



NUCLEAR ENGINEERING AUDIT

QAS-JPN-95-1

June, 1995

Audit Team:

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002 OF 381



QUALITY ASSURANCE AUDIT REPORT
QAS-JPN-95-1

JQA-95-186

To: Distribution

Date: September 13, 1995

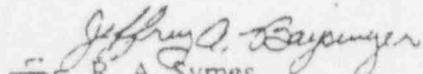
From: R. A. Symes

Department: JNA/JB

Subject: FUNCTIONAL AREA AUDIT OF NUCLEAR ENGINEERING QAS-JPN-95-1

Enclosed is the Functional Area Audit report for your information. There were no findings identified during the audit, therefore, no action or response to this audit is required.

We appreciate the cooperation we received from your staff during the course of the audit. Please contact me at 694-4287 if you have any questions.


R. A. Symes
Quality Manager
Juno Beach

RAS/WWW/crr

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EXECUTIVE SUMMARY

This Functional Area Audit evaluated Nuclear Engineering (JPN) department functions required under the FPL Quality Assurance Program. The audit focused on engineering products developed by the Site Engineering and Production Engineering Group (PEG) organizations for the upcoming outages at their respective plants (PSL Unit 2 Cycle 9, PTN Unit 3 Cycle 15). The audit also evaluated real-time support activities performed by the engineering organizations including Turkey Point Condition Reports (CRs) and St. Lucie Action Reports (STARs) dispositions involving Engineering. Current long term plant enhancement projects including St. Lucie 1 Steam Generator Replacement, St. Lucie 24 month fuel cycle, and Turkey Point Thermal Uprate, were also audited.

The audit addressed all major processes used by the engineering organization to produce design output and provide plant support. In addition, the collective evaluations of site QA/QC and Juno Beach QA audits, inspections, surveillances, and performance monitoring of design control and configuration management were reviewed for trends and areas of emphasis in conducting the audit of Nuclear Engineering. Self-assessment, NRC Inspection Reports, In-House Events, Industry Events, and Corrective Actions were general categories evaluated by the audit team to determine the Nuclear Engineering organization's effectiveness and responsiveness to improvement opportunities.

There were no audit findings or concerns identified during the audit.

Based on the activities and objective evidence audited, it was determined that the requirements of the FPL QA Program as described in the FPL Topical Quality Assurance Report and the Engineering Department Quality Instructions are adequately documented and implemented for Nuclear Engineering activities at Juno Beach and the Turkey Point and St. Lucie plants.

DETAILS

Audit Scope and Summary

The audit team evaluated the Nuclear Engineering activities of Turkey Point Site Engineering, St. Lucie Site Engineering, and Juno Beach Turkey Point/St. Lucie Production Engineering (PEG). Current and inprocess design work for the upcoming refueling outage modifications at each plant provided a performance based focus for the areas to be evaluated. Real-time support work was also included for review based on the complexity of the work to be performed and the scope of disciplines involved. Projects selected for review were chosen with input from the respective Engineering Managers during pre-audit meetings held by the lead auditor. Specifically, the following plant change/modifications (PC/M), with associated calculations and other supporting design inputs, were evaluated by the audit team:



