

LOUISIANA
POWER & LIGHT

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October 5, 1984

J.M. CAIN
President and
Chief Executive Officer

W3A84-0133

Mr. Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Eisenhut:

On June 28, 1984, I wrote you stating that I did not intend to request a fuel loading/low power license or a full power license until I am personally satisfied that all issues necessary for those phases of plant operation have been satisfactorily addressed to assure the public health and safety.

Since then, we have implemented our review program for evaluating, responding, and taking corrective action on the twenty-three issues raised in your letter of June 13, 1984, including a formal process for review by the independent Task Force and by a special subcommittee of the Waterford 3 Safety Review Committee. We have made considerable progress in this program with nearly all of the work having been completed. Much of the remaining efforts involve formal verification of the work that has been completed. As of this date, we have filed with the NRC responses to seventeen of the twenty-three issues, with the remainder expected to be ready for submittal in the next several weeks. Those responses are subject to validation by the Task Force which is reporting directly to me.

During the period when we have been engaged in those efforts, we have also been able to accomplish and complete a number of other plant-readiness items. On April 25, 1984, we wrote Mr. Denton that Waterford 3 had essentially been completed in accordance with the application, and that the plant would be ready to load fuel by May 30, 1984. Since then, we have made considerable progress in improving plant readiness for fuel load and power operation beyond the point of minimum requirements.

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Examples of this are listed below:

- 1) We have licensed five senior members of the LP&L Waterford 3 Staff, all of whom have extensive previous commercial experience.
- 2) Work on our full flow condensate polisher system has progressed to the point where it will now be available early in our testing program, possibly prior to heatup. This will be an improvement in our ability to optimize Steam Generator Chemistry Control.
- 3) Work on a modification to install an Auxiliary Feedwater Pump and associated piping controls will also be complete early in our startup. This also will help post heatup chemistry control and allow us to stay with our design concept of saving the Emergency Feedwater System and pumps for off-normal and emergency use only.
- 4) Of the original 116 systems designated by LP&L as required to be transferred to Plant Staff control prior to receipt of a full power License, only three remain to be transferred. These are System Supports (Hangers), Whip Restraints, and Seismic Support.
- 5) Eighty-seven percent of Mode 6 (Refueling Mode) and 53% of Mode 3 (Hot Standby Mode) Standard Technical Specification required surveillances are now complete. This has allowed us to field check our Technical Specifications and related procedures ahead of time and puts us in a good position for compliance with those important provisions of an Operating License.
- 6) The major portion of important operations programs such as Work Control, Plant Security, Plant Planning and Scheduling, Station Modification (Design Control), and Licensee Event Reporting have now been implemented for several months. This has allowed much of the "debugging" process which goes on early in most licensed plant operations to already have taken place prior to licensing.

Although the plant is now essentially complete, and is ready for fuel load and the startup program, the implementation of a phased licensing program will allow the initiation of activities which present no risk to the public health and safety while the Task Force completes its validation process and the NRC completes its review of matters pertinent to the protection of the public health and safety.

To facilitate a phased Licensing approach, the Waterford 3 plant operating organization has initiated a review of the impact of the twenty-three issues on each plant system to determine the significance of those issues on each system which is required to be operable during:

- a) Fuel loading and pre-criticality post-core load hot functional testing, and
- b) Criticality and low power testing up to 5% of full power, and power ascension up to full power.

We have identified in Attachment A hereto, among other things, all of the plant systems required by the Technical Specifications to be operable during fuel loading and pre-criticality post-core load hot functional testing. Attachment B sets out all remaining plant safety systems required to be operable for criticality and low power testing up to 5% of full power, and for full power operation. For each plant system set out in Attachments A and B, we have teamed personnel familiar with that system with other personnel who have become knowledgeable with respect to the twenty-three issues. The system knowledgeable members are from the plant operating organization. This not only lends an additional dimension to the review, but also assures that the operating staff is fully involved and familiar with the issues and their resolution. These teams have been charged with performing a safety review of each system paired with each of the twenty-three issues to determine what actions, if any, may be required to dispose of those issues as they may apply to the safe operation of each system.

Each safety review is further reviewed by the Plant Operations Review Committee and the Plant Manager in the same manner that all other safety reviews during plant operation will be performed.

Attachment C hereto sets out the Program Plan for this procedure and a flow chart for the review process. The proper execution of this process will be audited by the Waterford 3 Independent Safety Engineering Group.

The Safety Review Committee (SRC) Subcommittee is also participating in the review of the Safety Reviews in the traditional SRC role of management level overview of the PORC review of safety reviews and evaluations.

A prerequisite for fuel loading and performance of the pre-criticality testing under a phased licensing program is the completion of the above described systematic safety review of the systems in Attachment A. Similarly, criticality and low power (5%) testing would be premised on completion of the review process for the systems identified in Attachment B. Since the two appendices include all plant safety systems, including those required for full power operation, we expect that all twenty-three issues will be resolved at least with respect to their safety review impact on plant systems in all modes, including full power operation, prior to issuance of criticality/low power authorization.

The independent Task Force, set up to review the resolution of the twenty-three allegation issues, recommended that the plant operating organization review the impact of the twenty-three issues on each plant system to determine the safety significance for various operating conditions. The process outlined above provides for a multilevel review, by qualified people, of the significance of the twenty-three issues on the plant hardware in a systematic review process to assure the applicable technical specifications can be met prior to each licensing phase.

Based on the seventeen responses to the twenty-three issues already filed with the NRC, the progress we have made so far on the remaining issues, and the information set out in Attachment A, we have concluded that we can now request a limited license from the NRC authorizing fuel loading and pre-criticality, post-core load hot functional testing. In addition to setting out the plant systems necessary for this phase of operations, Attachment A contains summaries of the evaluations completed to date of the safety significance of the twenty-three issues as they may affect those systems. A complete file of the safety reviews is available for NRC staff review. This review is very nearly complete, and the findings are providing a high confidence level that significant safety problems are not present.

Accordingly, we respectfully request the NRC, upon our satisfactory completion of the safety reviews for each of the systems identified in Attachment A, and upon satisfactorily addressing the construction and system items set out in Attachment D, to issue the limited license. The items listed in Attachment D are extracted from the NRC Region IV NTOL report listing of open items required to be completed prior to fuel loading and pre-critical testing. These items are largely unrelated to the twenty-three issues. We expect to confirm to you our completion of the Attachment A reviews by October 19, 1984 and Attachment D items by October 31, 1984.

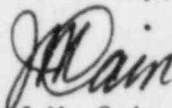
The execution of the fuel loading and pre-critical post-core load testing activities requested in this phased licensing program will present no hazard to the public health and safety and will not significantly interfere with the resolution of any of the twenty-three issues that may yet be outstanding and which may impact on plant systems not required for this phase of the plant startup program.

Because the reactor will not attain criticality in the initial phase of the license, there will be no fission products generated and no decay heat. Consequently, the requested activities will pose no risk to the public health and safety. It is on this basis that the NRC Staff recently issued a fuel loading license for the Catawba Nuclear Station, Unit 1.

Before requesting further authority to proceed with criticality and the power ascension program, we will complete a similar safety review of the significance of the twenty-three issues on the remaining plant systems set out in Attachment B.

Thank you for your consideration of this request.

Sincerely,



J.M. Cain

Enclosures: As Stated

cc (with Enclosure): R.S. Leddick, D.E. Dobson, K.W. Cook,
J.T. Collins (NRC), D. Crutchfield (NRC),
G. Knighton (NRC), G. Charnoff, L.L. Humphreys,
R.L. Furgeson, S. Levine, L. Constable (NRC),
Project Files

ATTACHMENT A

SAFETY REVIEWS OF PLANT

SYSTEMS REQUIRED BY

TECHNICAL SPECIFICATIONS FOR

FUEL LOADING AND PRECRITICALITY

POST-CORE LOAD HOT FUNCTIONAL

TESTING

LICENSING PLAN FOR
FUEL LOADING AND PRECRITICALITY
POST CORE LOAD HOT FUNCTIONAL TESTING

A Licensing Program Plan has been structured to institute safety reviews of those plant systems required for fuel load and post fuel load testing, criticality and low power testing (to 5% power) and full power operation.

As discussed in the description of the safety review process (Attachment C), a detailed review of the technical specifications was performed to determine the listing of plant systems required for the initial phase of the limited license (Table A-1). Forty-nine plant systems have been identified as being required to be operable by Waterford SES #3 technical specifications in modes 6, 5, 4, 3 (refueling through hot standby) and these systems are the subject of this Attachment (Attachment A). These are the modes involved with fuel load and pre-criticality, post fuel load hot functional testing. This is a conservative approach because many of these requirements assume the presence of irradiated fuel and therefore are not of significance to the initial core loading and testing processes. This program will assure LP&L management that the impact of any concern raised is properly assessed and resolved in the context of safe plant operations and protection of the public health and safety as will be specified in our operating license/standard technical specifications and FSAR.

Safety reviews were performed on each of the plant systems in Table A-1, using the procedures described in Attachment C, against each of the 23 issues (Table A-2). Table A-3 provides a matrix indicating those safety reviews which have been successfully completed. Table A-4 provides the footnotes associated with the Table A-3 matrix indicating outstanding actions required to complete the matrix. Where successful completion of the safety review is indicated in Table A-3, the safety review assures completion of those actions necessary to insure the system is constructed and functions according to the requirements of the FSAR in light of the 23 issues, without consideration of the lack of fission products (due to not having gone critical). Should it become necessary to perform limited safety reviews (credit must be taken for lack of fission products in order to justify safety significance) in order to complete the review on specific systems the matrix will reference a footnote describing the circumstances and basis for the limited review.

During the safety evaluation of these 49 fuel load systems they were categorized into subgroups that logically represent the potential issue by issue safety impact. The subgroups are defined in Table A-6 as:

- A. The issue does not have a safety related effect on the system because:
 - a) the contractor in question did not do work on the system under evaluation, or
 - b) the procedure or process in question did not apply to the system under evaluation.

- B. The issue does not have a safety related effect on the system because:
 - a) the contractor in question did not do any safety related work on the system under evaluation, or the procedure or process in question did not apply to any safety related portions of the system under evaluation, and
 - b) any non-safety related activities performed on the system of concern does not have any significant effect on the safety related function of the system under evaluation.

- C. The issue does have a potential safety related effect on the system because:
 - a) the contractor in question did work of safety significance on the system under evaluation, or
 - b) the procedure or process in question did apply to safety significant activities of the system under evaluation.

Safety evaluations were performed and verified (as necessary) to assure LP&L management that Waterford SES #3 can be safely operated without compromising the health and safety of the public. The subgroup for each system, as it relates to each of the twenty-three issues, is presented in Table A-6. In performing the evaluations, it was determined that it would be more effective to subdivide the first issue (Inspection Personnel Issues) into three subissues covering 1A - Mercury, 1B - Thompkins-Beckwith and 1C - Other Contractors. This resulted in effectively 25 issues being evaluated for each of the 49 plant systems. Since this results in a total of 1225 safety reviews (each consisting of several pages) it is not feasible to present all of the documentation in this transmittal. The full documentation of the safety reviews is on file at the Waterford SES #3 On-site Licensing Unit offices for inspection and review by the NRC staff. The individual safety reviews were reviewed and summaries prepared, for those falling within Subgroup C. The summaries are included in this attachment (Table A-5) for each issue and subissue.

In order to indicate the level of review performed in this process as well as to provide a correlation with the summaries provided in Table A-5, several examples of the safety reviews are included following Table A-6.

TABLE A-1

PLANT SYSTEMS REQUIRED BY TECHNICAL SPECIFICATIONS DURING
FUEL LOADING AND PRE-CRITICAL POST-CORE LOAD HOT FUNCTIONAL TESTING

<u>ACRONYM</u>	<u>SYS. NO.</u>	<u>DESCRIPTION</u>	<u>MODE OPERABILITY IS REQUIRED</u>
DC	02A	125v DC SAFETY	MODE 1-6
MT	03	SWITCHING STATION	MODE 1-6
ST	04	STARTUP TRANSFORMERS	MODE 1-6
4kv	06A	4.16kv ELEC. DISTRIBUTION SAFETY	MODE 1-6
SSD	07A	480v ELEC. DISTRIBUTION SAFETY	MODE 1-6
LVD	08A	208/120v ELEC. DISTRIBUTION SAFETY	MODE 1-6
ID	09A	INVERTERS & DISTRIBUTION SAFETY	MODE 1-6
	10	COMMUNICATIONS	MODE 1-6
HT	13A-1	HEAT TRACE SAFETY	MODE 1-6
EM	16	ENVIRONMENTAL MONITORING	ALL MODES
SM	17	SEISMIC MONITORING	ALL MODES
ARM/RMC/ PRM	18-1 18-2 18-3 18-4 18-5	RADIATION MONITORING SYSTEM	ALL MODES
SS	20	SECURITY SYSTEM	ALL MODES
FPD	21	FIRE DETECTION	ALL MODES
FP	22	FIRE PROTECTION	ALL MODES
CC	36-1 36-2	COMPONENT COOLING WATER	MODE 1-6
ACC	36-3	AUXILIARY COMPONENT COOLING WATER	MODE 1-4
EG	39	EMERGENCY DIESEL GENERATOR	MODE 1-6
CRN	40-2	CRANE & HOIST FHB	MODE 6 ONLY
CCS	43A	RCB CONTAINMENT COOLING	MODE 1-4
SBV	43B	SHIELD BLDG. VENTILATION	MODE 1-4

TABLE A-1

PLANT SYSTEMS REQUIRED BY TECHNICAL SPECIFICATIONS DURING
FUEL LOADING AND PRE-CRITICAL POST-CORE LOAD HOT FUNCTIONAL TESTING

