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July 29, 1983

Mr. A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Limerick Generating Station, Units 1 and 2
Quality Assurance Branch Open Items

Reference: Letter A. Schwencer to E. G. Bauer, Jr., dated June 7, 1983 transmitting Request for Additional Information

File: GOVT 1-1 (NRC)

Dear Mr. Schwencer:

In response to the referenced letter, attached are draft responses to FSAR Questions 260.56 and 260.57.

The information contained in these draft FSAR responses will be incorporated into the FSAR, exactly as it appears on the attachments, in the revision scheduled for August, 1983.

Sincerely,

Eugene J. Bradley

JTR/gra/57

Attachment

Copy to: See Attached Service List

B001
1/1

cc: Judge Lawrence Brenner (w/o enclosure)
Judge Richard F. Cole (w/o enclosure)
Judge Peter A. Morris (w/o enclosure)
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Docket and Service Section (w/o enclosure)

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LIMERICK

Request for Additional Information

260.0 Quality Assurance Branch

260.56 Section 17.1.2.2 of the standard format (Regulatory Guide 1.70) requires the identification of safety-related structures, systems, and components controlled by the QA program. You are requested to supplement and clarify Table 3.2-1 of the Limerick FSAR in accordance with the following:

a. The following items do not appear on FSAR Table 3.2-1. Add the appropriate items to the table and provide a commitment that the remaining items are subject to the pertinent requirements of the FSAR operational quality assurance program or justify not doing so.

1. Reactor internal structures, other.
2. Scram discharge volume of CRD hydraulic system.
3. Biological shielding within the reactor building and control structure.
4. Fabricated supports such as Unistrut and Superstrut that are used to support systems and components identified in Regulatory Guide 1.29.
5. Items that are within the scope of Regulatory Positions C.2 and C.3 of Regulatory Guide 1.29.
6. Radiation shielding.
7. Radiation monitoring (fixed and portable).
8. Radioactivity monitoring (fixed and portable).
9. Radioactivity sampling (air, surfaces, liquids).
10. Radioactive contamination measurement and analysis equipment.
11. Personnel monitoring equipment (internal, e.g., whole body counter, and external, e.g., TLD system).
12. Instrument storage, calibration, and maintenance program.
13. Decontamination facilities, personnel, and equipment.
14. Respiratory protection equipment, including testing.
15. Contamination control.
16. Containment isolation barriers listed in FSAR Table 6.2-17
17. Secondary containment structure.
18. Internal subcompartment structures of primary and secondary containment.
19. ECCS pump rooms.
20. Containment overpressure relief system.
21. Modifications to the site drainage system (including earthen slopes).

22. Foundation support materials (rock, soils, backfill, and concrete fill) for safety-related structures including flood control structures, beams, dikes, and enclosures.

b. The following items from FSAR Table 3.2-1 need exparsion and/or clarification as noted. Revise the list as indicated or justify not doing so.

1. We note that Table 3.2-1 identifies the instrumentation and control (I&C) systems, references tne FSAR section, and indicates whether the I&C is "Q-listed" or not. Nevertheless we request that Table 3.2-1 be annotated to verify that all safety-related I&C described in Sections 7.1 through 7.6 of the FSAR plus safety-related I&C for safety-related fluid systems will be subject to the pertinent requirements of the FSAR QA program.

2. For the systems shown below, clarify the list in Table 3.2-1 to include the indicated components under the pertinent 10 CFR 50 Appendix B quality assurance requirements or verify that they are included as part of the components already listed.

II.B RHR System
Drywell and suppression chamber spray nozzles

X.E Miscellaneous Electrical

2. Conduit and cable trays and their supports containing Class 1E cables and those whose failure may damage other safety-related items
3. Emergency lighting batteries
4. Emergency lighting systems
7. Inverters

3. Roof scuppers and parapet openings of enclosures are listed under item XII. Provide a commitment that any modifications of these scuppers and openings which affect drainage will be subject to the pertinent requirements of the FSAR operational QA program.

c. Enclosure 2 of NUREG-0737, "Clarification of TMI Action Plan Requirements" (November 1980) identified numerous items that are safety-related and appropriate for OL application and therefore should be on Table 3.2-1. These items are listed below. Add the appropriate items to Table 3.2-1 and provide a commitment that the remaining items are subject to the pertinent requirements of the FSAR operational QA program or justify not doing so.

