

APPENDIX B

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-382/84-31

Docket: 50-382

Construction Permit: CPPR-103

Licensee: Louisiana Power & Light Company (LP&L)
142 Delaronde Street
New Orleans, Louisiana 70174

Facility: Waterford Steam Electric Station, Unit 3

Inspection At: Taft, Louisiana

Inspection Conducted: May 14, 1984, through June 8, 1984

Lead

Inspectors: *W. Crossman*
for G. L. Constable, Senior Resident Inspector

9/27/84
Date

W. Crossman
for T. A. Flippo, Resident Inspector

9/27/84
Date

Inspectors: C. J. Haughney, Vice President,
COMEX Corporation

M. I. Good, Reactor Operations Engineer,
COMEX Corporation

A. M. Gavins, Supervisor, LOFT Maintenance
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D. N. Graves, Operations Specialist,
EG&G Idaho, Inc.

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EG&G Idaho, Inc.

Approved: *W. Crossman*
W. A. Crossman, Chief
Project Section B, Reactor Project Branch 1

9/27/84
Date

Inspection Summary

Inspection Conducted May 14 - June 8, 1984 (Report 50-382/84-31)

Areas Inspected: Routine, announced inspection of: (1) administration of the operational quality assurance and quality control programs; (2) operational quality assurance audit and monitoring programs; (3) document control; (4) maintenance; (5) operational design change and modification program; (6) surveillance testing and calibration control; (7) procurement; (8) receipt, storage, and handling; (9) quality records; (10) test control for operations; and (11) measuring and test equipment. This inspection involved 489 inspector-hours onsite by five contract engineers and two NRC resident inspectors.

Results: Within the 11 areas inspected, 2 violations were identified: failure to conduct a QA review of procedures (paragraph 2.a); and programmatic breakdown in document control (paragraph 4).

DETAILS

1. Persons Contacted

Principal Licensee Personnel

- *R. S. Leddick, Senior Vice President - Nuclear Operations
- *T. F. Gerrets, Quality Assurance (QA) Manager
- D. E. Dobson, Project Manager
- *R. P. Barkhurst, Plant Manager
- *L. F. Storz, Assistant Plant Manager, Operations and Maintenance
- *S. A. Alleman, Assistant Plant Manager, Technical Services
- *F. J. Englebracht, Plant Administrative Services Manager
- D. F. Packer, Training Manager
- *D. T. Simpson, Technical Training Supervisor
- *J. N. Woods, Plant Quality Manager
- *J. R. McGaha, Maintenance Superintendent
- T. C. Payne, Assistant Superintendent, I&C Maintenance
- E. Savan, I&C Supervisor, Nuclear Metrology Lab
- W. Buffington, Preventive Maintenance Schedule
- M. Whitaker, Metrology Lab Supervisor
- J. D. Hayes, Operations Superintendent
- B. Howard, Technical Specification Coordinator
- T. Brown, Shift Supervisor
- W. Smith, Shift Supervisor
- C. Phillips, I&C Supervisor - Nuclear
- R. Masters, Mechanical Contract Technician
- R. Sproles, Electrical Assistant Superintendent
- B. Thigpen, Mechanical Maintenance Supervisor
- D. Walters, Plant Records Management Office Supervisor
- *T. Chiles, Material Management Superintendent
- G. H. Savage, Material and Stores Manager
- J. Adkins, Requirement Engineer
- K. A. Semister, Commercial Manager
- R. Brown, Project Procurement Supervisor
- A. J. Marlborough, Buyer
- L. Potter, Buyer
- M. Triggs, Records Manager
- S. Bodell, Ebasco Document Control
- *P. V. Prasankumar, Technical Support Supervisor
- G. L. Ranch, Station Modification Coordinator
- *R. F. Burski, Engineering and Nuclear Safety Manager
- R. S. Bagnetto, Engineering and Nuclear Safety Coordinator
- *W. M. Morgan, Nuclear Operations QA Manager
- *J. M. Guillot, Senior QA Representative
- J. J. Denkevitz, Senior QA Representative

- *J. B. Perez, Senior QA Representative
- *W. J. Baldwin, Senior QA Representative
- *R. G. Bennett, Senior QA Representative
- C. J. Savona, Senior QA Representative
- S. C. Petty, QA Training Coordinator
- *K. Do, QA Representative
- M. D. Phillipe, QA Lead Auditor
- *A. R. Roberts, QA Lead Auditor
- T. E. Allgeir, QA Lead Auditor
- C. D. Kelley, QA Representative
- K. D. Campbell, QA Representative
- M. S. Green, QA Representative
- C. Skinner, Quality Supervisor
- B. Ward, Quality Technician
- *J. K. Somsel, LP&L Licensing
- *M. J. Meisner, LP&L Licensing
- *R. B. Willis, Nuclear Safety Supervisor
- *A. S. Lockhart, QA Consultant
- D. Bushbaughm, Maintenance Scheduling Consultant
- *N. E. Dubry, Middle South Services Representative

*Present at exit interviews conducted on May 25 and June 8, 1984.

The inspectors also contacted other plant personnel including operators, technicians, and administrative personnel.

2. Quality Assurance (QA)/Quality Control (QC) Administration

The purpose of this portion of the inspection was to determine whether Louisiana Power and Light (LP&L) had: (1) defined the scope and applicability of the QA program; (2) established appropriate controls for preparation, review, and approval of quality-related procedures; and (3) established a mechanism for reviewing and evaluating the QA program.