<u>ACRONYM</u>	<u>SYS. NO.</u>	<u>DESCRIPTION</u>	<u>MODE OPERABILITY IS REQUIRED</u>
CVR	43E	CONTAINMENT VACUUM RELIEF	MODE 1-4
HVC	46B	CONTROL ROOM HVAC	ALL MODES
HVR	46D	RAB HVAC	MODE 1-6
CHW	46E	RAB CHILLED WATER	MODE 1-6
FP	46K	FIRE DAMPERS	ALL MODES
CB	48	LRT CONTAINMENT VESSEL	MODE 1-6
PAC	49	PROCESS ANALOG CONTROL	MODE 1-6
IC	50B	MISC. PANELS	MODE 1-6
RCS	52A 52B 52C	REACTOR COOLANT SYSTEM	MODE 1-6
CVC	53A	CHARGING & LETDOWN	MODE 1-6
BAM	53B	BORIC ACID MAKEUP	MODE 1-6
PSL	54-9	PRIMARY SAMPLING	MODE 1-5
GWM	55A	GASEOUS WASTE MANAGEMENT	ALL MODES
LWM	55B 55E	LIQUID & LAUNDRY WASTE MANAGEMENT	ALL MODES
SI	58 60A 60B 60C	SAFETY INJECTION	MODE 1-6
CS	59	CONTAINMENT SPRAY	MODE 1-4
FHS	61	FUEL HANDLING & STORAGE	MODE 6 ONLY
PPS	66 63	PLANT PROTECTION SYSTEM	ALL MODES
ENI	65A-1 65A-2	EXCORE NUCLEAR INST.	MODE 1-6
CMU	71B	CONDENSATE MAKEUP	MODE 1-3
EFW	73	EMERGENCY FEEDWATER	MODE 1-3

TABLE A-1

PLANT SYSTEMS REQUIRED BY TECHNICAL SPECIFICATIONS DURING
FUEL LOADING AND PRE-CRITICAL POST-CORE LOAD HOT FUNCTIONAL TESTING

<u>ACRONYM</u>	<u>SYS. NO.</u>	<u>DESCRIPTION</u>	<u>MODE OPERABILITY IS REQUIRED</u>
SSL	75	SECONDARY SAMPLING	MODE 1-4
SG	76	STEAM GENERATORS & MSIV	MODE 1-4
TUR	88	TURBINE & TURBINE CONTROLS	MODE 1-3
	91	SEISMIC SUPPORTS	ALL MODES
	19-16	WHIP RESTRAINTS	ALL MODES
	19-17	SYSTEM SUPPORTS (HANGERS)	ALL MODES
		SEISMIC STRUCTURES	ALL MODES

TABLE A-2

SAFETY REVIEW ISSUES

ISSUE
NO.

- 1 (A) Inspection Personnel Issues - Mercury
(B) Inspection Personnel Issues - T&B
(C) Inspection Personnel Issues - Other Contractors
- 2 Missing NI Instrument Line Documentation
- 3 Instrumentation Expansion Loop Separation
- 4 Lower Tier Corrective Actions are not being Upgraded to NCRs
- 5 Vendor Documentation - Conditional Releases
- 6 Dispositioning of Nonconformance and Discrepancy Reports
- 7 Backfill Soil Densities
- 8 Visual Examination of Shop Welds During Hydrostatic Testing
- 9 Welder Certification
- 10 Inspector Qualifications (J. A. Jones & Fegles)
- 11 Cadwelding
- 12 Main Steamline Framing Restraints
- 13 Missing NCRs
- 14 J. A. Jones Speed Letters and EIRs
- 15 Welding of "D" Level Material Inside Containment
- 16 Surveys and Exit Interviews of QA Personnel
- 17 QC Verification of Expansion Anchor Characteristics
- 18 Documentation of Walkdowns on Non-Safety Related Equipment
- 19 Water in Basemat Instruments
- 20 Construction Materials Testing (CMT) Personnel Qualification Records
- 21 LP&L QA Construction System Status and Transfer Reviews
- 22 Welder Qualifications (Mercury) and Filler Material Control (Site Weld)
- 23 QA Program Breakdown Between Ebasco and Mercury

TABLE A-3

SYSTEMS / ISSUE SAFETY RESOLUTION MATRIX

Indicates that Team, ISLG, FOSC and Plant Manager review completed.

SYSTEM NUMBER	SYSTEM	1			2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
		A	B	C																						
		3																								
02A	125V DC	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
03	Switching Station	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
04	SU XPMR	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
06A	4.16 kv Electric	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
07A	480 V Electric	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
08A	208/120V Electric	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
09A	Inverters: Dist.	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
10	Communications	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
13A-1	Heat Trace	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
16	Environmental Monitoring	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
17	Seismic Monitoring	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
18	Rad Monitoring	1	2		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
20	Security	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

TABLE A-3 CONT

SYSTEM NUMBER	SYSTEM	1			2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
		A	B	C																						
421	Fire Detection	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
22	Fire Protection	1	2		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
36-1.2	Component Cooling Water	1	2		4		X	X	X	X	X	X	X	X	X	X	X	X	X	14	X	X	X	X	X	
36-3	Aux. Comp. Cooling	1	2		5		X	X	X	X	X	X	X	X	X	X	X	X	X	14	X	X	X	X	X	
39	Diesel Generator	1	2		6		X	X	X	X	X	X	X	X	X	X	X	X	X	14	X	X	X	X	X	
40-2	Crane Hoist FHB	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
43A	Containment Cooling	1	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	14	X	X	X	X	X	
43B	Shield Bldg. Vent	1	2		7		X	X	X	X	X	X	X	X	X	X	X	X	X	14	X	X	X	X	X	
43E	Containment Vacuum Rel.	1	2		X		X	X	X	X	X	X	X	X	X	X	X	X	X	14	X	X	X	X	X	
46B	Control Room HVAC	1	2		X		X	X	X	X	X	X	X	X	X	X	X	X	X	14	X	X	X	X	X	
46U	RAB HVAC	1	2		X		X	X	X	X	X	X	X	X	X	X	X	X	X	14	X	X	X	X	X	
46Z	RAB Chilled Water	1	2		X		X	X	X	X	X	X	X	X	X	X	X	X	X	14	X	X	X	X	X	
46K	Fire Dampers	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

SYSTEMS / ISSUE SAFETY RESOLUTION MATRIX
TABLE A-3 (CONT'D)

SYSTEM NUMBER	SYSTEM	1			2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
		A	B	C																						
48	LRT Containment Ves.	X	Z		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
49	Process Analog Control	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
50B	Misc. Panels	X	X		X	X	X	X	X	X	X	X	X	X	X	X	14	X	X	14	X	X	X	X	X	
52 A,B,C	Reactor Coolant	1			X	X	X	X	X	X	X	X	X	X	X	X	14	X	X	14	X	X	X	X	X	
53A	Charging Letdown	1			X	X	X	X	X	X	X	X	X	X	X	X	14	X	X	14	X	X	X	X	X	
53B	Boric Acid Makeup	1	Z		X	X	X	X	X	X	X	X	X	X	X	X	14	X	X	14	X	X	X	X	X	
54-9	Primary Sampling	X	2		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
55A	Gas. Waste Manag ⁿ .	1	2		X	X	X	X	X	X	X	X	X	X	X	X	14	X	X	14	X	X	X	X	X	
55 B,E	Liquid/Landry Waste	1	2		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
58,60 A,B,C	Safety Injection	1	2		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
59	Containment Spray	1	2		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
61	Fuel Handling Storage	X	2		X	X	X	X	X	X	X	X	X	X	X	X	14	X	X	14	X	X	X	X	X	
66,63	Plant Protection	1	X		6	11	X	X	X	X	X	X	X	X	X	X	14	X	X	14	X	X	X	X	X	

TABLE A-1 CONT. SYSTEMS / ISSUE SAFETY RESOLUTION MATRIX

SYSTEM NUMBER	SYSTEM	1			2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
65A-1, 2	Excuse Nuc. Inst.	X	2		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
71B	Condensate Makeup	1	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	14	X	X	X	X	X	X
73	Emergency Feedwater	1	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	14	X	X	X	X	X	X
75	Secondary Sampling	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
76	Steam Gen. & MSIV	1	2		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	14	X	X	X	X	X	X
88	Turbine Turbine Cont.	X	2		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
91	Seismic Supports	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19-16	Whip Restraints	X	2		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19-17	System Supports	X	2		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Seismic Structures	X	X		X	X	X	X	X	X	X	X	12	X	X	X	X	X	X	X	X	X	15	X	X	X

TABLE A-4

SYSTEMS/ISSUES SAFETY REVIEW RESOLUTION MATRIX
FOOTNOTES

<u>NOTE</u>	<u>OUTSTANDING ACTIONS</u>
(1)	ISSUE 1A Reinspect all NI instrument loops installed by Mercury
(2)	ISSUE 1B Verify the qualifications of the initial Tompkins-Beckwith inspectors Where the initial qualifications of the above are inadequate, verify the qualifications of the inspectors performing any over inspections Where the above are not met, reinspect or justify on a case-by-case basis
(3)	ISSUE 1C Allows for the inspection of additional contractors
(4)	ISSUE 2 A CIWA has been initiated to rework instrumentation and correct documentation (isometric drawings) to remove class breaks in tubing from ASME III to ANSI B31.1
(5)	CIWA's have been issued (content as above)
(6)	A CIWA has been issued (content as above)
(7)	A CIWA has been issued (content as above)
(8)	A CIWA has been issued (content as above)
(9)	A CIWA has been issued (content as above)
(10)	A CIWA has been issued (content as above)
(11)	ISSUE 3 Completion of a CIWA to correct tube track for PT-CA-6755AS & BS

TABLE A-4

SYSTEMS/ISSUES SAFETY REVIEW RESOLUTION MATRIX
FOOTNOTES

NOTE	OUTSTANDING ACTIONS
ISSUE 4 NONE	
ISSUE 5 NONE	
ISSUE 6 NONE	
ISSUE 7 NONE	
ISSUE 8 NONE	
(12)	ISSUE 10 Verify qualifications of initial inspectors Where the initial inspector qualifications are inadequate; verify the qualifications of any over-inspection or co-signing by ECI Where the above are not met, reinspect or justify on a case-by-case basis
ISSUE 11 NONE	
ISSUE 12 NONE	
(13)	ISSUE 13 (Applies to all identified systems) Missing and voided Mercury NCR's are currently being reviewed.

TABLE A-4

SYSTEMS/ISSUES SAFETY REVIEW RESOLUTION MATRIX
FOOTNOTES

NOTE	OUTSTANDING ACTIONS
ISSUE 14	NONE
ISSUE 15	NONE
ISSUE 16	NONE
(14)	ISSUE 17 Complete Mercury installed safety-related instruments inspections
ISSUE 18	NONE
ISSUE 19	NONE
(15)	ISSUE 20 Documentation of qualifications for GEO personnel needs to be reviewed for completeness
ISSUE 21	NONE
ISSUE 22	NONE
ISSUE 23	NONE

TABLE A-5

SAFETY REVIEW SUMMARIES

Issue #1 - Inspection Personnel Issues

This issue was evaluated on a contractor basis.

Issue #1A - Mercury

Subgroup C - Mercury did perform safety related work on the system and safety evaluations are being performed to assure LP&L management that Waterford Steam Electric Station #3 can be safely operated without compromising the health and safety of the public.

Issue #1 does have a potential effect on:

<u>System #</u>	<u>System Description</u>	<u>Evaluation</u>
18-3	Radiation Monitoring System	Installation of safety related instrumentation was inspected by potentially unqualified inspectors. The quality of safety related instrumentation associated with this system shall be verified. Verification is being accomplished by reinspection of N1 instrument loops. Satisfactory completion of this sample of Mercury installations will be the basis for acceptance of the remaining installations.
22	Fire Protection	
36-1	Component Cooling Water	
36-2	Component Cooling Water	
36-3	Aux. Component Cooling Water	
39	Emergency Diesel Generator	
43A	RCB Containment Cooling	
43B	Shield Bldg. Ventilation	
43E	Containment Vacuum Relief	
46B	Control Room HVAC	
46D	RAB HVAC	
46E	RAB Chilled Water	
52A	Reactor Coolant System	
52B	Reactor Coolant System	
52C	Reactor Coolant System	
53A	Charging & Letdown	
53B	Boric Acid Makeup	

<u>System #</u>	<u>System Description</u>
55A	Gaseous Waste Management
55B	Liquid Waste Management
58	Safety Injection
60A	Safety Injection
60B	Safety Injection
60C	Safety Injection
59	Containment Spray
66	Plant Protection System
63	Plant Protection System
71B	Condensate Make-up
73	Emergency Feedwater
76	Steam Generator and MSIVs

Issue #1B - Tompkins-Beckwith

Subgroup C - Tompkins-Beckwith did perform safety related work on the system, and safety evaluations are being performed to assure LP&L management that Waterford SES #3 can be safely operated without compromising the health and safety of the public.

Issue #1 does have a potential effect on:

<u>System #</u>	<u>System Description</u>	<u>Evaluation</u>
18-3	Radiation Monitoring	Work performed on this system was inspected by potentially unqualified inspectors. To close out the concern LP&L shall verify the qualifications of the initial inspectors. LP&L shall verify the qualifications of the inspectors performing any over-inspection. A determination for any reinspection will be evaluated on a case-by-case basis.
22	Fire Protection	
36-1	Component Cooling Water	
36-2	Component Cooling Water	
36-3	Aux. Component Cooling Water	
39	Emergency Diesel Generator	
43B	Shield Bldg. Ventilation	
43E	Containment Vacuum Relief	
46B	Control Room HVAC	
46D	RAB HVAC	
46E	RAB Chilled Water	
48	LRT Containment Vessel	
52A	Reactor Coolant System	
52B	Reactor Coolant System	
52C	Reactor Coolant System	
53A	Charging and Letdown	
53B	Boric Acid Makeup	
54-9	Primary Sampling	
55A	Gaseous Waste Management	
55B	Liquid and Laundry Waste Management	

<u>System #</u>	<u>System Description</u>
55E	Liquid and Laundry Waste Management
58	Safety Injection
60A	Safety Injection
60B	Safety Injection
60C	Safety Injection
59	Containment Spray
61	Fuel Handling and Storage
65A-1	Excore Nuclear Instrument
71B	Condensate Make-up
73	Emergency Feedwater
76	Steam Generator and MSIV
88	Turbine and Turbine Controls
19-16	Whip Restraints
19-17	System Supports

Issue #1C - Other Contractors

The safety evaluation is being performed and will be finalized later.