		NUREG-0737 Enclosure 2 Clarification Item
1.	Plant-safety-parameter display console.	I.D.2
2.	Reactor Coolant system vents.	II.B.1
3.	Plant shielding.	II.B.2
4.	Post accident sampling capabilities. (system shown as item XI.K in Table 3.2-1, but some components show "N" in the column headed "Q-List")	II.B.3
5.	Valve position indication.	II.D.3
6.	Dedicated hydrogen penetrations.	II.E.4.1
7.	Containment isolation dependability.	II.E.4.2
8.	Accident monitoring instrumentation.	II.F.1
9.	Instrumentation for detection of inadequate core-cooling.	II.F.2
10.	HPCI & RCIC initiation levels.	II.K.3(13)
11.	Isolation of HPCI & RCIC.	II.K.3(15)
12.	Challenges to and failure of relief valves.	II.K.3(16)
13.	ADS actuation.	II.K.3(18)
14.	Restart of core spray and LPCI.	II.K.3(21)

	NUREG-0737 Enclosure 2 Clarification Item
15. RCIC suction.	II.K.3(22)
16. Space cooling for HPCI & RCIC.	II.K.3(24)
17. Power on pump seals.	II.K.3(25)
18. Common reference level.	II.K.3(27)
19. ADS valve, accumulators, and associated equipment and instrumentation.	II.K.3(28)
20. Emergency Plans (and related equipment).	III.A.1.1/III.A.2
21. Equipment and other items associated with the emergency support facilities.	III.A.1.2
22. Inplant I_2 radiation monitoring.	III.D.3.3 RAB
23. Control-room habitability.	III.D.3.4

RESPONSE TO RAI 260.56 DRAFT

RESPONSE

The Limerick Quality Control Program is described in Chapter 17. FSAR Table 3.2-1 (LGS Design Criteria Summary) is intended, in part, to provide identification of safety-related structures, systems, and components as required by Section 17.1.2.2 of the standard format (Regulatory Guide 1.70). Such items are identified in Table 3.2-1 as "Q-List". The Limerick Project Q-List is not part of the FSAR; it is a controlled QA program document that serves to identify structures, systems and components requiring compliance with Appendix B to 10 CFR Part 50. The Limerick QA Manual and its implementing procedures prescribe the preparation and maintenance of the Project Q-List and define the quality assurance controls that are to be applied to items listed therein.

The information requested for each item identified in question 260.56, as each applies to Limerick, is provided as follows:

a.1 The reactor internal structures, other, is listed in Table 3.2-1 Item I.A.6 and are not Q-listed since they are ~~not~~ NEITHER required for safe shutdown of the plant, NOR WILL THEIR FAILURE JEOPARDIZE THE SAFETY FUNCTION OF OTHER SAFETY RELATED REACTOR INTERNALS.

a.2 The Scram Discharge volume of the CRD hydraulic system is listed in Table 3.2-1 Item I.C.3 and is Q-listed as indicated.

a.3 The biological (primary) shield is Q-listed and is listed in Item XII.B.7 of Table 3.2-1.

No modifications to shield walls were necessary as a result of the TMI shielding study. All of the shield walls identified as a result of the plant shielding study are in the reactor enclosure and control structure and are Q-listed. These walls are included in Items XII.A and XII.D of Table 3.2-1.

a.4 Table 3.2-1 has been changed to include fabricated supports used to support safety related systems and components.

ITEMS XII.A.6, XII.B.8, XII.D.5, XII.F.4 AND XII.G.2 OF

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a.5 The items that are within the scope of Regulatory Positions C.2 and C.3 of Regulatory Guide 1.29 are designated by Note [8] in Table 3.2-1.

a.6 No modifications to shield walls were necessary as a result of the TMI shielding study. All of the shield walls identified as a result of the plant shielding study are in the reactor enclosure and control structure and are Q-listed. These walls are included in Items XII.A.5 and XII.D.1 of Table 3.2-1.