The inspectors reviewed LP&L's written program for administration and control of quality-related activities as described in:

- o LP&L Nuclear Operations Quality Assurance Manual, Revision 0
- o Plant Operating Manual (POM) and Department Procedure Indexes, dated May 8 and May 18, 1984
- o Memorandum of Cooperation among Middle South Utilities, Inc., and its wholly owned subsidiaries, effective January 25, 1983
- o Quality Assurance Section Procedure (QASP) Manual

- o UNT-1-002, Revision 7, Procedure Classification, Numbering and Format
- o UNT-1-003, Revision 7, POM Procedure Development, Review and Approval; Change and Revision; and Deletion
- o UNT-1-004, Revisions 4 and 5, Plant Operations Review Committee (PORC)
- o UNT-1-013, Revision 0, Plant Operating Manual Revision Notification
- o UNT-4-009, Revision 2, Control, Distribution and Handling of Program Descriptions and Plant Operating Procedures
- o UNT-5-002, Revision 3, Condition Identification and Work Authorization (CIWA)
- o PE-2-006, Revision 3, Plant Engineering Station Modification Interfaces
- o QP-001-001, Revision 0, Plant Organization and Interface
- o QP-010-001, Revision 0, Inspection
- o QP-15-001, Revision 0, Nonconformances and Corrective Actions
- o QI-005-002, Revision 0, Quality Review of Procedures and Work Packages

Based on the review of the LP&L written program and interviews with selected personnel, five significant weaknesses were noted in the licensee's quality program. These weaknesses are described below:

a. Review of Procedures

Table I of the LP&L Quality Assurance Manual contained a list of the quality program documents and described the preparation and review responsibilities as assigned to the various organizational elements. The section of the table referring to the Waterford-3 Plant Operating Manual (POM) stated, "the POM was to be prepared by cognizant plant groups/department. Reviewed by Plant Quality and PORC. Approved by the Plant Manager, issued and controlled by plant document control. Selected procedures that implement the QA program require the review and concurrence by the Corporate QA Manager or his designee before issue."

At the time of the inspection the selection, review, and concurrence by the QA Manager had not been made. Several attempts had been made to complete the selection described above. A list of POM procedures requiring prior QA review had been proposed both by QA and the plant staff. However, a mutually agreeable list of procedures had not been developed. During the inspection, both plant management and QA agreed that certain POM procedures, namely Quality Procedures (QP), would be reviewed. The QPs are a set of 5 procedures used by the Plant Quality to implement the 18 criteria of 10 CFR 50, Appendix B.

A review of the POM indicated that many other administrative procedures, both at the plant and departmental level, controlled activities that implemented the 18 criteria. These procedures would also require prior QA review in accordance with language of the QA manual. Interviews with LP&L managers indicated general agreement with this concept and by the end of the inspection, renewed efforts were underway to make the selection of POM procedures requiring QA review. The concepts used to develop the procedure selection basis appeared sound.

Although QA had not been involved in prior review of many POM procedures, Plant Quality had been conducting a quality review of procedures. In practice, this review involved a further selection in that the Plant Quality manager at times conducted the Plant Quality review in conjunction with his review of procedures as a PORC member. In such cases, other Plant Quality personnel were not assigned to conduct the quality review.

The practice of allowing Plant Quality to review the majority of the POM procedures was questionable in light of the staffing imbalance between Plant Quality and the Operations Quality Assurance Section. Although many members of the QA staff had reported to Waterford only during the past few months, the QA staff consisted of 18 experienced personnel supplemented by 9 experienced QA contractors. In general, the operations QA staff included personnel with a great degree of QA experience. Some of these personnel previously held substantial management positions at other nuclear facilities. The majority had been certified lead auditors at one or more nuclear facilities. As a group, the operations QA staff brought a very broad and deep level of nuclear QA experience to Waterford.

In contrast, Plant Quality consisted of only seven personnel. Although these personnel appeared very capable, their backgrounds and training were concentrated in the area of their principal responsibility, QC inspection. Not only did the Plant Quality staff have POM procedure review responsibilities, but they were charged with plant QC inspection activities including receipt inspection, inspection of maintenance and modification activities, and inspection

of the intensive test activities. Furthermore, Plant Quality personnel were assigned to prepare and revise their own procedures, the QPs and Quality Instructions (QI). A review of procedure review records retained by Plant Quality indicated that, in a vast majority of cases, the procedure review sheets contained no comments. This result was not surprising considering this group's work load.

Operation's QA had been reviewing some POM procedures for a variety of reasons including scheduled audits, specific requests from the plant staff, or QA's own initiative. In contrast to the comment sheets from Plant Quality, the comments developed by the QA section were numerous and substantial. Many of these comments involved apparent conflict of POM procedures with QA program commitments and requirements. Some of the comments developed by QA had been acted upon by the plant staff while others had not. There was no system to ensure that QA comments on POM procedures would be considered and resolved. The lack of a system to process QA comments could be traced back to the failure to select those POM procedures requiring QA review. The failure to select POM procedures requiring QA review and to conduct such a review is a violation of 10 CFR 50, Appendix B (382/8431-01).

b. Review of POM

The inspectors identified several POM procedure problems which had escaped detection and correction by either Plant Quality or PORC. A contributing factor was that QI-005-002, the Plant Quality procedure which described how to review procedures, lacked two fundamental pieces of guidance:

- (1) There was no direction to check a draft procedure for compliance with upper-tiered procedures and documents within the QA program.
- (2) There was no guidance to direct the procedure reviewer to check a draft procedure for consistency with interfacing or referenced procedures.

With this lack of guidance, it was not surprising that QA would readily detect programmatic inconsistencies in their review of POM procedures already reviewed and approved by Plant Quality and the PORC.

This item will remain open. (382/8431-03)

Further manifestation of the inadequate review by Plant Quality involved the fact that many definitions contained within POM procedures were not consistent with the approved definitions in the

LP&L QA manual. In some cases, more than one definition for the same term could be found. For instance, four different definitions of quality hold points were noted by the NRC inspectors.

The most significant item discovered during the NRC inspector's review of the POM concerned Change 5 to Revision 2 of UNT-4-009. This procedure was particularly significant because it described the use of all procedures within the POM and thus applied to all operating, maintenance, and administrative procedures. Change 5 to this procedure added a new Section 5.5 that stated, "The various plant systems and equipment will be operated and maintained in accordance with appropriate approved procedures and instructions. These procedures and instructions are written assuming they will be used by qualified personnel."

"Procedures and instructions are prepared assuming normal plant conditions and delineate the various operating and maintenance steps in an orderly sequence. In most cases it is not necessary to follow every step in sequence. In cases where it is necessary to have a specific sequence, appropriate notes and/or steps are to be included in the procedures. Therefore, it is not considered a procedure deviation to perform steps out of sequence unless otherwise specified." (Emphasis added)

This same change deleted a note in UNT-4-009 that previously required that steps requiring verification signatures should normally be performed in the sequence specified by the procedure.

