U.S . NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-322/82-34

Docket No. 50-322

License No. CPPR-95 Priority -- Category B

Licensee: Long Island Lighting Company

175 East Old Country Road

Hicksville, New York 11801

Facility Name: Shoreham Nuclear Power Station

Inspection At: Shoreham, Hicksville and Melville, New York

Inspection Conducted: November 29 - December 3; December 6-10 and 13-15, 1982

Inspectors:

D. L. Caphton, Chief, Management Programs Section, Team Leader — date signed 12/30/82

G. Napuda, Lead Reactor Engineer — date signed 12/30/82

N. J. Blumberg, Lead Reactor Engineer — date signed 12/30/82

E. T. Shaub, Reactor Engineer — date signed 12/30/82

P. H. Bissett, Reactor Engineer — date signed 12/30/82

N. J. Cogan, Reactor Engineer — date signed 12/30/82

Approved By:

D. L. Caphton, Chief, Management Programs Section, Engineering Inspection Branch — date signed 12/30/82

Concurrence:

E. G. Greenman, Chief, Project Branch No. 1 Division of Project and Resident Programs — date signed 12/30/82

Inspection Summary: Inspection on November 29 - December 3; December 6 - 10 and 13 - 15, 1982 (Inspection Report No. 50-322/82-34)

Areas Inspected: Routine, announced inspection by Region-based inspectors of the readiness for implementation of the Quality Assurance Program for operations in the areas of design changes/modifications and engineering; maintenance; plant surveillance testing and calibration control; test and measurement equipment; inservice testing; housekeeping; onsite and offsite safety committees, including the Independent Safety Engineering Group; document control; records; procurement; receipt, storage and handling of items; inspections and surveillances; and audits. The inspection involved 154 inspector hours in-office by five inspectors and one supervisor, 547 inspector-hours onsite by five Region based inspectors and one supervisor, and 93 inspector-hours at the corporate and engineering offices by four Region based inspectors and one supervisor.

Results: Of the 12 areas inspected there were no violations identified. However, specific items were identified that require corrective action to be taken by the licensee prior to O.L. issuance. These items are identified by an asterisk(*) in the following table (4 pages). The attached table also categorizes the identified deficiencies found during the course of this inspection into their respective quality elements. (e.g. Administration/Management and Training)

Quality Element	Paragraph	Item Number	Description and Status
Administration/Management			
	*5.3.1.2	29	Verify continuing service contract with qualified A/E is in effect prior to O.L. (Open)
	*5.3.1.4	04	Licensee must determine which station procedures are in-use and inform station personnel (Open)
	*5.3.1.4	05	Summary document needs to be prepared to identify and index source documents to the requirements of ANSI N18.7-1976 (Open)
	*5.4.1	06	Establish phase in period for LILCO engineering and technical support for safety related activities (Open)
	6.2	na	Safety related Q-list not properly referenced in MWR procedure (Closed)
	9.4.3.1	na	Revise NOSD-19.9 to provide a sampling of backshift and weekend activities (Closed)
Audits			
	4.2.3.3.3	02	Audit reports do not evaluate QA program effectiveness (Open)
	*4.2.3.3.4	03	Audits must be performed to assess plant readiness for operations (Open)
Implementation			
	*6.4.4	14	Tagout forms in use which are not specified in the procedure (Open)
	8.3.2.1	na	Master M&TE list inadequately maintained (Closed)
	8.4.2	20	Some Vendor M&TE calibration sheets contain inadequate information (Open)
	8.4.3	21	Uncontrolled M&TE Vendor manuals in M&TE lab (Open)
	*8.4.4	22	Poor work practices and environmental conditions in the M&TE lab (Open)

Quality Element	Paragraph	Item Number	Description and Status
	10.3.3	na	Proper records transmittal form not being used (Closed)
	*10.4.1	23	QA record files not properly controlled (Open)
	11.4.1	24	Various station procedure corrections completed. Implementation requires review (Open)
	12.4.1	27	Ensure commercial grade items used in safety related systems are tested (Open)
	12.2	na	NED 4.01 revised to ensure specification reviewer is independent of preparer and approver (Closed)
Program/Procedures			
	4.2.3.3.1	na	Procedure QAP-S-5.2, M&TE Control, inadequate (Closed)
	*4.2.3.3.2	01	QAP-S procedures need to clarify use of words "should" and "may" and more clearly describe requirements and activities (Open)
	5.4.4	08	OE needs to develop programs and procedures (Open)
	5.4.5	09	NED needs to develop programs and procedures (Open)
	5.4.6	10	Station procedures need to be changed to reflect LILCO design change method (Open)
	*6.4.1	11	Maintenance program procedures not adequate (Open)
	6.2	na	Station housekeeping procedure is deficient (Closed)
	6.2	na	Improper precaution in a clearance procedure (Closed)
	6.4.3	13	Improper revision of housekeeping surveillance used (Open)
	7.2	na	Instrument loop calibration procedure should check computer point readouts (Closed)
	7.2	na	Maintenance of instrument records not adequately specified (Closed)
	*7.4.1	15	I&C program procedures not adequate (Open)
	*7.4.2	16	T.S. related instruments not properly defined or controlled (Open)
	*7.4.3	17	IST program not established (Open)

Quality Element	Paragraph	Item Number	Description and Status
	7.4.4	18	Surveillance procedure requires clarifications (Open)
	*8.4.1	19	M&TE program procedure inadequate (Open)
	9.4.3.1	na	Revise NOSD-19.9 to provide a sampling of backshift and weekend activities (Closed)
	9.4.3.1	na	Establish accountability of ISEG records (Closed)
	9.4.3.1	na	Provide mechanism for handling differing opinions within ISEG (Closed)
	9.4.3.1	na	Revise NOSD procedures to assure ISEG training on the subject of 10 CFR 50.59 reviews (Closed)
	10.3.2	na	Revise SR-2 procedures to assure adequate maintenance of Operational records (Closed)
	11.3.1	na	Revise QA manual to ensure OQA review of station procedures and special tests (Closed)
	11.3.2	na	Revise SP 12.006.01 to assure OQA review of station procedures and changes. (Closed)
	11.3.3	na	Formal controls of working procedures must be established (Closed)
	*11.4.2	25	Method must be established to assure T.S. changes are implemented by station procedures (Open)
	11.4.3	26	Establish and implement new drawing control program 30 days prior to fuel load (Open)
	12.4.2	na	NED 4.01 revised to ensure specification reviewer is independent of preparer and approver (closed)
Training			
	5.4.3	07	NOSD, NED and OE staff require training (Open)
	*6.4.2	12	Plant specific training of outside mechanics must be established (Open)
	7.2	na	Plant specific training of outside I&C technicians must be established (Closed)

Quality Element	Paragraph	Item Number	Description and Status
	9.4.3.1	na	No training of ISEG staff relative to T.S. prompt reporting requirements (Closed)
	13.3.4	28	Establish training program for storeroom personnel (Open)

DETAILS

1. Persons Contacted

a. Long Island Lighting Company (LILCO), Hicksville, N.Y.

* E. Bajada, Manager, Quality Systems Division
D. Binder, Manager, Nuclear Engineering Department (NED)
K. Blauer, Coordinator, Corporate Nuclear Training, NOSD
E. Cassiano, Senior Quality Assurance Engineer
H. Chau, Manager, Nuclear Licensing Division, NED
* J. Dye, Senior Vice-President, Operations
V. Elefante, Manager, Purchasing Department
* T. Gerecke, Manager, Quality Assurance Department
R. Kascak, Manager, Nuclear System Engineering Division
* R. Kubinak, Manager, Nuclear Operations Support Department (NOSD)
* M. Pollock, Vice-President, Nuclear
F. Schoner, Coordinator, Quality Program Section
P. Sitler, Assistant Records Supervisor

b. Long Island Lighting Company (LILCO), Melville, N.Y.

J. Costello, Engineering Controller
H. Mattutat, Manager, Engineering Design Department
M. Sande, Senior Engineer, Shoreham Support Section
P. Scannell, Manager, Plant Electrical Engineering Division
W. Schiffmacher, Manager, Electrical Engineering Department
T. Spatz, Senior Engineer, Plant Electrical Engineering Division
W. Vogel, Manager, Civil-Mechanical Design Division
J. Weismantle, Manager, Power Engineering Department

c. Shoreham Nuclear Power Station, Shoreham, N.Y.

* J. Alexander, Group Leader, Independent Safety Engineering Group (ISEG)
T. Carrier, Engineer, Instrument and Control (I&C)
* L. Calone, Chief Technical Engineer
M. Case, Engineer, Operations
M. Chipkin, Engineer, Technical Support
W. Cole, Stores Supervisor
D. Durand, Lead Engineer, Technical Support
R. Grunseich, Licensing Engineer
W. Gunther, Instrument and Control Engineer
R. Gutmann, Maintenance Engineer
G. Henry, Operating Quality Assurance (OQA) Inspector
W. Hunt, Assistant Construction Manager
H. Kellers, Plant Administrative Coordinator
* J. Kelly, Manager, Field Quality Assurance (FQA) Division

R. Loper, Manager Technical Support
R. Macina, Engineer, Reactor Engineering
J. Matson, Records Manager
J. McCarthy, Supervisor, Field Quality Assurance Section
* B. McCaffrey, Manager, Nuclear Compliance and Safety and Chairman, Independent Safety Engineering Group
* A. Muller, Operating Quality Assurance Engineer, OQAE
J. Notaro, Operating Engineer
P. Pizzariello, Engineer, Maintenance
* J. Rivello, Plant Manager
* T. Rose, Senior Engineer, Operations Quality Assurance
K. Rottkamp, Training Supervisor (Acting)
P. Santoro, Assistant Records Manager, NOSD
J. Scalice, Reactor Engineer
* J. Smith, Manager, Special Project
* W. Steiger, Chief Operating Engineer
D. Terry, Assistant Startup Manager
A. Todoro, Inspector, Operations Quality Assurance
J. Wynne, Lead Engineer, Technical Support
* E. Youngling, Startup Manager

The inspectors also interviewed other licensee employees including administrative, engineering, maintenance, operations, quality assurance/control and technical personnel.

d. Representatives for Suffolk County, N.Y.

* A. Dynner, Counsel for Suffolk County
W. Bland, Consultant
* G. Inskeep, Jr., Consultant

Note: Messrs. Bland and Inskeep accompanied NRC inspectors during the inspection.

e. USNRC

* P. Hannes, Resident Inspector
J. Higgins, Senior Resident Inspector

*denotes those present at the exit interview conducted on December 15, 1982.

2. Licensee Action on Previous Inspection Findings

Open (322/82-14-02): The licensee had committed previously to issue the training procedures for Shift Technical Advisors (STA) and Nuclear Engineers (within a reasonable time after fuel load) that will reflect Shoreham operating experience. The inspector discussed these training procedures and the current status of nuclear engineer and STA training with the Nuclear Engineer. The licensee committed to issue the procedures that will reflect Shoreham operating experience by the end of the "Warranty Run" which will allow for sufficient full power operations to perform practical factors that are currently included in the draft training procedure. Issuance of the training procedures/program for STA's and nuclear engineers will be verified in a subsequent NRC:RI inspection.

3. General

The intent of this inspection was to ascertain the readiness of the applicant's programs for operation of the plant in the specific areas inspected. Procedures were reviewed to verify that they were consistent with commitments and that specific activities were clearly detailed. Selected employees were interviewed to determine that they were aware of their authorities and responsibilities, and were knowledgeable in applicable procedures. Training and personnel records of selected employees were also reviewed to verify that job incumbents had adequate education/experience or proper supplemental training for their positions. Selected records of activities that had taken place were reviewed to determine the effectiveness of the established program. When possible, ongoing activities were observed to assure they were accomplished in accordance with established procedures. These areas are discussed in paragraphs 4 thru 14.

Specific items that require resolution and/or correction prior to the issuance of an Operating License (OL) or fuel loading are identified. These resolutions will be verified as appropriate during subsequent inspection(s) prior to the issuance of the OL.

4. Quality Assurance/Control

4.1 References/Requirements

-- Final Safety Analysis Report (FSAR), Sections 13, 14, 16 and 17.2

-- Regulatory Guide (RG) 1.33, Rev. 2, Quality Assurance Program Requirements (Operations)

-- ANSI N18.7-1976, Administrative Controls and Quality Assurance Program Requirements for the Operational Phase of Nuclear Power Plants

-- RG 1.144, Rev. 1, Auditing of Quality Assurance Programs for Nuclear Power Plants

-- ANSI N45.2.12-1977, Requirements for Auditing of Quality Assurance Programs for Nuclear Power Plants

-- RG 1.146, Rev. 0, Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants

-- ANSI N45.2.23-1978, Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants

-- RG 1.58, Rev. 0, Qualifications of Nuclear Power Plant Inspection, Examination and Testing Personnel

-- ANSI N45.2.6-1973, Qualifications of Inspection, Examination, and Testing Personnel for Nuclear Power Plants

-- SNT-TC-1A and Supplements, Recommended Practice for Nondestructive Testing Personnel Qualification and Certification

4.2 Quality Assurance/Quality Control (QA/QC) Program and Administration

4.2.1 Organization and Staffing

Two different organizations have been delegated the QA/QC overview function: the Operations QA Section (OQA); and, the Quality Assurance Department (QAD). The OQA Section is authorized a complement of five LILCO inspectors, six contractor QA personnel, nine architect engineer (A/E) QC specialists, and, the section head (OQA Engineer) who reports directly to the Plant Manager. The QAD consists of a Field Quality Assurance Division (FQA) with five auditors and a manager; a Quality Systems Division (QS) with four LILCO auditors, two A/E auditors, and two other contracted personnel (procedure development); administrative/support personnel; and, a department manager who reports directly to the Vice President - Engineering.

Both QAD divisions are staffed to currently authorized levels. With respect to the OQA Section, the licensee's representative stated that recruitment is ongoing to fill the one vacant authorized LILCO position. Three contractor personnel are currently being used and the licensee representative stated the authorization for the additional three unfilled positions is to allow for expeditious staff expansion should a workload increase occur. Nine A/E specialists are being utilized and are assigned to mostly start up activities.

During a brief review of audit reports the inspector noted that each of the three QA groups have used one another's auditors on various occasions. FQA Audits FA-959, 1050, 1056, 1277, 1389 and 1443; QS Audits 80-7 and 82-10; and OQA Audits 82-02, 82-10, and 82-11 are examples of such intergroup support. There was also evidence of using other departments' professional staff to provide independent discipline expertise for audits of specific activities such as design engineering, environmental program areas and fuels/project management. QS Audits 80-6, 80-7, 81-18, 82-1 and 82-10, and OQA Audit 80-10 are examples of intra departmental support. Additionally, the use of personnel from external organizations was noted during QS Audits such as 80-1, 81-1, and 81-12.

No violations or followup questions were identified.

4.2.2 Qualification and QA Staff Training

4.2.2.1 Operational Quality Assurance (OQA) Section

The inspector reviewed the qualifications and experience of five individuals in the OQA Section, three of whom were permanent station personnel, and two contractors. Two of the permanent station personnel had technical degrees and experience while the others had experience in the nuclear industry. All met or exceeded the minimum requirements with respect to their assigned responsibilities. A training schedule identifies those individuals that are to attend specialized courses offered by external companies. The training offered by FQA is utilized by OQA based upon needs and the FQA published schedule. The inspector noted that the QA portion of General Employee Training (GET) for plant staff will be presented quarterly by OQA personnel during 1982 and a course outline on 10 CFR 50, Appendix B, has been developed.

No violations or followup questions were identified.

