10MOV-33	A,F,R,U	20	Closed	
18	Drywell-Floor Drain Sump Disch.	20MOV-82	A,F,R	30	Open	
		20AOV-83	A,F,R	N/A	Open	
19	Drywell - Equip. Drain Sump Disch.	20MOV-94	A,F,R	30	Open	
		20AOV-95	A,F,R	N/A	Closed	Note 11
22	Instrument Air or Nitrogen	39IAS-22	Reverse Flow	N/A	Open	
		27SOV-141	R	N/A	Open	Fail in open position to ensure adequate pneumatic supply.

TABLE 3.7-1
(Sh. 4 of 15)

PRIMARY CONTAINMENT ISOLATION VALVES

CONTAINMENT PENETRATION	PENETRATION FUNCTION	VALVE NUMBER	ISOLATION SIGNAL	CLOSE TIME (SEC) (5)	NORMAL STATUS (7)	REMARKS
23	RBCLCW to Drywell	15AOV-130A	R	N/A	Open	To drywell cooler assembly A and equipment sump cooler
		15RBC-24A	Reverse Flow	N/A	Open	
	ESW to Drywell	46ESW-16B	Reverse Flow	N/A	Closed	
24	RBCLCW to Drywell	15AOV-130B	R	N/A	Open	To drywell cooler assembly B.
		15RBC-24B	Reverse Flow	N/A	Open	
	ESW to Drywell	46ESW-16A	Reverse Flow	N/A	Closed	
25 & 71	Drywell Purge Inlet (Air)	27AOV-112	A,F,H,R,Z	5	Closed	
		27AOV-111	A,F,H,R,Z	5	Closed	
	Drywell Purge Inlet (Nitrogen)	27AOV-131A	A,F,H,R,Z	5	Closed	
		27CAD-68	Reverse Flow	N/A	Closed	
		27AOV-131B	A,F,H,R,Z	5	Closed	
		27CAD-69	Reverse Flow	N/A	Closed	
26A & 26B	Drywell Purge Inlet (Air and/or Nitrogen)	27AOV-113	A,F,H,R,Z	5	Closed	
		27AOV-114	A,F,H,R,Z	5	Closed	
		27MOV-113	A,F,H,R,Z	5	Closed	
		27MOV-122	A,F,H,R,Z	5	Closed	

TABLE 3.7-1
(Sh. 5 of 15)

PRIMARY CONTAINMENT ISOLATION VALVES

CONTAINMENT PENETRATION	PENETRATION FUNCTION	VALVE NUMBER	ISOLATION SIGNAL	CLOSE TIME (SEC) (5)	NORMAL STATUS (7)	REMARKS
26A	Drywell Atmosphere Sample (Suction)	27SOV-119F2	A,F,R,Z	N/A	Closed	From elev. 250´-3" to 27-PCA-101B. Note 13.
		27SOV-119F1	A,F,R,Z	N/A	Closed	
		27SOV-120E2	A,F,R,Z	N/A	Open	From elev. 310´-6" to 27-PCA-101A. Note 13.
		27SOV-120E1	A,F,R,Z	N/A	Open	
		27SOV-122E2	A,F,R,Z	N/A	Closed	From elev. 343´ to 27-PCA-101A. Note 13.
		27SOV-122E1	A,F,R,Z	N/A	Closed	
30a	Instrumen-tation	Various	N/A	N/A	Open	Typical of Group A Instrumentation penetrations.
		Various	Excess Flow	N/A	Open	
31Ac	Recircu-lation pump seal purge	02-2RWR-13A	Reverse Flow	N/A	Open	
		02-2SOV-001	B,F,R	N/A	Open	
31Bc	Recircu-lation pump seal purge	02-2RWR-13B	Reverse Flow	N/A	Open	
		02-2SOV-002	B,F,R	N/A	Open	
31Ad	Drywell atmosphere sample (Suction)	27SOV-135C	A,F,R,Z	N/A	Open	From elev. 276´ to Radiation Monitors, Note 12.
		27SOV-135A	A,F,R,Z	N/A	Open	

TABLE 3.7-1
(Sh. 6 of 15)

