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TUCKER,H.B. Duke Power Co.
RECIP.NAME RECIPIENT AFFILIATION
DENTON,H.R. Office of Nuclear Reactor Regulation, Director
STOLZ,J.F. Licensing Branch 4

SUBJECT: Forwards responses to 830411 ltr re environ qualification of safety-related electrical equipment.Justification for continued operation,per NUREG-0737,TMI Action Item II.B.4 provided.Response to IE Bulletin 79-01B will be revised.

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May 19, 1983

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. John F. Stolz, Chief
Licensing Branch No. 4

Subject: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Sir:

In response to the NRC letter dated April 11, 1983 which transmitted the Safety Evaluation for Environmental Qualification of Safety-Related Electrical Equipment, the following responses are provided.

Attachment 1 (A, B, C) provides resolution of NRC/FRC Technical Evaluation Report items, identification of TER items, and corresponding resolutions. Attachment 2 provides a discussion of the resolution of NRC/FRC TER items.

As requested, Duke confirms that the previously provided justifications for continued operation are valid. Further, Duke is providing an additional justification for continued operation, which is included in Attachment 3.

Duke has reviewed the summary information contained in the TER and does not require that it be treated as proprietary by the NRC. However, the NRC is requested to return to Duke, as previously agreed, those documents that Duke sent that were considered proprietary.

Duke would like to confirm that in April 1983 we provided to the NRC Oconee Project Manager information on how radiation dose for use in equipment qualification is calculated by Duke. Based on a telephone conversation with the Staff on May 18, 1983, it is understood that the NRC has accepted this methodology.

Finally, upon completion of the NRC review of the Duke submittals regarding environmental qualification, we will revise our response to IE Bulletin 79-01B to reflect the changes made since the submittal September 18, 1981.

If there are any questions regarding this submittal, Duke offers to meet with the NRC Staff to further discuss the information submitted.

Very truly yours,

Hal B. Tucker

RLG/php
Attachment

A046
1/1

cc: Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

Mr. J. C. Bryant
NRC Resident Inspector
Oconee Nuclear Station

Mr. John F. Suermann
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

ATTACHMENT 1A

OCONEE NUCLEAR STATION - UNIT 1

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

IDENTIFICATION OF TER ITEMS AND CORRESPONDING RESOLUTIONS

OCONEE NUCLEAR STATION - UNIT 1

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

FRC ITEM	COMPONENT	MFGR.	MODEL	CATEGORY	RESOLUTION
1	VMTR	ROTORK	NA1	II.A	5
2	VMTR	LIMITORQUE	SMB	II.C	6
3	VMTR	LIMITORQUE	SMB	II.C	6
4	VMTR	LIMITORQUE	SMB	II.C	6
5	VMTR	LIMITORQUE	SMB	II.C	6
6	VMTR	LIMITORQUE	SMB	II.C	6
7	VMTR	LIMITORQUE	SMB	III.B	2
8	VMTR	LIMITORQUE	SMB	I.B	4, JCO*
9	VMTR	LIMITORQUE	SMB	II.C	6
10	VMTR	LIMITORQUE	SMB	II.C	6
11	VMTR	ROTORK	NA1	I.A	1
12	VMTR	LIMITORQUE	SMB	II.C	6
13	VMTR	LIMITORQUE	SMB	II.C	6
14	VMTR	LIMITORQUE	SMB	II.C	6
15	SLND	TARGET ROCK		II.A	5, JCO**
16	SLND	TARGET ROCK		II.A	5
17	SLND	ASCO		I.B	4, JCO*
18	SLND	ASCO		I.B	4, JCO*

* JCO previously submitted; Refer to Duke letter, Parker to Denton dated February 25, 1982.