Taken literally, this provision would allow the performance of any portion of the POM procedures in any sequence, at the discretion of a single individual, unless the procedure explicitly required that those steps be performed in sequence. Interviews revealed that not all POM procedures that would require a definite step by step sequence contained such a required note or precaution. Interviews also revealed that the intent of this change was not to allow a total lack of control of the facility. Rather, the intent was to allow complex evolutions to proceed with several evolutions in parallel. A further intent was to allow selected portions of lengthy procedures to be extracted such that only those necessary portions of those procedures would be required in a retest or an operational check. The NRC inspectors pointed out that, although this intent was noteworthy, the above provision as written, gave freedom to individuals to deviate from or modify procedures to suit their perceived needs. The above change to UNT-4-009 appeared to violate several sections of ANSI N18.7-1976. Discussions with LP&L management indicated their willingness to consider changing this wording to more explicitly address their intent. This item is unresolved pending further NRC review (382/8431-04).

c. Review of Quality Program Implementation

During their review of the quality program, the NRC inspectors noted many problems with controlled documents. See Section 3 of this report for a detailed discussion of problems with document control.

d. Review of Quality Program

Review of the written program and interviews revealed that LP&L had no written management escalation policy to allow resolution of differences between QA or other oversight groups and the line organization. A general description of resolution of dispute was contained in paragraph 5 of Chapter 2 of LP&L's QA Manual; but details were lacking. Many personnel interviewed understood a practice of elevating differences through appropriate plant and QA management levels for ultimate resolution; however, this practice was not universally understood.

In addition, interviews revealed that some differences existed between QA and plant staff personnel and that a number of these differences involved noteworthy quality issues and were not being promptly resolved using existing mechanisms. As a result, some individuals appeared frustrated in their efforts to improve the quality of Waterford-3 programs. The NRC inspectors noted increased efforts by plant managers and other personnel to surface these issues and resolve them effectively. There was a marked increase in the number of inquiries from the plant staff to the Operation's QA section concerning quality program requirements. This increased communication should prove beneficial due to the broad experience level of the QA staff.

e. Review of Training

The inspectors examined the training of personnel on procedures and procedure changes. This training was crucial due to the large number of procedure changes being issued. Much of this training appeared to be conducted at the department level through required reading lists. In some cases for major overall plant procedures, the Training Department was involved in preparing lesson plans, examinations, and conducting formal training. Two important examples of such formal procedure training involved UNT-5-002, the CIWA procedure and PE-2-006, the Station Modification procedure. However, another important plant-wide procedure, QP-015-001, on nonconformances and corrective actions, had not been the subject of formal training and had been required reading for only those personnel in Plant Quality. There appeared to be no system to determine the degree of training needed for individual procedures and procedure changes.

Interviews revealed that personnel in the QA section were not always able to attend the most recent monthly training sessions and that training on the recently issued QASPs was behind. This problem was indicative of a staff that was busy with the final stages of construction, testing, and the resolution of deficiencies including those stemming from allegations. Managers interviewed were aware of this problem and appeared to be taking steps to reschedule and conduct the required training.

During interviews of plant personnel directly involved with the use of key procedures, the NRC inspectors found that such personnel were generally knowledgeable of their contents and requirements.

In addition to the weaknesses described above, LP&L's quality program contained several strengths that, if pursued and fully implemented, should serve to enhance their program significantly. These strengths are described as follows:

- o The Plant Quality manager had initiated a practice of requiring Plant Quality inspectors to be involved in QC inspection and surveillance of any plant components or activities. Thus, on an appropriate basis, Plant Quality was using a graded approach that went beyond safety-related and into Balance of Plant. This practice, if implemented, should greatly enhance Waterford-3's quality of operations. This practice of a graded approach to quality oversight extended to the Operations QA section in that their verification functions of auditing and monitoring extended beyond safety-related into quality-related as defined in the QA Manual.
- o A further strength in the licensee's program involved their success in staffing and licensing their initial group of operators. The success rate on the first round of operator license examinations was very high. In addition, the staffing level was such that a full six-shift complement could be attained, allowing maximum use of rotation, training, and relief for leave and emergencies. Furthermore, the staffing level within individual shifts permitted the rotation of personnel between the Control Room and the remainder of the plant. It was management's stated intention to continue this rotation to maintain proficiency among their operating staff personnel.
- o A further strength was an extensive identification, development, and selection process for potential Shift Supervisors. This process recognized the importance of this key supervisory position and was structured in such a manner that it could identify and develop personnel for management positions beyond the level of Shift Supervisor. These practices in staffing and

developing Operations Department personnel, if successfully implemented, should help supply Waterford-3 with valuable, plant-experienced personnel for years to come.

- o Middle South Utilities, Inc., and its subsidiary companies, including LP&L, had a Memorandum of Cooperation to provide the basis for continued support of nuclear units within Middle South in such a manner as to assure public safety. A key provision of this memorandum was the formation of a Nuclear Oversight Committee. The committee consisted of one senior officer with nuclear responsibility from each subsidiary company with a nuclear unit. In addition, the committee included two outside consultants designated by the Chief Executive Officer of Middle South.

The committee was charged with several responsibilities, among them to identify and encourage improvements in nuclear unit performance to "best in industry" levels. The committee was charged with periodically conducting appraisals of nuclear activities with the objectives of identifying weaknesses and strengths, of sharing experience, and of bringing all units to the highest level of performance. Activities identified for appraisal included operational performance; emergency preparedness; QA; maintenance and modifications, training, engineering, and technical support; and efficiency and reliability of operations.

Establishment of the Nuclear Operations Committee went beyond the requirements of the Technical Specifications (TS), and if implemented as described in its charter, should enhance the performance of Middle South's nuclear units, including Waterford-3.

3. QA Audit Program

The purpose of this portion of the inspection was to determine whether LP&L had developed a program to audit operational activities for conformance with regulatory requirements and commitments, including Regulatory Guides and industry standards.

The NRC inspectors reviewed LP&L's written description of the QA audit program as described in:

- o LP&L Nuclear Operations Quality Assurance Manual
- o QASP 18.10, Revision 2, Conduct of On-Site Internal and External Nuclear Operations Quality Assurance Audits

- c Current Audit Plans and Schedules
- o Selected Audit Reports and Findings
- o Selected Quality Deficiency Reports (QDRs)

Interviews revealed that LP&L had organized and staffed an operational audit section and had begun to implement the operational audit program. Eight new prospective lead auditors had been hired since February 1984 to supplement a similar number of presently certified LP&L lead auditors. Most of the new employees had extensive prior nuclear facility experience, including lead auditor, senior reactor operator, and various line, support and QA management positions. The new personnel were progressing quickly and satisfactorily through LP&L's lead auditor training and certification program.

