Detroit Edison
Fermi 2
6400 North Dixie Highway
Newport, Michigan 48166
(313) 586-4000

Nuclear Operations

August 28, 1985
RC-LG-85-0007

Mr. M. David Lynch
Licensing Project Manager
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Lynch:

Reference: Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43

Subject: FSAR Change to Table 3.2-1

On November 27, 1984, Detroit Edison committed to make certain clarifications to Table 3.2-1 of the FSAR. Unfortunately, the change was approved too late to be printed in the last FSAR amendment. Accordingly, attached is the approved FSAR change which will be incorporated in the next revision to the Fermi 2 FSAR per 10CFR50.71(e). It should be noted that Table 3.2-1 is incorporated by reference in the Project Q-List.

If you have any questions concerning this matter please call me on (313) 586-4211.

Sincerely,

R. L. Woolley
Acting Supervisor
Licensing

cc: Mr. P. M. Byron
USNRC Document Control Desk
Washington, D.C. 20555

B001
1/40

bcc: F. E. Agosti
R. J. Beaudry
J. P. Bobba
L. P. Bregni
W. F. Colbert
J. E. Conen
O. K. Earle
R. R. Eberhardt
J. H. Flynn
E. P. Griffing
W. R. Holland
W. H. Jens
R. S. Lenart
S. H. Noetzel
G. R. Overbeck
A. Papadopoulos
T. D. Phillips
T. Randazzo
L. J. Simpkin
G. M. Trahey
C. T. Weber
A. E. Wegele

Approval Control
R. L. Woolley (Bethesda Office)
Secretary's Office (2412 WCB)
NRR Chron File
NOC Satellite Service Center

TABLE 3.2-1 STRUCTURES, SYSTEMS, AND COMPONENTS CLASSIFICATION(r,v)

46

Principal Component[a]	Scope of Supply[b]	Location[c]	Category[d]	Quality Group Classification[e]	Quality Assurance Requirements[f]	Principal Construction Code[g]	Remarks
I. Reactor System							
1. Reactor vessel	GE	C	I	A	S	III-A	
2. Reactor vessel support	GE	C	I	NA	S	None	
3. Reactor vessel appurtenances pressure retaining portions	GE	C	I	A	S	III-A	
4. CRD housing supports	GE	C	I	NA	S	None	
5. Reactor internal structures, engineered safety features	GE	C	I	NA	S	None	(w)
6. Control rods	GE	C	I	NA	B	None	48
7. Control rod drives	GE	C	I	NA	S	III-A	48
8. Core support	GE	C	I	NA	S	None	
9. Power range detector hardware	GE	C	I	NA	S	III-A	(h) 59
10. Fuel assemblies	GE	C	I	NA	B	None	37
11. Reactor vessel stabilizer truss	GE	C	I	NA	S	None	
II. Nuclear Boiler System							
1. Vessels, level instrumentation chambers	GE	C	I	A	S	III-A	
2. Piping, relief valve discharge	E	C	I	B	B	III-2	55
3. Piping, relief valve discharge inside vent line	E	C	I	D+	B	B31.1.0	(m)
4. Relief valve discharge T-quenchers	E	C	I	C	B	III-3	55
5. Piping, main steam, within outermost isolation valve	GE	C	I	A	S	B31.7-1	
6. Pipe supports, main steam	GE	C	I	NA	S	B31.7-1	59
7. Pipe restraints, main steam	E	C,R	I	NA	B	None	
8. Piping, other within outermost isolation valves	E	C,R	I	A	B	III-1	(h)
9. Piping, instrumentation beyond outermost isolation valves	E	R,T	NA	D	S	B31.1.0	(h)
10. Relief valves	GE	C	I	A	S	NPVC-1	

Notes appear as separate list at end of table.

