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B.3.2.1
WMY 80-78

May 16, 1980

United States Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Division of Licensing
Mr. Robert A. Clark, Chief
Operating Reactors Branch #3

Reference: (a) License No. DPR-36 (Docket No. 50-309)
(b) USNRC Letter to MYAPC, dated March 12, 1980
(c) MYAPC Letter to USNRC (WMY 80-58), dated March 28, 1980
(d) MYAPC Letter to USNRC (WMY 78-111), dated December 29, 1978
(e) MYAPC Letter to USNRC (WMY 79-146), dated December 12, 1979
(f) MYAPC Letter to USNRC (WMY 80-39), dated March 5, 1980
(g) MY FSAR Question 7.2 and Response
(h) MY FSAR Section 7.3.2 through 7.3.5
(i) Appendix A and B of MY FSAR

Subject: Electrical Override/Bypass of Containment Purge System

Dear Sir:

Reference (b) requested that Maine Yankee provide the subject information. Subsequent discussions with members of your staff permitted reducing the amount of detailed pictorial information to only those drawings related to the containment purging and venting system at Maine Yankee. Due to security concerns regarding the information contained in these drawings, they are being forwarded under another cover letter. The remaining information requested in Reference (b) is contained in Enclosures 1 and 2 of this letter.

We trust this information will be satisfactory; however, should you have any further questions, please contact us.

Very truly yours,

MAINE YANKEE ATOMIC POWER COMPANY

Robert H. Groce
Senior Engineer - Licensing

RLS/kaf

Attachment

ENCLOSURE 1

RESPONSE TO NRC QUESTIONS ON ELECTRICAL OVERRIDE/BYPASS ASPECTS OF ESF SYSTEMS

QUESTION 1: The information presented in your FSAR and your letters of December 28, 1978, December 10, and 12, 1979, is not sufficient to determine if the following requirements are met for the safety signals to all Engineered Safety Features (ESF) equipment. Therefore, identify and justify all exceptions to the following:

CRITERION 1 - In keeping with the requirements of General Design Criteria 55 and 56, the overriding[a] of one type of safety actuation signal (e.g., radiation) should not cause the blocking of any other type of safety actuation signal (e.g., pressure) for those valves that have no function besides containment isolation.

ANSWER: No exceptions. However, as documented and justified in our December 29, 1978 letter to the NRR and our December 12, 1979 letter to the NRR, jumpers are used in one case to override a high-containment pressure signal to complete the Class A Containment Pressure Test.

CRITERION 2 - Sufficient physical features (e.g., key lock switches) are to be provided to facilitate adequate administrative controls.

ANSWER: No exceptions. See December 12, 1979 letter, Section 2b.

CRITERION 3 - A system level annunciation of the overridden status should be provided for every safety system impacted when any override is active. (See R.G. 1.47).

ANSWER: No exceptions. See answers to AEC questions, FSAR question 7.2.

CRITERION 4 - Diverse signals should be provided to initiate isolation of the containment ventilation system. Specifically, containment high radiation, safety injection actuation, and containment high pressure (where containment high pressure is not a portion of safety injection actuation) should automatically initiate CVI.

ANSWER: No exceptions. See December 29, 1978 letter.

CRITERION 5 - The instrumentation and control systems provided to initiate the ESF should be designed and qualified as safety grade equipment.

ANSWER: No exceptions. See FSAR Section 7.3.5.

CRITERION 6 - The overriding or resetting[b] of the ESF actuation signal should not cause any valve or damper to change position.

ANSWER: The evaluation of this criterion is presently being done per I&E Bulletin 80-06. Resolution of this item will be documented in that response.

QUESTION 2: In addition to responding to the general questions above, please provide the following specific information:

(1) Provide an "as built" tabulation of all Engineered Safety Features (ESF)/Auxiliary Supporting Features (ASF) valves and dampers required to be operated automatically following an accident. This tabulation should include the following:

a. Component designation

b. System served

c. Safety function (e.g., containment isolation, spray initiation)

d. Actuation signal sources

e. Reference to control circuitry (see 2.(3) below)

f. Indication whether or not the component safety function indicated in 2.(1) above can be defeated through the use of a manual override or bypass in either the control system or actuation signal system circuitry.

ANSWER: See Table I.