Issue #2 - Missing N1 Instrument Line Documentation

Subgroup C - Instrumentation installations that were identified to have adequate documentation to support the quality of the installations but a decision was made to rework the installations to comply with ASME III documentation requirements are contained in this system and a safety evaluation was performed to assure LP&L management that Waterford SES #3 can be safely operated without compromising the health and safety of the public.

• Issue #2 does have an effect on:

<u>System #</u>	<u>System Description</u>	<u>Evaluation</u>
36-1	Component Cooling Water	These systems are directly affected by systems #36-3, and #39 and therefore instrument rework and documentation correction is required* to demonstrate system operability.
36-2	Component Cooling Water	
36-3	Aux. Component Cooling Water	These systems require* instrument rework to correct documentation to demonstrate system operability and remove tube class breaks from from ASME III to ANSI B31.1.
39	Emergency Diesel Generator	
43B	Shield Building Ventilation	
66	Plant Protection System	
63	Plant Protection System	
73	Emergency Feedwater	
76	Steam Generator and MSIV	

*The removal of tubing class breaks was not specifically required due to lack of documentation, but was decided upon to assure timely closure of the issue. The safety review assumed this action was necessary for conservatism.

Issue #3 - Instrumentation Expansion Loop Separation

Subgroup C - It has been determined that there is identified installation deficiency regarding tubing separation criteria in the system and a safety evaluation was performed to assure LP&L management that Waterford SES #3 can be safely operated without compromising the health and safety of the public.

Issue #3 does have a potential effect on:

<u>System #</u>	<u>System Description</u>	<u>Evaluation</u>
66	Plant Protection System	New tube tracks and supports were installed to correct the deficiencies. Accordingly, this issue does not serve as a constraint to the safe operation of these systems, and has been resolved and closed out by LP&L.
63	Plant Protection System	

Issue #4 - Lower Tier Corrective Actions Are Not Being Upgraded to NCR's

Subgroup C - DCN's, FCR's, EDN's and T-B DN's have been reviewed and it was determined that some documents should have been upgraded to NCR's. A safety evaluation was performed to assure LP&L management that Waterford SES #3 can be safely operated without compromising the health and safety of the public.

Issue #4 does have a potential effect on all systems in Table A-6.

- The Evaluation reveals that a statistically acceptable number of lower tier documents were reviewed showing no significant quality impact (no cases were detected which were safety significant and would be reportable under 10CFR50.55e). Therefore it is possible to conclude with a 95% confidence level that 95% of the unsampled documents contain no significant deficiencies. Accordingly, this issue does not serve as a constraint to safe operation of the systems.

Issue #5 - Vendor Documentation - Conditional Releases

Subgroup C - With a review of QA/QC records it is concluded that there are no unresolved items which affect the systems, however Issue #5 does have a potential effect on all systems in Table A-6.

The Evaluation reveals that during the review of QA/QC records conditional release items which affected systems were evaluated and closed out by LP&L with receipt of the "unconditional" paperwork. No items exist to affect the safety function of the systems.

Issue #6 - Dispositioning of Non-Conformance and Discrepancy Reports

Subgroup C - It was noted during a review of NCR's that some of the reports had questionable dispositioning potentially rendering the quality of installation indeterminate.

Issue #6 does have a potential effect on all systems in Table A-6.

The Evaluation included a combination screening and sampling method to review EBASCO NCR's including NCR's identified by the NRC and no items were identified which had significant safety impact on the systems. Mercury NCR's were reviewed for upgrade and sampled to determine reportability to support the conclusion that the safety review is not effected.

Issue #7 - Backfill Soil Densities

Subgroup C - Data from the in-place density tests on the class A fill was potentially not traceable relative to the technical adequacy of the placements, therefore the impact on the the quality of the system may have been indeterminate. A safety evaluation was performed to assure LP&L management that Waterford SES #3 can be safely operated without compromising the health and safety of the public.

- Issue #7 does have a potential effect on all systems in Table A-6.

The Evaluation reveals that the data for the in-place density tests performed on the class A fill has been located and has been transmitted to the QA records vault. Review and analysis of the records indicates that the Class A backfill soil densities are in accordance with specifications and FSAR requirements except for analytically non-significant deficiencies and does provide the required design structural capacity for the plant under seismic loadings. Accordingly, this issue does not serve as a constraint to safe operation of the system, and has been resolved and closed out by LP&L.

Issue #8 - Visual Examination of Shop Welds During Hydrostatic Testing

Subgroup C - The system does include ASME Class 1 & 2 welds (shop and field) that were inspected during total system hydro in the field. A safety evaluation was performed to assure LP&L management that Waterford SES #3 can be safely operated without compromising the health and safety of the public.

Issue #8 does have a potential effect on:

<u>System #</u>	<u>System Description</u>	<u>Evaluation</u>
18-1	Radiation Monitoring System	ASME Class 1 & 2 welds (shop and field) were inspected and documented on ASME N-5 code data reports during total system hydro in the field. The ASME Class 1 & 2 welds (shop and field) were tested and inspected in accordance with ASME code, in the field. There is no deviation from FSAR requirements. Accordingly, this issue does not serve as a restraint to safe operation of these systems, and has been resolved and closed out by LP&L.
18-2	Radiation Monitoring	
18-3	Radiation Monitoring	
18-4	Radiation Monitoring	
18-5	Radiation Monitoring	
36-1	Component Cooling Water	
36-2	Component Cooling Water	
36-3	Aux. Component Cooling Water	
52A	Reactor Coolant System	
52B	Reactor Coolant System	
52C	Reactor Coolant System	
53A	Charging And Letdown	
53B	Boric Acid Makeup	
54-9	Primary Sampling	
55A	Gaseous Waste Management	
55B	Liquid and Laundry Waste Management	
55E	Liquid and Laundry Waste Management	
58	Safety Injection	

<u>System #</u>	<u>System Description</u>
60A	Safety Injection
60B	Safety Injection
60C	Safety Injection
59	Containment Spray
71B	Condensate Makeup
73	Emergency Feedwater
76	Steam Generator and MSIV

Issue #9 - Welder Certification

The safety evaluation is being performed and will be finalized later.

Issue #10 - Inspector Qualifications - (J.A. Jones and Fegles)

Subgroup C - J.A. Jones and Fegles were responsible for the construction of the basemat and all structural concrete on the basemat. A safety evaluation was performed to assure LP&L management that Waterford SES #3 can be safely operated without compromising the health and safety of the public.

Issue #10 does have a potential effect on:

<u>System #</u>	<u>System Description</u>	<u>Evaluation</u>
---	Seismic Structures	To close out the concern LP&L shall verify qualifications of the initial inspectors involved. LP&L shall verify the qualifications of the inspectors performing any over-inspection. A determination for any reinspection will be evaluated on a case-by-case basis.

Issue #11 - Cadwelding

Subgroup C - Data from the cadweld testing program was potentially not traceable relative to the technical adequacy; therefore the impact on the system could have been indeterminate. A safety evaluation was performed to assure LP&L management the Waterford SES No. 3 can be safely operated without compromising the health and safety of the public.

Issue #11 does have a potential effect on all systems in Table A-6.

The Evaluation of cadweld records concluded that discrepancies noted were not significant to safety and would not have had any effect on the structural capability of the NPIS during operation and safe shutdown. The probability of an accident previously evaluated in the FSAR is not increased. Accordingly, this issue does not serve as a constraint to the safe operation of the systems, and has been resolved and closed out by LP&L.

Issue #12 - Main Streamline Framing Restraints

Subgroup C - Apparent failure to inspect the installation of the main streamline framing restraints may rendered the quality of the system indeterminate. A safety evaluation was performed to assure LP&L management that Waterford SES #3 can be safely operated without compromising the health and safety of the public.

Issue #12 does have a potential effect on:

<u>System #</u>	<u>System Description</u>	<u>Evaluation</u>
76	Steam Generators and MSIV	The deficiencies noted during the reinspection have been corrected and all hardware corrective actions have been completed and verified by LP&L.
91	Seismic Supports	Accordingly, this issue does not serve as a constraint to safe operation of these systems, and has been resolved and closed out by LP&L.
19-16	Whip Restraints	
19-17	System Supports (Hangers)	
---	Seismic Structures	

Issue #13 - Missing NCRs

Subgroup C - It was noted that there were missing reports in the consecutively numbered EBASCO and Mercury NCRs implying missing NCRs that may have rendered system quality indeterminate. A safety evaluation was performed to assure LP&L management that Waterford SES #3 can be safely operated without compromising the health and safety of the public.

Issue #13 does have a potential effect on all systems in Table A-6.

The Evaluation includes a review program to evaluate missing and voided Mercury NCR's.

Issue #14 - J.A. Jones Speed Letters and EIRs

Subgroup C - Contractors performing safety related work generated EIRs and Speedy Memos which transmitted design information that could potentially affect system quality. A safety review was performed to assure LP&L management that the system can be safely operated without compromising the health and safety of the public.

Issue #14 does have a potential effect on all systems in Table A-6.

The Evaluation included a sampling program to evaluate informal documents requesting engineering information from safety related contractors. Of all the samples reviewed those that resulted in design change deficiency had no safety significance. The program provides reasonable assurance that informal documents were not used to transmit design changes which have safety significance.

Issue #15 - Welding of "D" Level Material Inside Containment

Subgroup C - Class "D" material installation inside containment does have a potential effect on:

<u>System #</u>	<u>System Description</u>	<u>Evaluation</u>
08A	208/120v Elec. Distribution Safety	During the evaluation of Class "D" material installation inside containment the work and material under review was verified by LP&L. Contractor QA is of satisfactory quality, and this issue does not have an adverse effect on the safety analysis, system operability or margin to safety on these systems.
17	Seismic Monitoring	
18-1	Radiation Monitoring System	
18-2	Radiation Monitoring System	
18-3	Radiation Monitoring System	
18-4	Radiation Monitoring System	
18-5	Radiation Monitoring System	
21	Fire Detection	
22	Fire Protection	
36-1	Component Cooling Water	
36-2	Component Cooling Water	
40-2	Crane & Hoist FHB	
43A	RCB Containment Cooling	
43E	Containment Vacuum Relief	
48	LRT Containment Vessel	
52A	Reactor Coolant System	
52B	Reactor Coolant System	
52C	Reactor Coolant System	
53A	Charging & Letdown	
54-9	Primary Sampling	

<u>System #</u>	<u>System Description</u>
58	Safety Injection
60A	Safety Injection
60B	Safety Injection
60C	Safety Injection
59	Containment Spary
61	Fuel Handling & Storage
65A-1	Excure Nuclear Inst.
65A-2	Excure Nuclear Inst.
71B	Condensate Makeup
76	Steam Generators & MSIV
91	Seismic Supports
19-16	Whip Restraints
19-17	System Supports (Hangers)
---	Seismic Structures

Issue #16 - Surveys and Exit Interviews of QA Personnel

Subgroup C - An interview program was instituted by LP&L to provide an additional avenue of communication to elicit information on quality concerns from personnel prior to leaving the Waterford SES No. 3 project. The concern was that the LP&L program may not have promptly or thoroughly examined the specific areas of concern and the programmatic implications of these systems. Issue #16 does have a potential effect on all systems in Table A-6.

- The Evaluation reveals that all concerns are being reviewed under an improved quality concern program. Where there are issues not previously identified with potential safety related consequences, these issues are promptly reported to LP&L management. These concerns are properly addressed under LP&L required and approved management programs in a timely fashion. The program does not involve unreviewed safety issues.

Issue #17 - QC Verification of Expansion Anchor Characteristics

Subgroup C - Mercury, the subject of this concern, did install safety related instrumentation expansion anchors in these systems. A safety evaluation was performed to assure LP&L management that the system can be safely operated without compromising the health and safety of the public.