84-627

TABLE 3.2-1 STRUCTURES, SYSTEMS, AND COMPONENTS CLASSIFICATION (Cont'd)

Principal Component[a]	Scope of Supply[b]	Location[c]	Category[d]	Quality Group Classification[e]	Quality Assurance Requirements[f]	Principal Construction Code[g]	Remarks
X. Core Spray							
1. Piping, within outermost isolation valves	E	C,R	I	A	B	III-1	(h)
2. Piping, beyond outermost isolation valves	E	R	I	B	B	III-2	(h)
3. Pumps	GE	R	I	B	S	NPVC-2	
4. Pump motors	GE	R	I	NA	S	None	
5. Valves, isolation and within	E	C,R	I	A	B	III-1	(h)
6. Valves, beyond outermost isolation valves	E	R	I	B	B	III-2	(h)
XI. High-Pressure Coolant Injection							
1. Steam turbine	GE	R	I	NA	S	None	(j)
2. Piping, suction line from condensate storage tank isolation valve	E	R,O	I	B	B	III-2	(h)
3. Piping, turbine steam supply and discharge	E	R	I	B	B	III-2	
4. Piping, return test line to condensate storage tank downstream ~~upstream~~ of second isolation valve	E	R,O	~~II~~ I	D	S	B31.1.0	
5. Piping, within outermost isolation valve	E	C,R	I	A	B	III-1	
6. Piping, suppression pool suction and pump discharge	E	R	I	B	B	III-2	(h)
7. Main pump	GE	R	I	B	S	NPVC-2	
8. Booster pump	GE	R	I	B	S	NPVC-2	
9. Valves, beyond outermost isolation valves	E	R	I	B	B	III-2	
10. Valves, outer isolation and within	E	C,R	I	A	B	III-1	(h)

Notes appear as separate list at end of table.

TABLE 3.2-1 STRUCTURES, SYSTEMS, AND COMPONENTS CLASSIFICATION (Cont'd)

	Principal Component[a]	Scope of Supply[b]	Location[c]	Category[d]	Quality Group Classification[e]	Quality Assurance Requirements[f]	Principal Construction Code[g]	Remarks	
	7. Valves, other	E	W	NA	D	S	B16.5		59
XIX.	Reactor Water Cleanup System								
	1. Vessels: filter/ demineralizer	GE	R	NA	C	S	III-C		48
	2. Heat exchangers, regenerating	GE	R	NA	D	S	III-C, TEMA-R		59
	nonregenerating tube side	GE	R	NA	D	S	III-C, TEMA-R		
	shell side	GE	R	NA	D	S	VIII, TEMA-R		
	3. Piping, within outermost isolation valves	E	C,R	I	A	B	III-1		48
	4. Piping, beyond outermost isolation valves	E	R,T,W	NA	C,D	S	III-3, B31.1.0	(h,l)	
	5. Pumps (recirculation, precoat, and holding)	GE	R	NA	D	S	NPVC-3		
	6. Valves, isolation valves and within	E	C,R	I	A	B	III-1	(h,l,m)	59 13
	7. Valves, beyond reactor	GE	R	NA	C	S	NPVC-3	(h,l)	48
	isolation valves	E	R,T,W	NA	D	S	B16.5	(h,l)	
XX.	Fuel Pool Cooling and Cleanup System								
	1. Vessels, filter/demineralizers	GE	W	NA	C	S	VIII		59
	2. Vessels, other	E	W	NA	NA	S	None		
	3. Heat exchangers	GE	R	NA	C	S	VIII, TEMA-R		59
	4. Piping	E	W,R	NA	C	S	III-3	(h)	
	5. Pumps	GE	R	NA	C	S	NPVC-3	(h)	
	6. Valves	E	W,R	NA	C	B	III-3	(h)	
XXI.	Main Control Room Panels	GE,E	A	I	NA	S,B	IEEE	(u)	59

Notes appear as separate list at end of table.

TABLE 3.2-1 STRUCTURES, SYSTEMS, AND COMPONENTS CLASSIFICATION (Cont'd)