TABLE I (2.1)

Component Description (Valve Numbers) 2.1.a	System Service 2.1.b	Safety Function 2.1.c	Reference to Control Circuitry 11550- 2.1.e	Notes 2.1.d&f
MOV6013 (NA)	Control Room Standby Air	CIS	ESK-6CR ESK-7C	1, 2
MOV6010 (NA)	Control Room Exhaust Air	CIS	ESK-6CR ESK-7C	1, 2
SOV-257K (DR-A-6)	High Pressure Drain Cooler Outlet	CIS/SIAS	ESK-7C, 7L, 7J 1.29-26	2
SOV-351K (SIA-A-47)	Safety Inj. Test and Safety Inj. Tank Sample	CIS/SIAS	ESK-7C ESK-7L, 7J	2
SOV-6006 (VP-A-5)	Containment Purge Exhaust Duct	CIS/SIAS	ESK-7C ESK-7L, 7J	2, 4
SOV-6009 (VP-A-1)	Containment Purge Supply Duct	CIS/SIAS	ESK-7C ESK-7L, 7J	2, 4
SOV-3501 (PS-A-15)	Reactor Coolant Sample	CIS/SIAS	ESK-7C ESK-7L, 7J	2
SOV-3502 (PS-A-4)	Reactor Coolant Sample	CIS/SIAS	ESK-7C ESK-7L, 7J	2
SOV-3503 (PS-A-1)	Reactor Coolant Sample	CIS/SIAS	ESK-7C ESK-7L, 7J	2
SOV-3504 (PS-A-2)	Reactor Coolant Sample	CIS/SIAS	ESK-7C ESK-7L, 7J	2

TABLE I (2.1) (Cont.)

Component Description (Valve Numbers) 2.1.a	System Service 2.1.b	Safety Function 2.1.c	Reference to Control Circuitry 11550- 2.1.e	Notes 2.1.d&f
SOV-3505 (PS-A-3)	Reactor Coolant Sample	CIS/SIAS	ESK-7C ESK-7L, 7J	2
SOV-3508 (PS-A-8)	Reactor Coolant Sample	CIS/SIAS	ESK-7C ESK-7L, 7J	2
SOV-2001 (1A-A-101)	Containment Air Monitor Return	CIS/SIAS	ESK-7C ESK-7L, 7J	2
SOV-3303 (PD-A-122)	Containment Sump Pump Discharge	CIS/SIAS	ESK-7C ESK-7L, 7J	2
SOV-2003 (LM-A-45)	Containment Leak Detection	CIS/SIAS	ESK-7C ESK-7L, 7J	2
SOV-2601 (BD-T-12)	Steam Generator Blowdown	CIS/SIAS	ESK-7C ESK-7L, 7J	2
SOV-2602 (BD-T-22)	Steam Generator Blowdown	CIS/SIAS	ESK-7C ESK-7L, 7J	2
SOV-2603 (BD-T-32)	Steam Generator Blowdown	CIS/SIAS	ESK-7C ESK-7L, 7J	2
SOV-2604 (HPD-A-96)	Main Steam High Pressure Drain After Steam Trap	CIS/SIAS	ESK-7C ESK-7L, 7J	2
SOV-3002 (PR-A-40)	Quench Tank Pump Discharge	CIS/SIAS	ESK-7C ESK-7L, 7J	2

TABLE I (2.1) (Cont.)

Component Description (Valve Numbers) 2.1.a	System Service 2.1.b	Safety Function 2.1.c	Reference to Control Circuitry 11550- 2.1.e	Notes 2.1.d&f
SOV-3301 (PV-A-10)	Hydrogenated Vent Header	CIS/SIAS	ESK-7C ESK-7L, 7J	2
SOV-3410 (PCC-A-300)	Primary Component Cooling From H.P. Drn, Quench Tank & New Shld Tk Clrs	CIS/SIAS	ESK-7C ESK-7L, 7J	2
SOV-3413 (PCC-A-216)	PCC From Penetration Clrs	CIS/SIAS	ESK-7C ESK-7L, 7J	2
SOV-2906 (C-A-14)	CO_2 Isolation Inside Containment	CIS/SIAS	ESK-7C ESK-7L, 7J	2
SOV-3416 (PCC-A-266)	PCC Return From CEA Drive Mechanism Coolers	CIS/SIAS	ESK-7C ESK-7L, 7J	2
MOV-3404 (PCC-M-219)	PCCW Supply to Reactor Coolant Pump	CIS	ESK-7C ESK-6BL	3
TV-3414 (PCC-A-252)	PCCW From Reactor Coolant Pump	CIS	ESK-7C	2
HCV-261 (SL-M-40)	#2RCP Seal Return Outlet	CIS	ESK-7C 1.29-61C	2
HCV-251 (SL-M-29)	#1RCP Seal Return Outlet	CIS	ESK-7C 1.29-61C	2
HCV-271 (SL-M-51)	#3RCP Seal Return Outlet	CIS	ESK-7C 1.29-61C	2

TABLE I (2.1) (Cont.)