<u>PC/M</u>	<u>TITLE</u>	<u>ORIGINATING ORGANIZATION</u>
St. Lucie Engineering		
193-193	Containment Access Building (Design Pkg. 2.6)	SGRP Team
204-293	DDPS Corrections	PSL Site Engineering
105-294	PZR Pressure Loop Isolation	PSL Site Engineering
028-295	Feedwater Acoustic Flow Meter	PSL PEG/Site Engineering
151-193	SG 1A Replacement	SGRP Team
138-294	EDG, KLF Relay Modifications	PSL Site Engineering
018-193	ICW Lube Water Supply Zurn Strainer Control Panel Wiring	PSL Site Engineering
101-194	CW Pump Lube Water Globe Valve Replacement	PSL Site Engineering
085-294	S/U and Aux. XFMR - Transfer Switch Replacement	PSL Site Engineering
027-295	PZR Liquid Space Instrument Nozzle Replacement	PSL PEG
036-295	Debris Filter and Continuous Tube Cleaning System Installation - Phase II	PSL PEG
068-294	SG Wide Range Instrumentation	PSL PEG
008-295	Replacement of RPS NI Safety Drawers	PSL PEG
Turkey Point Engineering		
95-040	In Place Abandonment of Various Boron Recycle System and Liquid Waste Disposal System Components	PTN Site Engineering
95-055	SFP Bridge Crane Load Cell Computer Fuse Installation	PTN Site Engineering
95-074	Modification of the SFP Bridge Crane Load Cells and Tool Transfer Bracket	PTN Site Engineering
95-017	Reactor Cavity Safety Cables	PTN PEG
95-032	Emergency Bus Load Sequencer Mods	PTN PEG
94-111	Rod Control CRDM Timing Changes	PTN PEG
95-009	CVCS Blender Totalizers	PTN PEG
94-066	Installation of CRDM Ductwork Hoisting Bands	PTN PEG
95-073	Replacement of MSSRV Discharge Piping	PTN PEG
95-054	Temporary Containment Cooling	PTN PEG



The PC/Ms were reviewed for compliance to the administrative and technical requirements of the ENG QIs. These requirements included provisions for safety classification, design basis, design input control, design interface controls, design verification, 10CFR 50.59 review, and design output controls.

In addition, St. Lucie STARs and Turkey Point CRs assigned to the JPN organizations were reviewed. The following were selected and evaluated by the audit team based on providing a breadth of review across disciplines located at the plant sites:

<u>CR/STAR NUMBER</u>	<u>TITLE</u>
CR 95-017	EDG Software Design Deficiency
CR 95-053	RX Loops Filled-Decay Heat Removal
CR 95-064	U-3 MSIV Solenoid Configuration Wrong in Drawing
CR 95-085	U-3 Both EDG 00S - Plant Design Basis
CR 95-092	U3 Gas Analyzer Drawings Missing
CR 95-147	U3 N2 Bypass Valve Piping Specification
CR 95-275	ICW Header Valves Maintenance Problem
CR 95-298	U4 PC/M 89-512 Drawing Updating
CR 95-411	ECC/CCW Return Line Valve Single Failure
CR 95-015	U3 Control Valve Dump to Condenser
CR 95-030	U3 Load Center Room Chiller Use Ethylene Glycol
CR 95-031	Valve 3-10-305 has Unisolable Steam Leak
CR 95-045	New Fuel Handling Equipment Load Test Required
CR 95-139	U-3 Fine Damper Inlet Vents Covered
CR 95-247	Pass Chiller Uses Ethylene Glycol
CR 95-274	TPCW Flow not Documented for CCW Basket Removal
CR 95-323	Packing Leak on FCV-4-498
CR 95-506	Control Room Vent
CR 95-507	Standby Steam Generator Feed Pump
CR 95-235	Fire Protection System
STAR 2-950407	Inadequate Mortar for Fire Door Installation
STAR 2-950135	Incorrect Stacked Cage for LCV-2110
STAR 0-94120568	Guidance for Minimum Differential Temperature
STAR 1-950105	Field Change of Bi-Stable Modules
STAR 0-950203	ECCS and C- Pump Code Runs
STAR 2-950108	RWT Operability
STAR 1-950097	Shield Building Ventilation System
STAR 0-950419	Safe Shutdown Analysis
STAR 0-950567	Algor Software Analysis
STAR 0-950664	1B EDG Failure
PSL NCR 6946-3041E	Corroded Conduit Supports

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Condition Reports and STAR evaluations included operability assessment reviews, severity level designation, management interface where required, independent verification where design guidance is provided, and actions to preclude recurrence.

Other design output documents included in the above referenced activities which were evaluated for design control compliance during the audit were as follows:

<u>DOCUMENT</u>	<u>TITLE</u>
JPN-PSL-SEMS-94-023	System Integrity with Safety Relief Valve Set Pressure Wrong
JPN-PSL-SEIP-95-034	Electrical Equipment and Instrumentation Used to Meet Technical Specifications (PSL 24 Month Fuel Cycle)
JPN-PTN-SEIP-95-001	EDG Sequencer Software Operability
JPN-PTN-SECP-95-015	CCW Piping Analysis I.C.