Issue #17 does have a potential effect on:

<u>System #</u>	<u>System Description</u>	<u>Evaluation</u>
18-1	Radiation Monitoring System	Inspection forms were used that do not explicitly cover all inspection attributes. Verification of acceptability will be accomplished via the reinspection program.
18-2		
18-3		
18-4		
18-5		
36-1	Component Cooling Water	
36-2	Component Cooling Water	
36-3	Aux. Component Cooling Water	
39	Emergency Diesel Generator	
43A	RCB Containment Cooling	
43B	Shield Bldg. Ventilation	
43E	Containment Vacuum Relief	
46B	Control Room HVAC	
46D	RAB HVAC	
46E	RAB Chilled Water	
50F	Misc. Panels	
52A	Reactor Coolant System	
52B	Reactor Coolant System	
52C	Reactor Coolant System	
53A	Charging and Letdown	
53B	Boric Acid Makeup	
55A	Gaseous Waste Management	

Issue #18 - Documentation of Walkdowns on Non-Safety Related Equipment

Subgroup C - Documentation of walkdown on non-safety related equipment does have a potential effect on:

<u>System #</u>	<u>System Description</u>	<u>Evaluation</u>
02A	125v DC Safety	Area inspections where the system is present indicate no interactions of safety significance. Accordingly, this issue does not serve as a restraint to safe operation of these systems, and has been resolved and closed out by LP&L.
06A	4.16kv Elec. Distribution Safety	
07A	480v Elec. Distribution Safety	
08A	208/120v Elec. Distribution Safety	
09A	Inverters & Distribution Safety	
10	Communications	
13A-1	Heat Trace Safety	
16	Environmental Monitoring	
17	Seismic Monitoring	
18-1	Radiation Monitoring System	
18-2	Radiation Monitoring System	
18-3	Radiation Monitoring System	
18-4	Radiation Monitoring System	
18-5	Radiation Monitoring System	
20	Security System	
21	Fire Detection	
22	Fire Protection	

<u>System #</u>	<u>System Description</u>
36-1	Component Cooling Water
36-2	Component Cooling Water
36-3	Aux Component Cooling Water
39	Emergency Diesel Generator
40-2	Crane & Hoist FHB
43A	RCB Containment Cooling
43B	Shield Bldg. Ventilation
43E	Containment Vacuum Relief
46B	Control Room HVAC
46D	RAB HVAC
46E	RAB Chilled Water
46K	Fire Dampers
48	LRT Containment Vessel
49	Process Analog Control
50B	Misc. Panels
52A	Reactor Coolant System
52B	Reactor Coolant System
52C	Reactor Coolant System
53A	Charging & Letdown
53B	Boric Acid Makeup
54-9	Primary Sampling
55A	Gaseous Waste Management

<u>System #</u>	<u>System Description</u>
55B	Liquid & Laundry Waste Management
55E	Liquid & Laundry Waste Management
58	Safety Injection
60A	Safety Injection
60B	Safety Injection
60C	Safety Injection
59	Containment Spray
61	Fuel Handling & Storage
66	Plant Protection System
63	Plant Protection System
65A-1	Excore Nuclear Inst.
65A-2	Excore Nuclear Inst.
71B	Condensate Makeup
73	Emergency Feedwater
75	Secondary Sampling
76	Steam Generators & MSIV
91	Seismic Supports
19-16	Whip Restraints
19-17	System Supports (Hangers)
---	Seismic Structures

Issue #19 - Water in Basemat Instruments

Subgroup C - Water in basemat instruments does have a potential effect on:

<u>System #</u>	<u>System Description</u>	<u>Evaluation</u>
08A	208/120 v Elec. Distribution Safety	The present analysis for moderate energy pipe rupture flooding per the FSAR envelopes the concern for water seepage since this flow rate would be minimal. Accordingly, this issue does not serve as a restraint to safe operation of these systems, and has been resolved and closed out by LP&L.
10	Communications	
13A-1	Heat Trace Safety	
17	Seismic Monitoring	
18-1	Radiation Monitoring System	
18-2	Radiation Monitoring System	
18-3	Radiation Monitoring System	
18-4	Radiation Monitoring System	
18-5	Radiation Monitoring System	
20	Security System	
36-1	Component Cooling Water	
36-2	Component Cooling Water	
36-3	Aux Component Cooling Water	
43A	RCB Containment Cooling	
46D	RAB HVAC	
46E	RAB Chilled Water	
53A	Charging & Letdown	
53B	Boric Acid Makeup	

<u>System #</u>	<u>System Description</u>
55A	Gaseous Waste Management
55B	Liquid & Laundry Waste Management
55E	Liquid & Laundry Waste Management
58	Safety Injection
60A	Safety Injection
60B	Safety Injection
60C	Safety Injection
59	Containment Spray
71B	Condensate Makeup
73	Emergency Feedwater
---	Seismic Structures

Issue #20 - Construction Materials Testing (CMT) Personnel Qualifications Records

Subgroup C - Construction Material Testing (CMT) personnel did do work on the system and a safety evaluation was performed to assure LP&L management that Waterford SES #3 can be safely operated without compromising the health and safety of the public.

Issue #20 does have a potential effect on:

<u>System #</u>	<u>System Description</u>	<u>Evaluation</u>
---	Seismic Structures	<p>An Engineering Evaluation of CMT for backfill soils indicates no defective work of safety significance was accepted as a result of testing personnel actions.</p> <p>All documentation of qualifications for GEO personnel involved with the concrete testing are being reviewed for completeness and verification.</p>

Issue #21 - LP&L QA Construction System Status and Transfer Reviews

Subgroup C - Open walkdown comments did have a potential impact on the system even though startup and system engineering evaluated the walkdown concerns and determined that there is no adverse impact on system/testing or operability.

Issue #21 does have a potential effect on:

<u>System #</u>	<u>System Description</u>	<u>Evaluation</u>
71	Condensate Makeup	All open walkdown comments have been resolved/closed.
91	Seismic Supports	All significant construction QA findings have been identified and properly dispositioned. Accordingly, this review does not serve as a constraint to safe operation of these systems, and has been resolved and closed out by LP&L.

Issue #22 - Welder Qualifications (Mercury) and Filler Materials Control
(Site Wide)

Subgroup C - The LP&L review of qualifications status documentation for all Mercury welders has been completed and the program does have a potential impact on the system. The weldment filler material controls did apparently deviate from code requirements.

Issue #22 does have a potential effect on all systems in Table A-6.

The Evaluation contains a clarification of the review finding on welder qualifications, and there are no potential unreviewed safety questions pertinent to this issue. "Rebaking" of low hydrogen electrodes was not practiced on the site and engineering justification demonstrates that while there were limited deviations from code specifications however this did not cause degradation of quality of weldment filler material.

Issue #23 - QA Program Breakdown Between EBASCO And Mercury

The concern is not directly related to the systems under review and is considered to be programmatic in nature.

There are no Subgroup C systems.

TABLE A-6

ISSUES

SYSTEM	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
	Inspection Personnel Issues (A)(B)(C)	Missing <i>NI</i> Instrument Line Documentation	Instrumentation Expansion Loop Separation	Lower Tier Corrective Actions are not being Upgraded to NCRs	Vendor Documentation - Conditional Releases	Disposition- ing of Non-conformance and Discrepancy Reports	Backfill Soil Densities	Visual Examination of Shop Welds During Hydrostatic Testing
02A - 125v DC Safety	A B	A	A	C	C	C	C	A
03 - Switching Station	A B	A	A	C	C	C	C	A
04 - Startup Transformers	A B	A	A	C	C	C	C	A
06A - 4.16kv Elec. Distribution Safety	A B	A	A	C	C	C	C	A
07A - 480v Elec. Distribution Safety	A B	A	A	C	C	C	C	A
08A - 208/120v Elec. Distribution Safety	A B	A	A	C	C	C	C	A
09A - Inverters & Distribution Safety	A B	A	A	C	C	C	C	A
10 - Communications	A B	A	A	C	C	C	C	A
13A-1 - Heat Trace Safety	A B	A	A	C	C	C	C	A
16 - Environmental Monitoring	A B	A	A	C	C	C	C	A
17 - Seismic Monitoring	A B	A	A	C	C	C	C	A

TABLE A-6

ISSUES

SYSTEM	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
	Inspection Personnel Issues (A) (B) (C)	Missing Ni Instrument Line Documentation	Instrumentation Expansion Loop Separation	Lower Tier Corrective Actions are not being Upgraded to NCRs	Vendor Documentation - Conditional Releases	Dispositioning of Non-conformance and Discrepancy Reports	Backfill Soil Densities	Visual Examination of Shop Welds During Hydrostatic Testing
18-1 - Radiation Monitoring System	B B	A	A	C	C	C	C	C
18-2	B B	A	A	C	C	C	C	C
18-3	C* C*	A	A	C	C	C	C	C
18-4	A B	A	A	C	C	C	C	C
18-5	A B	A	A	C	C	C	C	C
20 - Security System	A B	A	A	C	C	C	C	A
21 - Fire Detection	A B	A	B	C	C	C	C	A
22 - Fire Protection	C* C*	A	B	C	C	C	C	B
36-1 - Component Cooling Water	C* C*	C*	B	C	C	C	C	C
36-2	C* C*	C*	B	C	C	C	C	C
36-3 - Aux Component Cooling Water	C* C*	C*	B	C	C	C	C	C
39 - Emergency Diesel Generator	C* C*	C*	B	C	C	C	C	B
40-2 - Crane & Hoist FHB	A B	A	A	C	C	C	C	A
43A - RCB Containment Cooling	C* B	A	B	C	C	C	C	A

* The issue does have a potential effect on the system; the defined activity necessary to close out the concern has not been completed to date.

TABLE A-6

ISSUES

<u>SYSTEMS</u>	No. 1 Inspection Personnel Issues			No. 2 Missing NI Instrument Line Docu- mentation			No. 3 Instrumen- tation Ex- pansion Loop Separation			No. 4 Lower Tier Corrective Actions are not being Upgraded to NCRs			No. 5 Vendor Docu- mentation - Conditional Releases			No. 6 Disposition- ing of Non- conformance and Discrep- ancy Reports			No. 7 Backfill Soil Densities			No. 8 Visual Exam- ination of Shop Welds During Hydrostatic Testing		
	(A)	(B)	(C)	(A)	(B)	(C)	(A)	(B)	(C)	(A)	(B)	(C)	(A)	(B)	(C)	(A)	(B)	(C)	(A)	(B)	(C)			
43B - Shield Bldg. Ventilation	C*	C*		C*			B			C			C			C			C			A		
43E - Containment Vacuum Relief	C*	C*		A			B			C			C			C			C			A		
46B - Control Room HVAC	C*	C*		A			B			C			C			C			C			A		
46D - RAB HVAC	C*	C*		A			B			C			C			C			C			A		
46E - RAB Chilled Water	C*	C*		A			B			C			C			C			C			B		
46K - Fire Dampers	A	B		A			A			C			C			C			C			A		
48 - LRT Containment Vessel	A	C*		A			B			C			C			C			C			A		
49 - Process Analog Control	A	B		A			B			C			C			C			C			A		
50B - Misc. Panels	A	B		A			B			C			C			C			C			A		
52A - Reactor Coolant System	C*	C*		A			B			C			C			C			C			C		
52B	C*	C*		A			B			C			C			C			C			C		
52C	C*	C*		A			B			C			C			C			C			C		

* The issue does have a potential effect on the system; the defined activity necessary to close out the concern has not been completed to date.

TABLE A-6

ISSUES

SYSTEMS	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
	Inspection Personnel Issues (A) (B) (C)	Missing Ni Instrument Line Documentation	Instrumentation Expansion Loop Separation	Lower Tier Corrective Actions are not being Upgraded to NCRs	Vendor Documentation - Conditional Releases	Dispositioning of Non-conformance and Discrepancy Reports	Backfill Soil Densities	Visual Examination of Shop Welds During Hydrostatic Testing
53A - Charging & Letdown	C* C*	A	B	C	C	C	C	C
53B - Boric Acid Makeup	C* C*	A	B	C	C	C	C	C
54-9 - Primary Sampling	B C*	A	B	C	C	C	C	C
55A - Gaseous Waste Management	C* C*	A	B	C	C	C	C	C
55B - Liquid & Laundry Waste Management	C* C*	A	B	C	C	C	C	C
55E	B C*	A	B	C	C	C	C	C
58 - Safety Injection	C* C*	A	B	C	C	C	C	C
60A	C* C*	A	B	C	C	C	C	C
60B	C* C*	A	B	C	C	C	C	C
60C	C* C*	A	B	C	C	C	C	C
59 - Containment Spray	C* C*	A	B	C	C	C	C	C
61 - Fuel Handling & Storage	A C*	A	B	C	C	C	C	B

* The issue does have a potential effect on the system; the defined activity necessary to close out the concern has not been completed to date.

TABLE A-6

ISSUES

SYSTEMS	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
	Inspection Personnel Issues	Missing NI Instrument Line Documentation	Instrumentation Expansion Loop Separation	Lower Tier Corrective Actions are not being Upgraded to NCRs	Vendor Documentation - Conditional Releases	Dispositioning of Non-conformance and Discrepancy Reports	Backfill Soil Densities	Visual Examination of Shop Welds During Hydrostatic Testing
	(A) (B) (C)							
66 - Plant Protection System	C* B	C*	C*	C	C	C	C	A
63	C* B	C*	C*	C	C	C	C	A
65A-1 - Excove Nuclear Inst.	A C*	A	A	C	C	C	C	A
65A-2	A B	A	A	C	C	C	C	A
71B - Condensate Makeup	C* C*	A	B	C	C	C	C	C
73 - Emergency Feedwater	C* C*	C*	B	C	C	C	C	C
75 - Secondary Sampling	F B	A	B	C	C	C	C	B
76 - Steam Generators & MSIV	C* C*	C*	B	C	C	C	C	C
88 - Turbine & Turbine Controls	B C*	A	B	C	C	C	C	A
91 - Seismic Supports	A B	A	A	C	C	C	C	A
19-16 - Whip Restraints	A C*	A	A	C	C	C	C	A
19-17 - System Supports (Hangers)	A C*	A	A	C	C	C	C	A
--- - Seismic Structures	A B	A	A	C	C	C	C	A

* The issue does have a potential effect on the system; the defined activity necessary to close out the concern has not been completed to date.

TABLE A-6

ISSUES

SYSTEM	No. 9	No. 10	No. 11	No. 12	No. 13	No. 14	No. 15	No. 16
	Welder Cer- tification	Inspector Qualifica- tions (J.A. Jones & Fegies)	Cadwelding	Main Steam- line Framing Restraints	Missing NCRs	J.A. Jones Speed Letters and EIRs	Welding of "D" Level Material Inside Containment	Surveys and Exit Interviews of QA Personnel
02A - 125v CD Safety		A	C	A	C*	C	A	C
03 - Switching Station		A	C	A	C*	C	A	C
04 - Startup Transformers		A	C	A	C*	C	A	C
06A - 4.16kv Elec. Distribution Safety		A	C	A	C*	C	A	C
07A - 480v Elec. Distribution Safety		A	C	A	C*	C	A	C
08A - 208/120v Elec. Distribution Safety		A	C	A	C*	C	C	C
09A - Inverters & Distribution Safety		A	C	A	C*	C	A	C
10 - Communications		A	C	A	C*	C	A	C
13A-1 - Heat Trace Safety		A	C	A	C*	C	A	C
16 - Environmental Monitoring		A	C	A	C*	C	A	C
17 - Seismic Monitoring		A	C	A	C*	C	C	C

* The issue does have a potential effect on the system; the defined activity necessary to close out the concern has not been completed to date.