a.7 This is not a "structure, system or component" requiring entry in Table 3.2-1. Control and calibration of radiation monitoring (fixed and portable) are provided by procedures that are responsive to the appropriate portions of the Quality Assurance Program described in Section 17.2.

a.8 This is not a "structure, system or component" requiring entry in Table 3.2-1. Control and calibration of radioactivity monitoring (fixed and portable) are provided by procedures that are responsive to the appropriate portions of the Quality Assurance Program described in Section 17.2.

a.9 This item is not a "structure, system or component" requiring entry in Table 3.2-1. Control of radioactivity sampling (air, surface, liquids) is provided by procedures that are responsive to the appropriate portions in the Quality Assurance Program described in Section 17.2.

a.10 This item is not a "structure, system or component" requiring entry in Table 3.2-1. Control of radioactive contamination measurement analysis is provided by procedures that are responsive to the appropriate portions of the Quality Assurance Program described in Section 17.2.

a.11 This item is not a "structure, system or component" requiring entry in Table 3.2-1. Control of personnel monitoring (e.g., whole body counter) and external (e.g., TLD system) is provided by procedures that are responsive to the appropriate portions of the Quality Assurance Program described in Section 17.2.

a.12 This item is not a "structure, system or component" requiring entry in Table 3.2-1. Control of instrument storage, calibration and maintenance is provided by procedures that are responsive to the appropriate portions of the Quality Assurance Program described in Section 17.2.

a.13 Decontamination equipment and facilities are not safety-related. Decontamination piping and valves are a part of the "Liquid Radwaste Management Systems -- Piping and Valves" as described in Table 3.2-1.

Personnel decontamination is not a "structure, system or component" requiring entry in Table 3.2-1. Control of personnel decontamination is provided by procedures that are responsive to the appropriate portions of the Quality Assurance Program described in Section 17.2.

a.14 This item is not a "structure, system or component" requiring entry in Table 3.2-1. Control of respiratory protection, including testing, is provided by procedure that are responsive to the appropriate portions of the Quality Assurance Program described in Section 17.2.

a.15 This item is not a "structure, system or component" requiring entry in Table 3.2-1. Contamination control is provided by procedures that are responsive to the appropriate portions of the Quality Assurance Program described in Section 17.2.

a.16 Containment isolation barriers listed in FSAR Table 6.2-17 are listed by system ~~as piping isolation at containment penetrations~~ in Table 3.2-1 and are Q-listed.

a.17 Secondary containment structure is Q-listed as indicated in Table 3.2-1 Item XII.A.

a.18 Internal subcompartment structures of primary and secondary containment are Q-listed as indicated in Table 3.2-1 Items XII.A and XII.8.

a.19 The ECCS pump rooms are ~~subject to the QA requirements and are~~ Q-LISTED AND covered in Table 3.2-1 Item XII.A.5.

a.20 Limerick does not have a containment over pressure relief system.

a.21 Site grading is not Q-listed and is not a "structure, system, or component" that should be included in Table 3.2-1. Site grading cannot adversely impact safety-related equipment because it is designed to direct the storm water flow caused by local intense precipitation away from safety-related equipment and structures such as the reactor enclosure, control structure, diesel generator enclosure, and the spray pond. The flooding scenarios caused by probable maximum precipitation and runoff patterns are described in FSAR Section 2.4.2.3.

a.22 The foundation support materials (rock, soils, backfill, and concrete fill) are not Q-listed and ~~is~~ ARE not structures, systems, or components that should ~~not~~ be included in Table 3.2-1. The foundation support material for safety related structures cannot adversely impact the safe operation of the plant due to the following:

1) All seismic category 1 structures are founded on competent bedrock except portions of buried piping, one valve pit and the buried diesel oil tanks. The competency of the bedrock to provide satisfactory foundation support is discussed in Section 2.5.4.2.1 and in the response to Question 241.16.

2) Seismic Category 1 structures not founded on bedrock are supported by either Type 1 backfill or natural soil. The engineering properties and tests performed for the backfill and in-situ soil are discussed in Sections 2.5.4.5.4 and 2.5.4.2.2, respectively. ~~In addition,~~ Foundation soils underlying safety related structures are discussed in the response to Question 241.17.