Component Description (Valve Numbers) 2.1.a	System Service 2.1.b	Safety Function 2.1.c	Reference to Control Circuitry 11550- 2.1.e	Notes 2.1.d&f
MOV-6017 (NA)	Control Room Exhaust Air	CIS	ESK-6CR ESK-7D	1, 2
MOV-6014 (NA)	Control Room Air Conditioner	CIS	ESK-6CR ESK-7D	1, 2
SOV-2012 (SA-A-138)	Service Air Isolation	CIS/SIAS	ESK-7D ESK-7K	2
TV-1102 (MS-T-163)	Stm Gen Aux Feed Pump Stm Supply	CIS/SIAS	ESK-7D ESK-7K	2
TV-2002 (PAP-A-19)	Cont Air Monitor Sample Out	CIS/SIAS	ESK-7D ESK-7K	2
TV-2004 (LM-A-43)	Cont Leak Detection	CIS/SIAS	ESK-7D ESK-7K	2
TV-2006 (IA-A-107)	Cont Air Monitor Sample In	CIS/SIAS	ESK-7D ESK-7K	2
TV-2605 (HPD-A-17)	Excess Flow Check Valve Drains to Blowdown Tank	CIS/SIAS	ESK-7D ESK-7K	2
TV-3001 (PR-A-41)	Pressurizer Quench Tank Pump Discharge	CIS/SIAS	ESK-7D ESK-7K	2
TV-3302 (PV-A-12)	Primary Vent Header	CIS/SIAS	ESK-7D ESK-7K	2

TABLE I (2.1) (Cont.)

Component Description (Valve Numbers) 2.1.a	System Service 2.1.b	Safety Function 2.1.c	Reference to Control Circuitry 11550- 2.1.e	Notes 2.1.d&f
TV-3304 (PD-A-124)	Containment Sump Pump Discharge	CIS/SIAS	ESK-7D ESK-7K	2
TV-3411 (PCC-A-302)	PCC From H.P. Drn Cooler Pzr Quench Tk Clr Neutron Shld Tk	CIS/SIAS	ESK-7D	2
TV-3417 (PCC-A-270)	PCC From CEA Drive Mechanism Clrs	CIS/SIAS	ESK-7D ESK-7K	2
TV-3007 (PW-A-78)	Primary Water to Quench Tank	CIS/SIAS	ESK-7D ESK-7K	2
TV-2907 (C-A-15)	Carbon Dioxide Isolation	CIS/SIAS	ESK-7D ESK-7K	2
TV-2904 (N-A-66)	Nitrogen Supply to Containment	CIS/SIAS	ESK-7D ESK-7K	2
HCV-350K (SIA-A-49)	S.I. Test and S.I. Tank Liquid Sample	CIS/SIAS	ESK-7D ESK-7K	2
HCV-6005 (VP-A-2)	Cont Purge Duct Supply Isolation	CIS/SIAS	ESK-7D ESK-7K	2, 4
HCV-6007 (VP-A-3)	Cont Purge Duct Exhaust Isolation	CIS/SIAS	ESK-7D ESK-7K	2, 4
HCV-6008 (VP-A-4)	Cont Purge Duct Exhaust Isolation	CIS/SIAS	ESK-7D ESK-7K	2, 4

TABLE I (2.1) (Cont.)