** Refer to Attachment 3

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

FRC ITEM	COMPONENT	MFGR.	MODEL	CATEGORY	RESOLUTION
19	SLND	ASCO		I.B	4, JCO*
20	SLND	SKINNER		II.A	5, JCO**
21	SLND	TARGET ROCK		II.A	5
22	SLND			II.A	5
23	LTRM	DELAVAL		II.A	5
24	PTRM			II.A	5
25	PTRM	ROSEMOUNT	1152GP	II.C	6
26	PRSW	MERCOID		II.A	5
27	RLMT	ROSEMOUNT	177GY	II.A	5
28	FMTR	LOUIS ALLIS		II.A	5
29	FMTR	RELIANCE ELECTRIC		II.A	5
30	PMTR	WESTINGHOUSE		II.A	5
31	PMTR	WESTINGHOUSE		II.A	5
32	PMTR	WESTINGHOUSE		II.A	5
33	PMTR	WESTINGHOUSE		II.A	5
34	PENT	VIKING		I.A	1
35	CBLE	OKONITE		II.A	5
36	VMTR	ROTORK	NA1	II.A	5

* JCO previously submitted; Refer to Duke letter, Parker to Denton dated February 25, 1982.

** Refer to Attachment 3

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

FRC ITEM	COMPONENT	MFGR.	MODEL	CATEGORY	RESOLUTION
37	VMTR	LIMITORQUE	SMB	II.C	6
38	CBLE	OKONITE		II.C	6
39	TBOX	STATES		I.A	1
40	CBLE	OKONITE		II.A	5
41	CBLE	BRAND-REX		IV	3
42	CBLE	RAYCHEM		II.C	6
43	CBLE	RAYCHEM		II.A	5
44	CBLE	B. I. W.		I.B	4
45	CBLE	ANACONDA		II.A	5
46	CBLE	ANACONDA		II.A	5
47	CBLE	B. I. W.		I.B	4
48	CBLE	SAMUAL MOORE		II.A	5
49	CBLE	SAMUAL MOORE		II.A	5
50	CBLE	B. I. W.		II.C	6
51	CBLE	ANACONDA		II.C	6
52	PTRM	MOTOROLA	56PM	I.B	4, JCO*
53	PTRM	MOTOROLA	56PH	II.A	5
54	PTRM	MOTOROLA	56PM	I.B	4, JCO*

* JCO previously submitted; Refer to Duke letter, Parker to Denton dated February 25, 1982.

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

FRC ITEM	COMPONENT	MFGR.	MODEL	CATEGORY	RESOLUTION
55	PTRM	MOTOROLA	56PM	I.B	4, JCO*
56	VMTR	LIMITORQUE	SMB	II.C	6
57	VMTR	LIMITORQUE	SMB	II.C	6
58	VMTR	LIMITORQUE	SMB	II.C	6
59	VMTR	LIMITORQUE	SMB	II.A	5
60	VMTR	LIMITORQUE	SMB	II.C	6
61	VMTR	ROTORK	NA1	II.A	5
62	LTRM	ROSEMOUNT	1152DP	I.B	4
63	PRSW	MERCOID	APW7041153	III.B	2
64	PTRM	MOTOROLA	56PM	I.B	4
65	PRSW	MELETRON	227E9A	II.A	7
66	PTRM	ROSEMOUNT	1152GP	II.C	7
67	TBOX (TRANSZORB)	GEN. SEMICONDUCTOR		II.A	5
68	LTRM	BAILEY METER	BY3240DP	II.A	7
69	SLND	LAWRENCE		I.B	4
70	SLND	ASCO	27665T	I.B	4, JCO*
71	SLND	ASCO	87590A	I.B	4, JCO*
72	SLND	SUPER SPLICE		I.B	4, JCO*
73	SLND	WEBCO		I.B	4, JCO*

* Justification previously submitted; Refer to Duke letter, Parker to Denton dated February 25, 1982.