A review of the 1984 - 1985 audit plan and quarterly audit schedules indicated that audit planning satisfactorily encompassed those audits required by the proposed TS 6.5.2.8, Regulatory Guide 1.33, 10 CFR 50.54 (t), and 10 CFR 73.40 (d). The 2 year audit plan approved by the LP&L QA Manager cross-referenced audit titles to both the TS and the 18 criteria of 10 CFR 50, Appendix B. The plan, when fully implemented, should help ensure adequate audit coverage.

Interviews revealed that most of the 29 audits scheduled thus far during 1984 had been completed as well as three unscheduled audits and 60 audits of systems turnover. Audit efforts had emphasized programmatic reviews rather than implementation. A review of audit reports and findings showed these documents to contain substantial information, focusing on quality problems worthy of correction.

LP&L had initiated a QA monitoring program in order to accomplish QA surveillances. Monitoring concentrated on direct observation of activities, rather than after-the-fact reviews of programs and documentation inherent in auditing. Monitoring conducted during 1984 had concentrated on pre-operational and startup tests and had included both planned and unplanned observations. Monitoring reports were written in all cases, and QDRs were written to document quality problems encountered. QDRs were sent to an action manager responsible for the deficiency, tracked, trended and closed-out by QA following verification of satisfactory corrective action.

Plant Quality had initiated a program somewhat similar to QA monitoring called QC Surveillance, which was designed to allow QC inspectors to observe and document quality problems detected outside normal QC inspection. Interviews revealed that LP&L managers were aware of the potential duplication of QA monitoring and QC surveillance activities. Because of different backgrounds, a QA auditor monitoring a given activity

would have a different perspective than a QC inspector surveying the same activity. Nonetheless, management was taking steps to avoid unnecessary overlap and to obtain maximum benefit from their QA and QC personnel.

No violations or deviations were detected during this portion of the inspection.

4. Document Control

The purpose of this portion of the inspection was to determine whether LP&L had developed and implemented document controls that conformed to regulatory requirements and commitments and industry guides and standards.

The NRC inspectors reviewed LP&L's written program for control of documents as described in:

- o FSAR, Chapter 17, Section 7.2.6
- o LP&L Nuclear Operations Quality Assurance Manual
- o UNT-4-006, Revision 0, Control of Plant Documents and Records
- o UNT-4-007, Revision 1, Control of Plant Manuals
- o UNT-4-009, Revision 2, Control, Distribution and Handling of Program Descriptions and Plant Operating Procedures
- o PMP-002, Revision 0, Document Control
- o PMP-004, Revision 0, Control of Vendor Manuals
- o PMP-301, Revision 0, Control and Assignment of Station Modification Packages
- o PMP-302, Revision 0, Preparation of Station Modification Packages
- o PMP-303, Revision 0, Performance of Design Verification
- o PMP-304, Revision 0, Station Modification Package Update
- o Nuclear Operations Executive Directive, ED-019 Subject: Document Control Program, May 11, 1984

A detailed review was conducted of the Waterford FSAR, Chapter 17 and the Quality Assurance Manual, Chapter 6. These documents contain guidance for control of documents that govern quality-related systems, structures, components, and activities. This control extends to the Final Safety Analysis Report; design documents; computer codes; procurement documents;

the Quality Assurance Manual; Quality Assurance Section Procedures (QASPs); inspection and test procedures; nonconformance reports; as-built drawings; the Emergency Plan; the Physical Security Plan; the Plant Operating Manual (POM); Nuclear Services Procedures (NSPs); and Project Management Procedures (PMPs). The document control section of the FSAR provides that written procedures address the following requirements for the control of quality-related documents. Pertinent control requirements are that these documents be:

- o Prepared by qualified individuals.
- o Reviewed by qualified individuals.
- o Approved by authorized personnel.
- o Approved prior to release.
- o Reviewed for accuracy and completeness.
- o Distributed in accordance with instructions.
- o Updated and issued to preclude use of superseded documents.
- o Indexed which specify current revisions.

Additional requirements applicable to as-built drawings are:

- o Drawings that reflect as-built status required for safe operation of the plant are to be transferred to the licensee prior to receipt of the Operating License.
- o Drawings are to be stored in a controlled facility.
- o The Project Management group is to issue Station Modifications (SMs).
- o The Nuclear Quality Assurance group is to monitor the status of as-built drawings.

A review of the licensee's written program for control of documents revealed the following programmatic inconsistencies: PMP-301 through 304, which addressed station modification packages did not address the requirement that changes to quality-related documents be reviewed and approved by the same organization that performed the original review and approval or by other qualified responsible organizations delegated by LP&L.

The NRC inspectors' review of LP&L's document control program determined that there had been a pervasive and substantial lack of control of

documents needed to support operational activities at Waterford-3. Breakdowns in document control were detected in four types of documents: (1) Executive Directive System Manuals; (2) QASP Manuals; (3) the POM; and (4) facility drawings. A description of the types of problems encountered by the NRC inspectors is provided below.

a. Executive Directive System Manuals

The Executive Directive System was used to promulgate policy statements from the Senior Vice President) - Nuclear Operations to his staff. The system was within the scope of the QA program and complemented more detailed guidance and direction contained in the QA Manual and POM. The NRC inspectors found that individual copies of the Executive Directive System Manuals were missing copies of some of the effective directives.

b. QASP Manuals

QASP Manuals contained requirements for conduct of activities by the LP&L Quality Assurance section. The NRC inspectors noted that controlled copy No. 48 of the QASP Manual contained the following problems:

- (1) Copy No. 48 contained Revision 1 to QASP 18.10 vice Revision 2 as listed in the Table of Contents. Discussions with the QA representative responsible for developing QASPs indicated that Revision 2 to QASP 18.10 had superseded Revision 1.
- (2) QASP Table of Contents dated May 18, 1984, listed an incorrect title for QASP 18.1, "Conduct of Quality Assurance Audits," vice "Conduct of Off-Site Quality Assurance Audits."
- (3) Procedure Change Notices (PCNs) 1 and 2 to QP 18.1, no longer effective and superseded, remained in the binder even though QP 18.1 and its associated PCNs had been deleted and their removal directed by Transmittal of Project Documents W3K84-1144, File: Q-3-A35.3.7, May 14, 1984. A similar problem existed for PCNs 1, 2, and 3 to QP 4.11.
- (4) QASP 3.1, Revision 0, "QA Review of Station Modification Packages," was listed in the Table of Contents, but was not in the binder.
- (5) PCNs 2 and 3 to QP 4.9 and PCN 1 to QP 4.13 were not filed with their associated QP as required.