Component Description (Valve Numbers) 2.1.a	System Service 2.1.b	Safety Function 2.1.c	Reference to Control Circuitry 11550- 2.1.e	Notes 2.1.d&f
TV-3506 (PS-A-17)	Pressurizer Stm Interface and RC Samples	CIS/SIAS	ESK-7D ESK-7K	2
TV-3507A (PS-A-23)	RC Loop Liquid Sample Isolation	CIS/SIAS	ESK-7D ESK-7K	2
TV-3507B (PS-A-20)	RC Loop Liquid Sample Isolation	CIS/SIAS	ESK-7D ESK-7K	2
HCV-1001 (MS-A-162)	Decay Heat Release Valve (Maine Steam Atmospheric Dump)	CIS/SIAS	ESK-7D ESK-7K	2
TV-3415 (PCC-A-254)	PCC Water From RCP Isolation	CIS	ESK-7D	2
HCV-259K (SL-A-53)	RCP Seal Water Return Isolation	CIS	ESK-7D	2
HCV-204U (HSI-M-50)	Charging Pump Suction From RWST	SIAS RAS	ESK-7J, 7M, 7E, 7F 1.29-104B	3, 8, 9
HCV-312 (LSI-M-11)	SIS LP HDR TO LOOP 1	SIAS	ESK-7K, 7M, 7J 1.29-106A	8
HCV-322 (LSI-M-21)	SIS LP HDR TO LOOP 2	SIAS	ESK-7K, 7M, 7J 1.29-106A	8

TABLE I (2.1) (Cont.)

Component Description (Valve Numbers) 2.1.a	System Service 2.1.b	Safety Function 2.1.c	Reference to Control Circuitry 11550- 2.1.e	Notes 2.1.d&f
HCV-332 (LSI-M-31)	SIS LP HDR TO LOOP 3	SIAS	ESK-7K, 7M, 7J 1.29-106A	8
HCV-204T (HSI-M-51)	Charging Pump Suction From RWST	SIAS RAS	ESK-7K, 7M, 7E, 7F 1.29-104B	8, 9, 3
LCV-210Z (BA-A-32)	Boric Acid Tank to Chem Tank	SIAS	ESK-7K, 7M 1.29-34C	8
TCV-201K (LD-T-5)	Ht Ex E-67 Letdown Temp Control	SIAS	ESK-7J, 7M 1.29-103A	8
SOV-4008A (CH-S-119)	Chg PP Pri Sys Isolation	SIAS	ESK-7J, 7M	8
HCV-313 (HSI-M-12)	SIS HP AUX HDR TO LOOP 1	SIAS	ESK-7J, 7M 1.29-64D	8
HCV-323 (HSI-M-22)	S.I. High Pressure Auxiliary Hdr to Loop 2	SIAS	ESK-7M, 7J 1.29-64D	8
HCV-333 (HSI-M-32)	S. I. High Pressure Auxiliary Hdr to Loop 3	SIAS	ESK-7M, 7J 1.29-64D	8

TABLE I (2.0) (Cont.)

Component Description (Valve Numbers) 2.1.a	System Service 2.1.b	Safety Function 2.1.c	Reference to Control Circuitry 11550- 2.1.e	Notes 2.1.d&f
HCV-301 (HSI-M-41)	Charging Pump Outlet to Auxiliary H. P. Hdr	SIAS	ESK-7M, 7J 1.29-60D	8
HCV-254 (CH-A-33)	Charging Line Stop Valve	SIAS	ESK-7M, 7K 1.29-35C	8
HCV-255 (CH-A-32)	Charging Line Stop Valve	SIAS	ESK-7M, 7K 1.29-35C	8
PCV-211 (SL-P-3)	Seal Wtr Pressure Control for RCP (Close on SIAS)	SIAS	ESK-7K, 7M 1.29-29C	8
HCV-311 (HSI-M-11)	SIS High Pressure Hdr to Loop 1	SIAS	ESK-7K, 7M 1.29-64D	8
HCV-321 (HSI-M-21)	SIS High Pressure Hdr to Loop 2	SIAS	ESK-7K, 7M 1.29-64D	8
HCV-331 (HSI-M-31)	SIS High Pressure Hdr to Loop 3	SIAS	ESK-7K, 7M 1.29-64D	8
HCV-302 (HSI-M-42)	Charging Pump Outlet to H. P. Header	SIAS	ESK-7K, 7M 1.29-60D	8

TABLE I (2.1) (Cont.)

