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JUN 07 1984

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

Docket Nos.: 50-352
50-353

Subject: Limerick Generating Station, Units 1&2
SER Confirmatory Issue #1

Reference: NUREG-0991

File: GOVT 1-1 (NRC)

Dear Mr. Schwencer:

Confirmatory issue #1 of the reference requires Philadelphia Electric to revise FSAR Tables 3.2-1 and 3.2-2. Attached are draft FSAR pages that will be included in FSAR Revision 34 which will be submitted in July. The attached pages provide additional information describing Limerick compliance with Regulatory Guide 1.26, Revision 3, and the codes and standards used in construction. Providing this information satisfies the SER requirement to enable closure of confirmatory issue #1.

Sincerely,

J. W. Gallagher
for
J. S. Kemper

JLP/gra/060584925

cc: See Attached Service List

A001
1/1

cc: Judge Lawrence Brenner (w/o enclosure)
Judge Richard F. Cole (w/o enclosure)
Troy B. Conner, Jr., Esq. (w/o enclosure)
Ann P. Hodgdon, Esq. (w/o enclosure)
Mr. Frank R. Romano (w/o enclosure)
Mr. Robert L. Anthony (w/o enclosure)
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Mr. Thomas Gerusky (w/o enclosure)
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Atomic Safety & Licensing Appeal Board (w/o enclosure)
Atomic Safety & Licensing Board Panel (w/o enclosure)
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Martha W. Bush, Esq. (w/o enclosure)
Mr. James Wiggins (w/o enclosure)
Mr. Timothy R. S. Campbell (w/o enclosure)
Ms. Phyllis Zitzer (w/o enclosure)
Judge Peter A. Morris (w/o enclosure)

7) Recirculation loop piping (28")
8) Recirculation loop suspension
9) RHR valves
20" gate valve
10) Core spray valves
12" check valve (air-operated)
11) Nuclear Class I piping (all except main steam and recirculation)

NRC approval of the request was given on 11/18/75 in a letter from R.C. De Young to E.G. Bauer of PECo.

The applicable code for design, fabrication, and testing of the main steam isolation valves is the ASME Standard Code for Pumps and Valves for Nuclear Power - 1968 Draft including March 1970 Addenda.

[8] See Section 3.2.1 for discussion of conformance to Regulatory Guide 1.29.

[9] Instrument and sampling lines Quality Group, seismic category, and quality assurance requirements are as follows:

A. Instrument lines

1. From the process boundary through the process root valve (including restriction orifice adapter), or, for lines penetrating primary containment, through the containment isolation valve or excess flow check valve, whichever applies: same Quality Group, seismic category, and quality assurance requirements as the process line

2. Downstream of the boundary defined in 1, above:

a. ~~Lines penetrating primary containment and whose associated instruments are required to function to perform a safety function ("Q-active") are Quality Group B, seismic Category I, and are Q-listed.~~

SEE ATTACHED SHEET

~~d. b.~~ Lines penetrating primary containment and whose associated instruments are only required to maintain their pressure boundary integrity ("Q-passive") are Quality Group D, seismic Category I, and are Q-listed.

SEE ATTACHED SHEET

d. Lines not penetrating primary containment whose associated instruments are Q-active are

SEE PG 31 FOR CONTINUATION OF

TABLE 3.2-1 PAGE 30 of 38

PARA [9].A.2.a./b.

a. Q-GROUP A Lines penetrating primary containment and whose associated instruments are required to function o perform a safety function ("Q-active") ~~or~~ Quality Group B, seismic Category ~~I~~, and are Q-listed.

BECOME

b. Q-GROUP A Lines penetrating primary containment and whose associated instruments are only required to maintain their pressure boundary integrity ("Q-passive") ~~are~~ Quality Group ~~D~~, seismic Category I, ~~[illegible]~~ are Q-listed.

BECOME C

c. Q-GROUP B Lines penetrating primary containment and whose associated instruments are only required to maintain their pressure boundary integrity ("Q-passive") ~~are~~ Quality Group D, seismic Category I, and are Q-listed.

BECAME

Quality Group B, seismic Category I, and Q-listed.

e. Lines not penetrating primary containment whose associated instruments are Q-passive are Quality Group D, seismic Category I, and Q-listed.

f. Other lines are Quality Group D, non-seismic Category I and not Q-listed.

g. Certain adapters in non-safety-related, non-Q-listed instrument lines are not manufactured per ANSI B31.1.