PRIMARY CONTAINMENT ISOLATION VALVES

CONTAINMENT PENETRATION	PENETRATION FUNCTION	VALVE NUMBER	ISOLATION SIGNAL	CLOSE TIME (SEC) (5)	NORMAL STATUS (7)	REMARKS
31Bd	Drywell atmosphere sample (Suction)	27SOV-135D	A,F,R,Z	N/A	Open	From elev. 296´ to Radiation Monitors Note 12.
		27SOV-135B	A,F,R,Z	N/A	Open	
35A	Traversing In-core Probe	07NM-104A	A,F,R	N/A	Open	Notes 8, 14.
		07NM-104A	R	N/A	Open	Notes 14, 15.
35B	Traversing In-core Probe	07NM-104B	A,F,R	N/A	Open	Notes 8, 14.
		07NM-104B	R	N/A	Open	Notes 14, 15.
35C	Traversing In-core Probe	07NM-104C	A,F,R	N/A	Open	Notes 8, 14.
		07NM-104C	R	N/A	Open	Notes 14, 15.
35D	Traversing In-core Probe	07NM-104D	A,F,R	N/A	Open	Notes 8, 14.
		07NM-104D	R	N/A	Open	Notes 14, 15.
35E	TIP Purge	27CAD-901	Reverse Flow	N/A	Open	
		27SOV-001	A,F,R	N/A	Closed	

Amendment No. ~~40~~, ~~46~~, ~~124~~ 150

TABLE 3.7-1
(Sh. 7 of 15)

PRIMARY CONTAINMENT ISOLATION VALVES

CONTAINMENT PENETRATION	PENETRATION FUNCTION	VALVE NUMBER	ISOLATION SIGNAL	CLOSE TIME (SEC) (5)	NORMAL STATUS (7)	REMARKS
37A 37B 37C 37D	Control Rod Drive (Inlet)	SOV-120	N/A	N/A	Closed	Typical of 137 Control Rod Hydraulic Control Units. Valves listed isolate the CRD insert and scram inlet line. Note 4.
		SOV-123	N/A	N/A	Closed	
		AOV-126	N/A	N/A	Closed	
		CRD-138	Reverse Flow	N/A	Open	
38A 38B 38C 38D	Control Rod Drive (Outlet)	SOV-121	N/A	N/A	Closed	Typical of 137 Control Rod Hydraulic Control Units. Valves listed isolate the CRD withdraw and scram oulet line. Note 4.
		SOV-122	N/A	N/A	Closed	
		AOV-127	N/A	N/A	Closed	
39A	RHR Containment Spray	10MOV-31A	G,S,R	10	Closed	Note 2.
		10MOV-26A	G,S,R	10	Closed	
		10RHR-52A	N/A	N/A	Closed	
39B	RHR Containment Spray	10MOV-31B	G,S,R	10	Closed	Note 2.
		10MOV-26B	G,S,R	10	Closed	
		10RHR-52B	N/A	N/A	Closed	
41	Recirc Loop Sample	02-2SOV-39	B,C,R	N/A	Open	
		02-2SOV-40	B,C,R	N/A	Open	

Amendment No. ~~40~~, ~~46~~, 150

TABLE 3.7-1
(Sh. 8 of 15)

PRIMARY CONTAINMENT ISOLATION VALVES

CONTAINMENT PENETRATION	PENETRATION FUNCTION	VALVE NUMBER	ISOLATION SIGNAL	CLOSE TIME (SEC) (5)	NORMAL STATUS (7)	REMARKS
42	Standby Liquid Control	11SLC-17	Reverse Flow	N/A	Closed	
		11SLC-16	Reverse Flow	N/A	Closed	
45	Drywell Pressure Sensing	16-1AOV-101A	A,F,R,Z	N/A	Open	
		16-1AOV-101B	A,F,R,Z	N/A	Open	
50c	Instrumentation - Sensing DW Pressure	Various	N/A	N/A	Open	Typical of Group B instrumention penetrations.
52a	Drywell Atmosphere Sample (Return)	27SOV-125C	A,F,R,Z	N/A	Open	To elev. 282´ from Radiation Monitors, Note 12.
		27SOV-125A	A,F,R,Z	N/A	Open	
55b	Drywell Atmosphere Sample (Return)	27SOV-125D	A,F,R,Z	N/A	Open	To elev. 296´ from Radiation Monitors, Note 12.
		27SOV-125B	A,F,R,Z	N/A	Open	
57c	CAD Supply to Instrumentation in Drywell	27SOV-145	R	N/A	Open	Fail in open position to ensure adequate pneumatic supply.
		39IAS-29	Reverse Flow	N/A	Closed	