	Principal Component[a]	Scope of Supply[b]	Location[c]	Category[d]	Quality Group Classification[e]	Quality Assurance Requirements[f]	Principal Construction Code[g]	Remarks
XXVI.	Noninterruptible Air and Pneumatic Supply Systems							59
	1. Vessels, accumulators supporting safety-related systems	E	C,R	I	C	B	III-3	
	2. Piping and valves	E	C,R	I	C	B	III-3	
	3. Control air compressors	E	A	I	D	B	VIII, B31.1.0	
	4. Control air dryers	E	A	I	D	B	VIII, B31.1.0	
	5. Receiver tanks	E	A	I	C	B	III-3	37 59
	6. Control air aftercooler	E	A	I	D	B	VIII, B31.1.0	
	7. Isolation valves	E	A,R	I	C	B	III-3	
	8. Pressure regulating valves	E	A,R	I	C	B	III-3	
XXVII.	Diesel-Generator Systems							
	1. Day tanks, fuel oil storage and day tanks	E	H	I	C	B	III-3	
	2. Piping and valves, fuel oil system	E	H	I	C	B	III-3 (see Fig. 9.5-2)	
	3. Pumps, fuel oil system	E	H	I	NA	B	None	
	4. Pumps, piping, valves and heat exchangers, diesel service water system	E	H	I	C	B	III-3	
	5. Jacket and air coolant piping, valves, and heat exchangers	E	H	I	C	B	III-3 (see FSAR Fig. 9.5-5)	59
	6. Pump motors, diesel service water system	E	H	I	NA	B	None	
	7. Diesel-generators	E	H	I	NA	B	None	
	8. Starting air receivers, piping and valves, intake piping	E	H	I	C	B	III-3	
	9. Lube oil cooler	E	H	I	C	B	III-3	
	10. Exhaust piping	E	H	I	D	S	B31.1.0	
	11. SKID-MOUNTED LUBE OIL SYSTEM	E	H	I	NA	S		

COMBUSTION AIR

Notes appear as separate list at end of table.

TABLE 3.2-1 STRUCTURES, SYSTEMS, AND COMPONENTS CLASSIFICATION (Cont'd)

	Principal Component[a]	Scope of Supply[b]	Location[c]	Category[d]	Quality Group Classification[e]	Quality Assurance Requirements[f]	Principal Construction Code[g]	Remarks
XXVIII.	Primary Containment Atmosphere Control System							
	1. Piping and valves from primary containment through outer isolation valve	E	R	I	B	B	III-2	
XXIX.	Standby Gas Treatment System							
	1. Containment pressure boundary piping and valves	E	R	I	B	B	III-2	
	2. Piping, downstream to secondary containment suction valves	E	R,A	NA	D	S	B31.1.0	
	3. Piping and valves, secondary containment suction valves to filter unit ductwork	E	R,A	I	D	B	B31.1.0	37
	4. Cooling and exhaust fan	E	A	I	NA	B		
	5. Filter unit and associated duct and valves	E	A	I	NA	B		
	6. EXHAUST STACK	E	A,C	I	NA	B	AISC	59
XXX.	Emergency Equipment Cooling Water System							
	1. All components with safety functions, except as listed in XXV	E	R	I	C	B	III-3	
XXXI.	Emergency Equipment Area Cooling System							
	1. All components with emergency equipment cooling coils safety function	E	R,A	I	C	B	III-3	
	2. RHR complex HVAC system components with safety function	E	H	I	NA	B		

Notes appear as separate list at end of table.

TABLE 3.2-1 STRUCTURES, SYSTEMS, AND COMPONENTS CLASSIFICATION (Cont'd)

	Principal Component[a]	Scope of Supply[b]	Location[c]	Category[d]	Quality Group Classification[e]	Quality Assurance Requirements[f]	Principal Construction Code[g]	Remarks
XXXII.	Power Conversion System							
	1. Main steam piping to third MSIV	E	R,T	I	D+	S	B31.1.0	(n)
	2. Piping and valves, main steam branches ~~upstream~~ downstream of third MSIV to the first isolation valve	E	R,T	I	D+	S	B31.1.0	(m,p) 37
	3. Feedwater piping, beyond outermost isolation valve	E	R,T	NA	D	S	B31.1.0	(n,o)
	4. Feedwater piping, within outermost isolation valve	E	C,R	I	A	B	III-1	(o)
	5. Valves, isolation valves and within, feedwater	E	C,R	I	A	B	III-1	(o) 59
	6. Valves, beyond outermost isolation valves, feedwater	E	R,T	NA	D	S	B16.5	
XXXIII.	Condensate Storage and Transfer System							
	1. Condensate storage tank	E	O	NA	D	S	USAS B96.1	(p)
	2. Piping and valves, except HPCI/RCIC suction	E	M	NA	D	S	B31.1.0	59
	3. Other components	E	M	NA	D	S	(see Table 3.2-2)	
XXXIV.	Auxiliary AC Power System							
	1. All components with safety function	E	A,R,H	I	B,NA	B	IEEE 308/ IEEE 344	59
	2. Primary electrical penetrations	E	R,C	I	B	B	IEEE 336 III-NE, IEEE 317	59
	3. Diesel generator packages including auxiliaries (e.g., governor, voltage regulator, excitation system, and control and relay protection equipment) not listed in XXVII	E	H	I	NA	B		37 59

Notes appear as separate list at end of table.