Support of the Turkey Point Thermal Uprate project by the Turkey Point Juno Beach PEG group was also evaluated during this audit. This project has involved extensive interfacing among FPL disciplines and with three major contractors (Westinghouse, Stone and Webster, Teledyne Brown Engineering). Documents reviewed indicated close overview by the Nuclear Engineering disciplines and strict adherence to interface control requirements. This project was judged exemplary in its planning and management, particularly with attention to QA program requirements. This was evidenced by Quality Assurance representation from the onset on the project team. Also, audits at contractors have been well supported by technical specialists from the specific disciplines needed. These audits have succeeded in identifying potential problems before critical path impacts. Formal interface controls, configuration management, QA program documentation, and independent verification were problem areas identified at contractors and resolved during the reviews provided by Turkey Point PEG engineers.

Performance Monitoring and audit activities conducted by all QA organizations over the past two years of engineering and configuration controls were analyzed for areas of concern and special emphasis. Good practices and strengths from those previous reviews were communicated to the audit team to allow reduced audit attention of well controlled processes.

All of the engineering work reviewed by the audit team was found to be satisfactorily performed and in compliance with the associated Engineering Quality Instructions.



Strengths

In addition to the Engineering involvement in oversight of the PTN Thermal Uprate Project, the Nuclear Engineering Quality Instructions (ENG QIs) were considered to be a strength. These quality program documents were rewritten in June, 1994. The changed instructions, while maintaining the traditional processes, were upgraded with format improvements and written to be more effective and efficient than had resulted from years of "band-aid" revisions to the previous QIs.

The effectiveness with which these instructions are implemented can be attributed to several factors: experienced personnel, on-going training, and self assessment. All of the individuals contacted during the audit displayed professionalism, solid knowledge of the subject reviewed, and a command of the process and documentation required. Training programs were noted to be conducted on a regular basis for changed instructions, technical alerts, and areas for corrective action. The self assessment program was noted to be actively implemented. Experience, training, and self assessment reflect management's commitment to not only meeting the immediate plant needs, but also their concern for improvements.

Self-Assessment

Nuclear Engineering self assessment was evaluated through a review of the Engineering Assurance group activities at Juno Beach. A review was performed during the 1994 Corrective Action audit (QAS-CA-94-1) and re-examined for this audit. It was found that Engineering has a strong self assessment program made up of eight elements. Six areas were reviewed: (1) Self Assessment Guides, (2) Technical Alerts, (3) Calculation Quality Indicators, (4) Design Reviews, (5) Functional Reviews, and (6) VP Quarterly Self Assessment Reviews. Each of these elements were noted to have been performed routinely and have resulted in incremental improvements to the organization's functions. At Turkey Point, the Configuration Control group has completed several internally initiated self assessment projects in the past year. Examples include site inventorying of as-built drawings and controlled documents to ensure complete files are available at the designated locations. At St. Lucie, a "Design Review" was witnessed which generated action items that were documented in meeting minutes for all the concerns presented. The Calculation Indicator program was reviewed for St. Lucie calculations. Feedback of deficiencies was sent to the originating department to be included as lessons learned for future calculations.

NRC Inspection Reports, Operating Experience Feedback System, and In-House Events

Operating experience information (SOERs, NRC Violation Alerts, and SERs) are received, reviewed, and issued for information and/or action through the Feedback of Operating Experience (FOP) program at Juno Beach. Reports requiring site input are forwarded by the technical staff organization to the appropriate discipline. All of the engineering organizations are



required by the Engineering Quality Instructions to incorporate the operating experience feedback into design documents as appropriate. The Juno PEG originated PC/Ms reviewed by the team were analyzed for the need to incorporate industry events, and none were noted to be applicable. The forwarding of this information to the site engineering organizations was also reviewed. At St. Lucie, the engineering group was noted to have had response required for several procurement related issues; however, there were no design control industry issues. At Turkey Point, the site engineering group was noted to have responded to several industry events via plant initiated Condition Reports. These Condition Reports required engineering to perform operability assessments and reportability evaluations in several cases. QA audits at the plant sites and Juno Beach have previously reviewed the functioning of the operating experience feedback program, and deemed the activity to be adequately implemented by Engineering.