ATTACHMENT 1B

OCONEE NUCLEAR STATION - UNIT 2

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

IDENTIFICATION OF TER ITEMS AND CORRESPONDING RESOLUTIONS

OCONEE NUCLEAR STATION - UNIT 2

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

FRC ITEM	COMPONENT	MFGR.	MODEL	CATEGORY	RESOLUTION
1	VMTR	ROTORK	NA1	II.A	5
2	VMTR	ROTORK	NA1	II.A	5
3	VMTR	LIMITORQUE	SMB	II.C	6
4	VMTR	LIMITORQUE	SMB	II.C	6
5	VMTR	LIMITORQUE	SMB	I.B	4, JCO*
6	VMTR	LIMITORQUE	SMB	II.C	6
7	VMTR	LIMITORQUE	SMB	I.B	4, JCO*
8	VMTR	LIMITORQUE	SMB	II.C	6
9	VMTR	LIMITORQUE	SMB	II.C	6
10	VMTR	LIMITORQUE	SMB	II.C	6
11	VMTR	LIMITORQUE	SMB	III.B	2
12	VMTR	LIMITORQUE	SMB	II.C	6
13	VMTR	LIMITORQUE	SMB	II.C	6
14	VMTR	LIMITORQUE	SMB	II.A	5
15	VMTR	LIMITORQUE	SMB	II.C	6
16	VMTR	LIMITORQUE	SMB	II.C	6
17	SLND	ASCO		I.B	4, JCO*
18	SLND	ASCO		I.B	4, JCO*

* JCO previously submitted; Refer to Duke letter, Parker to Denton dated February 25, 1982.

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

FRC ITEM	COMPONENT	MFGR.	MODEL	CATEGORY	RESOLUTION
19	SLND	ASCO		I.B	4, JCO*
20	SLND	TARGET ROCK		II.A	5, JCO**
21	SLND	TARGET ROCK		II.A	5
22	SLND	TARGET ROCK		II.A	5
23	SLND	LAWRENCE		II.A	4
24	SLND	SKINNER		II.A	5, JCO**
25	SLND			II.A	5
26	LTRM	BAILEY METER	BY3040DP	II.A	7
27	LTRM	DE LAVAL		I.B	4
28	PTRM	ROSEMOUNT	1152GP	II.C	6
29	PTRM			II.A	5
30	PRSW	MERCOID		II.A	5
31	RLMT	ROSEMOUNT	177GY	II.A	5
32	TBOX (TRANSZORB)	GEN. SEMICONDUCTOR		II.A	5
33	PMTR	WESTINGHOUSE		II.A	5
34	PMTR	WESTINGHOUSE		II.A	5
35	PMTR	WESTINGHOUSE		II.A	5
36	PMTR	WESTINGHOUSE		II.A	5

* JCO previously submitted; Refer to Duke letter, Parker to Denton dated February 25, 1982.

** Refer to Attachment 3

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

FRC ITEM	COMPONENT	MFGR.	MODEL	CATEGORY	RESOLUTION
37	FMTR	LOUIS ALLIS		II.A	5
38	FMTR	RELIANCE		II.A	5
39	TBOX	STATES	H25012	I.A	1
40	CBLE	BRAND-REX		II.A	5
41	CBLE	ANACONDA		II.C	6
42	CBLE	ANACONDA		II.A	5
43	PENT	VIKING		I.A	1
44	CBLE	BRAND-REX		IV	3
45	CBLE	RAYCHEM		II.C	6
46	CBLE	RAYCHEM		II.A	5
47	CBLE	B. I. W.		I.B	4
48	CBLE	B. I. W.		I.B	4
49	CBLE	SAMUAL MOORE		II.A	5
50	CBLE	SAMUAL MOORE		II.A	5
51	CBLE	ANACONDA		II.A	5
52	CBLE	OKONITE		II.A	5
53	CBLE	OKONITE		II.A	5
54	CBLE	OKONITE		II.C	6