TABLE 3.7-1
(Sh. 9 of 15)

PRIMARY CONTAINMENT ISOLATION VALVES

CONTAINMENT PENETRATION	PENETRATION FUNCTION	VALVE NUMBER	ISOLATION SIGNAL	CLOSE TIME (SEC) (5)	NORMAL STATUS (7)	REMARKS
58b	Drywell Hydrogen Sample	27SOV-122F2	A,F,R,Z	N/A	Closed	From elev. 343´-3" to 27-PCA-101B. Note 13.
		27SOV-122F1	A,F,R,Z	N/A	Closed	
58c	Drywell Hydrogen Sample	27SOV-120F2	A,F,R,Z	N/A	Open	From elev. 310´-6" to 27-PCA-101B. Note 13.
		27SOV-120F1	A,F,R,Z	N/A	Open	
58d	Drywell Hydrogen Sample	27SOV-123F2	A,F,R,Z	N/A	Closed	From elev. 276´-6" to 27-PCA-101B. Note 13.
		27SOV-123F1	A,F,R,Z	N/A	Closed	
59	Drywell Hydrogen Sample	27SOV-123E2	A,F,R,Z	N/A	Closed	From elev. 276´ to 27-PCA-101A. Note 13.
		27SOV-123E1	A,F,R,Z	N/A	Closed	
62	RBCLCW or ESW from Drywell	15AOV-131B	R	N/A	Open	From drywell cooler assembly B.
		15RBC-26B	N/A	N/A	Open	
63	RBCLCW to Drywell	15AOV-132A	R	N/A	Open	To recirculation pump A and motor coolers.
		15RBC-21A	Reverse Flow	N/A	Open	
	ESW to Drywell	46ESW-15B	Reverse Flow	N/A	Closed	
64	RBCLCW or ESW from Drywell	15AOV-133A	R	N/A	Open	From recirculation pump A and motor coolers.
		15RBC-22A	N/A	N/A	Open	

TABLE 3.7-1
(Sh. 10 of 15)

PRIMARY CONTAINMENT ISOLATION VALVES

CONTAINMENT PENETRATION	PENETRATION FUNCTION	VALVE NUMBER	ISOLATION SIGNAL	CLOSE TIME (SEC) (5)	NORMAL STATUS (7)	REMARKS
65	RBCLCW or ESW from Drywell	15AOV-134A	R	N/A	Open	From drywell equipment sump cooler.
		15RBC-33	N/A	N/A	Open	
66	RBCLCW or ESW from Drywell	15AOV-131A	R	N/A	Open	From drywell cooler assembly A.
		15RBC-26A	N/A	N/A	Open	
67	RBCLCW to Drywell	15AOV-132B	R	N/A	Open	To recirculation pump B and motor coolers.
		15RBC-21B	Reverse Flow	N/A	Open	
	ESW to Drywell	46ESW-15A	Reverse Flow	N/A	Closed	
68	RBCLCW or ESW from Drywell	15AOV-133B	R	N/A	Open	From recirculation pump B and motor coolers.
		15RBC-22B	N/A	N/A	Open	
202B	Vacuum Breaker - Reactor Building to Suppression Chamber	27AOV-101A	R	N/A	Closed	VBs open when suppression chamber pressure is 0.5 psid below Reactor Building pressure.
		27AOV-101B	R	N/A	Closed	
		27VB-6	Reverse Flow	N/A	Closed	
		27VB-7	Reverse Flow	N/A	Closed	

TABLE 3.7-1
(Sh. 11 of 15)