c. Plant Operating Manual (POM)

The POM contained the majority of all types of procedures needed to control Waterford-3 activities. The POM contained administrative procedures, maintenance procedures, operating procedures, chemistry and health physics procedures, surveillance and calibration procedures and others. Controlled copies of POM volumes contained many errors of the types described above in the QASP manuals. Problems with the POM had been recognized by LP&L and efforts were underway to regain control of the POM volumes. Examples of problems encountered by the NRC inspectors were:

- (1) Administrative Procedure UNT-4-008 (Rev 0), Controlled Copy #204 of the POM, did not agree with the POM Index dated May 18, 1984. The Index listed this procedure as a departmental vice POM procedure. This distinction was crucial since departmental procedures did not receive PORC review prior to approval and issue.
- (2) UNT-4-006, Revision 0, referenced UNT-4-005 as having a title "Distribution and Control of Plant Drawings," while the POM index dated May 8, 1984 listed the title for UNT-4-005 as "Aperture Card Preparation from Plant Drawings".
- (3) The title of UNT-4-007 in controlled copies No. 204 and No. 4 of the POM was "Control of Plant Manuals"; but POM index dated May 14, 1984 listed the procedure title as "Control of Technical Manuals".
- (4) The red stamp on a field controlled copy of MI-1-006 obtained from Plant Records on May 15, 1984, contained information different from the required stamp shown on Attachment 6.6 to UNT-4-009. The stamp in use did not require a revision. The required stamp did not require a date.

In Use

LP&L W-3 Records
FIELD CONTROLLED
Must Be Reverified
7 Days From Check Out
Date:

Required:

LP&L W-3 Records
FIELD
CONTROLLED
COPY

Certified Latest Revision/Change

d. Facility Drawings

Drawing control was examined to determine the status of drawings required for plant operation and the status of drawing turnover. Of the approximate 3500 drawings determined by the plant staff to be needed in the Control Room for operation, all but about 250 were complete and available for use.

A single index for all drawings was not available. The total inventory of plant drawings was contained in the EMDRAC (Engineering Manufacturers Drawings Record & Control), the close-out log (Ebasco drawings), and the submittal log (subcontractor drawings). The total drawing inventory contained about 50,000 sheets.

The Record Management Section was responsible for maintenance of drawings including posting of Station Modification Packages (SMPs), Drawing Change Notices (DCNs), and Field Change Requests (FCRs) as well as drawing control and distribution. When SMPs, DCNs and FCRs were received, they were posted against the drawing by listing the completed modification number on the drawing.

The Records Management section was not responsible for red-lining Control Room drawings to reflect the status of installed modifications. Ebasco had been red-lining the Control Room drawings, but this responsibility had been recently reassigned to the Action Engineers on LP&L's staff.

The Ebasco drawing control and distribution system was discussed with the Ebasco document control manager. Drawing turnover was in progress with about 10-15% of all drawings turned over to LP&L; complete turnover to LP&L document control was scheduled for November 1984. Drawings, whether under Ebasco or LP&L control, were readily accessible to plant personnel. Revised drawings for transferred systems were required to be delivered to LP&L approximately 14 days after system transfer. In most cases, turnover of drawings was completed within the required time frame.

Problems with Waterford-3 facility drawings were noted by the NRC inspectors, who focused their review on those drawings issued to the Control Room. These drawings included piping and instrumentation diagrams (P&IDs), electrical single-lines, control panel drawings, and others. Up-to-date, accurate copies of these drawings will be important aids to the Control Room staff trouble-shooting problems encountered during facility operations. Of a sample of ten Control Room drawings, the inspector found inconsistencies with eight of these drawings when compared to the master copy in Plant Records. Most of these inconsistencies involved different posting of facility modifications against the drawings. A similar problem with inconsistent posting of modifications was noted with the Master Instrument List (MIL).

A subsequent check of a larger sample of Control Room drawings by licensee personnel revealed a much smaller error rate, but reinspection by the NRC inspectors showed the drawing error rate to be much higher than that detected by LP&L. A meeting was then held between the NRC inspectors and LP&L managers responsible for control of plant drawings to discuss the extent of problems encountered and the inadequacies with LP&L's check of drawing accuracy.

A summary of the inconsistencies noted by the NRC inspectors is contained on tables 1, 2, 3, and 4.

FIRST SAMPLE

<u>DOCUMENT</u>	<u>RECORDS COPY</u>	<u>CONTROL COPY</u>	<u>REMARKS</u>
Condensate System G-153, Sheet 1 of 2	Revision 18 ST2 MP-987 MP-100 MP-917 Rev #1 SMP-83-055	Revision 18 ST2 MP-987 MP-100 MP-917 Rev #2	1. SMP#83-055 was not posted to control room drawing. 2. MP-917 Rev 1 posted to record copy, MP-917 Rev 2 posted to control copy.
Condensate System G-153, Sheet 2 of 2	REV 19 ST3 No Postings	REV 19 ST3 No Postings	
Setpoint Document 1564/B440	RUNDATE 12/20/83 REV 11 SMP-83-014 (CND DET CHANGE) SMP-84-128 (AIR PRESSURE SWITCHES)	RUNDATE 12/20/83 REV 11 SMP-84-128	1. SMP-83-014 was not posted to control room copy - A record of posting sighted in the document trailer indicated it had been posted. 2. By having these 2 SMPs posted but not entered, air pressure SW setpoints and ground detector readings listed in the control room copy were incorrect. The ground detector in question was "safety related".
Site Plan 1564, G-127	GA-13-45 ADDED RADWASTE SLAB & FENCE GA-13-46 ADDED SURGE REG. & HVAC CONDENSOR GA-13-50 ADDED SECONDARY DEGASIFIER & SKID GA-13-52 ADDED PRIMARY DEGASIFIER PUMP	Same As Records Copy	