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

FRC ITEM	COMPONENT	MFGR.	MODEL	CATEGORY	RESOLUTION
55	CBLE	OKONITE		I.B	4
56	PTRM	MOTOROLA	56PM	II.C	7
57	PRSW	MELETRON	227E9A	II.A	7
58	PTRM	MOTOROLA	56PM	I.B	4, JCO*
59	PTRM	MOTOROLA	56PH	II.A	5
60	PTRM	MOTOROLA	56PM	I.B	4, JCO*
61	LTRM	ROSEMOUNT	1152DP	I.B	4
62	PRSW	MERCOID	APW7041153	III.B	2
63	VMTR	LIMITORQUE	SMB	II.C	6
64	VMTR	LIMITORQUE	SMB	II.C	6
65	VMTR	LIMITORQUE	SMB	II.C	6
66	SLND	ASCO		I.B	4, JCO*
67	SLND	ASCO		I.B	4, JCO*
68	SLND	SUPER SPLICE		I.B	4, JCO*
69	SLND	ASCO		I.B	4, JCO*
70	SLND			I.B	4, JCO*
71	VMTR	LIMITORQUE	SMB	II.C	6

* JCO previously submitted; Refer to Duke letter, Parker to Denton dated February 25, 1982.

ATTACHMENT 1C

OCONEE NUCLEAR STATION - UNIT 3

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

IDENTIFICATION OF TER ITEMS AND CORRESPONDING RESOLUTIONS

OCONEE NUCLEAR STATION - UNIT 3

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

FRC ITEM	COMPONENT	MFGR.	MODEL	CATEGORY	RESOLUTION
1	VMTR	ROTORK	NA1	II.A	5
2	VMTR	ROTORK	NA1	II.A	5
3	VMTR	LIMITORQUE	SMB	II.C	6
4	VMTR	LIMITORQUE	SMB	II.C	4
5	VMTR	LIMITORQUE	SMB	II.C	6
6	VMTR	LIMITORQUE	SMB	I.B	4, JCO*
7	VMTR	LIMITORQUE	SMB	II.C	6
8	VMTR	LIMITORQUE	SMB	II.C	6
9	VMTR	LIMITORQUE	SMB	II.C	6
10	VMTR	LIMITORQUE	SMB	II.A	5
11	VMTR	LIMITORQUE	SMB	II.C	6
12	VMTR	LIMITORQUE	SMB	III.B	2
13	VMTR	LIMITORQUE	SMB	II.C	6
14	VMTR	LIMITORQUE	SMB	II.C	6
15	SLND	TARGET ROCK		II.A	5
16	SLND	TARGET ROCK		II.A	5, JCO**
17	SLND	TARGET ROCK		II.A	5
18	SLND	ASCO		I.B	4, JCO*

* JCO previously submitted; Refer to Duke letter, Parker to Denton dated February 25, 1982.

** Refer to Attachment 3

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

FRC ITEM	COMPONENT	MFGR.	MODEL	CATEGORY	RESOLUTION
19	SLND	ASCO		I.B	4, JCO*
20	SLND	ASCO		I.B	4, JCO*
21	SLND	SKINNER		II.A	5, JCO**
22	SLND	LAWRENCE		II.A	4
23	SLND			II.A	5
24	LTRM	DELAVAL		II.A	5
25	PTRM	ROSEMOUNT	1152GP	II.C	6
26	PTRM			II.A	5
27	PRSW	MERCOID		II.A	5
28	RLMT	ROSEMOUNT	177GY	II.A	5
29	FMTR	LOUIS ALLIS		II.A	5
30	PMTR	WESTINGHOUSE		II.A	5
31	PMTR	WESTINGHOUSE		II.A	5
32	TBOX (TRANSZORB)	GEN. SEMICONDUCTOR		II.A	5
33	TBOX	STATES		I.A	1
34	PENT	VIKING		I.A	1
35	VMTR	LIMITORQUE	SMB	II.A	4
36	VMTR	LIMITORQUE	SMB	II.C	6

* JCO previously submitted; Refer to Duke letter, Parker to Denton dated February 25, 1982.