TABLE A-6

ISSUES

SYSTEM	No. 9	No. 10	No. 11	No. 12	No. 13	No. 14	No. 15	No. 16
	Welder Cer- tification	Inspector Qualifica- tions (J.A. Jones & Fegles)	Cadwelding	Main Steam- line Framing Restraints	Missing NCRs	J.A. Jones Speed Letters and EIRs	Welding of "D" Level Material Inside Containment	Surveys and Exit Interviews of QA Personnel
18-1 - Radiation Monitoring System		A	C	A	C*	C	C	C
18-2		A	C	A	C*	C	C	C
18-3		A	C	A	C*	C	C	C
18-4		A	C	A	C*	C	C	C
18-5		A	C	A	C*	C	C	C
20 - Security System		A	C	A	C*	C	A	C
21 - Fire Detection		A	C	A	C*	C	C	C
22 - Fire Protection		A	C	A	C*	C	C	C
36-1 - Component Cooling Water		A	C	A	C*	C	C	C
36-2		A	C	A	C*	C	C	C
36-3 - Aux Component Cooling Water		A	C	A	C*	C	A	C
39 - Emergency Diesel Generator		A	C	A	C*	C	A	C
40-2 - Crane & Hoist FHB		A	C	A	C*	C	C	C
43A - RCB Containment Cooling		A	C	A	C*	C	C	C

* The issue does have a potential effect on the system; the defined activity necessary to close out the concern has not been completed to date.

TABLE A-6

ISSUES

SYSTEMS	No. 9	No. 10	No. 11	No. 12	No. 13	No. 14	No. 15	No. 16
	Welder Cer- tification	Inspector Qualifica- tions (J.A. Jones & Fegles)	Cadwelding	Main Steam- line Framing Restraints	Missing NCRs	J.A. Jones Speed Letters and EIRs	Welding of "D" Level Material Inside Containment	Surveys and Exit Interviews of QA Personnel
43B - Shield Bldg. Ventilation		A	C	A	C*	C	A	C
43E - Containment Vacuum Relief		A	C	A	C*	C	C	C
46B - Control Room HVAC		A	C	A	C*	C	A	C
46D - RAB HVAC		A	C	A	C*	C	A	C
46E - RAB Chilled Water		A	C	A	C*	C	A	C
46K - Fire Dampers		A	C	A	C*	C	A	C
48 - LRT Containment Vessel		A	C	A	C*	C	C	C
49 - Process Analog Control		A	C	A	C*	C	A	C
50B - Misc. Panels		A	C	A	C*	C	A	C
52A - Reactor Coolant System		A	C	A	C*	C	C	C
52B		A	C	A	C*	C	C	C
52C		A	C	A	C*	C	C	C

* The issue does have a potential effect on the system; the defined activity necessary to close out the concern has not been completed to date.

TABLE A-6

ISSUES

<u>SYSTEMS</u>	No. 9 Welder Cer- tification	No. 10 Inspector Qualifica- tions (J.A. Jones & Fegles)	No. 11 Cadwelding	No. 12 Main Steam- line Framing Restraints	No. 13 Missing NCRs	No. 14 J.A. Jones Speed Letters and EIRs	No. 15 Welding of "D" Level Material Inside Containment	No. 16 Surveys and Exit Interviews of QA Personnel
53A - Charging & Letdown		A	C	A	C*	C	C	C
53B - Boric Acid Makeup		A	C	A	C*	C	A	C
54-9 - Primary Sampling		A	C	A	C*	C	C	C
55A - Gaseous Waste Management		A	C	A	C*	C	A	C
55B - Liquid & Laundry Waste Management		A	C	A	C*	C	A	C
55E		A	C	A	C*	C	A	C
58 - Safety Injection		A	C	A	C*	C	C	C
60A		A	C	A	C*	C	C	C
60B		A	C	A	C*	C	C	C
60C		A	C	A	C*	C	C	C
59 - Containment Spray		A	C	A	C*	C	C	C
61 - Fuel Handling & Storage		A	C	A	C*	C	C	C

* The issue does have a potential effect on the system; the defined activity necessary to close out the concern has not been completed to date.

TABLE A-6

ISSUES

	No. 9 Welder Cer- tification	No. 10 Inspector Qualifica- tions (J.A. Jones & Fegles)	No. 11 Cadwelding	No. 12 Main Steam- line Framing Restraints	No. 13 Missing NCRs	No. 14 J.A. Jones Speed Letters and EIRs	No. 15 Welding of "D" Level Material Inside Containment	No. 16 Surveys and Exit Interviews of QA Personnel
<u>SYSTEMS</u>								
66 - Plant Protection System		A	C	A	C*	C	A	C
63		A	C	A	C*	C	A	C
65A-1 - Excove Nuclear Inst.		A	C	A	C*	C	C	C
65A-2		A	C	A	C*	C	C	C
71B - Condensate Makeup		A	C	A	C*	C	C	C
73 - Emergency Feedwater		A	C	A	C*	C	A	C
75 - Secondary Sampling		A	C	A	C*	C	A	C
76 - Steam Generators & MSIV		A	C	C	C*	C	C	C
88 - Turbine & Turbine Controls		A	C	A	C*	C	A	C
91 - Seismic Supports		A	C	C	C*	C	C	C
19-16 - Whip Restraints		A	C	C	C*	C	C	C
19-17 - System Supports (Hangers)		A	C	C	C*	C	C	C
--- - Seismic Structures		C*	C	C	C*	C	C	C

* The issue does have a potential effect on the system; the defined activity necessary to close out the concern has not been completed to date.

TABLE A-6

ISSUES

SYSTEM	No. 17	No. 18	No. 19	No. 20	No. 21	No. 22	No. 23
	QC Verifi- cation of Expansion Anchor Char- acteristics	Documen- tation of Walkdowns on Non-Safety Related Equipment	Water in Basemat Instruments	Construction Materials Testing (CMT) Personnel Qualifica- tion Records	LP&L QA Construc- tion System Status and Transfer Reviews	Welder Qualifica- tions (Mercury) and Filler Material Control (Site Wide)	QA Program Breakdown Between Ebasco and Mercury
02A - 125v DC Safety	A	C	A	A	A	C	A
03 - Switching Station	A	A	A	A	A	C	A
04 - Startup Transformers	A	A	A	A	A	C	A
06A - 4.16kv Elec. Distribution Safety	A	C	A	A	A	C	A
07A - 480v Elec. Distribution Safety	A	C	A	A	A	C	A
08A - 208/120v Elec. Distribution Safety	A	C	C	A	A	C	A
09A - Inverters & Distribution Safety	A	C	A	A	A	C	A
10 - Communications	A	C	C	A	A	C	A
13A-1 - Heat Trace Safety	A	C	C	A	A	C	A
16 - Environmental Monitoring	A	C	A	A	A	C	A
17 - Seismic Monitoring	A	C	C	A	A	C	A

TABLE A-6

ISSUES

<u>SYSTEM</u>	No. 17 QC Verifi- cation of Expansion Anchor Char- acteristics	No. 18 Documen- tation of Walkdowns on Non-Safety Related Equipment	No. 19 Water in Basemat Instruments	No. 20 Construction Materials Testing (CMT) Personnel Qualifica- tion Records	No. 21 LP&L QA Construc- tion System Status and Transfer Reviews	No. 22 Welder Qualifica- tions (Mercury) and Filler Material Control (Site Wide)	No. 23 QA Program Breakdown Between Ebasco and Mercury
18-1 - Radiation Monitoring System	C*	C	C	A	B	C	A
18-2	C*	C	C	A	B	C	A
18-3	C*	C	C	A	B	C	A
18-4	C*	C	C	A	B	C	A
18-5	C*	C	C	A	B	C	A
20 - Security System	A	C	C	A	A	C	A
21 - Fire Detection	A	C	A	A	A	C	A
22 - Fire Protection	A	C	A	A	A	C	A
36-1 - Component Cooling Water	C*	C	C	A	B	C	A
36-2	C*	C	C	A	B	C	A
36-3 - Aux Component Cooling Water	C*	C	C	A	B	C	A
39 - Emergency Diesel Generator	C*	C	A	A	A	C	A
40-2 - Crane & Hoist FHB	A	C	A	A	A	C	A
43A - RCB Containment Cooling	C*	C	C	A	A	C	A

* The issue does have a potential effect on the system; the defined activity necessary to close out the concern has not been completed to date.

TABLE A-6

ISSUES

	No. 17 QC Verifi- cation of Expansion Anchor Char- acteristics	No. 18 Documen- tation of Walkdown on Non-Safety Related Equipment	No. 19 Water in Basemat Instruments	No. 20 Construction Materials Testing (CMT) Personnel Qualifica- tion Records	No. 21 LP&L QA Construc- tion System Status and Transfer Reviews	No. 22 Welder Qualifica- tions (Mercury) and Filler Material Control (Site Wide)	No. 23 QA Program Breakdown Between Ebasco and Mercury
<u>SYSTEMS</u>							
43B - Shield Bldg. Ventilation	C*	C	A	A	B	C	A
43E - Containment Vacuum Relief	C*	C	A	A	A	C	A
43B - Control Room HVAC	C*	C	A	A	B**	C	A
46D - RAB HVAC	C*	C	C	A	A	C	A
46E - RAB Chilled Water	C*	C	C	A	B	C	A
46K - Fire Dampers	A	C	A	A	A	C	A
48 - LRT Containment Vessel	A	C	A	A	A	C	A
49 - Process Analog Control	A	C	A	A	A	C	A
50B - Misc. Panels	C*	C	A	A	A	C	A
52A - Reactor Coolant System	C*	C	A	A	A	C	A
52B	C*	C	A	A	A	C	A
52C	C*	C	A	A	A	C	A

* The issue does have a potential effect on the system; the defined activity necessary to close out the concern has not been completed to date.

** - This system was incorrectly identified as 43B9 in this issue.

TABLE A-6

ISSUES

	No. 17 QC Verifi- cation of Expansion Anchor Char- acteristics	No. 18 Documen- tation of Walkdowns on Non-Safety Related Equipment	No. 19 Water in Basemat Instruments	No. 20 Construction Materials Testing (CMT) Personnel Qualifica- tion Records	No. 21 LP&L QA Construc- tion System Status and Transfer Reviews	No. 22 Welder Qualifica- tions (Mercury) and Filler Material Control (Site Wide)	No. 23 QA Program Breakdown Between Ebasco and Mercury
--	---	---	--	--	--	--	--

SYSTEMS

3A	- Charging & Letdown	C*	C	C	A	A	C	A
3B	- Boric Acid Makeup	C*	C	C	A	A	C	A
4-9	- Primary Sampling	A	C	A	A	A	C	A
5A	- Gaseous Waste Management	C*	C	C	A	B	C	A
5B	- Liquid & Laundry Waste Management	A	C	C	A	A	C	A
	55E	A	C	C	A	A	C	A
8	- Safety Injection	C*	C	C	A	B	C	A
	60A	C*	C	C	A	B	C	A
	60B	C*	C	C	A	B	C	A
	60C	C*	C	C	A	B	C	A
9	- Containment Spray	C*	C	C	A	B	C	A
1	- Fuel Handling & Storage	C*	C	A	A	A	C	A

* The issue does have a potential effect on the system; the defined activity necessary to close out the concern has not been completed to date.

TABLE A-6

ISSUES

	No. 17 QC Verifi- cation of Expansion Anchor Char- acteristics	No. 18 Documen- tation of Walkdowns on Non-Safety Related Equipment	No. 19 Water in Basemat Instruments	No. 20 Construction Materials Testing (CMT) Personnel Qualifica- tion Records	No. 21 LP&L QA Construc- tion System Status and Transfer Reviews	No. 22 Welder Qualifica- tions (Mercury) and Filler Material Control (Site Wide)	No. 23 QA Program Breakdown Between Ebasco and Mercury
--	---	---	--	--	--	--	--

SYSTEMS

66	- Plant Protection System	C*	C	A	A	A	C	A
	63	C*	C	A	A	A	C	A
65A-1	- Excove Nuclear Inst.	A	C	A	A	A	C	A
	65A-2	A	C	A	A	A	C	A
71B	- Condensate Makeup	C*	C	C	A	C	C	A
73	- Emergency Feedwater	C*	C	C	A	A	C	A
75	- Secondary Sampling	A	C	A	A	A	C	A
76	- Steam Generators & MSIV	C*	C	A	A	A	C	A
88	- Turbine & Turbine Controls	A	A	A	A	A	C	A
91	- Seismic Supports	A	C	A	A	C	C	A
19-16	- Whip Restraints	A	C	A	A	A	C	A
19-17	- System Supports (Hangers)	C*	C	A	A	A	C	A
---	- Seismic Structures	C*	C	C	C*	A	C	A

* The issue does have a potential effect on the system; the defined activity necessary to close out the concern has not been completed to date.

EXAMPLES OF SAFETY
REVIEWS PERFORMED
UNDER LICENSING
PROGRAM PLAN

SYSTEM/ISSUE SAFETY RESOLUTION WORKSHEET

ITEM NO. 18-4 ^{Radiation Monitoring System}
_{ARM/RMCT} 1 - MERCURY
_{PC-1}
S/U NO. ISSUE NO.

1. EFFECT/RELATIONSHIP

No effect. No work was performed on this system by Mercury.

2. SAFETY REVIEW (ATTACH CHECKLIST)

Review complete. No work was performed on this system by Mercury.

3. STATUS

A. Done?
yes

B. Verified (if req'd)
Not required

4. OUTSTANDING ACTION

None

ATTACHMENTS

- 1) Safety Review Checklist
(One per item no.)