3) The static stability of all seismic category 1 structures is discussed in Section 2.5.4.10.

b.1 Table 3.2-1, ITEM IX, ~~has been changed to~~ indicates that safety-related instrumentation and controls described in Sections 7.2 through 7.6 are subject to the Appendix B QA program and are qualified to appropriate standards.

b.2.II.B Table 3.2-1 has been ~~clarified~~ CHANGED to include the Q-LISTED Drywell and suppression chamber spray nozzles.

b.2.X.E.2 Conduit and cable trays and their supports containing Class 1E cables and those whose failure may damage other safety-related items are Q-listed as indicated in Table 3.2-1 Item X.E.2.

b.2.X.E.3 Emergency lighting batteries are not Q-listed ~~but are subject to the appropriate quality assurance requirements. This is discussed in the response to Question 430.69.~~ BECAUSE THEY PERFORM NO SAFETY FUNCTION.

b.2.X.E.4 Emergency lighting systems are not Q-listed ~~but are subject to the appropriate quality assurance requirements. This is discussed in the responses to Questions 430.65, 66, 67 and 68.~~ BECAUSE THEY PERFORM NO SAFETY FUNCTION

b.2.X.E.7 Electrical inverters are non-Q since they do not supply power to safety related loads. This is indicated in Table 3.2-1, Item X.E.7.

b.3 The roofs of Q-listed enclosures are capable of supporting the weight of water that could be trapped inside the parapet, if the scuppers should fail. The scuppers and parapet openings are therefore not classified as Q-listed, as indicated in Table 3.2-1, Item XII.

c.1 Response to this TMI issue is still under evaluation. Any modifications to Limerick will be evaluated to determine if they should be Q-listed. Table 3.2-1 will be modified as appropriate.

c.2 The various reactor coolant system vent paths are Q-listed. They are designated in Table 3.2-1, as follows:

The RPV head vent is a subset of "reactor vessel appurtenances, pressure retaining portions", Item I.A.3.

The main steam relief valves with their ADS function are a subset of "Piping and valves, reactor coolant pressure boundary", Item I.B.4.

c.3 No modifications to shield walls were necessary as a result of the TMI shielding study. All of

THE SPDS IS NOT Q-LISTED BECAUSE SUPPLEMENT 1 TO NUREG 0737 SPECIFICALLY STATES THAT THE SPDS IS NOT SAFETY RELATED → THE SENSORS, ISOLATORS AND SIGNAL CONDITIONERS WHICH INPUT TO THE SPDS AND ARE PART OF A SAFETY RELATED INSTRUMENTATION OR CONTROL SYSTEM ARE Q-LISTED, AS INDICATED IN TABLE 3.2-1 ITEM IX.

→ PROVIDE → (SECT. 4.1.C.)

the shield walls identified as a result of the plant shielding study are in the reactor enclosure and control structure and are Q-listed. These walls are included in Items XII.A.5 and XII.D.4 of Table 3.2-1.

c.4 The post-accident sampling system (PASS) is not Q-listed, with the exception of its interfaces with Q-listed systems, as shown in Item XI.K of Table 3.2-1.

c.5 A safety relief valve acoustic monitoring system that meets the requirements of NUREG-0737 and Regulatory Guide 1.97 Rev. 2 will be installed before fuel loading, Table 3.2-1, Item IX.E.3 REFLECTS ~~identifies~~ the system design. ~~Additional information is discussed in the response to Question 421.5.~~

c.6 The containment hydrogen recombiner system, including the associated containment penetrations, is Q-listed as shown in Item VII.C.3 of Table 3.2-1. ~~Additional information on compliance with NUREG-0737 is provided in the response to Question 480.56.~~

c.7 Containment isolation valves are Q-listed as shown in Table 3.2-1. ~~Addition information on compliance with NUREG-0737 is provided in the responses to Questions 421.5 and 480.35.~~

c.8 Accident monitoring instrumentation has been designed using the guidance provided in Regulatory Guide 1.97, Rev. 2 (Section 7.5). The Category 1 and 2 instrumentation has been classified as Q-listed and is listed in Table 3.2-1 Item IX. ~~Additional information is provided in the response to Question 421.5.~~

c.9 No additional instrumentation was identified as a result of this required study, and therefore no changes to Table 3.2-1 are necessary.