** Refer to Attachment 3

FRC ITEM	COMPONENT	MFGR.	MODEL	CATEGORY	RESOLUTION
37	CBLE	OKONITE		II.A	5
38	CBLE	OKONITE		II.A	5
39	CBLE	OKONITE		II.C	6
40	CBLE	B. I. W.		I.B	4
41	CBLE	B. I. W.		I.B	4
42	CBLE	BRAND-REX		II.A	5
43	CBLE	SAMUAL MOORE		II.A	5
44	CBLE	SAMUAL MOORE		II.A	5
45	CBLE	RAYCHEM		II.A	5
46	CBLE	RAYCHEM		II.A	5
47	CBLE	ANACONDA		II.A	5
48	CBLE	ANACONDA		II.C	6
49	PRSW	MELETRON	227E9A	II.A	7
50	PTRM	MOTOROLA	56PM	I.B	4
51	PTRM	ROSEMOUNT	1152GP	II.C	7
52	LTRM	BAILEY METER	BY3240DP	II.A	7
53	CBLE	CERRO		II.A	5
54	FMTR	RELIANCE		II.A	5

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

FRC ITEM	COMPONENT	MFGR.	MODEL	CATEGORY	RESOLUTION
55	PMTR	WESTINGHOUSE		II.A	5
56	LTRM	ROSEMOUNT	1152DP	I.B	4
57	PTRM	MOTOROLA	56PH	II.A	5
58	PTRM	MOTOROLA	56PM	I.B	4, JCO*
59	PTRM	MOTOROLA	56PM	I.B	4, JCO*
60	PRSW	MERCOID	APW7041153	III.B	2
61	VMTR	LIMITORQUE	SMB	II.C	6
62	VMTR	LIMITORQUE	SMB	II.C	6
63	VMTR	LIMITORQUE	SMB	II.C	6
64	SLND	ROSS		I.B	4, JCO*
65	SLND	SUPER SPLICE		I.B	4, JCO*
66	SLND	ASCO		I.B	4, JCO*

* JCO previously submitted; Refer to Duke letter, Parker to Denton dated February 25, 1982.

ATTACHMENT 2

OCONEE NUCLEAR STATION - UNITS 1, 2, AND 3

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

RESOLUTION DISCUSSION

OCONEE NUCLEAR STATION - UNITS 1, 2, and 3

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

Resolution No.	Resolution Discussion

1. This equipment is in TER Category I.A, Equipment Qualified. No resolution is required for this equipment.

2. This equipment is in TER Category III.B, Equipment Not in the Scope of the Review. No resolution is required for this equipment.

3. This equipment is in TER Category IV, Documentation Not Made Available. The only item in this category is Brand-Rex cable Unit 1 TER Item 41; Unit 2 TER Item 44). Since our response to the NRC's previous equipment qualification SER for Oconee the environmental qualification program for this cable has been successfully completed. The results of this program are documented in Duke Power Company Test Report TR-032 (OM-360-19).

4. This equipment is in TER Category I.B, Equipment Qualification Pending Modification. The majority of items in this category have been or are scheduled to be replaced with qualified equipment. Refer to Table 1 for the replacement status/schedule.

   For items in this category which are not being replaced, the following resolutions are provided:

   - B. I. W. Cable (Unit 1 TER Items 44 and 47; Unit 2 TER Items 47 and 48; Unit 3 TER Items 40 and 41).

     Since our response to the NRC's previous equipment qualification SER for Oconee, the environmental qualification program for this cable has been successfully completed. The results of this program are documented in BIW Test Report 82E047 (OM-360-40).

   - Rosemount 1152DP transmitters (Plant ID LT-80, 81, 82, and 83) are located inside the Reactor Building and function to provide level control for the operation of the Emergency Feedwater System. As noted in our response to the NRC's previous equipment qualification SER, these transmitters were to be relocated above the maximum post-LOCA water level. However since our previous SER response, we have further evaluated the application of these transmitters and the potential effects of submergence and have determined that these transmitters do not require relocation. Our determination is based on the following:

     a) The function of these transmitters is required following certain high energy line breaks (e.g., main steamline, main feedwater line break, small-break LOCA) excluding the design basis LOCA. The present location of these transmitters would accomodate the water level expected for a small-break LOCA or other HELB event assuming a reasonable cooldown of the Reactor Coolant System to establish long-term cooling via the Low Pressure Injection system.