Issue Person [Signature] _{Sept 10, 1984}
System Person [Signature]
K.C. or RPB [Signature]
Revision 0, Sept. 5, 1984

Nuclear Safety Review Checklist
(Safety Evaluation)
10CFR 50.59

1. EVALUATION APPLICABLE TO:

System 18-4 ARM/RMC/PRM Radiation Monitoring System
Issue No. 1 - Mercury

2. SAFETY EVALUATION:

A written basis/justification for the answers in Section 2 must be provided

2.1) True False The probability of an accident previously evaluated in the FSAR will not be increased.

Justification: Mercury performed no work on this system.

2.2) True False The consequences of an accident previously evaluated in the FSAR will not be increased.

Justification: Mercury performed no work on this system.

2.3) True False The possibility of an accident which is different than any already evaluated in the FSAR Will not be created.

Justification: Mercury performed no work on this system.

2.4) True False The probability of malfunction of equipment important to safety previously evaluated in the FSAR will not be increased.

Justification: Mercury performed no work on this system.

Nuclear Safety Review Checklist
(Safety Evaluation)
10CFR 50.59

2.5) True X False The consequences of a malfunction of equipment important to safety previously evaluated in the FSAR will not be increased.

Justification: Mercury performed no work on this system.

2.6) True X False The possibility of a malfunction of equipment important to safety different than any already evaluated in the FSAR will not be created.

Justification: Mercury performed no work on this system.

2.7) True X False The margin of safety as defined in the basis to any Technical Specification will not be reduced.

Justification: Mercury performed no work on this system.

If the answer for any of the questions for Section 2 is "FALSE", an unreviewed safety question may be involved.

3) REMARKS: (ATTACH ADDITIONAL PAGES IF NECESSARY) _____

4) PREPARED BY Dr. Mangano DATE 9/10/84
5) REVIEWED BY C. Howard DATE Sept 10, 1984
6) PORC REVIEW Dr. Wallman DATE 9-13-84
~~7) MANAGEMENT APPROVAL _____ DATE _____~~

DB
9-12-84
change 1

SYSTEM/ISSUE SAFETY RESOLUTION WORKSHEET

Radiation Monitoring System
ARM/RMC/
ITEM NO. 18-1, 18-2 PEM - 1 - Mercury
S/U NO. ISSUE NO.

1. EFFECT/RELATIONSHIP

No effect. No safety related work was performed by Mercury on this system.

2. SAFETY REVIEW (ATTACH CHECKLIST)

Review complete. No safety related work was performed by Mercury on this system.

3. STATUS

A. Done?

Yes

B. Verified (if req'd).

Not required

4. OUTSTANDING ACTION

None

ATTACHMENTS

- 1) Safety Review Checklist
(One per item no.)

Issue Person *[Signature]* Sept 10, 1984

System Person *[Signature]*

K.C. or RPB *[Signature]*

Revision 0, Sept. 5, 1984

Nuclear Safety Review Checklist
(Safety Evaluation)
10CFR 50.59

1. EVALUATION APPLICABLE TO:

System 15-1, 15-2 AAM/RMC/PRM Radiation Monitoring System
Issue No. 1 - Mercury

2. SAFETY EVALUATION:

A written basis/justification for the answers in Section 2 must be provided

- 2.1) True False The probability of an accident previously evaluated in the FSAR will not be increased.

Justification: No safety related work was performed by Mercury
on this system.

- 2.2) True False The consequences of an accident previously evaluated in the FSAR will not be increased.

Justification: No safety related work was performed by Mercury
on this system.

- 2.3) True False The possibility of an accident which is different than any already evaluated in the FSAR Will not be created.

Justification: No safety related work was performed by Mercury
on this system.

- 2.4) True False The probability of malfunction of equipment important to safety previously evaluated in the FSAR will not be increased.

Justification: No safety related work was performed by Mercury
on this system.

Nuclear Safety Review Checklist
(Safety Evaluation)
10CFR 50.59

2.5) True X False _____ The consequences of a malfunction of equipment important to safety previously evaluated in the FSAR will not be increased

Justification: No safety related work was performed by Mercury on this system.

2.6) True X False _____ The possibility of a malfunction of equipment important to safety different than any already evaluated in the FSAR will not be created.

Justification: No safety related work was performed by Mercury on this system.

2.7) True X False _____ The margin of safety as defined in the basis to any Technical Specification will not be reduced.

Justification: No safety related work was performed by Mercury on this system.

If the answer for any of the questions for Section 2 is "FALSE", an unreviewed safety question may be involved.

3) REMARKS: (ATTACH ADDITIONAL PAGES IF NECESSARY) _____

4) PREPARED BY M. Manzan DATE 9/10/84

5) REVIEWED BY C. Johnson DATE Sept 10, 1984

6) PORC REVIEW DA Allman DATE 9-13-84

7) MANAGEMENT APPROVAL _____ DATE _____

DB
9-12-84
change 1

SYSTEM/ISSUE SAFETY RESOLUTION WORKSHEET

Radiation Monitoring System
ITEM NO. 18-3 ARM/RMC/PRM 1 - MERCURY
S/U NO. ISSUE NO.

1. EFFECT/RELATIONSHIP The installation of safety related instrumentation on this system was inspected by potentially unqualified inspectors.

2. SAFETY REVIEW (ATTACH CHECKLIST) Inspection of Mercury safety related work on this system by potentially unqualified inspectors indicates that an unreviewed safety question may be involved.

3. STATUS
 - A. Done?
No

 - B. Verified (if req'd)

4. OUTSTANDING ACTION The quality of safety related instrumentation associated with this system shall be verified. Verification is being accomplished by reinspection of NI instrument loops. Satisfactory completion of this sample of Mercury installations will be the basis for acceptance of the remaining installations.

ATTACHMENTS

- 1) Safety Review Checklist
(One per item no.)

Issue Person *[Signature]* *Sept 11, 1984*
System Person *[Signature]*
K.C. or RPB *[Signature]*
Revision 0, Sept. 5, 1984

SYSTEM/ISSUE SAFETY RESOLUTION WORKSHEET

ITEM NO. ARM/RMC/ RADIATION 1 - Tompkins-Beckwith
REM MONITORING
S/U NO. 18-3 ISSUE NO.

1. EFFECT/RELATIONSHIP

Work performed on this system was inspected by potentially unqualified Tompkins-Beckwith inspectors.

2. SAFETY REVIEW (ATTACH CHECKLIST)

Inspection of safety related work by potentially unqualified Tompkins-Beckwith inspectors indicates that an unreviewed safety question may be involved.

3. STATUS

A. Done?

No

B. Verified (if req'd)

4. OUTSTANDING ACTION

- a) Verify the qualifications of the initial Tompkins-Beckwith inspectors
- b) Where the initial qualifications in (a) above are inadequate, verify the qualifications of the inspectors performing any over inspection.
- c) Where A and B are not met, reinspect or justify on a case-by-case basis.

ATTACHMENTS

- 1) Safety Review Checklist
(One per item no.)

Issue Person [Signature] Sept 13, 1984

System Person [Signature]

K.C. or RPB [Signature]

Revision 0, Sept. 5, 1984

SYSTEM/ISSUE SAFETY RESOLUTION WORKSHEET

ITEM NO. CCS ^{RCB CONTAINMENT} COOLING - 1 - Tompkins - Beckwith
S/U NO. 43A ISSUE NO.

1. EFFECT/RELATIONSHIP

No effect. Tompkins-Beckwith performed no safety related work on this system.

2. SAFETY REVIEW (ATTACH CHECKLIST)

Review complete. No safety related work was performed by Tompkins-Beckwith on this system.

3. STATUS

A. Done?

Yes

B. Verified (if req'd)

Not required

4. OUTSTANDING ACTION

None

ATTACHMENTS

- 1) Safety Review Checklist
(One per item no.)

Issue Person *J. Lewis* Sept. 12, 1984
System Person *Amuranga*
K.C. or RPB *RMC*
Revision 0, Sept. 5, 1984

Nuclear Safety Review Checklist
(Safety Evaluation)
10CFR 50.59

1. EVALUATION APPLICABLE TO:

System CCS 43A
Issue No. 1 - Tompkins-Beckwith

2. SAFETY EVALUATION:

A written basis/justification for the answers in Section 2 must be provided

- 2.1) True False The probability of an accident previously evaluated in the FSAR will not be increased.

Justification: No safety related work was performed by Tompkins-Beckwith on this system.

- 2.2) True False The consequences of an accident previously evaluated in the FSAR will not be increased.

Justification: No safety related work was performed by Tompkins-Beckwith on this system.

- 2.3) True False The possibility of an accident which is different than any already evaluated in the FSAR Will not be created.

Justification: No safety related work was performed by Tompkins-Beckwith on this system.

- 2.4) True False The probability of malfunction of equipment important to safety previously evaluated in the FSAR will not be increased.

Justification: No safety related work was performed by Tompkins-Beckwith on this system.

Nuclear Safety Review Checklist
(Safety Evaluation)
10CFR 50.59

2.5) True False The consequences of a malfunction of equipment important to safety previously evaluated in the FSAR will not be increased.

Justification: No safety related work was performed by Tompkins-Beckwith on this system.

2.6) True False The possibility of a malfunction of equipment important to safety different than any already evaluated in the FSAR will not be created.

Justification: No safety related work was performed by Tompkins-Beckwith on this system.

2.7) True False The margin of safety as defined in the basis to any Technical Specification will not be reduced.

Justification: No safety related work was performed by Tompkins-Beckwith on this system.

If the answer for any of the questions for Section 2 is "FALSE", an unreviewed safety question may be involved.

3) REMARKS: (ATTACH ADDITIONAL PAGES IF NECESSARY) _____

4) PREPARED BY P Mangan DATE 9/11/84
5) REVIEWED BY [Signature] DATE Sept 12, 1984
6) FORC REVIEW B. Allison DATE 9-14-84
7) MANAGEMENT APPROVAL _____ DATE _____

9-12-84
jm

SYSTEM/ISSUE SAFETY RESOLUTION WORKSHEET

ITEM NO. LVD-208/120v - 7
 ^{ELEC. DIST}
 S/U NO. 08A ISSUE NO.

1. EFFECT/RELATIONSHIP

The data for the 34 in-place density tests performed in the first 5.5 feet of class A fill in fill area #5 from elevation -41.75 to -36.25 has been located and has been transmitted to the Ebasco QA records vault. Therefore, this issue no longer has any effect on this system.

2. SAFETY REVIEW (ATTACH CHECKLIST)

Done

3. STATUS

A. Done? Completed

B. Verified (if req'd)

4. OUTSTANDING ACTION

None

ATTACHMENTS

1) Safety Review Checklist

(One per item no.)

Issue Person William G. Hubacek
System Person J. Kuc
K.C. or RPB J. Kuc

Revision 0, Sept. 5, 1984

Nuclear Safety Review Checklist
(Safety Evaluation)
10CFR 50.59

1. EVALUATION APPLICABLE TO:

System LVD-208/20V ELECTRICAL DIST. (08A)
Issue No. 7 Backfill Soil Densities

2. SAFETY EVALUATION:

A written basis/justification for the answers in Section 2 must be provided

- 2.1) True False The probability of an accident previously evaluated in the FSAR will not be increased.

Justification: Review and analysis of soil backfill in response to this concern indicates that Class A backfill soil densities are in accordance with specification and FSAR requirements and will provide the required design structural capacity to the plant under seismic loadings (FSAR SECT 2.5.4.5.3, Ebasco Spec. LOU 1564.482)

- 2.2) True False The consequences of an accident previously evaluated in the FSAR will not be increased.

Justification: Consequences previously evaluated were based on backfill, which met specification and FASR requirements. The backfill analysis indicates that the backfill meet specifications and FSAR requirements.

- 2.3) True False The possibility of an accident which is different than any already evaluated in the FSAR Will not be created.

Justification: Backfill was placed in accordance with requirements that were evaluated in the FSAR (Section 2.5.4.5.3); therefore, backfill will not contribute to accidents different from those evaluated in the FSAR.

- 2.4) True False The probability of malfunction of equipment important to safety previously evaluated in the FSAR will not be increased.

Justification: Backfill meets spec and FSAR requirements; therefore, it does not contribute to the probability of equipment malfunction.

SYS LVD
I# 7

Nuclear Safety Review Checklist
(Safety Evaluation)
10CFR 50.59

2.5) True X False _____ The consequences of a malfunction of equipment important to safety previously evaluated in the FSAR will not be increased.

Justification: Backfill meets spec and FSAR requirements; therefore, it does not contribute to the consequences of equipment malfunction.

2.6) True X False _____ The possibility of a malfunction of equipment important to safety different than any already evaluated in the FSAR will not be created.

Justification: Backfill meets spec and FSAR requirements; therefore, it does not contribute to the possibility of a malfunction different than evaluated.

2.7) True X False _____ The margin of safety as defined in the basis to any Technical Specification will not be reduced.

Justification: In as much as the backfill meets spec and FSAR requirements, it does not contribute to reduction of the margin of safety as defined in tech spec.

If the answer for any of the questions for Section 2 is "FALSE", an unreviewed safety question may be involved.

3) REMARKS: (ATTACH ADDITIONAL PAGES IF NECESSARY) _____

4) PREPARED BY William J. Dubouché DATE 9/7/84
5) REVIEWED BY J. Allen DATE 9/7/84
6) PORC REVIEW J. Allen DATE 9-10-84
7) MANAGEMENT APPROVAL _____ DATE _____

9-13-84 *J*

ATTACHMENT B

SAFETY REVIEWS FOR PLANT
SYSTEMS REQUIRED BY
TECHNICAL SPECIFICATIONS FOR
CRITICALITY, LOW POWER
TESTING AND FULL POWER OPERATION

LICENSING PLAN FOR
CRITICALITY, LOW POWER TESTING
AND FULL POWER OPERATION

The program discussed in Attachment C and applied to Fuel load and Precriticality Post Core-Load Hot Functional Testing in Attachment A is being applied to those systems required for Criticality, Low Power Testing and Full Power Operation. These systems are listed in Table B-1. This process has been initiated and is expected to be completed shortly, although the issuance of the initial license is not considered to be dependent upon completion.