Recent NRC Inspection Reports (PSL-94-25, PSL-94-06, and PTN-94-24) were reviewed as part of the Trend Data Report. Design verification at PSL and software verification at PTN were identified as areas to be emphasized in the audit. There were no deficiencies noted by the audit team in these areas. The NRC had also recently identified a weakness at St. Lucie that the STAR program was not proceduralized regarding engineering interfaces. A new ENG QI 2.9, "St. Lucie Action Reports (STAR)" was issued in response to that concern. Review of the actions taken to address the above NRC issues indicates satisfactory performance by Engineering.

In-house events were noted to be distributed through the FOP program, CR, STAR, or provided as a subject for a Technical Alert. A listing of Technical Alerts was noted to be updated regularly. Individual Technical Alerts were distributed through supervision to all engineers for their information and use.

Corrective Action

Corrective action systems in use by Engineering at the plant sites include the previously mentioned PTN CRs and PSL STARS. These systems both track items to closure and ensure generic implications and root cause are addressed where appropriate. Corrective action evaluation consisted of programmatic review at Juno Beach, PMONs at the respective sites, review of specific CRs and STARS during this Functional Area Audit (FAA), and the recent FAA of Corrective Action (QAS-CA-94-1). Through all of these evaluations, the Nuclear Engineering organization was found to be effectively implementing the corrective actions for the conditions noted and integrating them into their processes for future enhancements. Quality Assurance also has identified deficiencies requiring corrective action by Nuclear Engineering in recent site PMONs and Juno Beach audits. These corrective actions were verified to have been adequately implemented and tracked to closure as part of the respective audits. Juno Beach Condition Reports (JBCRs) involving Engineering were not reviewed during this audit but will be evaluated in future PMON or audit activity. There was insufficient engineering involvement in the area of JBCRs due to the newness of the process to make evaluation meaningful.



The NRC has noted in recent inspection reports that actions taken by the engineering organizations to QA audits were effective. At St. Lucie, the most recent NRC report (PSL-95-05) concluded that the self assessment efforts and QA audits/performance monitoring of engineering activities were effective in identifying areas for increased management attention. The report also stated that these efforts were a positive indication of licensee management's commitment to identify areas in engineering that need improvement in order to provide more timely and effective support to operations and maintenance. The inspector considered this to be a strength.

SATISFACTORY AREAS

Design Control	Condition Reports
Engineering Packages	Safety Classifications
Minor Engineering Packages	St. Lucie Action Reports
Change Request Notices	Quality Assurance Records
Calculations	Controlled Document Distribution
Discipline Standards	Vendor Technical Manual Control
Design Input Verification	FSAR Updating
Human Factors	Design Basis Document (DBD) Updating
ALARA Design Requirements	Total Equipment Data Base (TEDB)
Environmental Qualification	Computer Software Control
Engineering Evaluations	Organization
10CFR50.59 Screening/Evaluation	QA Program Implementation
10CFR21 SSH Evaluation/Reporting	Self Assessment
Operability Determinations	Training
Non-Conformance Reports	

SUMMARY OF POST-AUDIT CONFERENCE

The auditee and audit team were acknowledged for the efforts expended during the evaluation period. A summary of the audit process, areas evaluated, and the satisfactory results obtained were presented by the Lead Auditor. Compliance with the ENG QIs was noted as a strength by the audit team and emphasized at the exit meeting. The auditee management congratulated the audit team for a thorough and experience driven review.