TABLE 3.2-1 STRUCTURES, SYSTEMS, AND COMPONENTS CLASSIFICATION (Cont'd)

	Principal Component[a]	Scope of Supply[b]	Location[c]	Category[d]	Quality Group Classification[e]	Quality Assurance Requirements[f]	Principal Construction Code[g]	Remarks	
11.	Chilled water pumps	E	A	I	D	B			37
12.	Return fans	E	A	I	NA	B			
13.	Associated duct work	E	A	I	NA	B			59
14.	Associated motors	E	R,A	I	NA	B	None		
XL.	Shore Barrier	E	O	I	NA	B	None		59
XLI.	MSIV Leakage Control System								
1.	Piping and valves, within RCPB isolation valves	E	A	I	A	B	III-1		
2.	Piping and valves, other upstream system lines	E	A	I	C	B	III-3		59
3.	Piping and valves between main steam drains and first isolation valve	E	A	I	D+	B	B31.1.0	(m)	37
4.	Instrument racks	E	R	I	NA	S	IEEE 344-1975		
5.	Instrument piping	E	R,A	I	A,C,D+	B	III-3,1, B31.1.0		
6.	Condensing chambers	E	A	I	A,B	S	III-1, III-2		
XLII.	Post-Accident Sampling								
1.	Sample isolation valves and piping	E	R	I	A,C	B	III-1,3		59
2.	Sampling station and tubing downstream of isolation valves	GE,E	A	NA	D	S	B31.1	(h)	
XLIII.	Cable and Associated Hardware with Safety Function	GE,E	All	NA	NA	B	IEEE/ICC/ WG-12-32 IEEE 323		59
XLIV.	Locally Mounted Instrumentation with Safety Function (Not Rack or Panel Mounted)	GE,E	R,A,H	I	NA	S,B	IEEE	(u)	

Notes appear as separate list at end of table.

ADD ITEM XLV (NEXT PAGE)

84-627

TABLE 3.2-1 STRUCTURES, SYSTEMS AND COMPONENTS CLASSIFICATION (Cont'd)

	Principal Component	Scope of Supply	Location	Category	Quality Group Classification	QA Requirements	Principal Construction Code	Remarks
XLV.	~~Emergency Lighting System~~ Fire Detection, suppression, and extinguishing systems, emergency lighting, and breathing apparatus.	E	All	NA	NA	NA	NA	(x)

TABLE 3.2-1 STRUCTURES, SYSTEMS, AND COMPONENTS CLASSIFICATION (Cont'd)

48 S = Items ordered with specific quality assurance requirements identified in the purchase documents. This includes items purchased prior to the issuance of 10 CFR 50, Appendix B (35 FR 10499, June 27, 1970). For example, this would include items purchased under the contract with General Electric
59 (the NSSS supplier) which was effective August 15, 1968.

DELETE
(g) BM = The system or component will be maintained according to the requirements of 10 CFR 50, Appendix B, but was not originally procured according to Appendix B.

(g)
(h) Notation for principal construction codes is:

III-A,B,C,1,2,3 - ASME Boiler and Pressure Vessel Code, Section III Class A,B,C,1,2, or 3 or Subsection NE, Class NE (Pre-1971 versions of the code used the Class A,B,C, designation while 1971 and later versions used the Class 1,2,3 designation. Equipment was ordered throughout a period requiring use of both designations.)

VIII - ASME Boiler and Pressure Vessel Code, Section VIII, Pressure Vessels, Div. I.

B31.7-1,2,3 - ANSI Nuclear Power Piping Code Class I, II, III.

B31.1.0 - ANSI B31.1.0 Standard Code for Pressure Piping, Power Piping.

NPVC - 1,2,3 Draft ASME Code for Pumps and Valves for Nuclear Power, Class I,II,III.

IEEE 308-1971 - IEEE Criteria for Class IE Electric System, for Nuclear Power Generating Station.

IEEE 317-1971 - IEEE Standard for Electric Penetration Assemblies in Containment Structures for Nuclear Power Generating Stations.

IEEE 344-1971 - Guide for Seismic Qualification of Class I Electrical Equipment for Nuclear Power Generating Stations.