Component Description (Valve Numbers) 2.1.a	System Service 2.1.b	Safety Function 2.1.c	Reference to Control Circuitry 11550- 2.1.e	Notes 2.1.d&f
HCV-242 (LD-M-2)	Letdown Isolation Valve to Regen HX E-67	SIAS	ESK-7K, 7M 1.29-61C	8
FCV-212 (CH-F-38) 31A	Charging Flow Control Valve	SIAS	ESK-7K, 7M 1.29-	8
HCV-314 (SIA-A-12)	Safety Injection Tank Fill Valves (Close on SIAS)	SIAS	ESK-7J, 7M 1.29-28C	8
HCV-324 (SIA-A-22)	Safety Injection Tank Fill Valves (Close on SIAS)	SIAS	ESK-7J, 7M 1.29-28C	8
HCV-334 (SIA-A-32)	Safety Injection Tank Fill Valves (Close on SIAS)	SIAS	ESK-7J, 7M 1.29-28C	8
SOV-4008B (CH-S-120)	Vac Sys Charging Pump Isolation Valve	SIAS	ESK-7J, 7M	8
LCV-204V	Volume Control Tank to Charging PPS Isolation Valve	SIAS	ESK-7L 1.29-105B	3, 8
LCV-204S	Volume Control Tank to Charging PPS Isolation Valve	SIAS	ESK-7L 1.29-105B	3, 8
FCV-216	Charging PPS to Loop Fill Header Isolation	SIAS	ESK-7L 1.29-66D	3, 8
FN-44A,B	Spray Pump Room Exhaust Fan	SIAS	ESK-7L, 6CK	8

TABLE I (2.1) (Cont.)

Component Description (Valve Numbers) 2.1.a	System Service 2.1.b	Safety Function 2.1.c	Reference to Control Circuitry 11550- 2.1.e	Notes 2.1.d&f
MOV-3211 (CS-M-1)	"A" Train Inlet Header Stop to Spray Ring	CSAS A	ESK-7B, 6BN	3, 7
MOV-3212 (CS-M-2)	"B" Train Inlet Header Stop to Spray Ring	CSAS B	ESK-7B, 6BN	3, 7
MOV-3213 (CS-M-66)	Spray Chemical to RWST	CSAS A	ESK-7B, 6BR	3, 7
MOV-3214 (CS-M-71)	Spray Chemical to RWST	CSAS B	ESK-7B, 6BR	3, 7
TV-3412 (PCC-A-238)	RC Air Recirc Coolers Outlet Header Trip Valve	CSAS B	ESK-7B	3, 7
TCV-1720 (SCC-T-227)	Hydrogen Coolers Outlet Temperature Control	CSAS B	ESK-7B	7
TCV-1721 (SCC-T-257)	Turbine Oil Coolers Outlet Temperature Control	CSAS B	ESK-7B	7

TABLE I (2.1) (Cont.)

Component Description (Valve Numbers) 2.1.a	System Service 2.1.b	Safety Function 2.1.c	Reference to Control Circuitry 11550- 2.1.e	Notes 2.1.d&f
TCV-1722 (SCC-T-315)	Electro Hydraulic Oil Coolers Temperature Control	CSAS B	ESK-7B	7
MOV-1701 (SCC-M-165)	Residual Heat Exchanger E-3B Outlet	RAS	ESK-7F, 6BK	3, 9
MOV-3202 (SIA-A-53)	LPSI PP Return to Refuel Tk Safeguard Recirc. Stop to RWST	RAS	ESK-7E, 6BQ	3, 9
MOV-3204 (SI-A-54)	LPSI PP Return to Refuel Tk Safeguards Recirc. Stop to RWST	RAS	ESK-7F, 6BQ	3, 9
MOV-3205 (LSI-M-41)	Refuel Water Tank Outlet to Safeguards Pumps (B train)	RAS	ESK-7E, 6BP	9, 10
MOV-3206 (LSI-M-40)	Refuel Water Tank Outlet to Safeguards Pumps (A train)	RAS	ESK-7F, 6BP	9, 10
MOV-3207 (CS-M-91)	Containment Sump	RAS	ESK-7E, 6BP	9, 3
MOV-3208 (CS-M-91)	Containment Sump	RAS	ESK-7F, 6BP	9, 3
MOV-3209 (hSI-M-54)	Res Heat Exchanger to Charging Pumps	RAS	ESK-7E, 6BN	9, 3

TABLE I (2.1) (Cont.)