PRIMARY CONTAINMENT ISOLATION VALVES

CONTAINMENT PENETRATION	PENETRATION FUNCTION	VALVE NUMBER	ISOLATION SIGNAL	CLOSE TIME (SEC) (5)	NORMAL STATUS (7)	REMARKS
203A	Suppression Chamber Atmosphere Sample (Suction)	27SOV-119E2	A,F,R,Z	N/A	Closed	To 27-PCA-101A. Note 13.
		27SOV-119E1	A,F,R,Z	N/A	Closed	
203B	Primary Containment Analyzer and Post Accident Sample (Return)	27SOV-124E2	A,F,R,Z	N/A	Open	From 27-PCA-101A. Note 13.
		27SOV-124E1	A,F,R,Z	N/A	Open	
		27SOV-124F2	A,F,R,Z	N/A	Open	From 27-PCA-101B. Note 13.
		27SOV-124F1	A,F,R,Z	N/A	Open	
205	Pressure Suppression Chamber Purge Exhaust (Air or Nitrogen)	27AOV-117	A,F,H,R,Z	5	Closed	
		27AOV-118	A,F,H,R,Z	5	Closed	
		27MOV-117	A,F,H,R,Z	5	Closed	
		27MOV-123	A,F,H,R,Z	5	Closed	
210A	RHR to Suppression Pool	10MOV-34A	G,R	70	Closed	Throttle valve for flow test and suppression pool cooling. Note 2.

Amendment No. 150

TABLE 3.7-1
(Sh. 12 of 15)

PRIMARY CONTAINMENT ISOLATION VALVES

CONTAINMENT PENETRATION	PENETRATION FUNCTION	VALVE NUMBER	ISOLATION SIGNAL	CLOSE TIME (SEC) (5)	NORMAL STATUS (7)	REMARKS
210A (con't)	RHR to Suppression Pool	10MOV-16A	R	N/A	Closed	Pump minimum flow.
		10MOV-21A	G,R	N/A	Closed	Heat exchanger drain.
		10MOV-167A	R	N/A	Closed	Heat exchanger vent.
	RCIC	13MOV-27	K,R	5	Closed	Pump minimum flow.
	Core Spray Test to Suppression Pool	14MOV-5A	R	N/A	Open	Pump minimum flow.
		14MOV-26A	G,R	45	Closed	Throttle valve for flow test.
210B	RHR to Suppression Pool	10MOV-34B	G,R	70	Closed	Throttle valve for flow test and suppression pool cooling. Note 2.
		10MOV-16B	R	N/A	Closed	Pump minimum flow.
		10MOV-21B	G,R	N/A	Closed	Heat exchanger drain.
		10MOV-167B	R	N/A	Closed	Heat exchanger vent.

Amendment No. 150

TABLE 3.7-1
(Sh. 13 of 15)

PRIMARY CONTAINMENT ISOLATION VALVES

CONTAINMENT PENETRATION	PENETRATION FUNCTION	VALVE NUMBER	ISOLATION SIGNAL	CLOSE TIME (SEC) (5)	NORMAL STATUS (7)	REMARKS
210B (con't)	HPCI	23MOV-25	R	10	Closed	Pump minimum flow.
	Core Spray Test to Suppression Pool	14MOV-5B	R	N/A	Open	Pump minimum flow.
		14MOV-26B	G,R	45	Closed	Throttle valve for flow test.
211A	RHR to Suppression Spray Header	10MOV-38A	G,R,S	10	Closed	Throttle valve for suppression chamber spray. Note 2.
		10MOV-39A	G,R	N/A	Closed	Note 2.
211B	RHR to Suppression Spray Header	10MOV-38B	G,R,S	10	Closed	Throttle valve for suppression chamber spray. Note 2.
		10MOV-39B	G,R	N/A	Closed	Note 2.
212	RCIC - Turbine Exhaust	13RCIC-04	Reverse Flow	N/A	Closed	
		13RCIC-05	Reverse Flow	N/A	Closed	
214	HPCI - Turbine Exhaust	23HPI-12	Reverse Flow	N/A	Closed	
		23HPI-65	Reverse Flow	N/A	Closed	

Amendment No. 150

TABLE 3.7-1
(Sh. 14 of 15)