4.2.2.2 Field Quality Assurance (FQA) Division

The six FQA auditors have technical degrees, nuclear experience, and have attended either a formal QA Auditing or QA Engineering course offered by an external training organization. All were certified as

lead auditors in accordance with ANSI N45.2.23. The licensee formally schedules and provides internal training by qualified FQA personnel. The FQA Manager stated that the training schedule is distributed to managers, section heads, etc. Training by FQA includes such courses as ASNT NDE certification, Welding Inspection, and Magnetic Particle and Liquid Penetrant Testing. The 1983 schedule shows that 14 training sessions in eight subject areas are to be presented by FQA. In addition, eight courses, such as Radiography and Introduction to Boiling Water Reactors, are scheduled to be presented by external organizations. Records for training given, courses attended, individuals involved, etc., are maintained in a computer program.

No violations or followup questions were identified.

4.2.2.3 Quality Systems (QS) Division

A matrix has been developed that lists qualification requirements for the QAD staff as well as the status of each staff member's qualifications. The four LILCO and two A/E auditors were certified as lead auditors in accordance with ANSI N45.2.23. New employees undergo three months of Nuclear QA Orientation and then enter the Auditor Qualification Program. The 1983 training schedule lists such areas as Basic QA, Boiling Water Reactor, and Operations training for QAD personnel. The QAD Manager reviews the training program and schedule each January and makes additions he deems necessary. Such additions were noted on the working copy of the schedule. The inspector also reviewed the training worksheets that are being used to develop the schedule for courses such as QA Indoctrination of Senior Management and QA Procedure Training for QAD Staff that will be presented by members of this staff.

No violations or followup questions were identified.

4.2.3 Audits

4.2.3.1 Program

The inspector reviewed the documents listed below to determine whether administrative controls have been established including the following.

-- defining the scope of the audit program including, review and approval of contractors/suppliers

-- independence, qualification, and training of auditors

-- required corrective action and followup/re-audit

-- report distribution and responses required

-- planning and conducting the audit

-- long range scheduling

-- periodic review of the program

The following documents/procedures were reviewed.

-- Quality Assurance Procedure-Station (QAP-S)-02.2, Station OQA Training, Qualification and Certification of Auditors, Rev. 1

-- Quality Assurance Procedure (QAP)-2.2, Quality Program Status and Adequacy, Rev. 0

-- QAP-2.3, Training and Qualification of Audit Personnel, Rev. 4

-- QAP-2.8, Management Assessments of the Quality Assurance Program, Rev. 0

-- QAP-S-07.1, OQA Vendor Quality Evaluation and Source Selection, Rev. 3

-- QAP-7.1, Supplier Selection and Evaluation, Rev. 5

-- QAP-7.2, Review of Supplier QA Manuals and Performance of Procurement Surveys, Rev. 0

-- QAP-S-07.2, OQA Source Verification, Rev. 2

-- QAP-S-12.1, Operational Quality Assurance Control of Measuring and Test Equipment, Rev. 1

-- QAP-18.1, Program Audit Procedure, Rev. 5

-- QAP-S-18.1, Scheduling, Conduct, Reporting and Followup of Station OQA Audits, Rev. 1

-- QAP-18.2, Quality Audit and Surveillance of Field Activities, Rev. 7

Identified deficiencies and followup questions are discussed in paragraphs 4.2.3.3.1 and .2.

4.2.3.2 Implementation

In addition to some specifics discussed in the paragraphs below the inspector verified that the listed audits were conducted in accordance with established ANSI N45.2.12 requirements including, but not limited, to the following.

-- In accordance with written checklists covering the scoped audit area

-- A qualified/trained personnel independent of the area audited

-- Identified deficiencies were documented and reviewed

-- Followup was accomplished and corrective action was adequate and timely

-- Audit frequencies and general audit conduct was in accordance with the established schedule and procedures

4.2.3.2.1 Operations Quality Assurance (OQA) Section

The inspector reviewed the 1983 audit schedule and noted that the 23 scheduled audits addressed the areas required to be audited by the Quality Assurance Manual (QAM), Appendix A, with the exception of such areas as Spent Fuel Management and Storage which is not yet active; and the In Service Inspection (ISI) Program which was not yet on the schedule. A licensee representative explained that a senior management decision on an ISI Agent (contractor) was necessary prior to scheduling that area for audit since the audit responsibility would vary depending on the particular agent chosen.

A review of the 1981 and 1982 audit schedules identified that 23 audits (1981) and 27 scheduled and 26 unscheduled audits (1982) had been conducted to date. Audit packages 81-02 and 82-02, "Maintenance", were reviewed in depth and it was noted that the standard checklist had been revised for the latter audit which is an indication of positive preparation and "non-canning" of checklist attributes/characteristics. The inspector also reviewed audit package 82-04, "LILCO Plant Staff and Startup", and the OQA Audit Finding Status Log that is the tracking mechanism for audit findings. Information such as response dates, response disposition, and corrective action verification is documented in the log. A status of open audit findings is transmitted to the QAD Manager and the Plant Manager on a monthly basis. The inspector reviewed documentation associated with audit findings 82-05-40, 82-04-29 and 82-04-30 and verified the timeliness and the adequacy of the proposed corrective actions. OQA personnel had verified corrective action implementation with respect to the latter two findings and completion of corrective action was not yet due for the first finding.

Identified deficiencies and followup questions are discussed in paragraphs 4.2.3.3.3 and .4.

4.2.3.2.2 Field Quality Assurance (FQA) Division

The inspector reviewed the 1982 audit schedule and noted that approximately 146 audits have been conducted, 18 of which were of operational activities, with an additional 12 scheduled for completion prior to year's end. The schedule shows auditable areas,

establishes audit frequency, groups the related functional areas into a category, and then indicates the month a given audit is to be conducted. The 1983 audit schedule, which will show an increase in operations activities audits, was in preparation during this inspection.

Audit packages were reviewed in depth for Audits FA-1506 and 1551, "Permanent Plant Files"; FA-1531, "LILCO Welding Program"; and, FA-1519 and 1540, "OQA". The latter two audits addressed OQA's compliance with plant OQA procedures. FA-1519 addressed six OQA procedures and the package included, but was not limited to, such documents as the checklist, documents reviewed during the audit, and lists of items sampled. FA-1540 addressed five different procedures and the OQA audits and surveillances that were reviewed.

A computer program is the mechanism for tracking all FQA audits and followup on findings. This program is under the control of FQA, and is capable of a variety of information sorts. The standard printouts are reviewed weekly by the manager and staff to assure such things as timely followup of audit findings.

Identified deficiencies and followup questions are discussed in paragraphs 4.2.3.3.3 and .4.

4.2.3.2.3 Quality Systems (QS) Division

The inspector reviewed the 1981 and 1982 schedules and noted that of the 16 audits and 18 vendor surveys planned for 1982, three surveys and three audits have been rescheduled. The manager explained that a determination had been made that sufficient work was not ongoing in the selected areas to provide for a meaningful audit. The 1983 schedule lists 15 functional organizations and 10 activities to be addressed during 30 audits. Also, 19 vendors are being evaluated to determine if surveys should be conducted. The audits during operational activities are to be structured on a revised approach basis. Discussions and reviews of ongoing planning identified the following positive aspects of this audit program.

-- Audit Planning Worksheets lists those organizations to be audited

-- Approximately one-half of these organizations have been evaluated to date and quality program elements identified for each

-- Planning Checklists are to identify those quality elements applicable to each organization and which of the elements are to be addressed by a given audit

-- The Planning Checklists cover the 1983-1984 period

-- Completed Planning Checklists are being used for planning the three "readiness for operations" audits scheduled for January, 1983

The inspector also noted that the Nuclear Review Board (NRB) audits (15) required by Technical Specifications have been incorporated into the 1983 schedule (see paragraph 9.1) and the Emergency Planning Program is to be audited quarterly so as to provide a more comprehensive and meaningful review of this area.

The inspector reviewed audit packages for Audits 81-9, Shoreham Project-Site; and 81-12, Stone & Webster Environmental Qualification to determine if established audit conduct requirements were met.

Identified deficiencies and followup questions are discussed in paragraphs 4.2.3.3.3 and .4.

4.2.3.3 Findings

The Quality Assurance staffing for the Shoreham operational phase was found to be adequate to support station operations. The qualifications of selected QA/QC staff was also found to be consistent with assigned responsibilities, including the individuals performing the surveillance and inspection activities discussed in paragraphs 4.2.4 and 4.2.5 below.

However, the planned overview of station activities was found inadequate as discussed in paragraphs 4.2.3.3.3. Also, the planned improvement in the audit process will be followed up as discussed in paragraph 4.2.3.3.4.

4.2.3.3.1 Procedure Development

Procedure QAP-S-5.2, Operational Quality Assurance (OQA) Procedure Development, Rev. 3, paragraphs 5.1.4 through 5.1.8, require that procedures be specific, complete, and stand alone to the greatest degree practicable and minimize references to other documents.

Relative to the instructions given in the above QAP-S-5.2, the inspector identified that QAP-S-12.1 did not reference SP 41.003.01, Control of I&C Measuring and Test Equipment (M&TE), which is the implementing procedure for the care and control of measuring and test equipment/instruments; did not provide guidelines for conducting audits of this functional activity area; and, only referred the reader to other procedures or standards such as ANSI N45.2.16 (IEEE-498). The inspector stated that this procedure did not provide adequate instruction for its intended use nor was it consistent with the above listed instructions on procedure development.

Subsequent to the inspection the licensee decided to cancel procedure QAP-S-12.1. This decision was based on their evaluation that OQA procedures QAP-S-10.5, Surveillances; QAP-S-5.4, Procedure Review; and QAP-S-18.1, Audits provided adequate instructions for auditing the M&TE program. The inspector considered the above resolutions to be acceptable.

4.2.3.3.2 Procedure Clarity

The inspector identified the inappropriate use of permissive wording in QA procedures. Examples are the word "should" in procedures QAP-Ss 02.1, 16.2, and 18.1 (paragraphs 5.7.1.; 5.3.1 and 5.3.4; and 5.1.1 and 5.6.4 respectively) and the word "may" used in paragraphs 5.3.3, 5.2.2, and 5.6.2 of QAP-S's 02.2, 09.2-01, and 18.1, respectively. The inspector stated that all OQA procedures must be reviewed to determine where revisions are necessary to alleviate the misuse of these two words. The procedures did not clearly establish requirements and describe applicable activities in a fashion similar to the QAD procedures and need appropriate revisions. The results of this effort will be inspected prior to issuance of the Operating License (OL). Senior licensee management and licensee representatives agreed to review the OQA procedures. Licensee action will be required and inspected during a subsequent NRC inspection prior to OL issuance (322/82-34-01).

4.2.3.3.3 Quality Element Effectiveness

Procedure QAP 18.1, paragraph 4.2.3.1.b.III, requires the audit report to contain an evaluation of the effectiveness of QA program elements that were audited. This requirement is not addressed by any OQA procedure (see paragraph 4.2.3.3.2). None of the several audit packages' checklists or reports (e.g., scope or conclusions) reviewed provided objective evidence that such an evaluation had been done. However, both QAD division managers, the OQA Engineer and the QAD Manager explained that this evaluation was an aspect of every audit and the auditors were so trained. Also, the inspector noted that findings during Audits 81-9 and 81-12 discussed the lack of effectiveness of an audited program element and the non-comprehensiveness of the particular procedure audited. Prior to the conclusion of this inspection both QAD division managers and the OQA Engineer issued memoranda to all QA staff emphasizing this audit requirement and directing that every audit checklist henceforth include an attribute/characteristic indicating that such an evaluation be performed. This item is unresolved pending a sampling of audits during a subsequent inspection to verify that these audits do provide objective evidence that an evaluation of program effectiveness had been performed (322/82-34-02).

4.2.3.3.4 Audits to Assure Readiness for Operations

Some audits have not yet been conducted to assure management that the plant and other supporting organizations were indeed ready for the operational phase of the plant. Discussions with QA and NRB representatives indicated that three audits (one under the auspices of the NRB) scheduled for January, 1983 were intended to accomplish this assessment. These audits and necessary corrective action must be completed prior to issuance of the OL. Licensee action is required and will be inspected during a subsequent NRC inspection prior to O.L. issuance to determine the following (322/82-34-03).

-- The three "readiness for operations" audits have been conducted

-- The scope of the audits were comprehensive

-- Necessary corrective action was adequate, effective and timely

4.2.4 QA/QC Surveillance

The 1982 OQA surveillance schedule was planned to provide for overview of specific "plant administrative" activities such as equipment tagging and fire protection. All surveillances conducted are documented in a log and approximately 128 have been conducted to date. The schedule also listed plant systems and indicated a general time frame for "unscheduled" surveillances of ongoing activities associated with that system (e.g. plant surveillances, system testing). A similar schedule is in preparation for 1983 and the licensee representative stated that it is planned that surveillances of operating activities will be included, such as system valve lineups and control panels status. The inspector reviewed Surveillance Reports 82-16, 56, 65, 77, 78, 91 and 99 and noted that an implementing procedure, Maintenance Work Request (MWR) or worksheet was used to perform surveillance of the particular activity. Members of OQA attend the plant Plan-of-the-Day, and Daily Staff meetings. Also, the safety-related MWRs and Scheduled Activities Work Sheets (SAWS) are reviewed by OQA personnel. These meetings and reviews keep OQA abreast of plant activities and enable meaningful planning.

Surveillances by FQA are planned/scheduled similarly to the manner above and are also logged. The inspector noted that surveillances have been conducted on operations type activities such as the performance of LILCO Welder and Weld Procedure Qualifications. The FQA Manager stated that the intent is to increase surveillance of operations activities as fuel load approaches.

No violations or followup questions were identified.

4.2.5 Inspection

The Watch Engineer (SRO) determines whether an MWR is classified as safety-related (CAT-I) or non safety-related. He then indicates the appropriate classification on the MWR. The CAT-I MWRs are forwarded to OQA with the official "working copy" implementing procedure attached, where they are reviewed, and any witness/hold points are entered into the procedure where appropriate. Hold points and other tracking information from the MWRs are entered into an OQA log on an ongoing basis. All completed MWRs are forwarded to OQA who then determine that inspection points were honored, inspections conducted, and that all CAT-I MWRs received a pre-work review.

No violations or followup questions were identified.

4.2.6 Trending

The March 15, 1982 OQA annual trending report, including attached graphs, was reviewed. This report addressed such subjects as audit manhours, repair/rework requests, audit findings, NRC findings, LERs, LDRs (LILCO Deficiency Reports), Incident Reports, and CARs (Corrective Action Requests). The report details discussed each deficiency identified since there was an insufficient number of items to break down into groupings per QAP-S-16.2, paragraph 5.3.3 requirements. Monthly reports are also distributed by OQA and contain ongoing trend evaluations. The inspector discussed, with the licensee representative, the "grading" of findings and other aspects of trending such as grouping occurrences into functional and or organizational areas. The licensee representative stated these techniques would receive further consideration during continuing efforts toward improving the trend analyses.

The QAD division managers have been providing trending reports to the QAD Manager since 1976. These reports address their areas of responsibility and have changed format and content over the years. The inspector reviewed the reports for the first, second and third quarters of 1982.

No violations or followup questions were identified.

5.0 Design Changes, Modifications, Engineering and Technical Support for Support for Operations

5.1 References/Requirements

-- Final Safety Analysis Report (FSAR) Sections 13 and 17

-- Technical Specifications, Section 6, Draft dated November 23, 1982.

-- NUREG 0420, Supplement 1, dated September 1981, Safety Evaluation Report

-- ANSI N45.2.11 - 1974, Quality Assurance Requirements for the Design of Nuclear Power Plants

-- 10 CFR Part 50 Appendix B, Quality Assurance Criteria for Nuclear Power Plants.

-- 10 CFR Part 50.59, Changes, Test and Experiments

-- ANSI 18.7 - 1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants

5.2 Program Review

Regarding the readiness to support operations, the inspector examined the licensees administrative program and controls for design changes, modifications, engineering and technical support to determine the following:

-- Required QA programs and procedures are developed in accordance with regulatory requirements, industry standards and licensee commitments.