c.10 ~~Information for this item is provided in the response to Question 421.5~~ There were no modifications made as a result of this item. ~~for RCIC modification only.~~

c.11 ~~Information for this item is provided in the response to Question 421.5.~~ Items associated with the HPCI and RCIC isolation are Q-listed and in Table 3.2-1 Item II.A.10 and II.D.7 for RCIC and HPCI, respectively.

c.12 The safety relief valves are Q-listed and are included in Item I.B.4 of Table 3.2-1. There were no plant modifications made as a result of this TMI item.

c.13 Information for this item is provided in the response to Question 421.5. Table 3.2-1 will not be affected by modifications made as a result of this TMI item.

c.14 No changes to the core spray or LPCI system logic were necessary as a result of this TMI item, and therefore no changes to Table 3.2-1 are required. ~~Additional information is provided in the response to Question 421.5.~~

c.15 ~~Information for this item is provided in the response to Question 421.5.~~ Items associated with the RCIC suction modification are Q-listed and in Table 3.2-1 Item II.A.10.

c.16 The HPCI and RCIC unit coolers are Q-listed, as shown in Item VII.B.5 of Table 3.2-1. No modifications were made as a result of this TMI item.

c.17 No modifications to the recirculation pump seal cooling design were necessary as a result of this TMI item, and therefore no changes to Table 3.2-1 are required.

c.18 Reactor vessel water level instruments are all referenced to the same point. No changes in instrumentation are required, and Table 3.2-1 is unchanged.

c.19 The ADS valves, accumulators and instrumentation are Q-listed and are included in Item I.B of Table 3.2-1. No modifications to this table are required as a result of this TMI item.

c.20 This item is not a "structure, system or component" requiring entry in Table 3.2-1. Control of this

-254(b)/4

ADS ITEM WILL BE LOGIC CHANGES MADE AS A RESULT OF THIS TMI ITEM Q-LISTED AND INCLUDED IN TABLE 3.2-1, ITEM II.B.1.

activity is provided by appropriate procedures. Chapter 17 describes the Quality Assurance Program coverage of procedural controls.

c.21 Response to this TMI study is still under evaluation. Any modifications to Limerick will be evaluated to determine if they should be Q-listed. Table 3.2-1 will be modified as appropriate.

c.22 Response to this TMI study is still under evaluation. Any modifications to Limerick will be evaluated to determine if they should be Q-listed. Table 3.2-1 will be modified as appropriate.

c.23 The only modification required in response to this TMI item was to add a supply of potassium iodide for control room personnel. Table 3.2-1 is not affected by this change.

AS DESCRIBED IN SECTION 1.13, SAMPLING METHODS AND PROCEDURES WILL BE IMPLEMENTED IN RESPONSE TO THIS TMI ITEM.

This item is not a "structure, system or component" requiring entry in Table 3.2-1. Control of radioactivity sampling [redacted] is provided by procedures that are responsive to the appropriate portions in the Quality Assurance Program described in Section 17.2.

TABLE 3.2-1 (Cont'd)