PRIMARY CONTAINMENT ISOLATION VALVES

CONTAINMENT PENETRATION	PENETRATION FUNCTION	VALVE NUMBER	ISOLATION SIGNAL	CLOSE TIME (SEC) (5)	NORMAL STATUS (7)	REMARKS
218	Torus Pressure Sensing	16-1AOV-102A	A,F,R,Z	N/A	Open	
		16-1AOV-102B	A,F,R,Z	N/A	Open	
220	Torus Purge Inlet (Air)	27AOV-116	A,F,H,R,Z	5	Closed	
		27AOV-115	A,F,H,R,Z	5	Closed	
	Torus Purge Inlet (Nitrogen)	27AOV-132A	A,F,H,R,Z	5	Closed	
		27CAD-67	Reverse Flow	N/A	Closed	
		27AOV-132B	A,F,H,R,Z	5	Closed	
		27CAD-70	Reverse Flow	N/A	Closed	
221	RCIC - Vacuum to Torus	13RCIC-07	Reverse Flow	N/A	Closed	
222	HPCI - Turb Drain Trap to Torus	23HPI-13	Reverse Flow	N/A	Closed	
224	RCIC - Pump Suction (Torus)	13MOV-41	R	N/A	Closed	
		13MOV-39	R	N/A	Closed	

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TABLE 3.7-1
(Sh. 15 of 15)

PRIMARY CONTAINMENT ISOLATION VALVES

CONTAINMENT PENETRATION	PENETRATION FUNCTION	VALVE NUMBER	ISOLATION SIGNAL	CLOSE TIME (SEC) (5)	NORMAL STATUS (7)	REMARKS
225A	RHR - Pump Suction	10MOV-13A	R	N/A	Open	
		10MOV-13C	R	N/A	Open	
	RHR to Radwaste	10MOV-67	A,F,R	24	Closed	
		10MOV-57	A,F,R	24	Closed	
225B	RHR - Pump Suction	10MOV-13B	R	N/A	Open	
		10MOV-13D	R	N/A	Open	
226	HPCI - Pump Suction (Torus)	23MOV-58	L,R	N/A	Closed	
		23MOV-57	L,R	N/A	Closed	
227A	Core Spray - Pump Suction (Torus)	14MOV-7A	R	N/A	Open	
227B	Core Spray Pump Suction (Torus)	14MOV-7B	R	N/A	Open	
228	Condensate to Torus	33CND-102	N/A	N/A	Closed	

ISOLATION SIGNAL CODES for Table 3.7-1

Signal	Description
A*	Reactor vessel low water level - This is the highest of the three low water level signals. A scram occurs at this level.
B*	Reactor vessel low-low-low water level - This is the lowest of the three low water level signals.
C*	High radiation - main steam line
D*	Line break - main steam (high steam flow)
E*	Line break - main steam (tunnel high temperature)
F*	High drywell pressure
G	Reactor vessel low-low-low water level or high drywell pressure
H*	Containment high radiation
J*	Line break in Reactor Water Clean-up System - high area temperature
K*	Line break in RCIC System steam line to turbine (high steam line area temperature, high steam flow, low steam line pressure, or high turbine exhaust diaphragm pressure)
L*	Line break in HPCI System steam line to turbine (high steam line space temperature, high steam flow, low steam line pressure, or high turbine exhaust diaphragm pressure)
M*	Low condenser vacuum in run mode only
P*	Low main steam line pressure at inlet to main turbine (RUN mode only)
R*	Remote manual switch from control room (automatic Group A & B isolaton valves are capable of remote manual operation from the control room)
S	Low drywell pressure
T	Low reactor pressure permissive to open Core Spray and RHR-LPCI valves
U*	High reactor vessel pressure or high drywell pressure
V	High temperature at outlet of Reactor Water Clean-up system non-regenerative heat exchanger
X*	Reactor vessel low water level or high drywell pressure when both shutdown cooling suction valves (10MOV-17 and 10MOV-18) are not fully closed and reactor vessel pressure is below 75 psig
Y	Standby Liquid Control System actuated
Z*	Reactor building ventilation exhaust high radiation

* These are the isolation functions of the Primary Containment and Reactor Vessel Isolation Control System; other functions are given for information only. Setpoints for isolation signals are located in Tables 3.2-1 and 3.2-2.