-- Staffing is in accordance with commitments.

-- Provisions are made to augment the LILCO staff with outside technical and engineering help when needed.

-- Appropriate responsibilities are established and assigned.

-- Provisions are established to assure that the activities are conducted using approved procedures when ever applicable.

-- Proper communication channels and interfaces are established among participating organizations.

-- Provisions are established to transfer records to records storage.

-- Administrative control procedures are established to revise the plant procedures, the training program and the facility drawings as needed to reflect facility changes.

-- Responsibility and method for reporting activities to the NRC are established.

-- Training programs for the personnel performing these activities are established.

The following documents were reviewed to assure that the program complies with the above requirements:

-- Nuclear Operations Corporate Policy, NOC Policy 2, Corporate Interface for Safety Related Activities, Revision 1, March 1, 1982

-- Nuclear Operations Corporate Policy, NOC Policy 3, Nuclear Station Modification, Revision 0, December 15, 1981

-- LILCO Quality Assurance Manual, Revision 0, dated June 1, 1982

-- Nuclear Engineering Department Charter, Draft dated December 2, 1982

-- Nuclear Engineering Department Procedures Manual, Draft with index dated August 31, 1982

-- Corporate Nuclear Training Administrative Manual, Draft dated November 1982

-- Nuclear Operations Support Procedures Manual Draft dated November 26, 1982

-- Office of Engineering Procedures Manual Draft dated October 13, 1982

-- SP 12.010.01, Engineering Assigned Station Modification Activities, Revision 1, dated 1/2/80

-- SP 12.010.02, Station Assigned Design Modification Activities, Revision 2, dated 9/23/81

The results of this program review are contained in paragraph 5.4, findings.

5.3 Implementation

The licensee's representatives stated that the Nuclear Engineering Department (NED) and the Office of Engineering (OE) had not conducted any safety related activities at the time of this inspection. Both NED and OE programs and procedures were unapproved at the time of this inspection. It was further stated by the licensees representatives that current activities requiring design changes, modifications, engineering and technical support are continuing to be handled by the existing architect - Engineer project organization.

5.3.1 Implementation Discussion

5.3.1.1 Office of Engineering (OE)

The inspector performed a sampling audit of departments within OE to determine their readiness to meet reference requirements for support of the Shoreham project during operations.

5.3.1.1.1 Engineering Design Department

The inspector met with licensee representatives to review their capability to support the Shoreham project. The department has initiated development of procedures (three draft procedures to date) in order to comply with referenced Shoreham commitments. The licensee's representative stated that drafting room standards (in the form of a drafting manual) and other procedures (EDD series) required to delineate Design Department responsibilities would be completed by approximately March 1, 1983. The licensee's representative further stated that their design organization (38 total people) is established and has been conducting design work on LILCO non-safety related projects. The Design Department has three divisions as follows: Civil-Mechanical Design (16 people), Architectural Services (4 people) and Electrical Design (18 people).

5.3.1.1.2 Electrical Engineering Department

The inspector met with Electrical Engineering Department representatives to review the department's capability to support the Shoreham project. The department has not developed any internal departmental procedures to delineate authorities, duties, and responsibilities, and other controls such as for its internal design interfaces. The Electrical Engineering Department has 48 total personnel of which six are assigned to a section specifically designed to provide support for Shoreham.

5.3.1.1.3 Power Engineering Department

The inspector met with Power Engineering Department representatives to review department capability to support the Shoreham project. The licensee's representative stated that the department has been tasked with coordinating and developing the Office of Engineering procedures manual for the Shoreham project. The draft manual inspected contained fifteen draft procedures. The Power Engineering Department has not developed any detailed subtier departmental procedures to delineate its internal departmental authorities, duties and responsibilities, and other controls such as required by ANSI N45.2.11, paragraph 5.2, Internal Interface Controls.

The inspector's sampling review of OE draft procedures identified that the Regulatory Guide 1.64, item C.2, NRC position regarding assuring independence of reviewers/design verifiers was not adequately covered. The draft procedures also did not include any apparent means for maintaining status on work within the Office of Engineering.

The licensee's representative stated that the Power Engineering Department has 38 people total, divided into four divisions as follows: Mechanical and Instrument Engineering, 10 people; Shoreham Support, 6 people; Engineering Projects, 10 people; Gas Systems Engineering, 12 people.

5.3.1.2 Nuclear Engineering Department (NED)

The inspector performed a selective sampling audit to determine the departments capability to support the Shoreham project during operations as stated in the referenced licensee commitments. The licensees representative stated that NED to date, had not performed any safety related activities. The inspector reviewed a draft NED charter dated December 2, 1982. The charter scoped the NED purpose, policy, functions, responsibilities and organization. The charter listed specific responsibilities for the existing three NED divisions and listed responsibilities for a fourth division, Nuclear Projects Engineering, slated to be added in the future.

The inspector reviewed a December 2, 1982 memorandum forwarding the charter and a draft NED 2.04, "Engineering Work Request (EWR) Procedure" for review by managers whose departments and divisions are to be involved in the Shoreham project. The licensee representative stated that the EWR was currently referenced by the different departments in their own procedures in different forms or formats. This uniformity was stated to be needed to make the EWR a common form (format) containing the necessary information. The suggested EWR provided requirements for appropriate safety reviews, configuration reviews, determination of whether or not the work was safety related, the affected plant systems/components, scheduling target dates, assignment of responsibility, and required approvals.

NED has a draft procedures manual that has a table of contents with 18 topic areas; the revision is dated August 31, 1982. The manual contains 30 draft procedures and the table of contents has some topic headings without procedures. The inspector did a selective sampling review of the procedures and noted a need for specificity regarding coverage for reporting to the NRC, for example, making Technical Specification prompt reports if a reportable condition is identified or discovered at any stage of the work handled by NED.

The inspector noted that there were no draft procedures to delineate authorities, duties and responsibilities in the NED subtier organizations. Relative to NED draft procedure 5.02, the independence of the design verifier could not be determined to comply with Regulatory Guide 1.64.

The Nuclear Engineering Department was stated to be staffed by 41 LILCO personnel and 17 consultants. The licensee's representative stated that 12 more personnel would be added in the future when the project division is staffed.

The existing NED organization is divided into three divisions as follows: Nuclear Systems Engineering, 17 LILCO and 8 consultants personnel; Nuclear Fuel Division, 9 LILCO personnel; and Nuclear Licensing, 14 LILCO and 9 Consultant personnel.

The inspector requested the status of LILCOs commitment, reference FSAR 13.1.1.3, to obtain a "continuing services contract" with a qualified architect/engineer firm prior to fuel load to provide supplementary engineering and consultants support when needed. The manager of NED reviewed with the inspector a "Specifications for General Consulting and Engineering Services for the Office of Nuclear" dated July 8, 1982. The specification covers 22 areas of expertise and provides on-call engineering services, direct staff augmentation, rapid response by technically qualified support personnel for emergency operational situations, and training services in the form of seminars and workshops. Participating consultants are required to operate under 10 CFR 50 Appendix B, Quality Assurance requirements. The licensee representative stated that the specification was currently being processed by the procurement department and should be in place prior to fuel load as committed. This item is open pending verification that the contract is in effect prior to O.L. (322/82-34-29)

The inspector reviewed plans for the training of NED personnel to carry out NEDs intended mission. The training was stated to be under development by the corporate nuclear training coordinator who provided the inspector for review, a copy of a draft Training Administrative manual dated November 1982, Revision 0. The subject manual "contains guidelines for the development and implementation of corporate nuclear training, including the identification of training requirements and the responsibilities and authorities for training". The Administrator stated that a contract had been issued for detailed implementing procedures.

5.3.1.3 Nuclear Operations Support Department (NOSD)

The inspector performed a selective sampling audit to determine department capability to support the Shoreham project during operations as stated in the referenced licensee commitments. The NOSD provides for Shoreham the corporate level administrative

support functions including long-range outage planning, administering the Nuclear Review Board and the Independent Safety Engineering Group, relating nuclear industry operating data to station performance, providing INPO and NSAC coordination for LILCO, conducting special studies to support Shoreham operations, assuring that procedures exist for regulatory compliance and interfacing, and providing coordination between the plant and the Nuclear Engineering Department. The licensees representative stated the NOSD operations were conducted in accordance with their procedures manual. The inspector noted that the manual was controlled with 15 recipients listed and the index listed 49 approved procedures. The index was revision 15, dated November 16, 1982. Procedure NOSD 1, Revision 2, dated January 8, 1982 stipulates the NOSD organization and responsibilities. Other NOSD procedures have been reviewed in paragraph 9.0 of this report.

NOSD-7, Revision 0 dated December 29, 1981 titled "Nuclear Station Design Modification" defines the methods for NOSD "control of Nuclear Station design modification activities." The procedure applies to safety-related and non safety-related modifications. The NOSD representative stated that NOSD did no engineering or technical work in their department in performance of their support mission. The inspector identified that procedure NOSD-7 was set up to utilize the services of the Nuclear Engineering Department, e.g., NOSD-7, step 5.3.4, Nuclear Engineering Department prepares the design Input/Output Packages, including Safety Evaluations. Upon issuance of the station operating license and Technical Specifications, the Nuclear Engineering Department would need to have approved procedures and be fully functional. This would be required in order to make the total procedural system that has been approved for use by NOSD, functional to support the Shoreham station. The NOSD manager advised the inspector that it was their intent to utilize the existing Stone and Webster (S&W) Architect/Engineer Shoreham project organization to handle Shoreham modifications and Engineering Support until the Vice President-Nuclear decides to phase in the LILCO engineering organizations.

The NOSD manager provided for the inspector's review a statement made by the Vice President-Nuclear to the Advisory Committee on Reactor Safeguards (ACRS) on September 30, 1982, regarding LILCO's intent to utilize the existing project organization "in support of continuing modification of the new station." No scheduling information regarding the intended phase in of LILCOs organization was provided.

The NOSD organization was staffed with 27 people. The organization is divided into five subtier units as follows: clerical, 3 people; Nuclear Services, 7 people; Records, 4 people; Regulatory, 10 people; and Projects Control, 3 people.

5.3.1.4 Station Organization

The inspector discussed with licensee representatives their plans to handle design changes, modifications and obtain technical and engineering support for Shoreham Operations. Station Procedure (SP) 12.010.01, "Engineering Assigned Station Modifications Activities", Revision 1, dated January 2, 1980, is to be used for design modifications changes assigned to LILCO Engineering Department personnel. This procedure involves LILCO's Nuclear Operations Support, Nuclear Engineering Department and potentially the resources of the Office of Engineering. The inspector had previously noted that to the date of this inspection these departments did not have procedures in place to support the implementation of procedure SP 12.010.01, Revision 1, to handle safety related activities. LILCO management would not provide to the inspector a date as to when the LILCO engineering organizations would be operable in order to handle safety related support for Shoreham. The inspector noted that SP 12.010.01, Appendix 12.6, contained a "Shoreham Engineering Work Request" which differed from the NED draft EWR. The inspector had no other comments on the procedures.

Station procedure SP 12.010.02, "Station Assigned Design Modification Activities," Revision 2, dated September 23, 1981, is to be used for design modifications changes that are "assigned to on-site personnel". This procedure is intended to be used both for safety-related and non-safety related work. This procedure listed the LILCO Engineering Departments as potential sources of offsite support, however a similar comment as discussed under SP 12.010.01 (reference above paragraph) applies, e.g. this LILCO Engineering support has not yet been set up procedurally to handle safety related activities and no date has been provided relative to their readiness by the issuance of the operating license. For SP 12.010.02 to work, additional procedural definition would be required to establish both the external and internal interfaces of the organizations that would be performing work affecting the quality of safety-related designs to support station operations.

The plant had no approved administrative tracking system for tracking Engineering Work Requests. The Technical Support Manager initiated an interim system and stated that a formal computer system utilizing the existing company computer would be developed as a permanent system. The inspector had no further questions on this matter based upon the interim system being utilized.

The inspector discussed with the plant manager a concern that there was no schedule or status regarding the phasing in of procedures, controls and other requirements prior to fuel loading. The inspector found no system that would apprise station personnel as to what procedures and controls are in effect or, are not yet in effect. The inspector also expressed a concern regarding assurance that station personnel had developed suitable proficiency in the procedures and controls prior to fuel load. During the inspection, the Review of Operations Committee (ROC) and the plant manager approved on December 10, 1982, a change to the "Plant Procedures Status List" (PPSL) that would insert the words "IN USE" beside each procedure that is to be implemented. It was stated that the PPSL change will be issued by January 1, 1983. The plant manager stated that the station 'on-the-job-training' was in progress and would be the method utilized to assure that station personnel are trained in procedures and controls. Additional NRC inspection followup will be required to assess the effectiveness of the corrective action taken regarding this matter (322/82-34-04). The inspector discussed with the Quality Assurance Manager the total program for providing administrative controls and quality assurance for the operational phase. The 'summary document' required by ANSI N18.7-1976 paragraph 5.1 to identify and to index source documents to the requirements of the standard was not developed at the time of the inspection by each 'owner organization'. This is considered to be an open item to be reinspected prior to OL issuance (322/82-34-05).

5.4 Findings

5.4.1 The licensees administrative programs, procedures and controls for handling safety related design changes, modifications, engineering and technical support for Shoreham during operations were still being developed and were not approved. The written programs and procedures, mostly in draft, that were inspected were based upon the utilization of LILCO's Nuclear Operations Support Department (NOSD), Nuclear Engineering Department (NED) and Office of Engineering (OE) to provide the subject support for Shoreham. This utilization of LILCOs NOSD, NED and OE was found to be in accord with commitments described in FSAR Chapters 13 and 17 and as evaluated in the NRC's Safety Evaluation Report (SER). Plant procedures were also found to parallel the corporate procedures regarding the use of LILCOs NOSD, NED and OE to provide the subject support.

The licensee has not established a date when NED and OE will be set up to support operations for safety-related activities. During the exit meeting on December 15, 1982, LILCOs Vice President-Nuclear stated that it was their intent to continue to utilize the existing Shoreham project organization for support of Shoreham while phasing

in the LILCO organizations in the future (date not specified). The Vice President Nuclear also stated that LILCO would set a target date of January 15, 1983 to meet with NRR (licensing) relative to resolving this issue.

The existing LILCO commitments and SER issued by NRR do not reflect a phase in period for the LILCO engineering and technical support organizations beyond the operating license issuance date. Neither have programs and procedures been developed that reflect an alternative to that as described in the existing LILCO commitments. This matter is an open item that requires resolution prior to issuance of the operating license (322/82-34-06)

5.4.2 The inspector found that the staffing levels of the NOSD, NED and OE meet or exceed existing commitments.

5.4.3 Training of NOSD, NED and OE staffs to conduct their assigned missions is not complete. The training manual and procedures are being developed. Training of individual organizational unit staffs needs to be completed prior to that units involvement in safety-related activities. The LILCO Quality Assurance Department audits have not been conducted to assure LILCO Management that staffs are trained prior to performance of safety related activities. Inspection follow-up will be provided to independently assess the adequacy of these audits and training (322/82-34-07).

5.4.4 The OE program and procedures down through the subtier organizational units either have not been developed or are being developed. LILCO QA Department audits have not been conducted to assure LILCO Management that the procedures are in place and are adequate prior to the organization handling of any safety related activities. Inspection followup will be provided to independently assess the adequacy of these audits and procedures (322/82-34-08).

5.4.5 The NED charter, program and procedures down through the subtier organizational units are in various stages of development. The LILCO QA Department audits have not been conducted to assure LILCO Management that the procedures are in place and are adequate prior to the organization handling any safety related activities. Inspection followup will be provided to independently assess the adequacy of these audits and programs (322/82-34-09).