B. Sampling lines*

1. From process line to root valve: Same quality group, seismic category, and quality assurance as process line.

2. From root valve through sample rack isolation valve:

   a. Sampling lines from Q-listed Quality Group A, B, and C process lines are Quality Group B, seismic Category I, and Q-listed.

   b. Sampling lines from non-Q-listed Quality Group C process lines are Quality Group B or D, non-seismic Category I, and not Q-listed

   c. Sampling lines from Quality Group D process lines are Quality Group D, non-seismic Category I, and not Q-listed.

3. Downstream of sample rack isolation valve: Quality Group D, non-seismic Category I, and not Q-listed

[10]Not used

[11]Components include any assembly of interconnected parts that constitutes an identifiable device or piece of equipment. For example, electrical components include sensors, power supplies, and signal processors; and mechanical components include turbines, strainers, and orifices.

[12]Refer to Section 7.1 for descriptions of conformance with IEEE 279, IEEE 308, IEEE 323, and IEEE 344.

(3) Such items are not included in the "Q" List.

3.2.2 SYSTEM QUALITY GROUP CLASSIFICATIONS

General Design Criterion 1 of 10 CFR Part 50, Appendix A, requires that structures, systems, and components important to safety be designed, fabricated, erected, and tested to quality standards commensurate with their importance to safety. Components of the reactor coolant pressure boundary meet the requirements for Class 1 components of the American Society of Mechanical Engineers (ASME) B&PV Code, Section III, or equivalent quality standards, as required by 10 CFR Part 50.55.a. Regulatory Guide 1.26, Rev. 3, describes a quality classification system that may be used to determine applicable standards for other components in nuclear power plants. Quality group classifications are assigned to systems and components in accordance with the reliance placed on these systems to:

a. Prevent, or mitigate the consequences of, accidents and malfunctions originating within the RCPB

b. Permit shutdown of the reactor, and maintain it in the safe shutdown condition

c. Contain radioactive material.

A tabulation of quality group classification for each component so defined is shown in Table 3.2-1 under the heading, "Quality Group Classification." The applicable codes and standards of each quality group, as described by Regulatory Guide 1.26, are given in ~~Table 3.2-2.~~ Tables 3.2-2 and 3.2-3. The locations of these components, and the quality group classification of the piping, valves, and interfaces between components of different classifications, are indicated on the system piping and instrumentation diagrams in the pertinent section of the FSAR. A cross reference of system to FSAR figure number is provided in Section 1.7.

System quality group classifications, and design and fabrication requirements as indicated in Table 3.2-1, meet the guidelines of Regulatory Guide 1.26, except as noted below.

The Limerick design is based on quality group commitments made before Regulatory Guide 1.26 was issued, and in some cases alternate approaches to the guide have been used, as follows:

a. Regarding systems important for reactor shutdown, as discussed in paragraph C.1.b (Quality Group B) of the guide, the control rod drive (CRD) system hydraulic control units (HCU) are classified as "special equipment" by GE because the codes and standards of a quality group are not strictly applicable to the HCUs. as shown in Table 3.2-3

A detailed discussion is given in the notes of Table 3.2-1.

b. The Quality Group B classification may terminate on some steam system connected piping at the first valve capable of remote manual closure, rather than at a normally, or automatically, closed valve. Additionally, Quality Group B is applied only to piping 2-1/2 inches in diameter and larger, similar to the guidelines of Regulatory Guide 1.29 for application of the seismic Category I classification.

c. ~~The normal spent fuel pool cooling system is primarily Quality Group D.~~ However, as discussed in Section 3.2.1, backup cooling and makeup sources are provided. These sources are at least Quality Group C, as are the connecting portions of the normal cooling system.

d. The standby diesel generator piping is designed as shown in Figures 9.5-9 through 9.5-12. Supplementary material certification, design, and examination requirements have been applied to the off-skid portions of the emergency diesel auxiliary systems to ensure that their quality is essentially equivalent to ASME Section III, Class 3. The technical differences between ANSI B31.1 and ASME Section III, Class 3 are few. The major differences were addressed by supplemental requirements and are listed below.

Certain components in the normal spent fuel pool cooling system were designed, fabricated, procured, installed, and tested to the requirements of ASME Section III, Class 3, prior to May 1978. After May 1978, system design, fabrication, materials, procurement, installation, and testing are, at a minimum, in accordance with Quality Group D and the intent of Regulatory Guide 1.143, Rev. 1.