Notes For Table 3.7-1
"PRIMARY CONTAINMENT ISOLATION VALVES"
(Sh. 1 of 2)

1. Main steam isolation valves require that both solenoid pilots be de-energized to close valves. Accumulator air pressure plus spring force act together to close valves when both pilots are de-energized. Voltage failure at only one pilot does not cause valve closure.
2. Primary containment spray and pressure suppression chamber (torus) cooling valves have interlocks that allow them to be manually reopened after automatic closure. This provision permits containment spray, for high drywell pressure conditions, and/or pressure suppression chamber water cooling. When automatic signals are not present, these valves may be opened for test or operating convenience.
3. Testable check valves are designed for remote opening with zero differential pressure across the valve seat. The valves close on reverse flow even through the test switches may be positioned for open. The valves open when pump pressure exceeds reactor pressure even though test switch may be positioned for close.
4. Control rod hydraulic lines are isolated by solenoid operated valves (normal insert and withdraw), air operated valves (scram inlet and outlet) and check valves (control rod drive cooling water). The lines that extend outside the primary containment are small and terminate in a system designed to prevent outleakage (i.e., the scram discharge volume and associated instrument volumes). Solenoid operated valves are normally closed, but open on normal rod movement (insert or withdraw). Air operated valves are normally closed, but open for control rod scram. Check valves are normally open, but closed during control rod scram and insert. All valve numbers shown are prefixed with the system and control rod drive hydraulic control unit designation. For example, the complete designation for control rod 26-27 scram inlet valve is 03-26-27AOV-126.
5. The standard minimum closing rate for automatic motor operated isolation valves is based on a nominal line size of 12 inch. Using the standard closing rate, a 12 inch line is isolated in 60 seconds.
6. Coincident signals "G" and "T" open valves. Special interlocks permit testing these valves by manual switch except when automatic signals are present.
7. Normal status position of valve (open or closed) is the position during normal power operation of the reactor and is provided in this table for information only (see "Normal Status" column).
8. Signal "A" or "F" causes automatic withdrawal of TIP probe. When the probe is withdrawn, the ball valve automatically closes by mechanical action.
9. Reactor building ventilation exhaust high radiation signal "Z" is generated by two trip units. This requires one unit at high trip or both units at down scale (instrument failure) trip, in order to initiate isolation.
10. Leak testing shall be accomplished in accordance with Section 4.7.A.2.d.

Notes For Table 3.7-1
"PRIMARY CONTAINMENT ISOLATION VALVES"
(Sh. 2 of 2)

11. Valve 20AOV-95 opens during pump out of the drywell equipment sump. Automatic isolation signals A and F override an open signal that might be present for sump pump out.

12. Radiation monitors used for sampling iodine, particulate, and gaseous are as follows:

Radiation Monitors	**Sample**
17-RM-101A 17-RM-101B	Iodine
17-RM-102A 17-RM-102B	Particulate
17-RM-103A 17-RM-103B	Gaseous

13. Isolation signals A, F, and Z may be manually overridden by keylock switch on the Monitoring and Analysis Panel (MAP) located in the relay room.

14. Traversing In-core Probe (TIP) penetrations are isolated by a guide tube and valve assembly which includes a solenoid operated ball valve and an explosive shear valve designed to sever and seal the TIP tubing and TIP detector helix. The guide tube and valve assemblies are designated 07NM-104A, B, C, and D for pentrations 35A, B, C, and D, respectively.

15. The explosive shear valves are not normally actuated and require replacement parts and maintenance activity in order to open the valves following actuation.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 150 TO FACILITY OPERATING LICENSE NO. DPR-59

POWER AUTHORITY OF THE STATE OF NEW YORK

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

DOCKET NO. 50-333

INTRODUCTION

By letter dated May 31, 1989, the Power Authority of the State of New York (PASNY or the licensee) submitted an amendment to the Technical Specifications (TS) for the James A. FitzPatrick Nuclear Power Plant. The amendment would affect TS Table 3.7-1 by changing its title from "Process Piping Penetrating Primary Containment" to "Primary Containment Isolation Valves," by modifying the format, by deleting unnecessary columns, by adding and deleting valves to reflect the as-built condition of the plant, and correcting the isolation signals. Other general changes such as wording clarification, nomenclature improvements and correction of typographical errors are also included.

DESCRIPTION

Table 3.7-1 consists of a list of all pipes which penetrate the Primary Containment, the penetration number, the type of valve (air operated globe, motor operated gate, check, spring operated, motor operated globe, etc.) which is designed to isolate the penetration, the power which opens the valve (AC, DC, air, etc.), its assigned Isolation Group (A, B, C), the location of the valve (inside or outside the drywell), the power which closes the valve, the Isolation Signal(s) which cause automatic closure of the valve, the required closing time (if any), and the normal status of the valve (open or closed).