5.4.6 The station procedures SP 12.010.01, Revision 1 and SP 12.010.02 Revision 2 need revision to reflect the LILCO program for handling Shoreham design changes, modifications, engineering and technical support for operations after resolution is obtained to the item 5.4.1 of this report. OQA and Corporate QA audits have not been conducted to assure LILCO Management that the revised procedures are in place. Inspection followup will be provided to independently assess the adequacy of these audits and procedures (322/82-34-10).

6. Maintenance Program and Organization, Station Housekeeping, and Equipment Control

6.1 References

-- 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants

-- Technical Specifications, Section 6, draft dated March 23, 1982

-- Final Safety Analysis Report, Section 13, Conduct of Operations

-- Final Safety Analysis Report, Section 17, Quality Assurance During the Operations Phase

-- Regulatory Guide 1.33-1978, Quality Assurance Program Requirements (Operation)

-- ANSI N18.7 - 1976, Administrative Controls and Operational Quality Assurance for the Operational Phase of Nuclear Power Plants

-- ANSI N45.2.1 - 1973, Cleaning of Fluid Systems and Components

-- ANSI N45.2.3 - 1973, Housekeeping for the Construction Phase of Nuclear Power Plants

6.2 Program Review

The inspector reviewed the licensee's maintenance program to determine whether:

-- preventive maintenance and corrective maintenance programs have been established;

-- written procedures have been established for initiating requests for routine and emergency maintenance;

-- work control procedures have been established for special processes, fire protection, radiation protection, cleanliness, and housekeeping;

-- procedures and responsibilities have been established for equipment control;

-- provisions have been established for the coordination of maintenance activities and interface controls among participating organizations;

-- personnel will be trained and qualified to perform maintenance activities;

-- sufficient staff will be available to perform maintenance activities;

-- criteria and responsibilities have been established to identify safety and non-safety-related maintenance activities;

-- criteria and responsibilities have been established for designating hold points and for performing work inspections;

-- criteria and responsibilities have been established for review and approval of all maintenance requests;

-- criteria and responsibilities have been established for verifying work classification and the use of industry-accepted procedures;

-- administrative controls have been established to prepare, assemble, review and store the maintenance records; and,

-- a program has been established to review the corrective maintenance program, to assess the adequacy of the preventive maintenance program, to identify repetitive failures of parts and components, and to identify design deficiencies.

The inspector examined the following documents to determine whether the requirements cited in 6.1 above were met:

-- Nuclear Operations Corporate Policy (NOC) - 2, Corporate Interfaces for Safety Related Activities

-- SP 12.002.01, Organization and Administration, Revision 6, January 25, 1982

-- SP 12.013.01, Maintenance Work Requests, Revision 9, September 9, 1982

-- SP 12.015.01, Preventive Maintenance Program, Revision 3, October 27, 1982

-- SP 31.002.01, Maintenance Record System, Revision 5, October 19, 1982

-- SP 12.003.01, Personnel Qualifications and Responsibilities, Revision 8, March 18, 1982

-- SP 12.014.01, Personnel Training Requirements, Revision 2, March 26, 1979

-- SP 31.001.01, Training and Qualifications of Maintenance Personnel, Revision 2, October 23, 1981

-- SP 12.011.01, Station Equipment Clearance Permits, Revision 7, December 13, 1982

-- SP 12.011.02, System Operator Clearance Procedure, Revision 1, March 5, 1982

-- SP 12.023.01, Station Housekeeping, Revision 2, September 30, 1981

-- SP 12.023.02, Requirements for Cleaning and Maintenance of Cleanliness, Revision 0, November 18, 1982

The licensee's program was not in conformance with their commitment to ANSI 45.2.3 in that SP 12.023.01, "Station Housekeeping," had the following deficiencies:

-- The procedure did not provide for maintaining records of housekeeping surveillances, as required by ANSI N45.2.3. Further, a licensee representative stated that such records were not being maintained.

-- Housekeeping zone figures detailed in Appendices 12.1, 12.2 and 12.3 did not provide sufficient descriptive information to adequately describe the zone requirements pictured.

-- Paragraphs 8.3.1, 8.3.2, and 8.3.3 provided specific housekeeping criteria concerning general cleanliness, environmental conditions, and maintenance tools, supplies, and equipment. However, much of this criteria was not included in Appendix 12.5, "Housekeeping Inspection Form SPF-12.023.01-2," causing the form to be deficient in assuring adequate housekeeping inspections.

Subsequent to the inspection, the inspector reviewed changes to SP 12.023.01 and determined that the above deficiencies had been corrected.

Procedure SP 12.013.01, Appendix 12.1, "Safety-Related Job List Guide," contains a list of safety-related structures, systems and components. The procedure stated that this list was to be used to determine if a repair was safety- related so the Maintenance Work Request (MWR) could be properly annotated. However, the inspector determined that this list was not the component Q-list, but was provided for guidance only. The safety-related Q-list is maintained by the architect/engineer and provides detail down to the system component level. The inspector noted that SP 12.013.01 did not provide any instructions to use the A/E component Q-list to determine if maintenance will be safety-related. In addition, the source document for Appendix 12.1 of SP 12.013.01 is FSAR Table 3.2.1-1, "Equipment Classification." This source document was not referenced in SP 12.013.01 as required by SP 11.004.01, "Reference Tracking System."

Subsequent to the inspection, the inspector verified that SP 12.013.01 had been revised to reference the component Q-list to state that Appendix 12.1 (Safety System List) was provided for guidance only, and to reference the source document (FSAR Table 3.2.1-1) for Appendix 12.1. This revision adequately corrected the above findings.

The inspector had no further questions in this area, except as detailed in paragraph 6.4.

6.3 Implementation Review

During this inspection, the inspector reviewed the licensee's maintenance program and organization. Additionally, the inspector made observations as to the licensee's readiness to fully implement the maintenance program prior to issuance of a facility operating license (O.L.). Most plant systems are still under the control of the Architect/Engineer; however, as systems are turned over to the plant, the plant staff is assuming responsibility for their maintenance.

Maintenance activities will be performed by the Maintenance and Instrument and Control (I&C) Departments. The Operations Department will perform equipment control (tagouts) and post-maintenance operational testing, and the Operational Quality Assurance Department will perform inspections and final documentation review of safety-related maintenance activities.

The Maintenance Work Request (MWR) provides the interface mechanism for the above organizations. Implementation of maintenance activities and control of organization interfaces will be the subject of a future NRC inspection.

6.3.1 Maintenance Department

The inspector reviewed the licensee's administrative procedures for the performance of corrective and preventive mechanical and electrical maintenance activities, and conducted extensive discussions with the Maintenance Engineer concerning Maintenance program implementation.

Although review of implementing procedures was not included as part of this inspection, the inspector observed that procedures to implement the maintenance program have been established, reviewed by the Review of Operations Committee (ROC) and issued.

The inspector reviewed the projected Maintenance Department staffing. Prior to O.L., the maintenance staff will consist of two engineers, two maintenance coordinators, three maintenance foremen, twenty-one mechanics, and seven utility workers. The Department is currently short one maintenance coordinator, three utility workers, and has one maintenance engineer assigned to startup.

The inspector expressed a concern about the adequacy of this staffing versus the projected work load. Licensee management informed the inspector that there are no current plans to increase the staffing level at this time; however, adequate staffing will be maintained as necessary by transferring qualified LILCO personnel and contractor engineering personnel currently working on construction and startup activities to augment operating activities during the transition from construction to operations (see paragraph 7.3.2.3 for related item).

Also, when required, such as during major outages, plant maintenance workers will be augmented by LILCO mobile maintenance teams and contractor personnel in accordance with LILCO Nuclear Operations Corporate Policy (NOC) - 2, "Corporate Interfaces for Safety Related Activities."

An inspector concern, relating to plant-specific training of LILCO mobile maintenance and contractor personnel, is detailed in paragraphs 6.4.2 and 7.2.

The inspector had no further questions in this area.

6.3.2 Instrument and Control Department

The I&C Department's readiness to implement maintenance activities is equivalent to that of the Maintenance Department. The I&C program, program implementation, organization, and staffing are detailed in paragraph 7.3.

6.3.3 Operations Department

The inspector reviewed the licensee's administrative procedures for establishment of tagouts for personnel and equipment protection during performance of maintenance activities.

The Operations Department is currently implementing three separate tagout systems - one for construction; one for startup and test; and one for plant controlled systems. The inspector reviewed the tagout system in use for plant controlled systems and observed the following deficiency:

SP 12.011.02, "System Operator Clearance Procedure," Precaution 4.0, states, "When a conflict exists, the LILCO Rules for Safe Operation Handbook has priority over and supersedes this procedure." The inspector noted that this precaution could violate a Review of Operations Committee (ROC) approved procedure and informed the licensee that any procedure conflict must be resolved and an approved procedure change obtained. In order to preclude any misunderstanding of the procedure, a licensee representative stated that the precaution would be deleted.

Prior to the completion of this inspection, the inspector observed that SP 12.011.02 had been revised to delete the precaution.

The inspector had no further questions except as detailed in paragraph 6.4.4.

6.4 Findings

The inspector determined that the following deficiencies need to be corrected before the plant maintenance, housekeeping, and equipment control programs will meet the applicable regulatory requirements of 10 CFR 50, Appendix B, and ANSI N18.7-1976.

6.4.1 ANSI N18.7-1976, paragraphs 5.1 and 5.2.7.1, requires that a maintenance program be established and procedurally defined. Although the licensee does not have an overall procedure which defines the entire maintenance program, the basic parts of the program are defined in the following procedures:

-- SP 12.003.01, "Personnel Qualifications and Responsibilities," which specifies the following:

(1) Duties of the Maintenance Engineer (the list of duties also defines the Maintenance Department activities)

(2) Duties of the Work Coordinator

(3) Duties of the Maintenance Foreman

(4) Duties of the Station Mechanics

-- SP 12.013.01, "Maintenance Work Requests", which specifies the following:

(1) Organizational interfaces for performing maintenance activities

(2) Work coordinator activities for job pre-planning

(3) System failure data and evaluation

The inspector noted that while the above procedures addressed the major areas of maintenance specified in ANSI N18.7-1976, they did not adequately define the following:

(1) Types of documents to be assembled in the work package

(2) All pre-planning considerations which must be addressed by the maintenance coordinator (e.g., such as pre-planning checklist)

(3) Definition of the types of maintenance activities which can be performed without a procedure (Although the MWR makes this evaluation, it does not provide a basis on which the decision is made)

(4) Criteria for determining which housekeeping zones are applicable to specific types of maintenance activities (Although the MWR provides for selecting a housekeeping zone, neither the MWR procedure nor the housekeeping procedure (SP 12.023.01) provides a basis for making this decision)

(5) Criteria for maintenance of system cleanliness and for cleaning and/or flushing of systems (These criteria are specified in SP 12.023.02; however the MWR does not refer to this procedure)

(6) Definition as to what documents will be incorporated into the final maintenance activity record (Currently SP 12.013.0 states that the maintenance record consists of the MWR and associated documents used for performance of the work, but it does not define these documents)

The licensee did not concur with the inspector's findings, stating that the above procedures adequately defined the maintenance program. This item is unresolved and will be inspected prior to OL issuance (322/82-34-11).

6.4.2 Since maintenance activities will be performed by LILCO mobile maintenance teams and contractors, the inspector expressed a concern that outside maintenance workers working on plant systems should receive the same administrative and plant systems training as plant workers, such as that provided by SP 31.001.01, "Training and Qualifications of Maintenance Personnel," and applicable plant administrative processes such as use of an MWR, RWP, etc. This applies to plant systems training and plant specific administrative training. Mechanic skills training and qualifications will be certified by the providing organization.

The licensee stated that they will provide such plant-specific training. However, the inspector noted that the requirements of SP 31.001.01 and SP 12.014.01, "Personnel Training Requirements," stated applicability to plant personnel only. The licensee further stated that they would evaluate the inspector's concern and revise appropriate procedures to ensure that proper training is provided to LILCO contractor and corporate maintenance support personnel. This item is unresolved and must be completed prior to issuance of the O.L. and will be reviewed during a subsequent NRC:RI inspection (322/82-34-12).

6.4.3 During a review of housekeeping inspection reports conducted in the plant storeroom, the inspector noted that the inspections were being documented using Revision 1 of the Housekeeping Inspection Form (SPF12.023.01-2). The latest revision to this form is Revision 2, dated September 30, 1981. Use of an out-of-date revision stemmed from forms being maintained in a desk drawer, and storeroom

personnel not verifying that the latest revision was in use, as required by plant procedures. This was determined to be an isolated personnel error rather than a deficiency in the plant document control system. This determination is based on the fact that no other deficiencies of this nature were detected.

A licensee representative stated that all Maintenance Department personnel would be reinstructed in the proper use of plant forms. Performance of this corrective action will be followed during a subsequent NRC:RI inspection (322/82-34-13).

6.4.4 SP 12.011.01, "Station Equipment Clearance Permits (SECP), Appendix 12.2 identifies an "SECP Log Book" (Form SPF 12.011.01-7) for logging station clearance permits (tagouts), and Appendix 12.11 identifies an "Equipment Information Card Log" (SPF 12.011.01-11) for logging special information cards which may be placed on plant equipment. However, the inspector observed in the Control Room that log forms in use were different from those specified in the procedure.

A licensee representative stated that SP 12.011.01 had not yet been fully implemented and an attempt was being made to determine the best log forms to use. He further stated that prior to issuance of the Operating License (OL) the log forms specified in SP 12.011.01 and the log forms in use would be the same. This item is unresolved and must be completed prior to issuance of the O.L. and will be reviewed during a subsequent NRC:RI inspection (322/82-34-14).

7. Plant Surveillance Testing Program, Calibration Program and Organization, and Inservice Test Program Pumps and Valves

7.1 References/Requirements

-- 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants

-- Technical Specifications, Section 6, draft dated November 23, 1982

-- Final Safety Analysis Report, Section 13, Conduct of Operations

-- Final Safety Analysis Report, Section 17, Quality Assurance During the Operations Phase

-- Regulatory Guide 1.33-1978, Quality Assurance Program Requirements (Operation)

-- ANSI N18.7-1976, Administrative Controls and Quality Assurance for...Nuclear Power Plants

-- ANSI N45.2.4-1971, Installation, Inspection, and Testing Requirements for Instrumentation...of Nuclear Power Generation Stations

7.2 Program Review

The inspector reviewed the program for surveillance tests, calibrations, calibration checks, and instrument functional tests required by the Technical Specifications; and calibration of plant installed instrumentation used to verify satisfactory performance of Technical Specification Surveillance Testing or Inservice Testing (Pumps and Valves). The program and its administrative procedures were examined for conformance to the standards referenced in paragraph 7.1 and to determine whether:

-- responsibilities have been assigned for performance of tests and assurance that test schedules are satisfied;

-- implementing procedures for performance of tests have been established;

-- responsibilities for training and qualification of I&C personnel are defined;

-- interfaces with other organizations are defined;

-- a master schedule has been established for surveillance and calibration tests;

-- adequate manpower is available to perform required calibrations;

-- methods and responsibilities have been established for review and evaluation of data, for reporting of deficiencies and failures, and for verification that limiting conditions for operation (LCO) requirements have been satisfied; and,

-- controls have been established for review and storage of test records.