Component Description (Valve Numbers) 2.1.a	System Service 2.1.b	Safety Function 2.1.c	Reference to Control Circuitry 11550- 2.1.e	Notes 2.1.d&f
MOV-3210 (HSI-M-55)	Res Heat Exchanger to Charging Pumps	RAS	ESK-F, 6BN	9, 3
MOV-3401 (PCC-M-43)	Residual Heat Exchanger	RAS	ESK-7E, 6BK	9, 3
MOV-3402 (PCC-M-90)	Primary Component Coolant Water Inlet to Aux Bldg	RAS	ESK-7E, 6BL	9, 3
MOV-3403 (PCC-M-150)	Primary Component Coolant Water to RC Heat Exchanger	RAS	ESK-7E, 6BL	9, 3
SOV-3217A	Air Control to FCV-3217A FCV-3217A-Vent Header to Containment	RAS	7E	9, 3
SOV-3217B	Air Control to FCV-3217B FCV-3217B - Vent Header to Containment	RAS	7F	9, 3
HCV-204T,U	HPSI Suction	RAS	7F, 7E 1.29-104B	9

TABLE 1 NOTES:

1. Valve may be opened only manually after ESF Trip but will reclose when valve control pushbuttons are released.

2. See Section 7.3.4 of the Maine Yankee FSAR. Changes per NUREG 0578, which prevent any CIS valve from reopening on a CIS reset, are documented in our March 5, 1980 letter (WMY-80-39) to the NRR.

3. Valve cannot be returned to normal (pre-trip) condition without reset of the actuation signal.

4. These valves are also tripped on a High Radiation Signal as shown on referenced drawings and described in our December 29, 1978 letter.

5. CIS - Containment Isolation Signal. See Section 7.3.4 of the Maine Yankee FSAR.

6. CIS/SIAS - See March 5, 1980 letter (Note 2), "Diverse Actuation of Non-Essential Containment Isolation Valves".

7. CSAS - Containment Spray Actuation System. See Section 7.3.3 of the Maine Yankee FSAR for circuit description.

8. SIAS - Safety Injection Actuation Signal. See Section 7.3.2 of the Maine Yankee FSAR for circuit description.

9. RAS - Recirculation Actuation Signal. See Section 7.3.2 of the Maine Yankee FSAR for circuit description.

10. The RAS signal to valve may be overridden manually, prior to or after trip, by use of a control switch located in the main control room.

QUESTION 2.(2): For each manual bypass or override feature identified in 2(1) above, provide a description of the physical feature(s) provided to prevent inadvertent operation and to satisfy the requirements of IEEE Std. 279-1971, Section 4.14.

ANSWER: The present design uses administrative controls and annunciation coupled with some physical features to prevent inadvertent operation of all manual bypass or override features, identified in 2(1). These are automatic removal of manual blocks (Sections 7.3.2, 7.3.3 and 7.3.4 of the FSAR) and dissimilar control handles located at specific panels designated as SIAS, CIS or CSAS panels.

QUESTION 2.(3): For each actuation signal system and component actuation system identified in 2(1)d and 2(1)e above, incorporating a manual reset, override or bypass feature, provide a complete circuit description, including detailed pictorial information (i.e., as built circuit diagram, schematics, logics), sufficient to allow a thorough understanding of the operation of such circuitry including the function and effect of all control devices (e.g., relays, contacts, switches, diodes, etc.).

ANSWER: Referenced prints used in response to 2.1.e contain sufficient information to address this question.

QUESTION 2.(4): For each actuation signal identified in 2(1) above, identify the design standards, quality assurance requirements, and

component qualification standards involved to ensure that the systems will perform their designated safety function upon demand.

ANSWER: The ESF initiation, control and power supply systems we designed in accordance with proposed IEEE Criteria No. 279, dated August 1968, so that no single fault in components, units, channels or sensors will prevent ESF operation. Also, Criterion 15 of the AEC General Design Criteria is met (Appendix A of FSAR).

Quality assurance standards used for each actuation signal are documented in Appendix B of the Maine Yankee FSAR.

The Component Qualification Standard used was proposed IEEE 279, dated August 1968. This standard was used as a guideline during design and installation of the ESF system. Recent upgrade of the ESF actuation equipment (per Item 2.1.4 of NUREG 0578) has followed IEEE standard 279-1971 and IEEE 344-1975. This is documented in our response to Bulletin 79-ØlA.

ENCLOSURE 2

Elementary Diagram - Auxiliary System Controls, Sheets 9 thru 12; Numbered SK-7J, 7K, 7L, and 7M

Elementary Diagram - Auxiliary System Controls, SH 3; ESK-7C, Sheets 1 and 2.

Elementary Diagram - Auxiliary System Controls, SH 4; ESK-7D, Sheets 1 and 2.