SYSTEM/COMPONENT [40]	FSAR SECTION	SOURCE OF SUPPLY [1]*	LOCATION [2]*	QUALITY GROUP CLASSIFICATION [3]*	PRINCIPAL CODES AND STANDARDS [4]*	SEISMIC CATEGORY [5]*	Q-LIST [6]*	COMMENTS
2. RCIC barometric condenser		GE	R	D	B31.1	II	N	
3. Piping and valves, RCPB		P	C	A	III-1	I	Y	[7] [9] [48]
4. Piping within outermost containment isolation valves, discharges to suppression pool		P	C	D	B31.1	I	Y	[48]
5. Piping and valves, other safety-related		P	R	B	III-2	I	Y	[9] [48]
6. Portion of piping for RCIC turbine drains		P	R	D	B31.1	I	Y	[55]
7. Deleted								
8. Pumps, RCIC condensate and condenser vacuum		GE	R	D	MF STD	II	N	
9. Pump, RCIC		GE	R	B	III-2	I	Y	
10. Electrical modules, with safety function		GE	R,CS	-	IEEE-323, 344, 279	I	Y	[11], [12]
B. Residual Heat Removal System	5.4.7							
1. Heat exchangers, primary (process) side		GE	R	B	III-2/TEMA C	I	Y	
2. Heat exchangers, secondary (service water) side		GE	R	D	VIII-1/ TEMA C	I	Y	
3. Piping, reactor vessel head spray line, beyond first isolation valve		P	C	B	III-2	I	Y	[48]
4. Piping, RCPB		P	C	A	III-1	I	Y	[7] [9] [48]
5. Piping, containment spray line (inside containment)		P	C	~~C~~ B	III-3	I	Y	[48] [58]
6. Piping and valves, other safety-related		P	R	B	III-2	I	Y	[48]
7. Valves, isolation		GE/P	C,R	A,B	III-1,2	I	Y	[7]
8. Pumps		GE	R	B	III-2	I	Y	
9. Motors, pump		GE	R	-	NEMA-MG-1	I	Y	
10. Mechanical components		GE	R	B	MF STD	I	Y	[11]
11. Electrical modules, with safety function		P/GE	R,CS	-	IEEE-323, 344, 279	I	Y	[11], [12]
12. CONTAINMENT SPRAY NOZZLES		P	C	—	MF STD	I	Y	[59]
C. Core Spray System	6.3							
1. Piping and valves, RCPB		P/GE	C	A	III-1	I	Y	[7] [9] [48]
2. Piping and valves, other safety-related		P	R	B	III-2	I	Y	[9] [48]
3. Pumps		GE	R	B	III-2	I	Y	
4. Motors, pump		GE	R	-	NEMA-MG-1	I	Y	
5. Electrical modules, with safety function		GE	R,CS	-	IEEE-323 344, 279	I	Y	[11], [12]
D. High-Pressure Coolant Injection (HPCI) System	6.3							
1. HPCI turbine		GE	R	-	MF STD	I	Y	[17]
2. Piping and valves, RCPB		P	C	A	III-1	I	Y	[7] [9] [48]
3. Piping and valves, other safety-related		P/GE	R	B	III-2	I	Y	[9] [48]

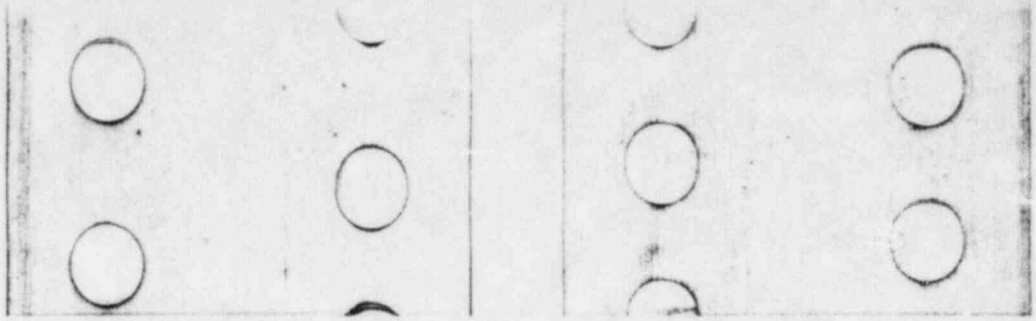

TABLE 3.2-1 (Cont'd)