SYSTEM/COMPONENT [46]	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/C	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	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]

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
4. Piping, return test line to condensate storage tank beyond second isolation valve		P	R,AB, RW,O	B	III-2	IIA/II	N	
5. Piping, remainder		P	AB, RW,O	D	B31.1	II	N	
6. Pumps, HPCI and booster		GE	R	B	III-2	I	Y	
7. Electrical modules, with safety function		GE	R,CS	-	IEEE-323, 344, 279	I	Y	[11], [12]
8. HPCI barometric condenser		GE	R	D	B31.1	II	N	
9. Pumps, HPCI condensate and condenser vacuum		GE	R	D	MF STD	II	N	
10. Piping within outermost containment isolation valves, discharges to suppression pool		P	C	D	B31.1	I	Y	[48]
11. Portion of piping for HPCI turbine drains		P	R	D	B31.1	I	Y	[55]
E. Standby Liquid Control System	9.3.5							
1. Standby liquid control tank		GE	R	B	III-2	I	Y	
2. Test tank		GE	R	D	API-620	I	N	
3. Piping and valves, RCPB		P	C	A	III-1	I	Y	[7] [48]
4. Piping and valves, other safety-related		P	R	B	III-2	I	Y	[9] [48]
5. Piping, service and drain		P	R	D	B31.1	I/IIA	N	
6. Pumps		GE,P	R	B	III-2	I	Y	
7. Motors, pump		GE,P	R	-	NEMA-MG-1	I	Y	
8. Electrical modules, with safety function		GE	C,R,CS	-	IEEE-323, 344, 279	I	Y	[11], [12]
III FUEL STORAGE AND HANDLING;REACTOR VESSEL SERVICING								
A. Storage Equipment	9.1.1, 9.1.2							
1. Spent fuel storage racks (also used for new fuel)		P	R	-	AA	I	Y	
2. Channel storage racks		GE	R	-	MF STD	II	N	
3. In-vessel racks		GE	R	-	MF STD	I	Y	
4. Defective fuel storage containers		GE	R	-	MF STD	I	Y	
B. Fuel Pool Cooling and Cleanup System	9.1.3							
1. Heat exchangers		P	R	C	III-3/TEMA C	IIA	N	[18]
2. Skimmer surge tanks		P	R	C	III-3	I	Y	
3. Filter demineralizer vessels		P	RW	C	III-3	II	N	[19]
4. Resin and precoat tanks		P	RW	D	API-650	II	N	[18]
5. Piping and valves, cooling loop		P	R	C	ANSI B31.1	IIA	N	[8] [18] [13] [52]
6. Piping and valves, RHR intertie		P	F	B	III-2	I	Y	[48]

Insert Item II.F

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Insert II.F

TABLE 1.2-1 (Continued)

Principal Components (40)	PSAR Section	Source of Supply (1)*	Location (2)*	Quality Group Classification (3)*	Safety Class	Principal Construction Codes and Standards (4)*	Seismic Category (5)*	Quality Assurance Requirement (6)*	Comments *
F. Main Steam Isolation Valve Leakage Control System	6.7								
1. Piping and valves up to first isolation valve of the inboard subsystem		P	R	A	1	III-1	I	Y	
2. Piping and valves, other		P	R	B	2	III-2	I	Y	
3. Blower motors		GE	R	—	2	NEMA-MG-1 IEEE323/344 AFBMA AMCA	I	Y	(12)
4. Heaters		GE	R	—		IEEE-323 IEEE-344	I	Y	(12)

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NOTES ON
LGS DESIGN CRITERIA SUMMARY

[1] GE - General Electric

P - Philadelphia Electric Company

[2] Location

R - Reactor Enclosure

C - Containment

T - Turbine Enclosure

CS - Control Structure

RW - Radwaste and Offgas Enclosure

G - Diesel-Generator Enclosure

AB - Auxiliary Boiler Enclosure

F - Fuel Oil Pump Structure

W - Water Treatment Enclosure

ST - Sewage Treatment Enclosure

A - Administration Building

S - Spray Pond Pump Structure

SP - Schuylkill Pump Structure

PP - Perkiomen Pump Structure

CW - Circulating Water Pump Structure

O - Outdoors, Onsite

HS - Hot Maintenance Shop

[3] A,B,C,D - Quality group classification as defined in Regulatory Guide 1.26, see also Tables 3.2-2 and 3.2-3

- = Not applicable to quality group classification

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feedwater and RCIC line taps (outside primary containment is classified Group B. The RWCU tap into the feedwater line inside primary containment is classified Group B up to the outboard containment isolation valve (41-1016). Valve 41-1016 and piping up to the tap into the feedwater line is classified Group A.

(17) The high pressure coolant injection (HPCI) and reactor core isolation cooling (RCIC) turbines do not fall within the applicable design codes. To ensure that the turbine is fabricated to the standards commensurate with their safety and performance requirements, General Electric has established specific design requirements for this component in their specification.