Resolution No.	Resolution Discussion

b) In the unlikely event that these transmitters become submerged following a HELB for which they are required to function, favorable experience from TMI-2 demonstrates that Rosemount 1152 transmitters are capable of operating submerged for approximately 2 months which significantly exceeds the required operating time for Oconee.

c) As a further precaution concerning submergence, the cable entrances into these transmitters have been sealed with Scotch-cast 9 and Oconee maintenance procedures require replacing the appropriate O-ring seal any time the transmitter cover, flange, or seal between the sensor or electronics is removed.

- Motorola 56 PM Transmitters (Unit 1 TER Item 64; Unit 2 TER Item 55; Unit 3 TER Item 50)

  These transmitters are located inside the Reactor Building and function to provide steam generator pressure indication. However, because alternate steam generator pressure indication is available through instruments located in mild environment, these Motorola 56PM transmitters are not required to perform a safety function in a harsh environment. Therefore environmental qualification is not required.

- Lawrence Solenoid Valve (Unit 1 TER Item 69)

  This valve is located in the Auxiliary Building and exposed to the post-LOCA recirculation radiation environment. However, this valve is non-safety-related and not required to function in the harsh environment; therefore, environmental qualification is not required.

- DeLaval Level Transmitters (Unit 2 TER Item 27)

  These transmitters are a TMI/NUREG 0737 addition (II.F.1.5 - Reactor Building water level indication). The environmental qualification program for these transmitters has recently been successfully completed and is documented in DeLeval Report 45700-1 (OM-360-38). It should be noted that these transmitters are identified in TER Category II.A for Oconee Units 1 and 3 and discussed in Resolution 5.

5. This equipment is in Category II.A, Equipment Qualification Not Established. Duke Power Company has reviewed the items in this category. Technical resolutions have been determined and documentation of the specific resolutions for each TER Item is currently in progress. Additionally, the following paragraphs provide further information/clarification concerning certain items in this category:

Resolution No. | Resolution Discussion

- Certain equipment in this category was identified in the Oconee IEB 79-01B submittal as a TMI/NUREG 0737 addition. At the time of our submittal, various environmental qualification as well as system aspects concerning this equipment were under a review. Our reviews have now been completed and a determination has been made concerning the qualification status or necessity of the equipment to function in a harsh environment. Refer to Table 2 for a listing of these equipment items including the proper qualification documentation reference or a statement concerning the equipment functional requirement.

- Lawrence Solenoid Valves (Unit 2 TER Item 23; Unit 3 TER Item 22)

  These valves are located in the Auxiliary Building and exposed to the post-LOCA recirculation radiation environment. However, these valves are non-safety-related and not required to function in the harsh environment; therefore, environmental qualification is not required.

- Target Rock Solenoid Valves (Unit 1 TER Item 15; Unit 2 TER Item 20; Unit 3 TER Item 16)

  These valves were previously identified in Table 2. The environmental qualification of these valves is documented in Target Rock Corp. Report 2375 (OM-360-32). Additionally, these valves are located inside the Reactor Building and because of system requirements are installed below the maximum post-LOCA water level. Since these valves are required to operate for post-LOCA liquid sampling, they are being upgraded to assure submerged operation capability.

  Refer to the attached JCO for these Target Rock valves.

- Skinner Solenoid Valve (Unit 1 TER Item 20; Unit 2 TER Item 24; Unit 3 TER Item 21)

  These valves (LP-121) were previously identified in Table 2. Additionally, these valves are located in the Auxiliary Building and exposed to the post-LOCA recirculation radiation environment. The initial design of the Liquid Sample System in which these valves are installed did not require them to function in the radiation environment; however, recent system design reviews now identify these valves as part of the sample path. Therefore, radiation qualification for these valves is required.