SYSTEM/COMPONENT [40]	FSAR SECTION	SOURCE OF SUPPLY [1]*	LOCATION [2]*	QUALITY GROUP CLASSIFICATION [3]*	PRINCIPAL CODES AND STANDARDS [4]*	SEISMIC CATEGORY [5]*	Q-LIST [6]*	COMMENTS
J. Nitrogen System and Generator External Hydrogen System								
1. Vessels		P	H,O	D	VIII-1	II	N	
2. Piping		P	H,T,R, O,RW	D	B31.1	II	N	
3. Valves		P	H,T, R,O	D	B31.1	II	N	
K. Post-Accident Sampling System	11.5.5							
1. Sample coolers		GE	R	D	VIII-1	IIA	N	
2. Sample line root valves		P	R	B	III-2	I	Y	[46]
3. System piping		P,GE	R,CS	D	B31.1	IIA/II	N	
4. System tubing and other valves		P,GE	R,CS	-	MF STD	IIA/II	N	
XII ENCLOSURES								[33]
A. Reactor Enclosure and Refueling Area	3.8.4	P	R	B	ACI/AISC	I	Y	
1. Roof scuppers and parapet openings		P	R	-	ACI/AISC	II	N	
2. Pressure resisting doors		P	R	-	MF STD	I	Y	
3. Missile barriers for safety-related equipment		P	R	-	ACI/AISC	I	Y	
4. Spent fuel pool liner		P	R	-	AISC	I	Y	
5. Safety-related masonry walls		P	R	-	ACI/UBC	I	Y	
→ 6. Fabricated supports for safety-related	3.7.3/3.10.3	P	R	-	AISC/AISI	I	Y	
B. Primary Containment systems and components	3.8.1	P	C	B	ACI/AISC/ III	I	Y	
1. Access hatches/locks/doors		P	C	B	III-2	I	Y	
2. Liner plate		P	C	B	III-2	I	Y	
3. Penetration assemblies		P	C	B	III-2	I	Y	
4. Vacuum relief valves		P	C	B	III-2	I	Y	
5. Downcomers		P	C	B	III-1	I	Y	
6. Downcomer bracing		P	C	-	AISC	I	Y	
7. Biological (primary) shield		P	C	-	ACI/AISC	I	Y	
→ 8. Fabricated supports for safety-related	3.7.3/3.10.3	P	C	-	AISC/AISI	I	Y	
C. Turbine Enclosure systems and components	3.8.4.1	P	T	-	ACI/AISC	II	N	
D. Control Structure	3.8.4.1	P	CS	-	ACI/AISC	I	Y	
1. Roof scuppers and parapet openings		P	CS	-	ACI/AISC	II	N	
2. Pressure resisting doors		P	CS	-	MF STD	I	Y	
3. Missile barriers for safety-related equipment		P	CS	-	ACI/AISC	I	Y	
4. Safety-related masonry walls		P	CS	-	ACI/UBC	I	Y	
→ 5. Fabricated supports for safety-related systems and components	3.7.3/ 3.10.3	P	CS	-	AISC/AISI	I	Y	

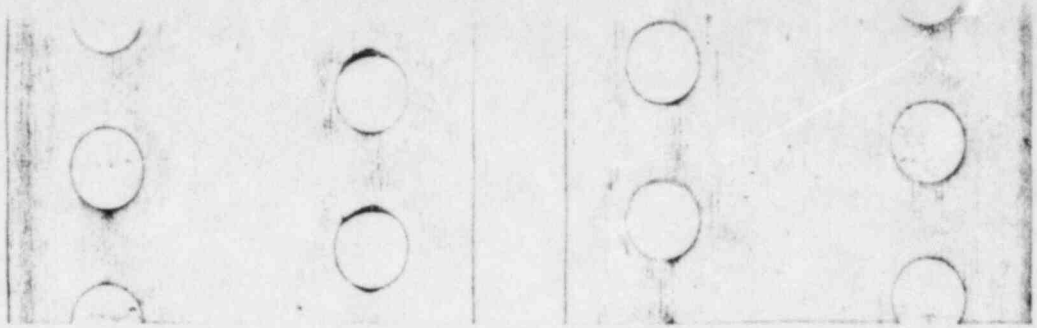

TABLE 3.2-1 (Cont'd)