Upon completion of this review, summaries will be prepared (as described in Attachment A, Table A-4) and full documentation will be filed in the Waterford 3 On-Site Licensing Unit offices for inspection and review by the NRC staff.

TABLE B-1

PLANT SYSTEMS REQUIRED FOR CRITICALITY AND LOW
POWER TESTING TO FIVE PERCENT, AND FULL POWER OPERATION

<u>ACRONYM</u>	<u>SYS. NO</u>	<u>DESCRIPTION</u>	<u>OPERABILITY REQUIRED</u>
PMC	15	PLANT MONITORING COMPUTER	MODE 1 (20%)
FP	22-3	FIRE PROTECTION - HALON	MODE 1 (20%)
HRA	43H	RCB HYDROGEN RECOMBINERS/ ANALYZER	MODE 1-2
CEC	64	CONTROL ELEMENT ASSY. CALCULATOR	MODE 1-2
INI	65B	INCORE NUCLEAR INSTRUMENTATION	MODE 1 (20%)
MNI	65C	MOVABLE INCORE NUCLEAR INSTR.	MODE 1 (20%)
VLP	69	VIBRATION & LOOSE PARTS MONITOR	MODE 1-2

ATTACHMENT C

LICENSING PROGRAM PLAN

SAFETY REVIEW PROCESS

DESCRIPTION

LICENSING PROGRAM PLAN SAFETY REVIEW
PROCESS DESCRIPTION

The process used to perform the safety reviews is shown on the attached flow chart (Figure C-1). Each of the principal activities are described in more detail in Table C-1. The transmittal letter also provides a general discussion of the process employed.

The two work instructions/procedures used to control the safety review process are included in this attachment. They are UNT-TEM-006, which is an Administrative Procedure entitled, "FSAR-NUCLEAR SAFETY REVIEW", and ISEG WORK INSTRUCTION 84-1 entitled, "Licensing Program Plan Audit Plan". An additional enclosure is a copy of the SYSTEM/ISSUE SAFETY RESOLUTION WORKSHEET, used to summarize the results and basis for safety review, the basis for not being able to complete a safety review and document any corrective actions required to be able to finalize a safety review.

Figure C-1

LICENSING PROGRAM PLAN FLOW CHART

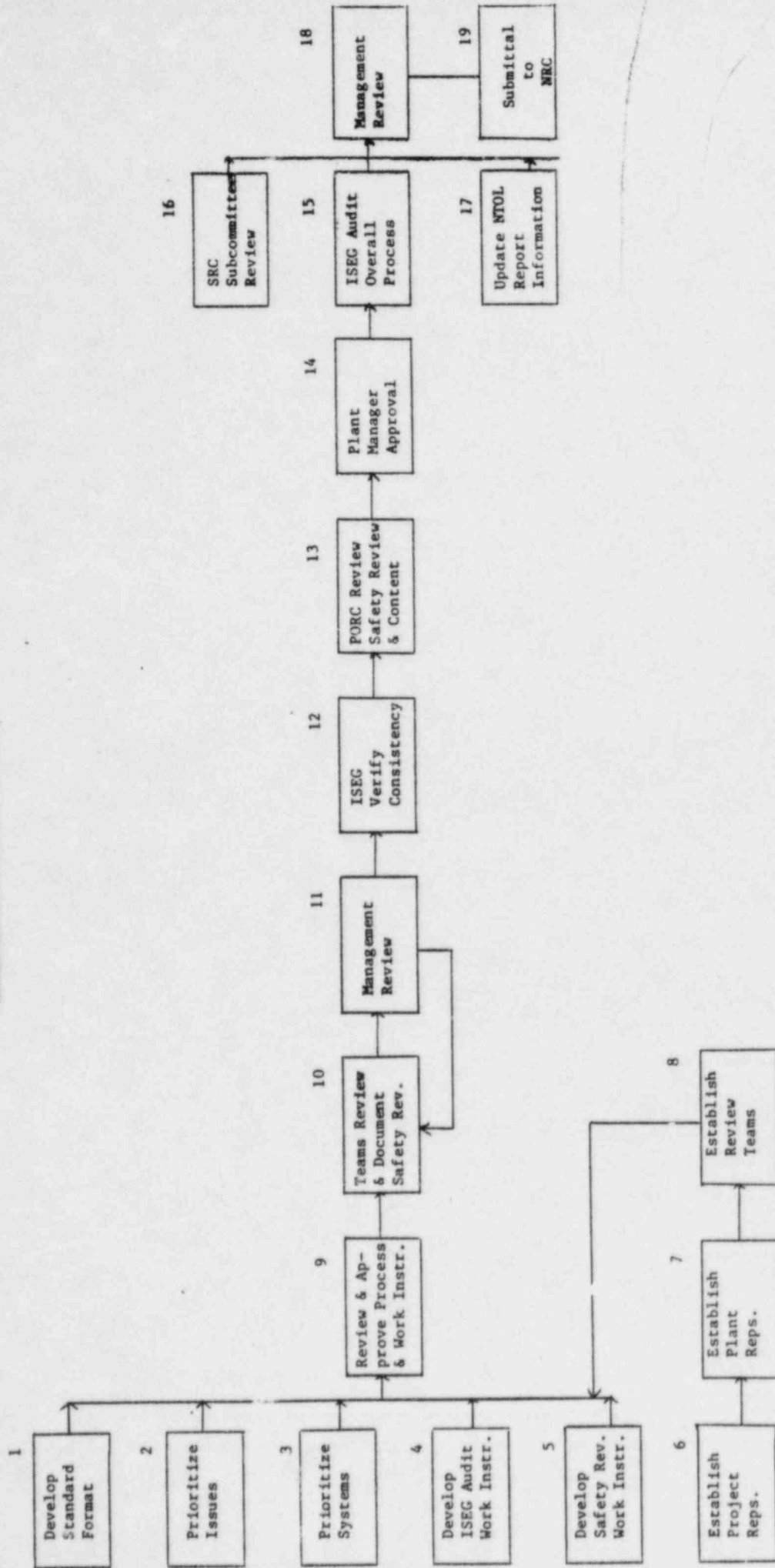
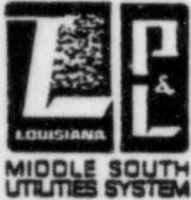


TABLE C-1

LICENSING PROGRAM PLAN
FLOW CHART DETAILS

<u>Step No.</u>	<u>Description</u>
1	Develop standard format for matrix and input sheets.
2	Establish order of priority for review of twenty-three (23) issues.
3	Prioritize startup systems by Technical Specification prerequisites for Fuel Load, Initial Criticality to 5% of full power, and full power operation.
4	Develop Work Instructions for performance of audit by the Independent Safety Engineering Group (ISEG) to include a verification of consistency with validated responses and auditing of the process to the Work Instructions.
5	Develop Work Instruction for performance of Safety Reviews including development of checklist.
6	Assign project representative for each issue.
7	Assign plant representative for each issue.
8	Establish Safety Review Teams.
9	Review and approve the process and Work Instructions.
10	Initiate Safety Reviews per approved Work Instructions.
11	Review and approve Content and Consistency of Safety Reviews.
12	Verify consistency of Safety Reviews with validated responses per Work Instructions.
13	Coordinate PORC review of Safety Reviews and content of the process.
14	Plant Manager approval of the PORC review.
15	Perform audit of overall process per Work Instructions.
16	Coordinate SRC Subcommittee review for logic of process/ Safety Review.
17	Prepare report in final form and schedule review meeting with upper management.
18	Prepare transmittal letter, obtain signatures and transmit to NRC.
19	Extract information from NTOL report, including CAT items, SCDS and Inspection Report Open Items.

WATERFORD 3 SES PLANT OPERATING MANUAL



LOUISIANA
POWER & LIGHT

POM VOLUME 1
POM SECTION 10

UNT-TEM-006
REVISION 2

ADMINISTRATIVE PROCEDURE

FSAR - NUCLEAR SAFETY REVIEW

PORC Meeting No. 84-86

Reviewed: *[Signature]*
PORC Chairman

Approved: *[Signature]* *[Signature]*
Plant Manager Nuclear

9/11/84
Approval Date

9/12/84
Effective Date

TEMPORARY CONDITION

This procedure shall remain ineffect until Commerical Operation.

TABLE OF CONTENTS

- 1.0 PURPOSE
- 2.0 REFERENCES
- 3.0 DEFINITIONS
- 4.0 RESPONSIBILITIES
- 5.0 PROCEDURE
 - 5.1 Project/Plant Team
 - 5.2 PORC Review
 - 5.3 Project/Plant Management Approval
- 6.0 ATTACHMENTS
 - 6.1 Nuclear Safety Review Checklist (3 pages)
 - ~~6.2 System/Issue Safety Resolution Worksheet (1 page)~~ *MT 8-10-84*

LIST OF EFFECTIVE PAGES

Title	Revision 2
1-8	Revision 2

1.0 PURPOSE

This procedure provides guidances for performing safety reviews for those systems required for fuel load and post fuel load testing.

The safety review shall assure completion of those actions necessary to insure a system is constructed and functions according to the requirements of the FSAR in light of the 23 issues raised by the NRC.

2.0 REFERENCES

2.1 Waterford 3 FSAR

2.2 10 CFR 50.59 Safety Evaluation

2.3 UNT-1-004 Plant Operations Review Committee

3.0 DEFINITIONS

3.1 PORC Review - A review that is performed to ensure that a 10CFR50.59 Safety Evaluation is performed, when required; that an unreviewed safety question does not exist; that nuclear safety is not adversely affected; that the Technical Specifications are not violated; and that the administrative controls for procedures, and changes thereto, have been strictly adhered to as prescribed by this procedure.

3.2 Plant Manager - Nuclear Approval - Review of PORC's recommendations for approval of the safety review.

3.3 Safety Review - A review performed for all discrepancies/deviations to determine whether an unreviewed 10CFR50.59 Safety question needs to be addressed.

- 3.4 10CFR50.59 Safety Evaluation - An evaluation of a system for discrepancies/deviations to determine whether the discrepancy/deviation involves an unreviewed safety question.
- 3.5 Unreviewed Safety Question - A discrepancy/deviation from design requirements as described in the FSAR shall be deemed to involve an unreviewed safety question if: 1) the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report may be increased; or 2) the possibility for an accident or malfunction of a different type than any previously evaluated in the safety analysis report may be created; or 3) the margin of safety as defined in the basis for any technical specification is reduced.
- 3.6 The Project Plant Team is a team consisting of a minimum of two people chosen by management based upon their knowledge of the 23 NRC issues and knowledge of technical specifications and plant systems to perform the safety reviews described in this procedure.

4.0 RESPONSIBILITIES

- 4.1 Project/Plant Management is responsible for ensuring the development and implementation of this procedure.

Project/Plant Management also reviews and approves Safety Reviews for content and consistency.

- 4.2 Project/Plant teams are responsible for providing system safety reviews in accordance with the requirements of this procedure.
- 4.3 PORC is responsible for assuring completion of all actions necessary to insure a system is constructed and will function in accordance with FSAR requirements. PORC actions include a review of Plant and Project team safety reviews.

5.0 PROCEDURE

5.1 Project/Plant teams shall perform safety review for their assigned systems using the Nuclear Safety Review Checklist, Attachment 6.1.

A written basis/justification for answers must be provided.

Answers checked False will require follow up evaluation and corrective actions.

5.2 PORC shall review the Project/Plant team safety reviews for content and adequacy.

PORC shall recommend approval of the safety review by Project/Plant Management.

5.3 Plant Management shall review and approve safety reviews.

5.4 The SRC shall review the actions of 5.2 and 5.3.

5.5 ~~Attachment 6.2~~ ^{ML 9-10-84} shall accompany each Safety Review Checklist, ~~(Attachment 6.1)~~ and Systems may be identified by the system acronyms or name and the system(s) startup (S/U) number.

6.0 ATTACHMENTS

6.1 Nuclear Safety Review Checklist (2 pages)

~~6.2 System/Issue Safety Resolution Worksheet (1 page)~~ ^{ML 9-10-84}

SYSTEM NO. _____
ISSUE NO. _____
Cag 1
Rev 2
MSD
10-3-84

Nuclear Safety Review Checklist
(Safety Evaluation)
10CFR 50.59

EVALUATION APPLICABLE TO:

System _____
Issue No. _____

2. SAFETY EVALUATION:

A written basis/justification for the answers in Section 2 must be provided

2.1) True _____ False _____ The probability of an accident previously evaluated in the FSAR will not be increased.

Justification: _____

2.2) True _____ False _____ The consequences of an accident previously evaluated in the FSAR will not be increased.

Justification: _____

2.3) True _____ False _____ The possibility of an accident which is different than any already evaluated in the FSAR Will not be created.

Justification: _____

SYSTEM NO. _____

ISSUE NO. _____

Nuclear Safety Review Checklist
(Safety Evaluation)
10CFR 50.59

2.4) True _____ False _____ The probability of malfunction of equipment important to safety previously evaluated in the FSAR will not be increased.

Justification: _____

2.5) True _____ False _____ The consequences of a malfunction of equipment important to safety previously evaluated in the FSAR will not be increased.

Justification: _____

2.6) True _____ False _____ The possibility of a malfunction of equipment important to safety different than any already evaluated in the FSAR will not be created.

Justification: _____

SYSTEM NO. _____

ISSUE NO. _____

Nuclear Safety Review Checklist

(Safety Evaluation)

10CFR 50.59

2.7) True _____ False _____ The margin of safety as defined in the basis to any Technical Specification will not be reduced.