(18) Certain major liquid, solid, and gaseous radwaste system components were designed, fabricated, procured, installed, and tested to the requirements of ASME Section III, Class ~~Division~~ 3, prior to May 1978. After May 1978, system design, fabrication, materials, procurement, installation, and testing are, at a minimum, in accordance with quality group D and the intent of Regulatory Guide 1.143, Rev. 1, subject to the following clarifications and exceptions:

a. Certain atmospheric tanks are welded to API/AWS standards in lieu of ASME Section IX.

b. Curbs or elevated thresholds are not provided for indoor tanks because of the watertight integrity of the surrounding structure.

c. Hydrotest pressure is held for 10 minutes, in accordance with ASME Section III, rather than 30 minutes.

d. The radwaste enclosure is designed in accordance with seismic Category I criteria (Section 3.8.4). Limerick does not use Regulatory Guide 1.60, as stated in Section 1.8. Alternate methods are discussed in Sections 3.7 and 3.8.

e. Limerick's quality program during construction does not require audits of activities associated with radwaste systems, and items of noncomformance and their regulation are not always documented.

f. Cleaning and welding of piping is conducted in accordance with the specified piping quality group.

(19) See Section 3.2.2 for discussion of conformance to Regulatory Guide 1.26.

TABLE 3.2-2

CLASSIFICATION AND CODE COMPLIANCE REQUIREMENTS FOR NON-NSSS MECHANICAL COMPONENTS

~~CODE REQUIREMENTS FOR COMPONENTS AND QUALITY GROUPS~~

	CODE CLASSIFICATIONS			
COMPONENT	GROUP A	GROUP B	GROUP C	GROUP D (1)
Pressure Vessels	ASME B&PV Code, Section III, Nuclear Power Plant Components-CLASS 1	ASME B&PV Code, Section III, Nuclear Power Plant Components-CLASS 2	ASME B&PV Code, Section III, Nuclear Power Plant Components-CLASS 3	ASME B&PV Code, Section VIII, Division 1
Piping Systems (including pipe supports)	As above (3)	As above (3)	As above (3)	ANSI B 31.1 Power Piping
Pumps	As above	As above	As above	Manufacturer's Standards
Valves	As above	As above	As above	ANSI B 31.1
0-15 psig Storage Tanks	-	As above	As above	API-620, or ASME Boiler and Pressure Vessel Code Section VIII, Division 1
Atmospheric Storage Tanks	-	As above	As above (2)	API-650, AWWA D 100, ANSI B 96.1, or ASME Boiler and Pressure Vessel Code Section VIII, Division 1

(1) Certain portions of the radwaste systems meet the additional requirements of Quality Group D (Augmented), as defined in NRC Branch Technical Position ETSB 11-1, Parts B.4 and B.5.

(2) Atmospheric storage tanks fabricated to Group C requirements may be used in a Group D or Group D (Augmented) system.

ADD NOTE (3) ATTACHED

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3) ASME Section III piping systems (including pipe supports) are constructed in accordance with ASME Section III, 1971 Edition with Addenda through Winter 1971 except:

a. Piping material conforms to ASME Section III, 1971 Edition, or to later Editions or Addenda approved by the AE.

b. Field fabrication, installation, examination and testing are in accordance with ASME Section III, 1974 Edition, with Addenda through Winter 1974.

c. Paragraphs NC- and ND-4436 of ASME Section III, 1980 Edition with Addenda through Winter 1981 is used for installation of attachments to Class 2 and 3 piping systems after testing.

d. Pipe supports are constructed in accordance with the 1969 Edition of ANSI B31.7 with Addenda approved March 10, 1971. Snubbers supplied through the AE are ~~constructed~~ manufactured and installed in accordance with ASME Section III, 1977 Edition with Addenda through Winter 1977 ~~except that installation is~~ in accordance with the 1969 Edition of ANSI B31.7 with Addenda approved March 10, 1971.

e. Stress analysis is in accordance with ASME Section III, 1971 Edition with Addenda through Winter 1972, except:

1. Class 1 piping systems stress analysis is in accordance with the 1977 Edition with Addenda through Summer 1979.
2. Class 2 and 3 flange stress analysis is in accordance with the 1977 Edition with Addenda through Summer 1979.

f. Containment penetration flued heads are manufactured in accordance with ASME Section III with Addenda through Summer 1974 and installed per 3.b above. Diaphragm penetration flued heads are manufactured in accordance with the 1980 Edition of the ASME Section III Code with Addenda through Winter 1981 and installed per 3.b above.