FIRST SAMPLE

<u>DOCUMENT</u>	<u>RECORDS COPY</u>	<u>CONTROL COPY</u>	<u>REMARKS</u>
Reactor Aux Systems G0164, Sheet 1 of 4	REV 19 ST3 DCN-MP-1019 DCN-MP-1040 DCN-MP-1053	Same As Records Copy	
Reactor Aux Systems G-164, Sheet 2 of 4	REV 15 ST1 MP-949-R2 MP-1043 SMP-83-055	REV 15 ST1 MP-949-R2 MP-1043	1. SMP-83-055 was not posted to the control room copy of the drawing.
Reactor Aux Systems G-164, Sheet 3 of 4	REV 10 ST1 No MODS Posted	Same As Records Copy	
Reactor Aux Systems G-164, Sheet 4 of 4	REV 2 FCR 2612 DCN MP-984	Same As Records Copy	

SECOND SAMPLE

DOCUMENT	RECORDS COPY	CONTROL COPY	REMARKS
Sampling System G-162, Sheet 1 of 4	REV 16 ST4	Same As Records Copy	
Sampling System G-162, Sheet 2 of 4	DCN IC 1247 B2 MP-944 REV 2	DCN-IC-1247 B2 MP-944 REV 2 REV 11 - ST1 MP 538 FCR-MP-1140	1. MP-538 not posted to records copy. 2. FCR-MP-1140 not posted to records copy.
Sampling System G-162, Sheet 3 of 4	REV 7 ST1	REV 9 ST1	1. Control copy more recent than records copy.
Sampling System G-162, Sheet 4 of 4	REV 1 ST1	REV 2 ST2	1. Control copy more recent than records copy.
Master Instrument List 1564/B434	RUNDATE 15 FEB 1984 91 FCN & DCNs ARE POSTED TO THIS DOCUMENT	RUNDATE 15 FEB 1984	1. Control copy did not have about 20 DCNs or FCRs post against it.
B-424, Sheet 260	REV 5 ST1 DCN-IC 1549 SMP-83-051	Same As Record Copy	

SECOND SAMPLE

DOCUMENT	RECORDS COPY	CONTROL COPY	REMARKS
B424, Sheet 261	DCN 1549 SMP-83-051	DCN 1549 SMP-83-051 DCN-IC-1775	1. DCN-IC 1775 posted against control copy but not against records. Was informed that DC IC-177 should have been posted against B424 pg. 621 vice 261.
B424, Sheet 471	REV #12 FCR-IC 1834	Same As Record Copy	
B-289, Sheet 124	REV 7 ST5 E 1229 E 1210	Same As Record Copy	
B-289, Sheet 2	NO MODS POSTED	Missing	1. Control copy sheet 2 missing.
B-289, Sheet 3 4 5 6 7 7A	DCN E 1204 REV 3 DCN E 1204 REV 3 DCN E 1204 REV 6 DCN E 1204 REV 4 DCN E 1204 REV 4 DCN E 1204 REV 1	Not in Control Book	1. Sheets were in master book but voided from the control book - Document Control procedures did not address this issue.

The lack of control of documents is a violation of 10 CFR 50, Appendix B. (382/8431-02).

5. Maintenance

The objective of this portion of the inspection was to ascertain whether LP&L had developed a program to control maintenance activities that conformed to regulatory requirements and commitments and industry guides and standards.

The NRC inspectors' reviewed the licensee's written description of the maintenance program as described in the following documents:

- o FSAR Section 3.2, Classification of Structures Systems and Components
- o LP&L Nuclear Operations Quality Assurance Manual
- o UNT-4-007, Revision 1, Control of Plant Manuals
- o UNT-5-002, Revision 3, Condition Identification and Work Authorization (CIWA)
- o UNT-7-005, Revision 0, Cleanliness Control
- o UNT-7-006, Revision 1, Housekeeping
- o MD-1-014, Revision 0, Conduct of Maintenance
- o MD-1-003, Revision 3, Preventive Maintenance Procedures
- o MD-1-004, Revision 5, Preventive Maintenance Scheduling
- o MD-1-006, Revision 1, Control of Failed Equipment
- o MM-6-011, Revision 0, General Torquing & Detensioning
- o MM-7-001, Revision 1, Safety & Relief Valve Bench Testing
- o MM-7-008, Revision 1, Motor Operated Valves
- o MI-3-304, Revision 1, Steam Generator #2 Pressure Loop Check and Calibration
- o MI-3-305, Revision 1, Steam Generator #1 Level Loop Check and Calibration
- o Selected CIWAs and Preventive Maintenance Task Cards

While conducting interviews and discussing the maintenance program with various personnel, it was determined that their knowledge of policies and procedures as described in the written program was sound. Training in the maintenance area was said to be extensive, which may have contributed to the good working knowledge of the maintenance program.

Interviews with licensee personnel and a review of the written program revealed the following weaknesses:

- a. UNT-5-002 described instructions for processing CIWAs. Attachment 6.2 (Rev. 3), page 2 of 6, described how block 4 was to be completed. Interviews revealed that there was confusion about the meaning of the terms "quality-related" and "safety-related" in relation to completing this block. The instructions provided were inadequate and did not give guidance that would aid in this determination.

This item will remain open. (382/8431-05)

- b. MD-1-004 designated the Department Supervisor as responsible for reviewing preventative maintenance (PM) work packages for completeness, adequate documentation, possible TS violations, and resolving any discrepancies. The requirement for a similar review of corrective maintenance activities could not be found in the licensee's program.

This item will remain open. (382/8431-06)

- c. UNT-5-002, Section 5.1.1.D, allowed blowing out of sensing lines without using a CIWA and only required informing the SS/CRS. MD-1-003 required a written procedure for a PM that affected safety or safety-related systems or components or could result in an inadvertent reactor or turbine trip. Since some safety-related instrumentation had sensing lines, the less restrictive provisions of UNT-5-002 should be modified.

This item will remain open. (382/8431-07)

- d. UNT-5-002, paragraph 5.1.6, stated, in part, ". . . work may be performed out-of-sequence with a work instruction, but never beyond an inspection "Hold" point. Work instructions were defined in UNT-5-002 as "Approved instructions written to perform corrective maintenance on a CIWA." This statement could be construed to apply not only to written instructions on a CIWA but also to approved maintenance procedures that may be incorporated in the written instructions. This issue is related to a similar provision in UNT-4-009 allowing performance of POM procedure steps in any sequence. See open item 8431-03 in paragraph 2.b of this report.