Justification: _____

If the answer for any of the questions for Section 2 is "FALSE", an unreviewed safety question may be involved.

3) REMARKS: (ATTACH ADDITIONAL PAGES IF NECESSARY) _____

4) PREPARED BY _____ DATE _____

5) REVIEWED BY _____ DATE _____

6) PORC REVIEW _____ DATE _____

~~7) MANAGEMENT APPROVAL _____ DATE _____~~

*Chy1
Rev 2
2/10
12-3-84*

SYSTEM/ISSUE SAFETY RESOLUTION WORKSHEET

ITEM NO. _____
S/U NO. _____ ISSUE NO. _____

1. EFFECT/RELATIONSHIP

2. SAFETY REVIEW (ATTACH CHECKLIST)

3. STATUS

A. Done?

B. Verified (if req'd)

4. OUTSTANDING ACTION

ATTACHMENTS

- 1) Safety Review Checklist
(One per item no.)

Issue Person _____
System Person _____
K.C. or RPB _____

ISEG

WORK INSTRUCTION

84-1

"Licensing Program Plan Audit Plan"

Approved by

F. J. Cook

Date

9/7/84

Approved by

R. B. Barthurst

Date

9/7/84

ISEG

WORK INSTRUCTION

84-1

"Licensing Program Plan Audit Plan"

1.0 PURPOSE

This Work Instruction provides direction for performing and documenting a special audit/review of the Licensing Program Plan (i.e., the System/Issue Safety Resolution Worksheet, Safety Reviews, etc.).

2.0 INSTRUCTIONS

2.1 Consistency Verification (Attachment 3.1)

2.1.1 Verify the package is complete.

2.1.2 Verify the package has received review by management.

2.1.3 Verify that the technical content meaning is unchanged between the System/Issue Safety Resolution Worksheet and the NRC Submittal.

2.2 Audit Overall Process (Attachment 3.2)

2.2.1 Verify the package is complete.

2.2.2 Verify Nuclear Safety Review done in accordance with Work Instruction.

2.2.3 Verify the package has received review by management.

3.0 ATTACHMENTS

3.1 Consistency Verification Checklist

3.2 Audit Overall Process Checklist

ATTACHMENT 3.1

CONSISTENCY VERIFICATION CHECKLIST

ISSUE NO. _____

1. Verify the package is complete:

°System/Issue Safety Resolution Worksheets

___ Yes ___ No, Comment _____

°Nuclear Safety Review Checklists

___ Yes ___ No, Comment _____

2. Verify the package has received review by management.

___ Yes ___ No, Comment _____

3. Verify that the technical content meaning is unchanged during wording for NRC response:

°Does wording accurately reflect Effect/Relationship

___ Yes ___ No, Comment _____

°Does wording accurately reflect Nuclear Safety Review Results

___ Yes ___ No, Comment _____

°Does wording accurately reflect Status

___ Yes ___ No, Comment _____

°Does wording accurately reflect Outstanding Actions

___ Yes ___ No, Comment _____

Reviewer _____

Date _____

ATTACHMENT 3.2

AUDIT OVERALL PROCESS CHECKLIST

ISSUE NO. _____

1. Verify the package is complete:

°System/Issue Safety Resolution Worksheets

___ Yes ___ No, Comment _____

°Nuclear Safety Review Checklists

___ Yes ___ No, Comment _____

°STS System Safety Review includes all applicable startup numbers.

___ Yes ___ No, Comment _____

2. Verify Nuclear Safety Review done in accordance with Work Instruction.

___ Yes ___ No, Comment _____

3. Verify PORC/PM-N Review

___ Yes ___ No, Comment _____

Reviewer _____

Date _____

ATTACHMENT D

REGIONAL INSPECTION REPORT

OPEN ITEMS REQUIRED FOR

FUEL LOAD

REGIONAL INSPECTION REPORT OPEN ITEMS

The latest update of the Region IV NTOL has been reviewed and pertinent exhibits have been extracted for presentation in this attachment. These items are being pursued and closed through the normal processes with the Resident Inspector and are not directly related to the 23 issues.

Table D-1 provides a listing of open items, resulting from the construction and startup test programs, which are remaining to be closed prior to fuel load. As indicated on the table, the preoperational testing is complete and the systems have been accepted by the plant staff.

Table D-2 provides a listing of open IE Bulletins, Circulars, Information Notices and NRR Generic Letters required for fuel load. No major fuel load prerequisite actions remain as indicated on Table D-2.

The listing of open Significant Construction Deficiencies (SCDs) presented in Table D-3 include those SCDs requiring LP&L action prior to fuel load.

Open licensing commitments required to be closed by fuel load from the Supplements to the Safety Evaluation Report and letters to the NRC are listed in Table D-4.

Table D-5 provides a listing of NRC Inspection Report Open Items which are either explicitly required to be closed by fuel load or have not been explicitly relegated to resolution at a later phase of the licensing process.

A status of TMI related open items is presented in Table D-6.

Table D-1

SYSTEMS REQUIRED BY TECHNICAL
SPECIFICATIONS TO BE OPERABLE BY FUEL LOAD
HAVING OPEN FUEL LOAD ITEMS

<u>System</u>	<u>Description</u>	<u>Preop. Testing % Complete</u>	<u>Open Items Remaining</u>	<u>LP&L Staff Acceptance</u>
02A	125 VDC-Safety	100	3	A 10-20-82
09A	Inverters & Dis-Safety	100	4	A 08-28-83
10	Communications	100	1	A 05-02-84
13A-1	Heat Tracing Safety	100	2	A 05-02-84
18-1	Radiation Monitoring-FHB	100	5	A 08-10-83
18-2	Radiation Monitoring-RCB/RAB	100	1	A 12-05-83
18-3	Radiation Monitoring-Process Effluent	100	3	A 05-11-84
20	Security	100	10	F 09-30-84
22	Fire Protection	100	6	A 05-03-84
36-1	Component Cooling Water	100	16	A 12-12-83
36-2/3	Component Cooling water	100	5	A 08-03-84
39	Emergency Diesel Generator	100	3	A 05-18-84
43A	RCB Containment Cooling	100	3	A 09-08-83
43E	RCB Vacuum Relief	100	2	A 09-01-83
46B8	RAB Control Room HVAC	100	2	A 05-18-84
46D	RAB Control Ventilation	100	1	A 02-17-84
46E	RAB Chilled Water	100	2	A 05-25-84
48	Containment Vessel	100	8	A 09-08-83
49	Process Analog Control	100	2	A 02-29-84
52A	Reactor Coolant	100	18	A 03-03-84
53A	Charging & Letdown	100	5	A 03-25-84
54-9	Primary Sampling	100	5	A 12-28-83
55B	Liquid Waste Management	100	3	A 08-03-84
55E	Laundry Waste Management	100	1	A 09-21-83
58	Refueling Water	100	16	A 12-22-83
59	Containment Spray	100	3	A 12-05-83
60A	High Pressure Safety Injection	100	2	A 03-29-84
60B	Low Pressure Safety Injection	100	3	A 04-02-84
60C	Safety Injection Tank	100	2	A 09-02-83
61	Fuel Handling Storage	100	2	A 02-08-84
63	ESFAS	100	1	A 03-09-84
65A-1,2	Nuclear Instrumentation	100	8	A 04-20-84
66	Plant Protection	100	14	A 05-27-84
73	Emergency Feedwater	100	2	A 04-19-84
76	Steam Generator (incl. MSIV)	100	16	A 05-18-84

Table D-2

OPEN IE BULLETINS, CIRCULARS, INFORMATION NOTICES AND NRR GENERIC LETTERS
REQUIRED FOR FUEL LOAD

ITEM ID #	TITLE	STATUS
<u>IEC's</u>		
77-04	Inadequate Lock Assemblies	One week prior to fuel load (security constraint)
<u>IEB's</u>		
79-14	Seismic Analyses for As-Built Safety-Related Piping System	Awaiting J. Tapia NRC Inspection Report
<u>GL's</u>		
83-28	Required Actions Based on Generic Implications on Salem ATWS Events	Short-term corrective actions complete via letter to NRR - Remaining actions to be completed by 5% power.

* NRC Resident Inspectors consider actions taken on the above files to be adequate to support fuel load.

Table D-3

OPEN SIGNIFICANT CONSTRUCTION DEFICIENCIES TO BE COMPLETED PRIOR TO
FUEL LOAD

SCD/PRD #	DEFICIENCY DESCRIPTION	STATUS	ECD-DUE-DATE
SCD-057	Inadequate I&C System Installation and Turnover Documentation.		10/05/84
SCD-060	Turnover Documentation and Inadequate hanger weld problems.	LP&L action critical to fuel load	10/22/84
SCD-061	Linear crack in SS Tubing.	LP&L action critical to fuel load.	10/05/84
SCD-078	American Bridge RAB, FHB Bolting and Welding deficiencies.	LP&L action critical to fuel load	10/30/84
SCD-084	Tube track welding deficiencies.	LP&L action critical to fuel load	10/05/84
SCD-090	Electrical conduit overstressed.	LP&L action critical to fuel load	10/26/84
SCD-101	Traceability of Stainless Steel (SS) Instrumentation Tubing.	LP&L action critical to fuel load	10/05/84
SCD-105	Electrical Separation Deficiencies.	LP&L action critical to fuel load	10/19/84
SCD-112	Design Changes Via Memoranda.	LP&L action critical to fuel load	10/26/84
SCD-114	Damage to Safety Related Equipment due to waterhammer.	LP&L action critical to fuel load	10/19/84
SCD-116	Failure of SUPS inverters.	LP&L action critical to fuel load	9/30/84
SCD-117	Limitorque Limit Switch and Motor Space Heaters.	LP&L action critical to fuel load	10/17/84

Table D-4

OPEN LICENSING COMMITMENTS DUE BY FUEL LOAD

COMMITMENT I.D.	COMMITMENT SUMMARY	ECD WEEK OF
SS5 1.0.1	Address HED Findings B5-F4/ and B7-F4 of DCRDR.	10/15/84
SS6 01.9B	Establish and maintain in effect all provisions of the MRC approved physical security plan.	Fuel Load
W3B84-0475A	Conditional Certifications for CE Purchase Orders will be reviewed to determine if the operability of equipment was affected.	09/30/84
W3B84-0480A1	Reinspection & corrective action for the Steam Generator. Framing has been completed (ISSUE 12). Coating work on the newly installed bolts is scheduled to be completed by fuel load.	10/15/84
W3B84-0480A2	To assure accurate scoping of SCDs, a review has been performed and results will be submitted as part of the SCD package (SCD-078).	10/30/84
W3B84-0480A5	A review for accountability of all Mercury NCRs is in progress.	10/15/84
W3P84-0361A	All design changes for the emergency feedwater system identified to date (02/16/84) will be fully implemented before W3 receives an Operating License.	In closure cycle
W3P84-1353/1.2	Preoperation testing of systems per FSAR 14.2.12.2.9, 10, 14, 15 25, 52, 57, 58, 62, 63, and 78 prior to Fuel Load.	10/15/84
W3P84-1412/1.8	All past audit deficiencies will be reviewed and corrected prior to fuel load.	10/15/84
W3P84-1547	When reading the labeling for the LPSI pump AMP indicator on CP-8, LP&L has agreed to band the instrument to aid in differentiating between normal and abnormal indications, prior to fuel load.	10/15/84

Table D-5

NRC INSPECTION REPORT OPEN ITEMS DUE BY FUEL LOAD

ITEM ID #	ITEM DESCRIPTION	ECD-WEEK-OF
82-11-14	Item to be closed when various Operations, Maintenance, Health Physics, Chemistry and plant Engineering Procedures are finalized and others are developed and completed	10/15/84
82-14-0A	Failure to adequately control the quality of safety related work.	10/15/84
83-08-009	Emergency Plan training will be provided on a set frequency in the future (annually at a minimum).	10/15/84
84-05-03B	NUREG 0737 (Item II.F.1, attachment 1 & 2) -Noble Gas Effluent Monitoring and Sampling.	10/15/84
84-20-04	Additional local Early Warning Fire Detection is necessary around each auxiliary component cooling water pump because of high bay ceilings.	10/15/84
84-20-09	Emergency lighting.	10/15/84
84-20-15	Fire Protection/Preventive Program	10/15/84
84-20-17	Fire fighting equipment inventory.	10/15/84
84-20-21	Fire protection audit deficiencies.	10/15/84
84-34-01	Physical verifications for work performed by Chicago Bridge and Iron.	10/15/84
84-34-02A	GEO Construction Testing - Compliance of QA Program.	10/15/84
84-34-02B	GEO Construction Testing - Conduct review of supporting documentation for GEO corrective action.	10/15/84
84-34-02C	GEO Construction Testing - Reportability of identified deficiencies under 10CFR50.55(e) or 10CFR21.	10/15/84

Table D-5

NRC INSPECTION REPORT OPEN ITEMS DUE BY FUEL LOAD

ITEM ID #	ITEM DESCRIPTION	ECD-WEEK-OF
84-34-03	CIWA Tracking.	10/15/84
84-34-04	Documentation findings of work performed by American Bridge.	10/15/84
84-34-05	LP&L operations QA Transfer reviews.	10/15/84
84-34-06	LP&L and Ebasco QA Programs for Plant system "status" and transfer reviews.	10/15/84
84-34-07	Nonconformance of 10CFR50, Appendix B, Criteria V.	10/15/84
84-34-08	Evaluation and disposition was not completed under NCR W3-5760, for undersized welds.	10/15/84

TMI OPEN ITEMS REQUIRED FOR FUEL LOAD

Item #	Item Description	Status
I.D.1	Control Room Design	ECD 10/15/84

This list identifies the TMI Open Item for which LP&L still has work to do before the NRC can close this item and is required prior to fuel load.