Insert

j. The GE supplied NSSS piping systems installed by the AE are installed in accordance with ASME Section III, 1974 Edition with addenda through Winter 1974. Supports are manufactured and installed, and snubbers are installed for the GE supplied systems in accordance with the 1969 Edition of ANSI B31.7 with addenda approved March 10, 1971. Snubbers are manufactured in accordance with the 1977 Edition of ASME Section III with Addenda through 1977.

k. Control Rod Drive and Traversing Incore Probe piping systems are constructed in accordance with ASME Section III, 1974 Edition with Addenda through Summer 1976 for CRD insert/withdrawal interference with the CRD housing evaluation, paragraph NC-3600 of the 1974 Edition through the Winter 1976 addenda is used.

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(Insert)

[redacted]

instrument sensing lines

g. Group B and C instrument sensing lines which are attached to group A ~~process piping systems~~ are hydro tested in accordance with the 1974 Edition of the ASME Section III Code with Addenda through Winter 1975

h. Orifice plates (which are clamped between flanges and used in flow measuring service) that do not exceed ½ inch nominal thickness are not considered to be an ASME piping subassembly, part, appurtenance, component, or material in accordance with paragraph NCA-1273 of the 1980 Edition of the ASME Section III Code with Addenda through Summer 1980.

i. For installation of AE supplied instrument lines the minimum fillet weld size is in accordance with figure NB/NC/ND-4427-1 of the 1980 Edition of the ASME Section III Code with Addenda through Summer 1980.

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TABLE 3.2-3

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CLASSIFICATIONS AND CODE COMPLIANCE REQUIREMENTS FOR NSSS MECHANICAL COMPONENTS

Group Classification	ASME III Code Classes 1968 Ed.	1971 Ed.	Components Ordered on or after Jan. 1, 1970 to July 1, 1971	Components Ordered on or after July 1, 1971
A	A	1	ASME I ASME III, A ASME IX ANSI B16.5 ANSI B16.11 ANSI B31.1 ANSI B31.7 I NP & VC I TEMA C Note (2)	ASME II ASME III, 1 ASME IX ANSI B16.5 ANSI B31.7 NA & NB Subsections TEMA C Notes (2)(5)
B	B(1),C	2, MC(1)	ASME III, B(1),C ANSI B31.7, II NP&VC, II TEMA C TANKS Notes	ASME III, 2 & MC(1) NA&NC Subsections NA&NE Subsections TEMA C TANKS Notes (5)
C	-	3	ASME VIII, Div. 1 ANSI B31.7, III NP&VC, III TEMA C TANKS Notes (5)	ASME III, 3 NA&ND Subsections TEMA C TANKS Notes (5)
D	-	-	ASME VIII, Div. 1 ANSI B31.1.0 TEMA C TANKS (3) Notes (4)	ASME VIII, Div. 1 ANSI B31.1.0 TEMA C TANKS (3) Notes (4)

NOTES:

(1) Metal containment vessel (as applicable) and extensions of containment only.

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TABLE 3.2-3 (Cont)

(2) PECo's request to use alternative codes to those required in 10 CFR Part 50.55a for primary pressure boundary components was sent to the NRC on 7/15/75. The applicable codes, code dates, and addenda are listed in the request letter for the following components which are still included in the Limerick design:

1) Reactor pressure vessel
2) Main steam safety/relief valves
3) Main steam piping (26") from RPV to 2nd isolation valve
4) Main steam line suspension
5) Recirculation pump
6) Recirculation gate valves (motor-operated :
   28" suction
   28" discharge
7) Recirculation loop piping (28")
8) Recirculation loop suspension
9) RHR valves
   20" gate valve
10) Core spray valves
    12" check valve (air-operated)
11) Nuclear Class I piping (all except main steam and recirculation)

NRC approval of the request was given on 11/18/75 in a letter from R.C. De Young to E.G. Bauer of PECo.

The applicable code for design, fabrication, and testing of the main steam isolation valves is the ASME Standard Code for Pumps and Valves for Nuclear Power - 1968 Draft including March 1970 Addenda.

(3) Class D tanks shall be designed, constructed, and tested to meet the intent of API Standards 620/650, AWWA Standard D100, or ANSI B96.1 Standard for Aluminum Tanks.

(4) For pumps classified Group D and operating above 150 psi or 212°F, ASME Section VIII, Div. 1 shall be used as a guide in calculating the wall thickness for pressure retaining parts and in sizing the cover bolting. For pumps operating below 150 psi and 212°F, manufacturer's standard pump for service intended may be used.

(5) For pumps classified A, B, or C applicable Subsections NB, NC, or ND respectively in ASME Boiler and Pressure Vessel Code, Section III shall be used as a guide in calculating the thickness of pressure retaining portions of the pump and in sizing cover bolting.