The NRC inspectors noted four observations in the maintenance program that are described below:

- o Approved Position Descriptions for the positions of Maintenance Superintendent and Assistant Superintendents were not in place; however, these position descriptions were in the process of being reviewed and approved.
- o MD-1-006 paragraph 5.2.1 stated, "One impound area shall be in the Radiation Controlled Area (RCA) for storage of contaminated equipment and parts." At the time of the inspection the Maintenance Group had not established these areas. LP&L QA Audit Report SA-W3-QA-82-02, Finding No. 10, previously identified this problem. This audit report stated that an impound area in the RCA would be established approximately 1 month prior to fuel load.
- o PMs were reviewed for completeness and identified problem areas. Completion time and machinery history entries were made for all PMs completed. However, no one was charged with the responsibility to review machinery history records and determine that the established preventive frequencies were adequate. In addition, criteria to make this determination were not described in the program.
- o UNT-5-002, Attachment 6.3, page 1 of 6, exhibited step 6.3.1.8 as Change 1. This change stated, "The Supervisor signature entries on the CIWA form shall be the cognizant supervisor of the designated lead work group." It was not clear which supervisor signature was being described (i.e., maintenance supervisor, shift supervisor, control room supervisor, or QI supervisor). The CIWA Entry Instructions did not designate a specific "Supervisor" block. Therefore, this change was not consistent with instructions to complete the CIWA form (Attachment 6.2 of UNT-5-002).

No violations or deviations were noted during this inspection.

6. Design Changes and Modifications

The purpose of this portion of the inspection was to determine whether the licensee had a program to control design changes and modifications during the facility's operational phase that was in conformance with regulatory requirements and commitments and industry guides and standards.

LP&L's program for control of design changes and modifications was described in:

- o LP&L Nuclear Operations Quality Assurance Manual
- o PE-2-006, Revision 3, Plant Engineering Station Modification Interfaces
- o UNT-5-002, Revision 3, Condition Identification and Work Authorization (CIWA)
- o PMP-301, Revision 0, Control and Assignment of Station Modification Packages
- o PMP-302, Revision 0, Preparation of Station Modification Packages
- o PMP-303, Revision 0, Performance of Design Verification
- o PMP-304, Revision 0, Station Modification Package Document Update

A review of the licensee's written program for control and design changes and an interview with personnel involved in processing design changes indicated that the operational design control program was implemented on May 7, 1984. All modifications processed after May 7, 1984 were controlled under the operational program using the procedures listed above. This practice was in effect even for those systems that had not been turned over from construction to operations. For those systems the architect engineer and constructor, Ebasco, was processing design changes using LP&L procedures and systems. Interviews with engineering managers revealed that the initial use of the new procedures appeared successful, but that there was need for a number of revisions to make the program more consistent and efficient. Operational design control at Waterford 3 was controlled by two different engineering groups. Plant Engineering reporting to the Plant Manager initiated most modification packages. The modification packages were then transferred to the Engineering and Nuclear Safety (ENS) group reporting to the Project Manager for processing. In practice, because of limited staffing in both Plant Engineering and ENS, it was felt that most of the detailed design for facility modifications would continue to be handled by Ebasco.

A review of PE-2-006 revealed three observations described below:

- a. PE-2-006 lacked guidance on the turnover of a completed modification to the Operations group. Although the procedure contained modification close-out steps and a check list, there was a lack of specific directions as to which steps must be completed before turnover to Operations. Interviews revealed that present practices were to turn over the modification on a case-by-case basis during a daily plant status meeting. Interviews also revealed that Plant Engineering and Plant Operations had not yet agreed on which design

package close-out steps required final action before turnover, but that discussions were in progress and resolution was expected

- b. Section 5.8 of PE-2-006 described of the preparation of a Detailed Construction Package (DCP). The DCP was that collection of documents applicable to the installation of a modification and included such items as a CIWA, radiation work permits, installation tests, welder qualifications, tag-outs, open flame permits, and other field documents. The Section 5.8 description of DCP preparation, was disjointed and confusing. It did not explicitly describe the elements of the DCP and the inter-relationships between the DCP, the work instruction and engineering instructions, and other documents. As a result, the description of the processing of the DCP and its constituent elements was unclear.

Processing of modification packages at Waterford-3 was complicated by the lack of a Q list. The LP&L Quality Assurance Manual defined the Q list as "a list which specifically identifies those structures, systems and components whose failure could cause an uncontrolled release of radioactivity, or those items essential for safe shutdown and immediate and long term operation following a loss of coolant accident (LOCA)." A major project was underway in ENS to develop both a Q list and a master equipment list for mechanical, electrical, and instrumentation and control equipment. In the interim, personnel processing modification packages and maintenance packages were using guidance contained in Table 3.2.1 of the FSAR as well as safety and quality-related designations on EBASCO drawings and construction documents. Original procurement and purchase documents and valve and instrument lists were also consulted to determine the safety or quality designation of a component. Interviews revealed that, when in doubt, the tendency of personnel was to over-classify; that is, to designate a component as safety-related when unsure. The lack of a Q list was well recognized by the licensee as evidenced by the major effort to develop such a list and was documented in QA Audit Report #SA-W3-QA-83-16, Finding #2.

No violations or deviations were identified.

7. Surveillance Testing and Calibration Control

The purpose of this portion of the inspection was to ascertain whether LP&L had developed programs for the control and evaluation of surveillance testing, calibration, and inspection as required by the TS and for calibration of quality-related instrumentation not specifically addressed by a TS surveillance.

The licensee's surveillance program was described in the following station procedures:

UNT-7-004, Revision 1, "Technical Specification Surveillance Control"

MD-1-004, Revision 5, "Preventive Maintenance Scheduling"

Review of 15 individual surveillance test procedures revealed the following inconsistency. About half of these procedures referred to an outdated title, the nuclear operations supervisor (NOS), instead of the present titles of shift supervisor or control room supervisor (SS/CRS). Two of these procedures referred to the SS/CRS in some instances and to the NOS in others:

MM-3-017, Revision 00, "Low Pressure (L.P.) Turbine Reheat Stop and Reheat Intercept Valves Inspection"

MM-3-018, Revision 01, "Fuel Handling Building Crane Interlock Test"

Interviews revealed that immediate notification of the SS when a surveillance test failed acceptance criteria was not occurring on a routine basis. The SSs interviewed said they were not always informed promptly as required by the surveillance procedure steps. The SSs were concerned about not always having timely and accurate status of TS surveillances available to them in the control room.