IEEE/ICC/WG-12-32 - Proposed Guide for Type Tests of Class I Cables and Connections Installed Inside the Containment of Nuclear Generating Stations.

TABLE 3.2-1 STRUCTURES, SYSTEMS, AND COMPONENTS CLASSIFICATION (Cont'd)

TEMA-C,R - Tubular Exchanger Manufacturer Association, Class C,R.

ACI 318 - Building Code Requirements for Reinforced Concrete 1963 and 1971.

AEG-VIII - Manufactured in West Germany in accordance with ASME Boiler and Pressure Vessel Code Section VIII, Div. I, but not code stamped. Code compliance certified by third-party inspectors. 59

AISC - Specification for the Design Fabrication and Erection of Structural Steel for Buildings.

API 650 - Welded steel tanks for oil storage.

API 620 - Specifications for Welded Steel Storage Tanks.

B96.1 - USAS B96.1 - Welded aluminum alloy field-erected storage tanks.

B16.5 - ANSI B.16.5 - Steel pipe flanges and flanged fittings.

EOCI - Electric Overhead Crane Institute. 59

(Other Civil and Structural Codes are given in Section 3.8.)

(h)
(i) 1. All instrument lines which are connected to the RCPB and are not utilized to actuate safety systems are Quality Group D from the outer isolation valve or the process shutoff valve (root valve) to the sensing instrumentation. 59

2. All other instrument lines:

- through the root valve: shall be of the same classification as the system to which they are attached;
- beyond the root valve, if used to actuate a safety system: shall be of the same classification as the system to which they are attached;
- beyond the root valve: if not used to actuate a safety system, are Quality Group D.

TABLE 3.2-1 STRUCTURES, SYSTEMS, AND COMPONENTS CLASSIFICATION (Cont'd)

3. All sample lines from the outer isolation valve or the process root valve through the remainder of the sampling system are Quality Group D.

4. Portions of instrument lines (regardless of the originating quality group) passing through primary containment are part of a penetration assembly that is part of containment. As such, these lines are Quality Group B, consistent with the Containment Quality Group. This is in accordance with Regulatory Guide 1.11 and Note 2(a) referenced from 10 CFR 50.55a(d)(2). 48

(i)(g) The hydraulic control unit (HCU) is a GE factory-assembled engineered module of valves, tubing, piping, and stored water which controls a single control rod drive (CRD) by the application of precisely timed sequences of pressures and flows. Control is accomplished by slow insertion or withdrawal of the control rods for power control, and rapid insertion for reactor scram. 59

Although the HCU, as a unit, is field installed and connected by process piping, many of its internal parts differ markedly from process piping components because of the more complex functions they must provide. Thus, although the codes and standards invoked by the Group A,B,C,D pressure integrity quality levels clearly apply at all levels to the interfaces between the HCU and the connecting conventional piping components (e.g., pipe nipples, fittings, simple hand valves, etc.), it is considered that they do not apply to the specialty parts (e.g., solenoid valves, pneumatic components and instruments).

The design and construction specification for the HCU invoke such codes and standards as can be reasonably applied to individual parts in developing required quality levels, but these codes and standards are supplemented with additional requirements for these parts and for the remaining parts and details. For example: 1. All welds are LP inspected. 2. All socket welds are inspected for gap between pipe and socket bottom. 3. All welding is performed by qualified welders. 4. All work is done per written procedures.

Quality Group D is generally applicable because the codes and standards invoked by that group contain clauses which permit the use of manufacturer's standards and proven design techniques which are not explicitly defined within the codes of Quality Groups A,B or C. This is supplemented by the QC techniques described above.

TABLE 3.2-1 STRUCTURES, SYSTEMS, AND COMPONENTS CLASSIFICATION (Cont'd)

(j) (K) The RCIC and HPCI 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, GE has established specific design requirements for this component. These requirements are given in the appropriate GE internal documents. 59

(k) (L) Section VIII of ASME Boiler and Pressure Vessel Code and ANSI B31.1.0 apply downstream of the outermost isolation valves. 59

(l) (M) Three valves, one inside and two outside the containment, are placed in the RWCU influent and effluent lines. The RWCU system beyond the third isolation valve is constructed in accordance with the applicable codes of Code Group D. The spring-loaded piston operator of the third valve is held open by air pressure during normal operation. Fail-open solenoid valves are used to release air pressure and to permit the check valve piston operators to close. The valves are remote manually operated from the main control room by using signals which indicate loss of flow of cleanup water. 59

(m) (N) The first valve capable of timely actuation in branch lines connected to the main steam lines between the outermost containment isolation valve and turbine stop valve, and in branch lines connected to turbine bypass line up to the turbine bypass valve, meets all of the pressure integrity requirements of group D plus the following additional requirements: 59

1. Pressure-retaining components of all cast parts of valves are subject to volumetric examination or surface examination methods. Ultrasonic examination to equivalent standards is used as an alternate to radiographic methods. If size or configuration does not permit effective volumetric examination, magnetic particle or liquid penetrant methods are substituted.