The inspector reviewed the following documents to assure that the requirements of the references cited in paragraph 7.1 above were met:

-- SP 12.016.01, Surveillance Program, Revision 2, December 6, 1982

-- SP 12.003.01, Personnel Qualifications and Responsibilities, Revision 8, March 18, 1982

-- SP 12.013.01, Maintenance Work Requests, Revision 9, September 9, 1982

-- SP 22.008.01, Operational Surveillances, Revision 0, June 11, 1982

-- SP 21.002.01, Operations Logs and Records, Revision 3, February 18, 1982

-- SP 21.010.02, ASME Section XI Inservice Testing of Valves, Revision 1, February 26, 1982

-- SP 21.010.01, ASME Section XI Inservice Testing of Pumps, Revision 2, March 4, 1982

-- SP 41.011.01, I&C Technician Qualification Program, Revision 5, February 20, 1981

-- SP 41.012.01, Instrument Removal for Servicing, Revision 1, March 12, 1981

-- SP 41.005.01, Instrument Loop Calibration, Revision 0, September 7, 1981

-- SP 41.002.01, Process Instrument Record System, Revision 3, July 7, 1982

The inspector observed that SP 41.005.01, "Instrument Loop Calibration," did not require the checking of computer points, when applicable. A licensee representative stated that it is their policy during calibrations to check computer point readouts in the Control Room when such readouts exist for specific instruments. He further stated that SP 41.005.01 would be changed to reflect this.

Prior to completion of the inspection, the inspector determined that SP 41.005.01 had been revised to require computer readouts to be checked during loop calibration.

As previously noted in paragraph 6.3.1 of this report, NOC-2 authorizes augmentation of plant maintenance personnel with contractor and LILCO mobile maintenance personnel. NOC-2 is also applicable to I&C maintenance activities.

The inspector reviewed SP 41.011.01, "I&C Technician Qualification Program," which provides for technician qualification on each system, and noted that this procedure was applicable only to Shoreham Nuclear Power Station (SNPS) technicians. The inspector was concerned that outside technicians may not be required to receive the same system qualifications as SNPS technicians.

A licensee representative stated that it was intended for SP 41.011.01 to apply to all I&C technicians performing maintenance work on plant instrumentation, and that the procedure would be revised accordingly. Subsequent to the inspection, the inspector determined that SP 41.011.01 had been revised to be applicable to contractor and non-plant LILCO personnel.

Paragraph 8.4.3 of SP 41.002.01, "Process Instrument Record System," states, "The original calibration and history forms shall be retained in accordance with [ANSI N45.2.9-1974]." The inspector stated that this paragraph did not provide sufficient instruction to the user as to the disposition of instrument records. Subsequent to the inspection, the inspector determined that SP 41.002.01 had been revised to more adequately define disposition of instrument records.

The inspector had no further questions in this area, except as detailed in paragraph 7.4.

7.3 Implementation Review

During this inspection, the inspector reviewed the licensee's Technical Specification (T.S.) surveillance test and calibration program and organization. Additionally, the inspector made observations as to the licensee's ability to fully implement the T.S. surveillance test, calibration, and inservice pump and valve test program by facility O.L..

The licensee's representative committed that these programs will be fully implemented as required to meet Technical Specification requirements for O.L. and initial criticality.

Calibration activities will be performed by the I&C Department, including instrument corrective maintenance, preventive maintenance instrument calibrations, instrument calibrations required by the T.S., calibration of instruments used to verify T. S. surveillance tests, and measuring and test equipment (M&TE) control (see paragraph 8 for details concerning

M&TE). The Operations Department will be responsible for performing T.S. operational surveillance tests and pump and valve inservice tests. The Technical Support Department will provide administrative controls and final technical review of Inservice Testing (IST) data. Operations QA has no direct surveillance test and calibration involvement except to perform audits of the program and its implementation.

Scheduling of calibrations, surveillance tests, and preventive maintenance activities is done via a computer-controlled Scheduled Activity Worksheet (SAWS) system. Any organizational interfaces will be controlled by the SAWS or in some instances by an MWR, as described in paragraph 6 of this report.

7.3.1 Instrument and Control Department

The inspector reviewed the licensee's administrative procedures for corrective and preventive maintenance and calibrations, and conducted discussions with the I&C Engineer concerning calibration program implementation. Although review of implementing procedures was not within the scope of this inspection, the inspector observed that procedures to perform instrument calibrations had been established, reviewed, and issued.

The inspector reviewed the I&C Department staffing, which consists of two engineers, two foremen, and eighteen technicians. When required, such as during major outages, plant I&C technicians will be augmented by LILCO mobile maintenance teams and contractor personnel in accordance with LILCO Policy NOC-2, "Corporate Interfaces for Safety-Related Activities."

The inspector noted that some organizational charts indicated an I&C work coordinator, however, this position was not indicated on the current plant staff organizational chart. The licensee representative stated that this position has been authorized and will appear on future plant staff organizational charts. This position is to be filled through transfer of personnel from startup groups to the plant staff prior to O.L. issuance.

7.3.2 Technical Support Department

7.3.2.1 Compliance Section

Control of the T.S. surveillance testing program was recently transferred from the Reactor Engineering Department to the Technical Support Department, Compliance Section. The inspector reviewed the licensee's administrative procedure for control of surveillance testing, and conducted extensive discussions with the lead compliance engineer and the reactor engineer previously in charge of the program. Implementation of the T.S. surveillance testing program including the control, scheduling, and final review of completed

T.S. surveillance tests was discussed. The inspector also noted that ROC approved procedures for the implementation of T.S. surveillance activities have been issued.

Scheduling of calibrations, surveillance tests, and preventive maintenance activities is by means of the SAWS program. The inspector posed hypothetical scheduling problems to test the SAWS system and determined that SAWS will assure that T.S. surveillance frequency requirements are met and that surveillance tests will be properly scheduled when completion dates of previous tests are properly entered into the system. The SAWS system was found to provide an acceptable means of scheduling, controlling, and documenting calibrations, surveillance tests, and preventive maintenance activities.

7.3.2.2 Engineering Section

Engineering responsibility for inservice testing (IST) of pumps and valves was recently assumed by the Technical Support Department, Engineering Section. Engineering will be responsible for overall administrative control of the IST program and technical review and analysis of IST data. The inspector determined that the inservice test program has not been fully developed and an additional program procedure is being written. This area will be inspected at a future date before O.L.

7.3.2.3 Staffing

Current staffing level is four engineers for the compliance staff and three engineers for the engineering staff, as specified by the organizational chart. The staff is currently in excess of authorized manning levels due to use of contractor personnel to support construction and startup activities.

As previously noted in paragraph 7.3.2.1, the Technical Support Department has assumed additional responsibilities concerning the T.S. surveillance testing and the pump and valve IST program. In light of this increased workload, the inspector expressed a concern as to the adequacy of the permanent staffing level to support operations after O.L.

Licensee management informed the inspector that sufficient staffing will be available to support station compliance and engineering activities. Licensee management further stated that contractor personnel will be retained, as necessary, to maintain adequate staffing levels in the Technical Support Department. In addition, as construction, startup and test activities are completed, some LILCO personnel involved in these activities will be transferred to the plant staff to augment the increased operational work load. Based on these discussions, the inspector considered this concern resolved.

7.3.3 Operations Department

The inspector determined that implementing procedures have been established, reviewed, and issued for T.S. surveillance testing to be scheduled by SAWS and performed by the Operations Department. Additionally, procedures have been prepared for T.S. surveillances not scheduled by SAWS that are to be performed at least every two weeks or less. The operations staff of thirty five nuclear assistant station operators and equipment operators appears to be adequate to perform routine in-plant operations and T.S. surveillance testing without further augmentation.

7.4 Findings

The inspector determined that the following deficiencies need to be corrected before the Plant Calibration, Technical Specification Surveillance Testing, Pump and Valve Inservice Testing, and I&C maintenance programs will meet the applicable regulatory requirements of 10 CFR 50, Appendix B, and ANSI N18.7-1976.

7.4.1 Paragraphs 5.1, 5.2.7.1, and 5.2.8 of ANSI N18.7-1976 require maintenance and surveillance programs and program procedures to be established. These requirements are applicable to the I&C Department since it performs both maintenance and surveillance activities. Although the licensee does not have an overall procedure which defines the entire I&C program, the basic parts of the program are defined in the following procedures:

-- SP 12.003.01, "Personnel Qualifications and Responsibilities," which specifies the following:

(1) Duties of the I&C Engineer (These duties also define I&C Department activities)

(2) Duties of the I&C Work Coordinator

(3) Duties of the I&C Foreman

(4) Duties of the I&C technician

-- SP 12.013.01, "Maintenance Work Requests," which specifies the following:

(1) Organizational interfaces for performing maintenance activities

(2) Work coordinator activities for job pre-planning

(3) System failure data evaluation

-- SP 12.016.01, "Surveillance Program," which specifies the scheduling of T.S. surveillance testing, preventive maintenance activities and instrument calibrations.

Paragraph 6.4.1 of this report specifies areas in which procedures SP 12.003.01 and SP 12.013.01 are deficient in defining maintenance activities for electrical and mechanical maintenance. These deficiencies are also applicable to I&C maintenance activities. Additionally, I&C does extensive troubleshooting, but there are no procedural definitions as to when corrective maintenance procedures must be used and when troubleshooting without a procedure can be performed.

The I&C Department performs the following calibration activities:

-- T.S. surveillance calibrations

-- T.S. related instrument calibrations

-- Balance of plant instrument preventive maintenance calibrations

-- Measuring and test equipment calibrations

-- Control Room electric board meter calibrations

-- Switchgear and protective relay settings

Although procedure SP 12.003.01 broadly defines I&C Department responsibilities by specifying the duties of the I&C Engineer, many activities performed by I&C are not defined in the procedure. Based on the above, the inspector considered the activities specified in procedures SP 12.003.01 and 12.013.01 inadequate to define the overall I&C program.

The licensee did not concur with the inspector's finding.

This item is unresolved and must be corrected prior to O.L. issuance. This item will be inspected during a subsequent NRC inspection to determine conformance to ANSI N18.7-1976 requirements for I&C maintenance, surveillance testing, and calibration activities (322/82-34-15).

7.4.2 The requirements of ANSI N18.7-1976, paragraph 5.2.8, and Regulatory Guide 1.33-1978, Appendix A, paragraph 8.a, apply to the calibration of Technical Specification related instrumentation as well the calibration of instruments required directly in the Technical Specifications. The inspector noted the licensee's preventive maintenance program for the calibration of plant instrumentation included, but did not specifically define, those plant installed instruments which would be used to verify Technical Specification surveillance requirements.

A licensee representative concurred with the finding and stated that by February 1, 1983, a ROC-approved procedure would be issued which would (1) identify all Technical Specification-related instrumentation; (2) specify the frequencies of calibration, setpoints, and calibration tolerances; and (3) assure that data sheets and subsequent changes receive appropriate reviews and approvals.

This item is unresolved and must be corrected prior to O.L. issuance. This item will be inspected in a subsequent NRC:RI inspection (322/82-34-16).

7.4.3 During review of the IST program, the inspector was informed by a licensee representative that a new administrative control procedure was being developed for this program. The licensee representative further stated that IST procedures currently in effect, SP 21.010.02, "ASME Section XI Inservice Testing of Valves," and SP 21.010.01, "ASME Section XI Inservice Testing of Pumps," will also be revised. This area will be reviewed during a subsequent NRC:RI inspection after the above procedures have been issued or revised. The IST program is required to be established and implemented by O.L. (322/82-34-17).

7.4.4 The inspector reviewed SP 12.016.01, "Surveillance Program," and noted that it adequately controlled the scheduling of Technical Specification surveillance testing. However, the inspector noted that clarifications were needed in the procedure as follows:

-- For surveillance tests that are performed as retests for Maintenance Work Requests (MWR) the procedure does not clarify whether or not the test records should be maintained with other surveillance test records or with the MWR package.

-- The procedure does not define what is included in the compliance engineer's review of the Scheduled Activity Worksheet (SAWS) for surveillances.

-- The Computer User Manual is not referenced in the procedure.

-- The procedure does not assign responsibilities to ensure that newly approved and issued Technical Specification changes which may affect surveillance tests are evaluated and incorporated into plant surveillance tests, when applicable.

A licensee representative stated that the above changes would be made, except for the item concerning T.S. changes, which would require a separate procedure. Licensee action concerning incorporation of T.S. changes into plant procedures is further discussed in paragraph 11.4.2 of this report. Completion of licensee action concerning changes to SP 12.016.01 will be followed during a subsequent NRC:RI inspection (322/82-34-18).

8. Plant Measuring and Test Equipment Calibration and Control Program

8.1 References/Requirements

-- 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants

-- Technical Specifications, Section 6, draft dated November 23, 1982

-- Final Safety Analysis Report, Section 13, Conduct of Operations

-- Final Safety Analysis Report, Section 17, Quality Assurance During the Operations Phase

-- Regulatory Guide 1.33-1978, Quality Assurance Program Requirements (Operation)

-- ANSI N18.7-1976, Administrative Controls and Quality Assurance for ... Nuclear Power Plants

-- ANSI N45.2.4-1971, Installation, Inspection and Testing Requirements for Instrumentation ... of Nuclear Power ... Stations

-- IEEE STD 498-1980, IEEE ... Requirements for the Calibration and Control of Measuring and Test Equipment Used in the ... Maintenance of Nuclear Power Plant Systems

8.2 Program Review

The program for calibration and control of measuring and test equipment was inspected for adequacy and conformance to the standards referenced in paragraph 8.1 above. The program was examined to determine whether:

-- a procedure for control of measuring and test equipment (M&TE) has been established;

-- procedures for calibration for M&TE have been developed;

-- responsibilities have been assigned for control of M&TE;

-- a master list for M&TE has been established;

-- calibration frequencies have been assigned.

The inspector reviewed the following documents to assure whether the requirements of the references cited in 8.1 were met.

-- SP 12.003.01, Personnel Qualifications and Responsibilities, Revision 8, March 18, 1982

-- SP 41.003.01, Control of I&C Measuring and Test Equipment, Revision 7, August 20, 1982

SP 41.003.01, paragraph 8.4.5, states that repairs of M&TE shall be documented on the M&TE Calibration Record and/or the Instrument Malfunction and Calibration History Card (SPF 41.002.01-5). Initially, the inspector questioned this option since the Instrument Malfunction Card provides for more information. However, based on discussions with the licensee, the inspector determined the option of using either record is acceptable.

The inspector noted that the method for issuing M&TE being used by the licensee is not addressed in the procedure. Based on requirements of ANSI standards, the inspector determined that this was not required since M&TE usage is not tracked by issuance but by the individual user.

8.3 Implementation Review

8.3.1 Implementation of the measuring and test equipment program was reviewed for conformance to the standards and procedures referenced in paragraph 8.1 and to examine whether the following was accomplished.

-- Proper environmental conditions and acceptable work practices were maintained in the M&TE laboratory

-- Test equipment was in calibration when in use

-- Standards used for calibration of test equipment were traceable to the National Bureau of Standards or other testing organizations

-- The master M&TE list was adequately maintained

-- The calibration schedule was followed

-- Calibration data was adequate, accurate and within specified tolerances

-- M&TE usage was traceable for out-of-calibration test equipment

-- Storage and labeling of test equipment was proper

-- Test equipment custody control records were adequate

8.3.2 During the inspection of the M&TE laboratory and M&TE calibration records, the inspector observed the following.

8.3.2.1 Numerous pieces of test equipment were listed on the master M&TE list without including the equipment description or calibration procedure as required by SP 41.003.01. Subsequent to the inspection, the inspector reviewed an updated master M&TE list and determined that the above discrepancies had been corrected.

Corrective action for paragraphs 8.4.1.5 and 8.4.1.6 of this report will provide permanent corrective action.

8.3.2.2 An initial review of some vendor M&TE calibration data sheets indicated that there were no certification of traceability of primary standards used by vendor calibration laboratories to the National Bureau of Standards (NBS). However, based on further inspection, the inspector determined that certification of traceability to NBS was provided for all data reviewed by the inspector.

8.3.2.3 To ensure that calibration procedures are changed based on changes to M&TE vendor technical manuals, the manuals must be included in the reference tracking system per SP 11.004.01. During initial inspection, it appeared that some technical manuals may not have been included in the reference tracking system. However, based on a later sampling inspection of M&TE calibration procedures, the inspector determined that vendor technical manuals applicable to these procedures are included in the reference tracking system.