The proposed format change consists of arranging the penetrations in order of penetration number, identifying the function of the penetration and adding appropriate valve numbers. These changes explicitly identify the isolation valves, which increases the functionality of the table. A comparison check was made to ensure that no information or requirements were inadvertently changed which were not addressed in the submittal. Since this check was satisfactory, the proposed format change does not result in a change to any TS requirements. Similarly, the change to the title of the table was proposed to better indicate the purpose of the table.

The proposed TS change would also add approximately sixty-two valves to the table, which has been verified to address all containment isolation valves. Some of these valves were inadvertently omitted from the initial Final Safety Analysis Report (FSAR) and the TS, but were part of the Containment Isolation System since the issuance of the FitzPatrick operating license. Other valves were installed as a result of post-TMI modifications per NUREG-0578 and NUREG-0737. These changes upgrade the table to existing plant status, result in a more usable table, and reflects a strengthening of the TS. The isolation signals which shut these valves, closure times and normal status entries in the table have been verified to accurately reflect the appropriate valves.

Other changes to the valves which were proposed in the submittal consist of changes which show Penetration No. 59 valves as normally closed rather than open since the valves are used for post accident sampling and are, in fact, normally closed. Therefore, this change corrects an error existing in the present TS. Also, the existing TS indicates that the Core Spray pumps' minimum flow valves (14 MOV-5A and 5B) are normally closed. The proposed change corrects this error to show them as normally open. Similarly, the proposed change would correct the TS associated with the Containment Atmosphere Sampling Lines connected to Penetration Nos. 26A and 26B from normally open to normally shut, to reflect their post accident sampling function and their correct position during normal plant operation.

The isolation signals associated with each valve have been verified to reflect the existing plant design and changes to the table proposed where necessary. Some of these signals were omitted from the initial FSAR and TS but were a part of the isolation system since issuance of the operating license. Other signals were added to reflect implementation of post-TMI modifications.

The proposal would also add signal "X" to the isolation signal code list at the end of the table. This signal affects the Residual Heat Removal System Shutdown Cooling Discharge Valves 10 MOV-25A and 10 MOV-25B and causes the valves to shut automatically if the reactor vessel water level is low or the drywell pressure is high when both of the shutdown cooling suction valves (10 MOV-17 and 10 MOV-18) are not fully closed and reactor pressure is below 75 psig. This function has been in place since initial plant operation and is shown in the FSAR. Therefore, the effect of this proposed TS change is to reflect actual plant conditions.

The changes to the table do not result in changes to plant design, plant operation, or limitations. They result in the table being more complete, accurate and reliable. The proposed change to the valve closure times reflect adjustments in valve stroke times made to meet the requirements of the environmental qualifications program.

Other proposed changes, of a general nature, would change the name of Penetrations 26A and 26B from "Drywell Main Exhaust" to "Drywell Purge Inlet (Air and/or nitrogen)" to more clearly indicate the purpose of the penetration; correct the identification of valve 46ESW-16B valve as an Emergency Service Water valve rather than a Reactor Building Closed Loop Cooling Water valve on Penetration No. 23; delete the columns labeled Valve Type, Power to Open, Group, Location Ref. to Drywell, and Power to Close since they are not needed; replace the column titled "Valve Type" with "Valve Number" and add the appropriate valve numbers to better identify the valves; replace the designation for the isolation signal "RM" (Remote Manual) with "R"; correct Penetration No. 35B to 35E; delete Penetration No. 36 which has been cut and capped since it is no longer in service; and incorporate other verbage changes to clarify the TS sections.

SUMMARY

The changes described in the proposed amendment result in a general upgrading of the TS Table 3.7-1 to reflect actual plant conditions. As explained above and in the licensee's submittal, the proposed changes enhance the controls presented in the TS relating to the Primary Containment isolation valves and penetrations. They do not adversely affect the conclusions reached in the Final Safety Analysis Report or the Safety Evaluation Report. They are, therefore, acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Sec 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 this amendment.

CONCLUSION

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: February 13, 1990

PRINCIPAL CONTRIBUTOR:

D. LaBarge