AUDIT PARTICIPANTS

<u>Name</u>	<u>Department/Group</u>	<u>A</u>	<u>B</u>	<u>C</u>
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C. Spalter	JPN/JB		X	
A. Zielonka	PEG/PTN		X	
D. Culpepper	JPN/JB		X	X

Key:

- A - Attended Pre-Audit Conference
- B - Interviewed or Contacted During Audit
- C - Attended Post-Audit Conference

REFERENCES

1. 10CFR50 Appendix B
2. ANSI N45.2.11-1974
3. FPL Topical Quality Assurance Report
4. Nuclear Engineering Quality Instructions (ENG QIs)
5. Corrective Action Audit Report (QAS-CA-94-1) (March 31, 1995)



SIGNATURES

Lead Auditor:

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Wallace Woodard
Performance Assessment, Juno Beach

9/11/95

Date

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Tom Bruno
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CNRB

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J. E. Geiger
D. A. Sager
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G. J. Boissy
Dr. K. R. Craig
H. N. Paduano
Dr. W. R. Corcoran
S. E. Scace

*CNRB Files
K. E. Gutowski

Plant Specific Security Audits

Services Manager
Plant General Manager
Security Supervisor

Audit Specific Distribution

ADDITIONAL DISTRIBUTION

J. H. Goldberg
*T. V. Abbatiello
L. W. Bladow
R. A. Symes
D. A. Culpepper

* QAD Files w/Checklist & Audit Plan

Health Physics & Chemistry Related Audits

Manager Nuclear Health Physics/Chemistry

Emergency Preparedness Related Audits

Manager - Nuclear Emergency Preparedness
Plant General Manager

Nuclear Division Staff Related Audits

D. H. West

Nuclear Training Related Audits

Manager Nuclear Training

Security Related Audits

* Manager Nuclear Security

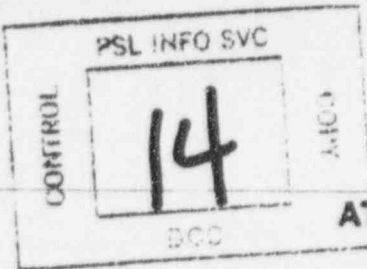
Nuclear Materials Management Related Audits

Manager Nuclear Materials Management

Fire Protection Audits

S. Martin, Risk Management

* Only Distribution outside the plant
for Security Audits Containing
Safeguards Information



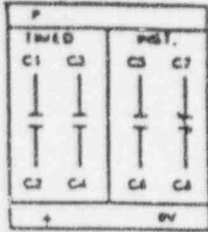
ATTACHMENT 5
CRN FORM

CHANGE REQUEST NOTICE																		
PC/M No. <u>123-191M</u>		GWO No.																
PLANT <u>PSC</u> UNIT <u>1</u>		HPWO No. <u>5878</u>																
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APPROVALS:		Implemented by: <u>LUKE CLARK</u> Date <u>4/3/93</u> Dept. <u>EIM</u> Phone <u>5251</u> Impl. Dept. Supv. <u>John Clark</u> Date <u>4/3/93</u> QC Review: <u>[Signature]</u> Date <u>4/5/93</u> FPL Const. Supv. <u>NA</u> Date <u>1/1</u>																
ACTION BY ENGINEERING (Preliminary):		In Person <input checked="" type="checkbox"/> Process <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Hold <input type="checkbox"/>																
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ENGINEERING DISPOSITION (Final):		IMPACT OF REVISION CHECK SHEET																
<input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> NOT APPROVED <u>JPN</u> Cognizant Design Org. (CDO) Prepared by <u>Tom [Signature]</u> Date <u>4/12/93</u> Verified by <u>[Signature]</u> Date <u>4/12/93</u> Approved by <u>C. J. [Signature]</u> Date <u>4/13/93</u> JPN (if not CDO) _____ Date _____		<table border="1"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>1. Design Basis or Analysis Affected.</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>2. Safety Evaluation Affected.</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>3. PQMDs or SRDs Functionality Affected.</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>4. Start-Up, Operations, or Maintenance Requirements Affected.</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table>			YES	NO	1. Design Basis or Analysis Affected.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2. Safety Evaluation Affected.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. PQMDs or SRDs Functionality Affected.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. Start-Up, Operations, or Maintenance Requirements Affected.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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4. Start-Up, Operations, or Maintenance Requirements Affected.	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
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Closeout	BACKFIT CRN		PLANT-WORKED CRN															
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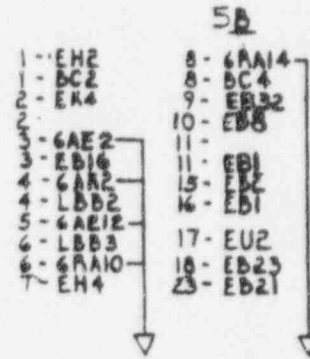
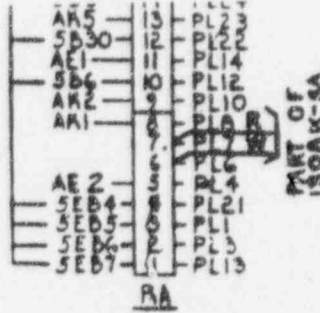
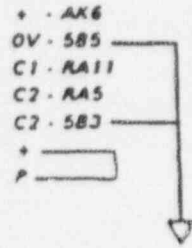
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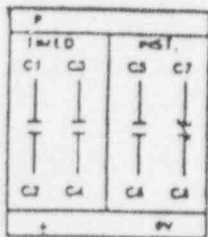