  Refer to the attached JCO for these valves.

Resolution No. | Resolution Discussion

- Mercoid Pressure Switches (Unit 1 TER Item 26; Unit 2 TER Item 30; Unit 3 TER Item 27)

  These pressure switches are located in the Auxiliary Building (Penetration Room) and function to initiate a reactor trip on high Reactor Building pressure. As noted in our response to the previous equipment qualification SER these switches are located in the Penetration Room and not exposed to a harsh environment prior to performing their safety function, therefore, they would be more appropriately classified as a TER Category III.B item. It should be noted that Mercoid pressure switches also located in the Penetration Room that initiate Engineered Safeguards on high Reactor Building pressure were classified as Category III.B because they performed their safety function prior to exposure to a harsh environment (Ref. Unit 1 TER Item 63; Unit 2 TER Item 62; Unit 3 TER Item 60).

- Traceability of installed equipment to the qualification documentation was a principle concern for cables and motors. For these items, Duke Power Company has identified a method for establishing the auditable link between the installed equipment and the qualification documentation. The qualification files for these items are being updated with this auditable link information.

  This effort is based on manufacturer's certifications that are traceable through equipment specifications, purchase orders, and/or other pertinent documents.

6. This equipment is in TER Category II.C, Equipment Satisfies All Requirements Except Qualified Life or Replacement Schedule Justified. Duke Power Company has reviewed the items in this category and determined that the TER concerns can be satisfactorily resolved for Oconee. Documentation of the specific resolutions for each TER Item is currently in progress. The methods for resolving these concerns are consistent with the DOR Guideline requirements and NRC Generic Letter 82-09 and include one or more of the following:

   Aging simulations were included in the test program for the equipment. A qualified life based on Oconee conditions has been determined with appropriate equipment/component replacment schedules established.

   Surveillance and maintenance activities established to review equipment for significant aging degradation.

   Equipment has been determined to have no significant aging mechanisms based on material evaluation or Duke experience. In all cases where radiation is an environmental parameter of concern, the equipment has been shown to be qualified for the 40 year normal dose plus the appropriate accident dose.

Resolution No.	Resolution Discussion

7. This resolution pertains to certain equipment items which in Duke Power Company's respon to the NRC's previous equipment qualification SER were evaluated and determined not to require environmental qualification. However, the TER System Consideration Review for these items differed from Duke's conclusion. The following paragraphs provide addition information to support our previous evaluation that these items do not require environmental qualification.

- Meletron Pressure Switches (Unit 1 TER Item 65; Unit 2 TER Item 57; Unit 3 TER Item 49)

  These pressure switches are non-safety-related and are provided for equipment protection purposes for non-safety-related radiation monitors. Therefore, environmental qualification is not required for these switches.

- Rosemount 1152 GP Transmitter (Unit 1 TER Item 66; Unit 2 TER Item 56; Unit 3 TER Item 51)

  These transmitters are non-safety-related and are provided as an input to the Integrated Control System for controlling pressurizer heaters. Pressurizer heater control is not required for Design Basis Accident conditions that create harsh environment; therefore, these transmitters are not required to function. Additionally, this transmitter does not provide control board indication for operator action.

- Bailey BY Transmitters (Unit 1 TER Item 68; Unit 2 TER Item 26; Unit 3 TER Item 52)

  These transmitters are located in the Reactor Building and provide indication of pressurizer level. However, for the design basis of the Oconee Nuclear Station, the pressurizer level transmitters are not required to function for accident mitigation nor are they used as a primary means of monitoring safety system performance. Therefore, environmental qualification is not required for these transmitters.

  As stated in our response to the NRC's previous equipment qualification SER, these transmitters will be reviewed as a part of Duke Power Company's response to NUREG 0737, Supplement 1.