8.3.2.4 The inspector reviewed one deficiency report concerning an out-of-calibration M&TE instrument and noted that it took four months to resolve. The inspector discussed the possibility of establishing time frames for the close out of deficiency reports concerning M&TE with licensee representatives. Based on these discussions, the inspector determined that such time frames were not required.

8.3.2.5 The M&TE lab has been in use for several years. The inspector conducted a selective sampling inspection of M&TE calibrations performed by the plant, LILCO calibration laboratories, and outside vendors, and found all data reviewed to be acceptable. The inspector noted all instruments that could not be calibrated had been removed from service or were clearly identified for limited use; and that there were approved calibration procedures for each test instrument which was calibrated by the plant or by the LILCO M&TE lab.

Additionally, the inspector noted that if during the recalibration of a test instrument, the instrument was found to be out of calibration, the licensee investigated the adequacy of plant instrument calibration which had been previously performed by this test.

A selective sample of ten M&TE instruments found all instruments to be properly calibrated. Based on this review the inspector considered M&TE to be in current calibrated status in that calibrations were being scheduled and performed, and calibration data reviewed was satisfactory. However, deficiencies were observed

in the M&TE program procedure and in the M&TE calibration laboratory conditions, and are detailed in paragraph 8.4 below.

8.4 Findings

The inspector determined that the following deficiencies need to be corrected before the M&TE program will meet the regulatory requirements of 10 CFR 50, Appendix B, and ANSI N18.71976, as applicable to activities affecting the control and calibration of M&TE.

8.4.1 During review of SP 41.003.01, "Control of I&C Measuring and Test Equipment," the inspector determined that this procedure did not address many activities actually being performed for control of M&TE. The following deficiencies were identified.

8.4.1.1 Records of test equipment usage is being entered into the computer tracking system. However, the method by which this is done is not specified in or required by the procedure.

8.4.1.2 An M&TE Custody Control Record form (SPF 41.003.01) is included in the procedure. This form was previously used to record test equipment usage and is currently being phased out. The current use of this form is not adequately addressed by the procedure.

8.4.1.3 A yellow M&TE usage card is provided to each I&C technician in order that each technician can record his usage of M&TE. This form is turned in weekly to update the computer tracking system. The form and its use is not specified in the procedure.

The "REASON FOR USE" column on the M&TE Usage Card is not specific as to what should be recorded in the column stating "(Mark No., Proc. No., Test No., etc)." The procedure does not clearly define entries required in this column in order to ensure proper traceability of M&TE usage.

8.4.1.4 Paragraph 8.5.1 of SP 41.003.01 states, "Proper care shall be taken during use, storage, and shipping to ensure that M&TE is not subjected to extremes of temperature, humidity, vibration, radiation, dust and fumes which could adversely affect the accuracy of the instrument." The procedure does not define what environmental conditions are to be maintained, what the required cleanliness conditions are for the M&TE laboratory, nor what the required protection is for test instruments such as covering test gage openings.

8.4.1.5 The procedure does not define personnel responsibilities. The following deficiencies were identified:

-- Responsibility for approval of test data including data from calibrations performed by outside laboratories (See also paragraph 8.4.1.11)

-- Responsibility for ensuring that M&TE usage is placed in the computer tracking system

-- Responsibility for maintenance of the master M&TE list including changes to the list

8.4.1.6 The procedure defines Form SPF 41.003.01-5 as the master test equipment index form. However, the master M&TE list is being printed by a master typer in a format different from that specified on SPF 41.003.01-5.

8.4.1.7 Paragraph 8.1.3.2 of SP 41.003.01 calls for the M&TE instrument description to be on the master M&TE list. Neither Form SPF 41.003.01-5 or the master list currently in use specifies instrument description. For this reason, the instrument descriptions were omitted for numerous M&TE entries on the master M&TE list. Subsequent to the inspection the inspector verified that the form in use now includes instrument description.

8.4.1.8 The procedure paragraph 8.4, "Corrective Action," does not adequately state corrective actions to be taken if an M&TE instrument is found out of calibration in that it does not address when and how many recalibrations should be performed for those plant instruments on which the M&TE instrument was used.

8.4.1.9 The procedure does not state if M&TE which is to be retired should be recalibrated prior to removal from service. This recalibration would ensure adequacy of previous calibrations performed by this instrument since the instrument is being permanently removed from the recalibration program.

8.4.1.10 Paragraph 8.8, "Off-Site Calibration," contains four subparagraphs each using the verb "should". This makes the entire paragraph optional. The inspector noted that paragraphs 8.8.1.1, 8.8.1.2 and 8.8.1.4 could be optional. However, paragraph 8.8.1.3 which specifies the use of Form SPF 41.003.01-6, "Request for Calibration Services", is not intended to be optional and use of the verb "shall" is appropriate.

8.4.1.11 The procedure does not specify how reviews of M&TE calibrations performed offsite are to be documented (See paragraph 8.4.1.5 of this report concerning responsibilities). Based on data sheets reviewed by the inspector, the I&C foreman is signing

the data sheet; however, the procedure does not specify any method for documenting this review.

The licensee stated that SP 41.003.01 would be revised to correct the above deficiencies. This item is unresolved pending completion of licensee action and subsequent NRC:RI review (322/82-34-19). This item must be corrected prior to O.L.

8.4.2 Some M&TE vendor calibration data sheets gave no tolerances hence were incomplete and provided no basis for licensee review, although this data had been reviewed by the licensee and accepted.

A licensee representative stated that tolerances on previous data sheets were used for this evaluation. Additionally, he stated that the proposed changes to SP 41.003.01 concerning vendor data review will correct this problem (see paragraphs 8.4.1.5 and 8.4.1.11 of this report). The adequacy of vendor M&TE calibration data sheets, including specification of tolerances, will be followed during a subsequent NRC:RI inspection (322/82-34-20).

8.4.3 Uncontrolled copies of M&TE vendor technical manuals were being maintained in the M&TE laboratory while controlled copies of the same manuals were being maintained in the station reference library. The manuals are used for repair of M&TE, ordering of parts, and occasional reference but not for M&TE calibrations which are performed per station approved procedures.

A licensee representative did not concur that the manuals were required to be controlled; however, he stated that these manuals would be removed from the M&TE laboratory while a method for control of these manuals is evaluated. Licensee action concerning control of M&TE technical manuals will be reviewed during a subsequent NRC:RI inspection (322/82-34-21).

8.4.4 The M&TE calibration laboratory and work shop appeared to have inadequate housekeeping and work practices. The areas were unkempt, cluttered, and dusty. Electronic instruments were unprotected from dust and test gages were uncapped. There were no clearly identified areas to segregate out of service equipment, e.g., uncalibrated general use gages were stored in the vicinity of calibrated test gages and out-of-service U-tube manometers were stacked in a corner with brooms. Environmental conditions such as temperature and humidity were unmonitored.

To improve the M&TE laboratory work practices and environmental conditions, the licensee agreed to (1) procedurally define and establish appropriate M&TE laboratory, work practices and environmental conditions (see paragraph 8.4.1.4 of this report), (2) implement the work practices and environmental conditions which are established, and (3) take immediate action

to clean the M&TE lab. The inspector observed that action to clean the M&TE lab was in progress during the inspection. This item is unresolved pending completion of licensee action and subsequent NRC:RI inspection and must be completed by O.L. (322/82-34-22).

9. Review Committees

9.1 References/Requirements

-- Technical Specifications (TS), Sections 6.5.1 and 6.5.2

-- Final Safety Analysis Report, Sections 13.4.2

-- ANSI N18.1-1971, Standard for Selection and Training of Personnel for Nuclear Power Plants

-- Regulatory Guide 1.33, Quality Assurance Program Requirements (Operations), Revision 2

-- ANSI N18.7-1976, Administrative Controls and Operational Quality Assurance for the Operational Phase of Nuclear Power Plants

9.2 Onsite Review Committee

9.2.1 Program Review

The inspector reviewed plant administrative procedure SP 12.004.01, Review of Operations Committee (ROC), Rev. 18, to determine whether administrative controls have been established for the following.

-- Independent review authority and responsibility

-- Ensuring the completion of reviews required by Technical Specifications

-- Membership, alternate members, and quorum requirements

-- Meeting frequency, maintenance and distribution of minutes/records

-- Lines of communication and interface with other groups, such as the Offsite Review Committee

The inspector identified that procedure SP 12.004.01 did not: reflect the membership outlined in the November 23 issue of the proposed TS; delineate the basic responsibilities of the chairman; describe the basic manner of conducting business; and, use the word "should" appropriately in a number of paragraphs. The procedure was revised and issued (Rev. 19) prior to the conclusion of the inspection and reviewed by the inspector.

No violations or followup questions were identified.

9.2.2 Implementation

The committee has been established and is functioning with respect to its current responsibilities. Objective evidence that the

committee was fulfilling its responsibilities such as Comment Sheets, Routing Slips to members of items to be reviewed, several meeting minutes, and copies of reports were reviewed or observed by the inspector. The chairman and acting chairman demonstrated knowledge and understanding of committee authority, functions, and responsibilities.

The inspector reviewed several meeting minutes and noted that the committee reviews and approves startup test program procedures. Procedure SP 12.004.01 assigns responsibility to the chairman for administrating the functions of the committee. The inspector interviewed the acting chairman (Chief Operating Engineer) and discussed the manner in which such activities as reviews and comment resolution are controlled. The acting chairman stated that procedures needing review are routed to designated members by him or by the chairman; reviewers utilize comment forms (three copies) to forward comments to the originator of the procedure; the procedure originator brings the comment sheets and resolutions thereof to the appropriate meeting; and, assignments to members are distributed. The acting chairman also demonstrated that he reviews audit reports, audit findings, QQA trend analysis and the open audit findings list.

No violations or followup questions were identified.

9.2.3 Findings

Based on the inspection performed in this area, the Onsite Review Committee program and its implemenation is in compliance with regulatory requirements and licensee commitments.

9.3 Offsite Review Committee

9.3.1 Program Review

Written procedures addressing the Nuclear Review Board (NRB) activities were reviewed to determine whether administrative controls have been established for the following.

-- Independent review and audit authority and responsibility

-- Manner by which TS Section 6 reviews and audits will be accomplished

-- Membership, alternate members, and quorum requirements

-- Meeting frequency, maintenance and distribution of minutes/records

-- Lines of communication and interface with other groups such as the onsite review committee

The following Nuclear Operations Support Division (NOSD) procedures were reviewed.

-- NOSD-18.1, Membership Assignment, Rev. 0

-- NOSD-18.2, Retention and Direction of Consultants, Rev. 0

-- NOSD-18.3, Meetings, Rev. 0

-- NOSD-18.4, Definition of Unreviewed Safety Question, Rev. 0

-- NOSD-18.5, Review Information, Transmittal and Action, Rev. 0

-- NOSD-18.6, Audit Performance, Rev. 0

-- NOSD-18.7, Subcommittees, Rev. 0

-- NOSD-18.8, Board Staff Engineer, Rev. 0

-- NOSD-18.9, Board Correspondence, Rev. 0

-- NOSD-18.10, Board Records and Information, Rev. 0

-- NOSD-18.11, Member Orientation, Rev. 0

-- NOSD-18A, NRB Charter

No violations or followup questions were identified.

9.3.2 Implementation

The committee has been established and is functioning with respect to its current responsibilities. The committee is also planning on how to accomplish near term responsibilities. The inspector noted that the committee meetings began in April, 1982, and have been held on a six week cycle since then with just one cancellation.

The chairman demonstrated knowledge and understanding of committee authority, functions and responsibilities. Committee members demonstrated similar appropriate knowledge at various times during the meeting.

The committee consists of five LILCO members and five members external to the company. The background files for two external members and one LILCO member were reviewed. The inspector determined that these documents indicated the individuals possessed the required expertise in their designated discipline area. One of the external members' expertise complied with the NUREG 0420, Supplement 1, paragraph 1.3.4.2 requirements for a member to possess substantial BWR operating experience.

The inspector interviewed the NRB chairman and the discussion included, but was not limited, to the following committee activities:

-- A special training topic on the plant, coordinated between the Training Supervisor and the NRB Coordinator and presented at each meeting

-- The working matrix that shows NRB audit areas, audit scheduling, and external industry expertise that may be needed for the audits

-- The review of safety and operating committee organizations and the presentations made by representatives of such committees as ROC, ISEG, Joint Test Group and Startup

-- Plant status discussions and the Board Engineer's analysis of hearings, licensing, etc. at each meeting

The inspector attended a portion of the December 8 NRB meeting held onsite. The following were some of the agenda items addressed during the meeting.

-- Presentations by the QAD Manager and OQA Engineer on the overview functions of their respective groups

-- The cross checklist of TS requirements to readiness elements developed by a consultant (present) who will be the lead auditor on the January, 1983 NRB audit of plant operation readiness

-- The intent to conduct readiness for operations audits so as to satisfy Atomic Safety and Licensing Board (ASLB) directions contained in an NRC letter to another licensee (copies of portions of this letter were distributed)

-- A matrix of readiness elements and assigned audit responsibilities

-- The membership's perceptions of what the audit program should/would accomplish

-- The intent to accomplish necessary audit/review/evaluation functions so as to remove these from the critical path of plant startup/power escalation

-- The interfaces and scheduling of the above audits/evaluations

No violations or followup questions were identified.

9.3.3 Findings

Based on the inspection of this area, the Offsite Review Committee program and its implementation is in compliance with licensee commitments and regulatory requirements.

9.4 Independent Safety Engineering Group (ISEG)

9.4.1 References/Requirements

-- Final Safety Analysis Report (FSAR), Section 13.4.3

-- Nuclear Operations Corporate Policy No. 22, "Independent Safety Engineering Group," Revision 0, June 21, 1982

-- The Charter of the Independent Safety Engineering Group, July 14, 1982.

-- Nuclear Operations Support Division Procedures (NOSD) 19.1 through 19.9, Revisions 0, June 30, 1982

-- NUREG-0737, Clarification of TMI Action Plan Requirements, Paragraph 1.B.1.2

-- LILCO Quality Assurance Manual, Section I, Revision 0, June 1, 1982

-- Technical Specifications, Section 6 (Draft), March 23, 1982

-- NUREG-0420, Supplement No. 1, Safety Evaluation Report

9.4.2 Program Review and Organization

The inspector reviewed the licensee's ISEG program to determine whether the:

-- charter and procedures were established in accordance with regulatory requirements and licensee commitments;

-- organization is delineated and staffed to meet regulatory requirements;

-- organizational independence exists and interfaces are delineated;

-- appropriate responsibilities are established and assigned;

-- procedures are established for the control of the ISEG activities;

-- provisions are established to assure that records are properly maintained and transferred to a storage facility;

-- administrative controls are established to support the required organizational responsibilities;

-- provisions are established to assure that ISEG receives information and intelligence gathering resource materials upon which to base its reviews and activities.

9.4.3 Implementation

LILCO's Nuclear Operations Corporate Policy 22, Independent Safety Engineering Group, defines the organization, the responsibilities and authorities of the ISEG. The ISEG Charter was approved by the Vice President - Nuclear on July 14, 1982 and it further delineates the ISEG functions, operations, organization and composition, assignments, rights to plant access, administrative procedures, records, staff qualifications and training, and authorities.

The ISEG initiated operations on July 20, 1982 and is staffed with five full time engineers, each with, as a minimum, a bachelor's degree in engineering or related science or equivalent and at least two years professional experience in his field. All will have had one or more years in the nuclear field by the fuel load date.

Three of the engineers have masters degrees, two in nuclear engineering and one in electrical power systems. Two engineers have bachelor degrees, one in civil and one in mechanical engineering.