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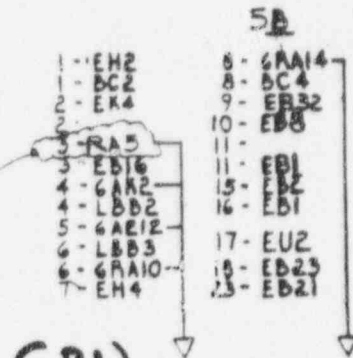
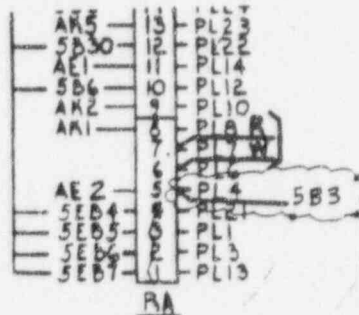
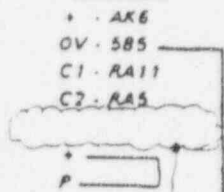


BEFORE

67 2L/308



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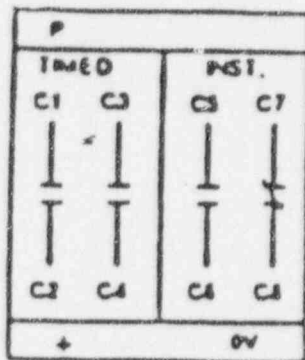