TABLE 1

OCONEE NUCLEAR STATION - UNITS 1, 2, AND 3

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

TER CATEGORY I.B ITEMS - REPLACEMENT SCHEDULE*

TER			PLANT ID	SCHEDULED OUTAGE DATE FOR REPLACEMENT		
UNIT 1	UNIT 2	UNIT 3		UNIT 1	UNIT 2	UNIT 3
8	5, 7	6	LP-17, 18	3/85	7/85	2/84
17	17, 18, 69	18, 19, 20, 64	SV-75, 76, 31, 4, 34, 3, 16	6/83	complete	complete
18	-	-	SV-33	6/83	complete	complete
19	19	20	SV-32	6/83	complete	complete
52, 54, 55	58, 60	58, 59	PT-4, 5, 6, 7**	6/83	8/83	complete
70	66	66	SV-90, 95	6/83	complete	complete
71	67	20	SV-5	6/83	complete	complete
72, 73	68, 70	65	SV-36, 37, 38	6/83	complete	complete

* Justifications for Continued Operation (JCO's) have previously been submitted for these items. Refer to Duke Power Company letter, W. O. Parker to H. R. Denton dated February 25, 1982.

** Transmitter PT-7 has been determined not to be required to perform a safety function in a harsh environment; therefore, environmental qualification is not required.

Qualification References

1. LP-17, 18: Limitorque Valve Motor Operators; Limitorque Report 600456
2. All SV designations: ASCO Solenoid Valve Operators; ASCO Report AQS21678/TR
3. PT-4, 5, 6: Barton Pressure Transmitters (764); Barton Report R3-764-9

TABLE 2

OCONEE NUCLEAR STATION - UNITS 1, 2, AND 3

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

CATEGORY II.A - TMI ITEMS

TER ITEM NO.			PLANT ID	QUALIFICATION REFERENCE/ RESOLUTION
UNIT 1	UNIT 2	UNIT 3		
15	20	16	RC-162, 163	Target Rock Corp. Report No. 2375(OM-360-32) Additionally, refer to the text concerning potential submergence of these valves and the attached JCO.
16	22	15	RC-164, 165	These valves have been replaced with manual valves; therefore, environmental qualification is not required.
20	24	21	LWD-1026	LWD-1026 is not required to perform a safety function in a harsh environment; therefore, environmental qualification is not required.
			LP-121	This valve is located in a liquid sample path and is subject to the post-LOCA recirculation radiation environment. Refer to the text concerning these valves and the attached JCO.
21	21	17	RC-155 thru 160	Target Rock Corporation Report No. 2375 (OM-360-32)
22	25	23	SV-210 thru 219	Valcor Test Report QR70900-21-1 (OM-360-33)
23	27 (listed under I.B)	24	LT-90, 91	DeLaval Report No. 45700-1 (OM-360-38)
24	29	26	PT-230-231	Rosemount Test Report 3788 (OM-360-37)
36	2	1	PR-59, 60	Rotork Test Report TR116
59	14	10	LWD-1028 DW-278	These valves are non-safety-related and not required to perform a safety function in a harsh environment, therefore, environmental qualification is not required.

ATTACHMENT 3

OCONEE NUCLEAR STATION - UNITS 1, 2, AND 3

RESOLUTION OF NRC/FRC TECHNICAL EVALUATION REPORT ITEMS

JUSTIFICATIONS FOR INTERIM OPERATION

OCONEE NUCLEAR STATION - UNITS 1, 2, AND 3

JUSTIFICATION FOR CONTINUED OPERATION

Target Rock Solenoid Valves (Unit 1 TER Item 15; Unit 2 TER Item 20; Unit 3 TER Item 16)

-and-

Skinner Solenoid Valves (Unit 1 TER Item 20; Unit 2 TER Item 24; Unit 3 TER Item 21)

These valves are part of the Liquid Sample System which was installed in response to TMI/NUREG 0737 Item II.B.4. NRC Confirmatory Order for Oconee Nuclear Station dated March 18, 1983, requires the Liquid Sample System to be implemented and maintained by specified dates. These valves will be modified for submerged operation (Target Rock) and operation in a radiation environment (Skinner) consistent with the schedule contained in this order.