SYSTEM/COMPONENT [40]	FSAR SECTION	SOURCE OF SUPPLY [1]*	LOCATION [2]*	QUALITY GROUP CLASSIFICATION [3]*	PRINCIPAL CODES AND STANDARDS [4]*	SEISMIC CATEGORY [5]*	Q-LIST [6]*	COMMENTS
E. Radwaste and Offgas Enclosure	3.8.4.1	P	RW	-	ACI/AISC	IIA	N	[18]
F. Diesel-Generator Enclosure	3.8.4.1	P	G	-	ACI/AISC	I	Y	
1. Roof scuppers and parapet openings		P	G	-	ACI/AISC	II	N	
2. Missile barriers for safety-related equipment		P	G	-	ACI/AISC	I	Y	
3. Safety-related masonry walls		P	G	-	ACI/UBC	I	Y	
4. Fabricated supports for safety-related systems and components	3.7.3/3.10.3	P	G	-	AISC/AISI	I	Y	
G. Spray Pond Pump Structure	3.8.4.1	P	S	-	ACI/AISC	I	Y	
1. Roof scuppers and parapet openings		P	S	-	ACI/AISC	II	N	
2. Fabricated supports for safety-related systems and components	3.7.3/3.10.3	P	S	-	AISC/AISI	I	Y	
H. Schuylkill Pump Structure		P	SP	-	ACI/AISC	II	N	
I. Perkiomen Pump Structure		P	PP	-	ACI/AISC	II	N	
J. Circulating Water Pump Structure		P	CW	-	ACI/AISC	II	N	
K. Auxiliary Boiler Enclosure		P	AB	-	ACI/AISC	II	N	
L. Fuel Oil Transfer Enclosure		P	F	-	ACI/AISC	II	N	
M. Water Treatment Enclosure		P	W	-	ACI/AISC	II	N	
N. Sewage Treatment Enclosure		P	ST	-	ACI/AISC	II	N	
O. Administration Building		P	A	-	ACI/AISC	II	N	
XIII SPRAY POND								
A. Pond	3.8	P	S	-	-	I	Y	[34] [35]
B. Support Columns	3.8	P	S	-	ACI/AISC	I	Y	[36]
C. Overflow Structure	3.8	P	S	-	ACI/AISC	I	Y	
D. Spray-Network Piping	9.2	P	S	C	III-3	I	Y	[38]
E. Soil Bentonite Liner and Soil Cover	2.5	P	S	-	-	-	N	
F. Unreinforced Concrete (excluding foundations) (Concrete Backfill, Exploration, Trench Backfill, and Soil Cover	-	P	S	-	-	-	N	

[54] The basis for classification of non-ASME Section III equipment as Quality Group C is given in Section 3.2.2.h.

[55] Short welded sections of ANSI B31.1 piping in the turbine stop valve seat drains, stop valve leakoffs, governing valve leakoffs, casing drains, ring drains, chest drains, and turbine shaft seal leakoffs that cannot be hydrotested will be in-service tested to ANSI B31.1 requirements and the welds will be surface examined.

[56] The basis for classification of non-ASME Section III equipment as Quality Group C is provided in Section 3.2.2.i.

[57] The basis for classification of non-ASME Section III equipment as Quality Group C is provided in Section 3.2.2.j.

[58] This piping was purchased and constructed to Quality Group C requirements and was subsequently upgraded to Quality Group B by volumetrically examining all circumferencial welds over two inches using radiography. Visual examination will be performed in service in accordance with the Inservice Inspection Program.

→ [59] The Containment Spray Nozzles are fabricated to manufacturer's standards, In-service inspection requirements will will be consistent with Quality Group B requirements.

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QUESTION

260.57: Section 3.2-1 of the Limerick FSAR states that items which extend beyond a seismic restraint "to the first point in the system which can be treated as an anchor to the plant structure ... are not included in the 'Q' List." Justify or eliminate this practice.

RESPONSE:

Those structures, components, and systems necessary to ensure:

a. The integrity of the reactor coolant pressure boundary (RCPB).

b. The capability to shut down the reactor and maintain it in a safe shutdown conditions.

c. The capability to prevent, or mitigate the consequences of, accidents which could result in potential offsite exposures comparable to the guideline exposures of 10CFR Part 100.

are classified as Q-listed and are in accordance with the quality assurance requirements of 10CFR Part 50, Appendix B. The Q-listed boundaries for piping systems terminate at the outermost containment or system isolation valve. The piping downstream of this boundary is not required to ensure items a, b or c above and is therefore not required to be Q-listed. However, in order that failure of the non-Q-listed piping not affect the Q-listed piping or the isolation valves, the non-Q-listed piping is designed to Seismic Class I requirements up to and including the first point in the system which can be treated as an anchor to the plant structure except as indicated in Section 3.2.1.

Stress analysis, support design and design control for this non-Q-listed piping, classified as Seismic Class IIA, is carried out in the same manner as it is for Q items.

The pertinent quality assurance requirements of 10CFR50, Appendix B are considered to be adequately met for the Seismic Class IIA piping as indicated in Section 3.2.1, part d.

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part C of the discussion on Regulatory Guide 1.29 in