CRN

AFTER

BEFORE

2RC/853

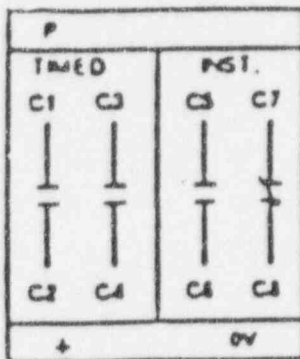


ETW

- + . 2PGA6T
- OV . EF4, EFB4
- C1 . ETZ3, EA3
- C2 . EA4
- +
- P

AFTER

2RC/853



ETW

- + . GA6T
- OV . 3, EFB4
- C1 . ETZ7, EA3
- C2 . EA4
- +
- P

CRN

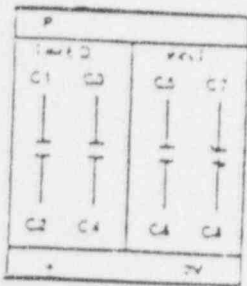
CONTROL	PSL #140000	ASOJ
	14	
DCC		

**ATTACHMENT 5
 CRN FORM**

CHANGE REQUEST NOTICE																		
PC/M No. <u>123-191M</u> PLANT <u>PSL UNIT 1</u>	CWO No. _____ NPWO No. <u>5878</u>	SR <input checked="" type="checkbox"/> QR <input type="checkbox"/> NSR <input type="checkbox"/>	Implemented by: _____ Plant <input checked="" type="checkbox"/> Backfit <input type="checkbox"/>															
Ref. Dwg. or Spec. # _____ Rev. _____		TITLE <u>DC LOAD SEQUENCING RELAYS</u>																
Reason for Change: PC/M 123-191 REQUIRES THAT THE RELAY AS-FOUND CONDITION BE VERIFIED TO THE VENDOR DRAWING REFERENCED BY THE PC/M DRAWING. THE RELAY AS-FOUND CONDITION DOES NOT AGREE WITH THE VENDOR DRAWING BUT HAS BEEN VERIFIED TO BE ELECTRICALLY CORRECT.																		
Change Request/Sketch (Attach if necessary): MAKE THE CHANGES TO THE DRAWINGS REFERENCED ABOVE AS SHOWN ON THE FOLLOWING PAGE(S).																		
SOURCE OF CHANGE: <input type="checkbox"/> Construction Error <input type="checkbox"/> Engineering Error <input checked="" type="checkbox"/> Existing Condition <input type="checkbox"/> Material Substitution <input type="checkbox"/> Constr. Convenience <input type="checkbox"/> Design Evolution <input type="checkbox"/> Other (specify) _____	SCOPE OF WORK: <input type="checkbox"/> Increased <input type="checkbox"/> Decreased <input checked="" type="checkbox"/> Unchanged	APPROVALS: Prepared by: <u>LUKE CLARK</u> Date <u>4/1/93</u> Dept. <u>EIM</u> Phone <u>5251</u> Impl. Dept. Supv. <u>Duke H Clark</u> Date <u>4/1/93</u> QC Review <u>[Signature]</u> Date <u>4/2/93</u> FPL Const. Supv. <u>NA</u> Date <u>1/1</u>																
ACTION BY ENGINEERING (Preliminary): This CRN has been discussed with <u>Brian Griner</u> of Engineering.		In Person <input checked="" type="checkbox"/> Process <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Hold <input type="checkbox"/>																
ENGINEERING DISPOSITION (Final): <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> NOT APPROVED <u>JPN</u> Cognizant Design Org. (CDO) Prepared by <u>[Signature]</u> Date <u>4/12/93</u> Verified by <u>[Signature]</u> Date <u>4/12/93</u> Approved by <u>[Signature]</u> Date <u>4/13/93</u> JPN (if not CDO) _____ Date <u>1/1</u>	IMPACT OF REVISION CHECK SHEET <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">YES</th> <th style="text-align: center;">NO</th> </tr> </thead> <tbody> <tr> <td>1. Design Basis or Analysis Affected.</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>2. Safety Evaluation Affected.</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>3. PD/MDs or SRDs Functionality Affected.</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>4. Start-Up, Operations, or Maintenance Requirements Affected.</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </tbody> </table>				YES	NO	1. Design Basis or Analysis Affected.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2. Safety Evaluation Affected.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. PD/MDs or SRDs Functionality Affected.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. Start-Up, Operations, or Maintenance Requirements Affected.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	YES	NO																
1. Design Basis or Analysis Affected.	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
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3. PD/MDs or SRDs Functionality Affected.	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
4. Start-Up, Operations, or Maintenance Requirements Affected.	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
Remarks/Basis for Disposition: <u>Acceptable solution to as-found wiring problem.</u>																		
IMPLEMENTATION COMPLETION VERIFICATION	BACKFIT CRN ADEQUATE BUDGET _____ Signature _____ Date _____	PLANT-WORKED CRN IMPL. DEPT. SUPV. <u>[Signature]</u> <u>4/14/93</u> Signature _____ Date _____																
		QUALITY CONTROL <u>[Signature]</u> <u>4/14/93</u> Signature _____ Date _____																