The ISEG Chairman is located offsite and reports directly to the Manager of the Nuclear Operations Support Division (NOSD), who reports directly to the Vice President - Nuclear. The following nine procedures describing the activities of the ISEG were issued by NOSD and approved by the ISEG Chairman.

-- NOSD 19.1, Charter and Procedure Control
-- NOSD 19.2, ISEG Project Assignments
-- NOSD 19.3, ISEG Work Practices
-- NOSD 19.4, ISEG Meeting
-- NOSD 19.5, ISEG Reports and Recommendations
-- NOSD 19.6, ISEG Records and Correspondence
-- NOSD 19.7, Duties, Responsibilities, Qualifications and Training of ISEG Members
-- NOSD 19.8, Operating Experience Review Program
-- NOSD 19.9, ISEG Commitments

NUREG 0737, "Clarification of TMI Action Plan Item," Section I.B.1.2, requires the ISEG to be located onsite. The ISEG onsite group leader and group are situated in a trailer located onsite near the Shoreham Station circulating water pump house, and is scheduled to permanently relocate to the onsite Offices Services Building approximately April, 1983.

9.4.3.1 Implementation Discussions

During an interview, the ISEG group leader stated that the onsite ISEG engineers were working 20% overtime. He also stated that one additional engineer with QA expertise would be assigned to the ISEG in January, 1983, and that work was principally scheduled for daytime hours with a few exceptions. The inspector expressed a concern regarding the potential for skewing the assessment of plant operations and performance by not covering backshifts. The ISEG Chairman subsequently stated that procedure NOSD 19.9 would be revised "to provide a sampling of all aspects of plant operations including backshifts and weekends." The revision to NOSD 19.9 was made prior to the completion of the inspection, thereby resolving the inspector's concern.

The inspector asked whether the ISEG records were getting to the SR-2 permanent records file. The ISEG Chairman revised procedure NOSD 19.6 to establish an accountability control log and utilize the existing SR-2 transmittal receipt system. This resolved the inspector's concern.

The inspector also questioned the adequacy of controls for assurance that the ISEG received the necessary information and intelligence gathering resource materials (e.g. operating and industry experience data) in order to perform their assigned mission. The ISEG Chairman reviewed the existing controls and initiated several procedural improvements to the existing system. The inspector had no further questions regarding this issue.

The inspector reviewed the ISEG methodology for resolving differing professional opinions within the ISEG. The inspector raised the issue that there appeared to be no existing mechanism for handling such differences of opinion. The ISEG Chairman initiated a revision to procedure NOSD 19.7 to provide for the training of ISEG engineers with regard to the use of an existing corporate procedure for handling differing or dissenting professional opinions. Training of the ISEG engineers was scheduled for December 20, 1982, to address this concern. The inspector had no further questions regarding the resolution of this issue.

The inspector identified that there was no training of the ISEG staff or ISEG procedures covering 'reporting', e.g. prompt reports required by Technical Specifications. The ISEG chairman resolved this issue by initiating revisions to procedures NOSD 19.3 and 19.7. Training of ISEG engineers was scheduled to be given on December 20, 1982 to address this concern. The inspector had no further questions regarding this issue.

The inspector identified no ISEG procedural coverage or training of ISEG engineers on the subject of 10 CFR 50.59 and the handling of unreviewed safety questions. The ISEG chairman resolved the inspector's concerns by making revisions to procedures NOSD 19.2, 19.3, 19.7 and 19.8. Training of ISEG engineers was scheduled for December 20, 1982 to address this concern. Based upon this action the inspector had no further questions on this issue.

The inspector questioned the apparent project orientation restraints on the ISEG engineers relative to having time available in the plant to effectively focus on human error surveillance commitments (Reference FSAR 13.4.3 paragraph 1 (c) and (d)). The ISEG group leader provided a break down of time being spent on operating experience work that showed three engineers were spending 21.6% of their time on work of this nature, however two engineers were currently working full time on project study type work (essentially no availability for in plant surveillance activities).

The ISEG chairman revised procedure NOSD 19.9 Revision 1 to require an average level of 20% per month time of each engineer to be devoted to activities related to this concern. Based upon this action the inspector had no further questions on this matter. The ISEG Chairman made improvement changes in several other procedures, such as NOSD 19.3 to sharpen group focus on system interaction problems; and, NOSD 19.2 to foster individual engineer awareness toward identification of potential problems they may observe (e.g., during in-plant surveillance activities).

The organization was found to have independence from the plant organization such that it can perform independent reviews, audits, surveillances and assessments of plant activities. The ISEG has freedom to access the plant; and the onsite group leader routinely attends the daily plant staff planning meetings in order to maintain cognizance of day-to-day plant activities. All work is assigned to the ISEG engineers on a formalized project basis and all projects receive approval of the ISEG Chairman and the NOSD Manager.

The ISEG receives, screens and evaluates regulatory and industry operating experience information and provides input/recommendations to the plant staff via periodic reports.

9.4.4 Findings

Based on the inspection of this area, the ISEG organization, program and staff is established and operating in accordance with regulatory requirements and licensee commitments.

10. QA Record Program

10.1 References/Requirements

-- Proposed Technical Specifications, Section 6.10, Record Retention

-- Final Safety Analysis Report (FSAR), Section 17.2.17, Quality Assurance Records

-- ANSI N45.2.9-1974, Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants

-- Regulatory Guide 1.88, Rev. 2

-- ANSI N18.7-1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants

10.2 Program Review

The licensee's QA program for records management was reviewed for conformance with the requirements listed in paragraph 10.1 to ensure that the program included the following.

-- Whether records program and controls are established which identify the record storage facility, designated custodian(s) in-charge of storage facilities, the filing system for record retrieval, a method for verifying records received are in agreement with preestablished checklists, access control to files and accountability maintained when files are removed from storage, and a method for correcting files and disposing of superceded records

-- Whether responsibilities are assigned to ensure QA records identified will be maintained

-- Whether requirements for maintaining and retaining Quality Assurance Program records are established

-- Whether responsibilities are assigned and controls established to assure transfer and retention of preoperational and operational phase records

-- Whether responsibilities are assigned to establish retention periods for records not covered by the FSAR, Technical Specifications or Title 10 of the Code of Federal Regulations

-- Whether authority and responsibility for authorizing disposal of records are assigned

The following procedures were reviewed to determine whether administrative controls have been established.

-- Station Procedure (SP) 12.008.02, Retention of Permanent Plant Documentation, Revision 1, June 4, 1980

-- SP 12.008.04, Documentation to SR-2, Revision 1, August 6, 1982

-- Quality Assurance Procedure (QAP)-S-17.1, Operational Quality Assurance Records, Revision 2, November 30, 1981

-- QAP-S-17.2, Operational Quality Assurance (OQA) Use of the Shoreham Record Retrieval System, Revision 2, November 30, 1981

-- QAP-S-17.3, Station OQA Review of Vendor Documentation for Startup, Revision 2, August 21, 1980

-- Nuclear Operations Support Department (NOSD) Procedure 29, Shoreham Record Retrieval System, Revision 0, December 10, 1982

-- NOSD 29.1, Shoreham Record Retrieval System Microfilm Inspection, Revision 0, December 10, 1982

-- QA Manual, Section 17, Quality Assurance Records, Revision 0, June 1, 1982

-- QA Manual, Appendix F, Types of Lifetime and Nonpermanent Records, Revision 0, June 1, 1982

-- Stone and Webster Construction Site Instruction (CSI) 2.19, Shoreham Record Retrieval System (SR-2), Revision 8, April 8, 1979

Based upon a review of the above program and procedures, the inspector determined that some procedures were deficient in content as detailed below.

10.3 Implementation

10.3.1 The "reference library" is currently being used as an interim storage area for records prior to transfer to the Shoreham Record Retrieval System (SR-2) for microfilming and final disposition. This interim storage situation has developed because of storage limitations and the backlog of construction and startup records that need to be first processed by SR-2. (An inspection of the control and operation of SR-2 was performed previously during NRC inspection 82-14). The licensee's "reference library" was inspected to determine if file room access was being controlled, storage of records was adequate, and that records were being transmitted using the required forms.

10.3.2 The inspector determined that SR-2 was conducting operations in accordance with Construction Site Instruction 2.19. Although this procedure was adequate during construction, the inspector found that it would not support station operations.

The licensee agreed with the inspector's concern and stated that new procedures would be developed. The inspector reviewed the newly issued SR-2 system procedures for adequacy prior to the completion of the inspection and had no further questions.

10.3.3 The inspector determined that a Records Management transmittal form was not being used when ISEG QA records were sent to SR-2. This was of concern because this form is the only means by which the sender is notified that SR-2 has received the records. ISEG procedures reference CSI 2.19, which fails to specifically state that a Records Management transmittal form should be used when forwarding QA records to SR-2.

The inspector independently verified that certain ISEG QA records sent without the proper transmittal form were received and processed by SR-2. In addition, the inspector noted during his review that the newly issued SR-2 procedure (which supersedes CSI 2.19) specifically states that a Records Management transmittal form should be used when forwarding QA records to SR-2. The inspector had no further questions in this area.

10.4 Findings

The inspector determined that the licensee's program for records control is not in conformance with ANSI N45.2.9., Section 5.3 which requires that storage procedures be prepared including rules governing access to and control of files.

10.4.1 The inspector identified that access to various QA record files located within the "reference library" were not adequately controlled. The licensee's representatives agreed with the inspector's concern and stated that the relocation of SR-2 to the Technical Support Center building would alleviate the need for an interim storage area. Originators of QA records would then forward all records, in accordance with the newly issued SR-2 system procedures, directly to SR-2 where access controls have been firmly established. The licensee stated that access to and control of QA records would be conducted in accordance with the new SR-2 system procedures and that SP 12.008.02 and SP 12.008.04 would be revised to reflect the new SR-2 procedures thirty days (30) prior to fuel load (322/82-34-23).

11. Document Control Program

11.1 References/Requirements

-- Proposed Technical Specifications, Section 6, Administrative Control

-- Final Safety Analysis Report (FSAR), Sections 17.2.5 and 17.2.6

-- ANSI N45.2-1977, Quality Assurance Program Requirements

-- ANSI N18.7-1976, Administrative Controls and Operational Quality Assurance for the Operational Phase of Nuclear Power Plants

-- Reg. Guide 1.33, Rev. 2, February 1978, Quality Assurance Program Requirements

11.2 Program Review

The licensee's program for document control was examined to determined whether the program is in conformance with the requirements of the references listed in paragraph 11.1 and to determine whether:

-- current as-built drawings, including piping and instrument drawings (P&ID's) will be provided to the plant in a timely manner;

-- proposed drawing changes and the revised drawings receive the same level of management review required of the originals;

-- provisions have been made for identifying and marking of drawings that have outstanding revisions;

-- control of obsolete drawing has been established;

-- discrepancies found between as-built drawings and the as-constructed facility are handled as design changes;

-- master indices will be maintained for drawings, manuals, technical specifications, and procedures indicating the current revision; and,

-- provisions have been made for document issuance, distribution, use, and periodic review.

The following procedures which describe the administrative controls for document control were reviewed by the inspector.

-- Quality Assurance Manual, Section 5, Instructions, Procedures and Drawings, Revision 0, June 1, 1982

-- Quality Assurance Manual, Section 6, Document Control, Revision 0, June 1, 1982

-- Quality Assurance Manual, Appendix D, LILCO Quality Related Documents-Control Responsibilities, Revision O, June 1, 1982

-- Quality Assurance Procedure (QAP)-S-06.2, Control of Station Procedures and Instructions, Revision 2, May 23, 1980

-- QAP-S-05.4, Operational Quality Assurance Review of Procedures, Revision 2, October 6, 1981

-- QAP 5.1, Quality Assurance Procedures, Instructions, Memoranda and Change Notices, Revision 6, September 23, 1980

-- QAP 6.1, Document Control, Revision 3, August 1, 1979

-- Station Procedure (SP) 11.004.01, Reference Tracking Program, Revision 4, May 12, 1980

-- SP 12.001.01, Index and Organization of Station Operations Manual, Revision 11, September 24, 1982

-- SP 12.006.02, Station Procedure Control and Distribution, Revision 13, September 22, 1982

-- SP 12.006.01, Station Procedure Preparation, Review, Approval, Change, Revision and Cancellation, Revision 15A, August 2, 1982

-- SP 12.008.03, Document Control Drawings and Aperture Cards, Revision 1, July 16, 1980

-- SP 12.022.01, System Description Revision, Review, Approval and Distribution, Revision 15, August 19, 1982

-- SP 21.008.01, Operations Standing Orders, Revision 2, November 26, 1981

-- Office of Engineering (OE) 1.01, Preparation and Control of Shoreham Support Procedures, Revision 3 (draft), October 13, 1982

-- Nuclear Engineering Department (NED) 5.01, Preparation and Control of NED Procedures (draft)

-- NED 6.01, Document Control (draft)

-- Stone & Webster, Construction Site Instruction (C.S.I.)-2.12, Control of E&DCR's, Revision 18, February 26, 1980

-- Stone & Webster C.S.I. 2.20, UNICO Document Issue and Control, Revision 9, April 30, 1981

-- Nuclear Operations Support Division (NOSD)-29.2, Satellite File Control, Revision 0, December 10, 1982

-- NOSD-30, Shoreham Document Control Program, Revision 0, December 10, 1982.

The inspector had no further questions except as noted in paragraph 11.4.

11.3 Implementation

The following documents, indices, and reports were examined.

-- Plant Procedure Status List (PPSL)

-- Reference Tracking System Reports

-- Station Procedure Change Notice (SPCN) Log

-- Official Working Copy files index

-- Engineering and Design Coordination Reports (E&DCR) Weekly Summary and Monthly Log

-- Vendor Manual Index list

-- Temporary Procedure Change Log

Drawings, procedures, manuals, and forms were selectively sampled at the site to determine that controlled copies were consistent with the revisions indicated in the Plant Procedure Status List (PPSL). Five or more administrative, operating, surveillance, maintenance procedures, and operational procedure forms, were checked against the PPSL at each of the following controlled copy locations.

-- Control Room - station procedures, forms, Alarm Response Procedures (ARP) and standing orders

-- Reference Library station procedures, forms, and controlled drawings

-- Chief Operating Engineer's Office - station procedures and draft Technical Specifications

-- Maintenance Engineer's Office station procedures and forms

11.3.1 The Quality Assurance (QA) Manual, Section 5, "Instructions, Procedures, and Drawings," Revision 0, June 1, 1982 requires QA review of safety related procedures. The inspector determined that Appendix D, "LILCO Quality Related Documents - Control Responsibilities," of the QA manual did not include the station OQA Engineer in the review cycle for station procedures and special test procedures.

The licensee prepared a draft revision to Appendix D of the QA manual that included the OQA Engineer in the review cycle for station procedures and special tests prior to the conclusion of the inspection. The inspector reviewed the approved draft revision to Appendix D of

the QA manual, which included the station OQA Engineer in the review cycle for station procedures and special tests.

11.3.2 Procedure 12.006.01, "Station Procedure Preparation Review, and Approval" requires station procedures to be reviewed in accordance with SP 12.001.01, which requires Review of Operations Committee (ROC) and Operations Quality Assurance (OQA) reviews as indicated on the Plant Procedure Status List (PPSL). Recently the Operations Quality Assurance (OQA) Section determined that all station procedures would be reviewed by them. This created a contradiction in that SP 12.006.01 and the PPSL were not revised to indicate the 100% OQA review of all station procedures. The licensee revised SP 12.006.01 prior to the conclusion of the inspection to include OQA in the review cycle for all station procedures and their subsequent revision(s). The inspector verified that this change was made to SP 12.006.01.

11.3.3 SP 12.006.02, "Station Procedure - Control and Distribution," requires the use of Controlled Copies or Official Working Copies for performance of safety-related activities. The inspector determined that the licensee had established working copy files throughout the station on an informal control basis. The licensee agreed with the inspector's finding and the licensee revised SP 12.006.02 prior to the conclusion of the inspection to formally establish local working files and limit their locations throughout the plant. The inspector reviewed revised procedure SP 12.006.02 and determined administrative control of official working copy files was now established.