2. All inspection records are retained for the life of the plant. These records include data pertaining to the qualification of inspection personnel, examination procedures, and examination results. A certification has been obtained from

TABLE 3.2-1 STRUCTURES, SYSTEMS, AND COMPONENTS CLASSIFICATION (Cont'd)

the vendors of the turbine stop valves and turbine bypass valves stating that all cast pressure-retaining parts of a size and configuration for which volumetric examination methods are effective have been examined by radiographic methods by qualified personnel. Ultrasonic examination to equivalent standards may be used as an alternate to radiographic methods.

59 (n) The outermost valve of the three isolation valves in the feedwater lines and the reactor water cleanup return line is similar to a boiler feedpump check valve.

59 (o) The spring-loaded piston operator of the valve is held open by air pressure during normal operation. Fail-open solenoid valves are used to release air pressure and to permit the check valve piston operators to close. The valves are remote manually operated from the main control room using signals which indicate loss of feedwater flow or loss of reactor water cleanup system water return line flow, respectively.

The classification of the feedwater line from the reactor pressure vessel through the third isolation valve is Quality Group A. The remainder of these systems is Quality Code Group D.

59 (p) The condensate storage tank is designed, fabricated and tested to meet the intent of API 650. In addition, the specifications for the tank require that

1. all shell joints are full penetration and fusion welds
2. all shell joints are radiographed 100 percent
3. 3 shell to bottom joint is 100 percent liquid penetrant examined.

59 (q) The Standby Liquid Control System storage tank is Group D plus the following additional QC.

a. Spot radiographic inspection was performed on all vertical and horizontal shell butt welds and on all bottom butt welds. Methods, techniques, and acceptance standards were in accordance with the requirements of API 650.

TABLE 3.2-1 STRUCTURES, SYSTEMS, AND COMPONENTS CLASSIFICATION (Cont'd)

b. Liquid penetrant inspection was performed on all tank nozzle welds below and including the overflow nozzle both internal and external to the tank. All fillet and socket welds received a random liquid penetrant examination. Methods, technique, and acceptance standards were in accordance with the ASME Boiler and Pressure Vessel Code Section VIII, Division 1. | 3

(r) (s) During the course of the NRC review, the NRC requested additional information on the classification of structures, systems, and components. This information was provided in the response to Item 411.23 in FSAR Appendix E.5. | 59 | 46

(s) (t) The radwaste system for the Fermi 2 plant is excluded from Category I criteria because the conservatively calculated offsite whole body dose from radwaste system failure does not exceed 0.5 rem as specified in Regulatory Guide 1.29. The dose rate considerations and analyses are discussed in Chapter 11, particularly Subsections 11.2.3 and 11.3.3.

(t) (u) The recirculation pumps of a boiling water reactor (BWR) plant are not considered essential for safe plant shutdown under either normal or abnormal conditions, even though Paragraph (h) of the Regulatory Position of Regulatory Guide 1.29 implies that reactor coolant pumps are required for safety. Thus, the pump seal purge system is not designed to meet Category I requirements. However, the pump seal and motor cooling water system are Category I, consistent with the structural design of the pumps and the recirculation system. | 59

(u) (v) The specific IEEE construction codes used for a particular component may be found in the purchase document referenced in the Master Instrument List.

(v) Safety-related instrumentation and control systems and components are identified in Chapter 7 and will be subject to the Operational QA program Requirements.

(w) Maintenance on all components within the reactor internal structures will be performed in accordance with 10CFR50 Appendix B.

(x) Fire detection, suppression, and extinguishing systems, emergency lighting, and breathing apparatuses impacting safety-related areas of plant are periodically inspected, maintained, and tested for proper operation per the Operational Quality Assurance Program requirements.