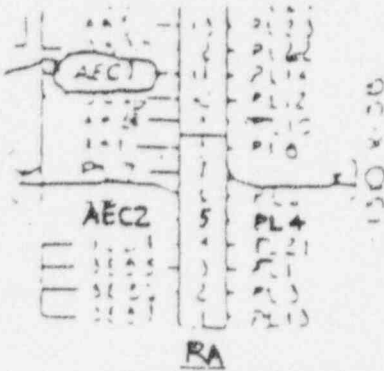
* JPN-123-191.012 REV 0

2L/310



AE

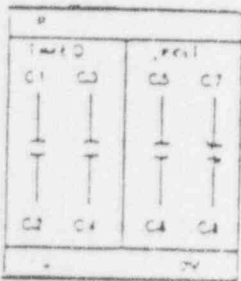
- * - 2K6
- OV - 385
- C1 - RA11
- C2 - RA5
- C2 - 383



- 30
- | | |
|-----------|-----------|
| 1 - EN2 | 8 - 2A14 |
| 1 - DC2 | 8 - DC4 |
| 2 - EA4 | 9 - EB32 |
| 3 - 2AEC2 | 10 - EB8 |
| 4 - EB16 | 11 - EB1 |
| 4 - EA2 | 13 - EB |
| 4 - 2A1 | 16 - EB1 |
| 3 - 2AEOV | 17 - EU2 |
| 6 - 2A10 | 18 - EB2 |
| 7 - EA4 | 23 - EB21 |

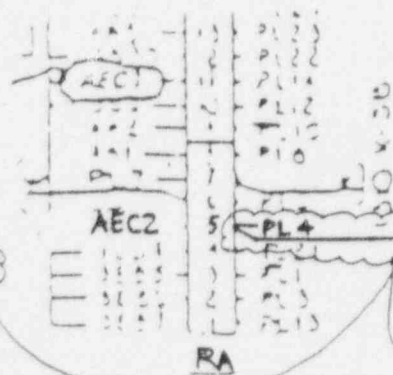
BEFORE

2L/310



AE

- * - 2K6
- OV - 385
- C1 - RA11
- C2 - RA5



- 30
- | | |
|-----------|-----------|
| 1 - EN2 | 8 - 2A14 |
| 1 - DC2 | 8 - DC4 |
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| 4 - 2A1 | 16 - EB1 |
| 3 - 2AEOV | 17 - EU2 |
| 6 - 2A10 | 18 - EB2 |
| 7 - EA4 | 23 - EB21 |

CRN

AFTER



Inter-Office Correspondence

To: J. B. Hosmer Date: JQS-93-077
February 26, 1993

From: R. A. Symes Department: Quality Assurance - JB

Subject: **Quality Assurance Audit of
Nuclear Engineering Report
Report No. QAS-JPN-92-3**

An audit was performed of Nuclear Engineering in the following areas: Organization, Procedures & Instructions, Training, ASME Section XI, PTN PEG (Safety Classifications, Safety Evaluations, Design Inputs, Design Bases, Design Analysis, and Minor Engineering Packages), Special Processes & Welding, QA Records, Document Control and Internal Commitments.

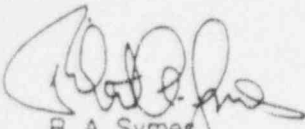
The attached report describes three (3) findings.

1. Procedures, training and implementation supporting the QA Records and Document Control Centers are not always in compliance with QA Manual Requirements.
2. Inconsistency in NDE training procedures.
3. Follow-up by Document Control of receipt acknowledgments after 30 days is not always performed.

The findings were discussed at the Post-Audit Conference. In accordance with the FPL Quality Assurance Manual, QP 16.1 and 18.1, please provide this Department with a written response to the findings noted in this report by March 26, 1992. Your response must provide the following information:

- a. The results of the review and investigation of the finding, including identification of probable root cause(s);
- b. a determination of the generic impact of the finding, i.e., whether it extends to other areas, systems, drawings, procedures, etc., or whether it is isolated to those examples cited in the report;
- c. actions taken and/or planned to correct the finding identified and to prevent recurrence of the deficiency;
- d. date when corrective action was or will be achieved;
- e. identification of the individual(s) responsible for the corrective action.

We sincerely appreciate the cooperation we received from your staff during the course of the audit. Please contact me at 694-4287 or R. L. Simpson at 694- 4303 if you have any questions.


R. A. Symes
Quality Manager
Juno Beach

RAS/RLS/lh

EE/22