11.4 Findings

The inspector determined that the following deficiencies need to be corrected in order for the document control program to fully meet regulatory requirements and commitments.

11.4.1 During review of the Station Program for procedure control which included SP 12.001.01, SP 12.006.01 and SP 12.006.02, the inspector noted the following.

-- SP 12.006.01, Section 8.7, "Temporary Procedures," allowed implementation of the procedure without approval by the Review of Operations Committee (ROC)

-- Procedure control at Remote Operation Areas (i.e., Diesel Generator Room, Rad Waste Panel, and Remote Shutdown Panels) had been addressed but the mechanism for control and the necessary procedures for each location had not yet been established

-- The review cycle for Alarm Response Procedures (ARP) was not addressed in either SP 12.001.01 or the PPSL

-- The effective date of safety-related procedures was not being controlled by ROC

-- The criteria for when a procedure revision could fulfill the periodic review requirements of safety-related procedures was not addressed

The licensee representative agreed with the inspector's findings and station procedures SP 12001.01, SP 12006.01 and SP 12.006.02 were revised to include the follcwing prior to the conclusion of the inspection

-- Section 8.7 of SP 12.006.01 was revised to include ROC and OQA approval prior to implementation

-- SP 12.006.02 was revised to include a mechanism to control and identify those procedures necessary at Remote Operating locations

-- SP 12.001.01 was revised to indicate that the ARP supplement to the PPSL will indicate the required review cycle

-- SP 12.006.01 was revised to have the effective date assigned at the time of the Plant Manager's sign off during ROC meetings

-- SP 12.006.01 and its associated Appendix 12.1.4 "Station Procedure Change Notice" (SPCN) were revised to provide for a Periodic Review check-off block on the SPCN form for the documentation of completion of a periodic review in conjunction with a procedure revision. This review is concurred to or assigned by management.

The inspector reviewed the above noted revisions. The implementation of these changes will be inspected during a subsequent NRC inspection (322/82-34-24).

11.4.2 The inspector determined that the licensee had not developed a corporate or station procedure to control copies of Technical Specifications (T.S.) when the Operating License is issued. The licensee is currently using an interim procedure to control the draft Technical Specifications. The inspector explained the need for a procedure to control Technical Specifications including distribution, revision, and a method for incorporating Technical Specification changes into applicable station procedures (e.g., operating, emergency and Alarm surveillance).

The licensee's representative agreed with the inspector's findings and committed to having approved corporate and or station procedures in place prior to fuel load (322/82-34-25).

11.4.3 The licensee's current drawing control program was not in conformance with requirements in that it did not include the control room or Technical Support Center (TSC) as "controlled copy" locations. The licensee agreed with the finding and stated that: 1) a decision was

made to have "information only" copies in the control room, based on the amount of control room traffic (contractor & start-up personnel); and, 2) there was a need to have a "static plant" for the licensee operator candidates to prepare for NRC licensing examinations.

The Nuclear Operations Support Department issued procedures NOSD-30, "Shoreham Document Control Program" and NOSD 29-2, "Satellite File Control" prior to the conclusion of the inspection. The inspector reviewed these procedures and determined that an adequate drawing control program was established, including the Control Room and Technical Support Center as "controlled copy" locations. The inspector determined that the NOSD procedures were adequate for drawing control, but that SP 12.008.03, "Document Control - Drawing and Aperture Cards," would need to be revised to reflect the new procedures and establish any necessary interfaces between the NOSD document control program and the station. The licensee representative agreed with the inspector's comment and committed to having the drawing control program implemented for those locations identified in NOSD 29.2 (Control Room, TSC, Emergency Offsite Facility, and the Reference Library) thirty (30) days prior to fuel load. This item will be followed in a subsequent NRC inspection (322/82-34-26).

12. Procurement

12. References/Requirements

-- ANSI N45.2.13-1976, Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plant

-- ANSI N45.2-1977, Quality Assurance Program Requirements

-- Final Safety Analysis Report (FSAR), Sections 17.2.4 and 17.2.7

-- Regulatory Guide 1.123, Quality Assurance Requirments for Control of Procurement of Items and Services for Nuclear Power Plants, Revision 1.

12.2 Program Review

The written procurement control program was reviewed to determine whether administrative controls were established for:

-- The identification of items purchased; identification of tests and/or special instructions, technical requirements and documentation to certify the item; assurance that the contractor/supplier has implemented a QA program consistent with 10 CFR 50, Appendix B, and where deemed appropriate by the licensee, access to the supplier's plant or records for purposes of audit;

-- Initiation of procurement documents; review and approval of specifications differing from the original design documents; review and approval of procurements, including changes thereto; and, the designation of quality classification of procured items;

-- Assignment of the evaluation and approval of bidders/suppliers, including review/update of the listing of approved suppliers; providing for rights of access to supplier's facilities and records; and, maintenance of records of suppliers qualifications and audit.

The following licensee administrative controls/procedures were reviewed.

-- Nuclear Operations Corporate Policy (NOC) 4, Corporate Procurement Document Control, Revision 2, August 17, 1981

-- NOC 6, Corporate Procurement Controls, Revision 2, August 17, 1981

-- Quality Assurance Procedure (QAP) 3.1, Review of Specification and Design Input/Output Documents for Shoreham Unit 1, Revision 5, November 22, 1982

-- QAP 4.2, Review of Procurement Documents for Shoreham Unit 1 - During Operations, Revision 1, November 22, 1982

-- Office of Engineering (OE) - 3.01, Procurement Control (draft)

-- OE - 2.05, Preparation of Specifications for Procuring Outside Services (draft)

-- Nuclear Engineering Department (NED) - 4.01, Procurement Control (draft)

-- NED - 4.02, Preparation, Review and Approval of Material and Equipment Specifications (draft)

-- NED 4.03, Procurement Specifications for Outside Professional Services (draft)

-- Station Procedure (SP) 12.019.01, Procurement of Parts, Material and Components, Revision 8, September 21, 1982

-- SP 12.019.07, Preparation, Review and Approval of Specifications for Material Equipment and Services, Revision OA, (draft)

-- QAP-S-04.1, OQA Review of Procurement Documents, Revision 3, October 6, 1981

The inspector determined that the draft Nuclear Engineering Department Procedure, 4.02, "Preparation, Review and Approval of Material and Equipment Specifications", as written would allow for the same person to be the preparer, reviewer, and approver and that the responsibilities and requirements of the "specification reviewer" were not adequately delineated. The licensee's representative agreed with the inspector's findings. The draft of NED 4.02 was revised prior to the conclusion of the inspection to delineate the responsibilities of the "specification reviewer" and preclude the same person from being the preparer, reviewer, and approver. The inspector determined that the draft revision adequately corrected this concern.

The inspector had no further questions on these procedures except as noted in paragraph 12.4.1.

12.3 Implementation

12.3.1 The purchase orders listed in paragraph 13.3.1 and the following technical evaluations were reviewed for proper documentation and technical content.

-- TR-82-108, Heat Shrinkable Tubing, catalog method.

-- TR 82-221, Motor Operated Damper Assembly, Specification method

12.3.2 The inspector held detailed discussions and walked through each of

the procurement methods with the Technical Support Engineer responsible for spare parts procurement to determine the adequacy of the technical evaluations performed for safety related procurement.

The inspector discussed and walked through the Quality Assurance (QA) reviews of procurement documents with QA Engineers in the Operations Quality Assurance Section and Quality Assurance Department - Quality System Division to assess the adequacy of the QA review and the review checklist incorporated into the OQA and QAD procedures.

12.3.3 The inspector reviewed and discussed the draft Purchasing Department procedures with the manager of the Purchasing Department to assess the procedure content and adequacy.

12.3.4 The inspectors discussed the Environmental Qualification (EQ) Program with the Manager, Nuclear System Engineering (NED) to determine whether the program was in place and capable of tracking the qualification status of all equipment, parts and materials identified in the EQ program.

The inspector had no further questions in this area.

12.4 Findings

Procedures for procurement activities have been developed. An onsite engineering group has been established and has been reviewing requisitions for spare parts. Items, components, and sub-components are evaluated as to their intended use and assigned a quality classification. Procedures identify procurement requirements for each classification. The item identifier, its classification, procurement requirements, and stock inventory are entered into a computerized information system. The inspector conducted an overview of spares purchasing and determined that engineering evaluations were done; items, materials and sub-components were classified as to the level of their intended use; this information was entered into the information system; and, these activities were being accomplished in accordance with the established procedures. However, one item discussed below will be followed up.

12.4.1 The inspector determined that station procedure 12.019.01 and the Engineering Departments' procedures, OE 3.01 and NED 4.01, did not delineate the responsibility and requirements for tests, inspection and technical evaluation for spare parts to be used in safety-related applications that were procured commercial grade (off-the-shelf) with no Quality Assurance requirements specifically identified. The licensee's representatives agreed with the inspector's findings and stated that spare parts were not procured by this method to date, and that the procedures would be revised to include the requirements for test, inspection and technical evaluations.

SP 12.019.01 was revised prior to the close of the inspection, to delineate the responsibilities and requirements for test, inspection and technical evaluation for spare parts to be used in safety-related applications that were of commercial grade. The inspector determined that the revision adequately corrected the above finding. Subsequent to the inspection, the draft Engineering Departments' procedures, OE 3.1 and NED 4.1, were revised to include testing requirements for commercial grade items. The inspector reviewed the draft procedures and determined that the changes were made. Implementation of the Office of Engineer and Nuclear Engineer Department procurement programs will be reviewed during a subsequent NRC:RI inspection (322/82-34-27).

13. Receipt, Storage and Handling

13.1 References/Requirements

-- 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants

-- Final Safety Analysis Report (FSAR), Sections 17.1.8A and 17.1.13A

-- ANSI N45.2-1971, Quality Assurance Program Requirements

-- ANSI N45.2.2-1972, Packaging, Shipping, Receiving, Storage and Handling of Items for Nuclear Power Plants

-- ANSI N45.2.13-1976, Quality Assurance for the Procurement of Items and Services

13.2 Program Review

The licensee's program for receipt, storage and handling of safety-related equipment and materials was reviewed to determine program compliance with the requirements of the references in paragraph 13.1 above, and to determine whether administrative controls established:

-- requirements for examination of materials, equipment and components for conformance with requirements specified in original procurement documents;

-- requirements for conduct of receipt inspections on all incoming safety-related materials, components and equipment, including issued items being returned to storage;

-- provisions for identification of materials, equipment and components requiring a certification of quality for acceptance;

-- provisions for disposition of received items;

-- controls for acceptance of items, including tagging/marking for storage, holding, or release for immediate use;

-- controls for nonconforming items, including marking and segregation, documentation and disposition (re-evaluation, rework, repair, or return);

-- requirements to prohibit inadvertent installation or use of nonconforming items;

-- methods for conditional release of nonconforming items, including technical justification, documentation, and authority for release;

-- provisions for proper storage levels and appropriate environmental conditions;

-- specification of storage controls, including access, identification, arrangement, coverings, and preservatives;

-- requirements for periodic inspection of storage areas;

-- provisions for preventive maintenance and care of items in storage, including shelf life controls.

The following procedures were reviewed to determine whether administrative controls had been established:

-- QAP-S-8.1, Operational Quality Assurance Identification and Control of Material and Equipment, Revision 0, October 6, 1981

-- QAP-S-10.2, Station OQA Receipt Inspection, Handling, Unpacking and Channeling of Unirradiated Fuel, Revision 0, May 23, 1980

-- QAP-S-15.1, Operational Quality Assurance Nonconformance Control, Revision 1, February 26, 1982

-- QAP-S-15.3, Station OQA Conditional Release Control, Revision 0, May 23, 1980

-- SP 12.019.02, Receiving Spare Parts, Materials and Components, Revision 5, May 3, 1982

-- SP 12.019.03, Storage of Spare Parts, Materials and Components, Revision 3, December 28, 1981

-- SP 12.019.04, Issue of Spare Parts, Materials and Components, Revision 3, November 30, 1982

-- SP 12.019.05, Storeroom Personnel Training, Revision 0, September 22, 1977

Based upon the inspector's review of these procedures, the licensee's program was considered adequate from an administrative standpoint.

13.3 Implementation

13.3.1 The inspector randomly sampled safety-related materials, equipment and components received onsite, to determine whether:

-- receipt inspections were conducted in accordance with administrative controls;

-- disposition of items was in accordance with program requirements;

-- tagging/marking allowed the tracing of items back to procurement documents, receipt documents, and quality certification documents;

-- preventive maintenance was performed, where necessary, at the required intervals;

-- documentation of nonconforming items was transmitted to the appropriate organization for item disposition.

The following safety-related items were selected for review:

-- Rupture Disk, Catalog No. 86*12-2028, P. O. No. 360642

-- Relay, Catalog No. 62*47-4053, P. O. No. 361456

-- Relay, Catalog No. 57*50-1028, P. O. No. 361454

-- Reset Mechanism, Catalog No. 59*81-5625, P. O. No. 360508

-- Actuator, Catalog No. 72*24-0501, S/N 14-101-025501-01-01

-- Swing Check Disk, Catalog No. 47*01-0303, LDR No. 781

Based on the sampling of safety-related material, equipment and components, the licensee's implementation of this area was considered adequate.

13.3.2 The inspector selectively sampled fuel receipt inspection reports and reviewed the LILCO Deficiency Reports (LDR) resulting from several fuel receipt inspections, to determine whether:

-- necessary actions were taken to resolve the nonconformances;

-- adequate resolution for final disposition of the nonconformance was obtained.

Based on the inspector's sampling of this area, the licensee's program implementation was considered adequate.

13.3.3 The inspector toured all storage areas to examine:

-- adequacy of material storage, including packaging, protective coverings, coatings and preservatives;

-- maintenance of controlled personnel access;

-- segregation of safety related items from non-safety-related items;

-- separation of hazardous material from safety-related materials, equipment and components;

-- issuance of stores items in accordance with administrative controls;

-- segregation of items awaiting receipt inspection.

Based on the inspector's examination of storage areas, the licensee's program implementation of this area was considered adequate.

13.3.4 The inspector interviewed the Stores Supervisor to determine whether the staffing level depicted in the plant's organizational charts was adequate to effectively manage and maintain the spare parts inventory program. In addition, the inspector reviewed the training records of the permanently assigned stores personnel to determine if their training was in conformance with station procedures and was adequate for performance of assigned tasks. The inspector noted no documentation of formal stores training for 3 storeroom workers. It was determined that the licensee had previously identified this in an OQA audit and a new training program was being developed to ensure the formal training of all stores personnel.

A draft copy of the stores training program was reviewed by the inspector. Formal training of the 3 storesmen is scheduled for completion by January 31, 1983. This will be reviewed during a future NRC inspection (50-322/82-34-28).

13.4 Findings

Based on the inspections performed in this area, as discussed above, the licensee's overall program for receipt, storage and handling of safety-related equipment and materials was found to be in compliance with regulatory requirements and commitments.

14. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable, deviations or violations. Seven unresolved items were identified during this inspection and are detailed in paragraphs 6.4.1, 6.4.2, 6.4.4, 7.4.1, 7.4.2, 8.4.1, and 8.4.4.

15. Management Interview

Licensee management was informed of the scope and purpose of the inspection on November 23, 1982 and at the entrance interview conducted at the Shoreham Nuclear Power Station on November 29, 1982.

The preliminary findings of this inspection were discussed with licensee representatives periodically during the inspection and in meetings with the licensee management on December 3, and 10, 1982.

An exit interview was conducted at the Shoreham Nuclear Power Station (see paragraph 1 for attendees) on December 15, 1982, at which time the findings of the inspection were presented.