There were plans to allow the SSs to access the maintenance planning & scheduling system (MPSS) from the control room. The MPSS was a computerized system that schedules routine maintenance actions including preventive maintenance (PM), in-service inspection (ISI), scheduled calibration checks, and TS surveillance. This action would allow the SS to have detailed information of maintenance planned and scheduled for a given period, but would not in itself ensure the timely receipt of important test progress information from technicians and operators performing surveillance, calibration, and PM activities. This item was presented to LP&L management to permit training and indoctrination of appropriate personnel. This is an open item (382/8431-08).

No violations or deviations were identified during this portion of the inspection.

8. Procurement Control

The purpose of this portion of the inspection was to determine whether LP&L had developed a program to control procurement activities in conformance with regulatory requirements and commitments and industry guides and standards.

The NRC inspectors reviewed LP&L's written program for control of procurement activities as described in:

- o LP&L Nuclear Operations Quality Assurance Manual
- o Nuclear Operations Executive Directive, ED-021, May 23, 1984
- o UNT-08-001, Revision 6, "Processing of Station Procurement Documents"
- o UNT-08-042, Revision 0, "Spare Parts Equivalency Evaluation"
- o PMP-101, Revision 0, "The Project Management Procurement Process"
- o PMP-103, Revision 0, "Preparation and Processing of Purchasing Documents"
- o QASP 4.9, Revision 1, "Evaluation of Supplier's Quality Assurance Program"
- o Selected Purchase Orders and Procurement Requests
- o Selected CIWAs and Material/Service Requests
- o Selected Major Exception Forms

The written program for control of procurement was fragmented reflecting the fact that several different organizations procured material and services. ED-021 was issued to clarify areas of responsibility and to clarify the applicability of the various procurement procedures to different organizations.

Personnel involved in procurement activities were interviewed to determine the extent of their training and their knowledge of LP&L procurement procedures. Training programs and records for these personnel were also examined. The NRC inspectors made the following three observations as a result of this review:

- a. Supplier evaluator training records were examined to determine adequacy of initial training and certification and yearly certification as required by QASP 4.9, Section 5.7. The records indicated that initial certification for supplier evaluators had been based on previous training and job experience. No formal initial training program for evaluators was apparent; however, a review of experience and past job history indicated the five qualified supplier evaluators had adequate experience. Documentation was not available to show that the evaluators had been trained in LP&L specific quality assurance elements and procedures as required by QASP 4.9.

This item is considered unresolved pending further NRC review of supplier evaluator training records (382/8431-09).

- b. Procurement and purchasing procedures were discussed with the project procurement supervisor and two buyers. No formal training program other than required reading for new procedures and changes was apparent. An interview was conducted with the buyers to assess knowledge of requirements for procurement of quality-related material, and their knowledge was perceived to be good.
- c. Interviews were conducted with Requirements engineers to ascertain how they determined whether procurements were safety or non safety-related. This determination was crucial because neither a Q list nor a Master Equipment List had been developed for Waterford-3. (See paragraph 5 of this report.) Requirements engineers appeared knowledgeable and conservative in making safety-related decisions.

FSAR Table 3.2.1 and applicable LP&L procurement procedures were being used effectively to make safety classification determinations. Recent procurement packages were reviewed to verify the accuracy of safety-related decisions. Particular attention was given to non safety-related procurements to ensure none were misclassified, and no misclassified procurement packages were detected by the NRC inspectors.

Twenty-five completed procurement packages were reviewed for both safety and non safety-related procurement actions. The packages contained all required forms and requirements specified on the approved procurement requests such as quality, shelf-life, supplier inspections, non substitution, leachable chlorides, certification, and legibility. Material/Service Requests originated within other departments generally met UNT-8-001 requirements except that some did not have all blanks completed as required. This missing information included originator, discipline, telephone extensions, and the dates the warehouse was stock checked.

These omissions are considered minor and isolated, attention should be directed to completion of the forms in their entirety.

QA had recently completed a comprehensive audit of LP&L procurement programs and activities. The audit was documented in report No. SA-W3-QA-84-17, May 8, 1984, and contained 16 substantial findings. Interviews with QA lead auditors revealed that the responses of the responsible managers had been timely and thorough and that personnel had aggressively pursued appropriate corrective action.

No violations or deviations were detected during this portion of the inspection.

9. Receipt, Storage, and Handling of Equipment and Materials

The purpose of this portion of the inspection was to determine whether the licensee had developed and implemented a program to control the receipt, storage, and handling of equipment and materials in conformance with regulatory requirements and commitments and industry guides and standards.

The NRC inspectors reviewed LP&L's written program for control of material receipt, storage, and handling as described in:

- o LP&L Nuclear Operations Quality Assurance Manual
- o UNT-8-011, Revision 0, "Stores Activities Procedure Storing, Issuing, Shipping and Receiving"

The NRC inspectors interviewed managers and other personnel responsible for material receipts, storage, and handling and toured warehouse facilities. Segregated storage of quality material was adequate. No deficiencies were noted in wrapping, packing, preservation, or tagging. Access to the warehouse was controlled and visitors were escorted. The warehouse and parts storage areas appeared neat and orderly. A review of shelf-life material handling was conducted and three engineering evaluations of expired shelf-life material were reviewed. No discrepancies were noted. Initial training for LP&L warehouse personnel was being conducted on procurement procedures, and a required reading list was maintained for each person to document training on procedures. Required reading lists for personnel checked were up-to-date.

No violations or deviations were noted during this portion of the inspection.

10. Quality Records

The purpose of this portion of the inspection was to determine whether LP&L had developed a program for the control of quality records in conformance with regulatory requirements and commitments and industry guides and standards.

The licensee's program for control of quality records was described in:

- o Proposed TS, Section 6.10
- o LP&L Nuclear Operations Quality Assurance Manual, Chapter 6, "Document Control"; and Chapter 17, "Quality Assurance Records"
- o UNT-4-006, Revision 0, "Control of Plant Documents and Records"
- o UNT-4-008, Revision 0, "Operation of Central Records"

o PMP-008, "Records/Document Turnover Program"

During a review of the written program, the NRC inspector noted an inconsistency between the effective revision for UNT-4-008 listed in the POM index and the revision of a copy of that procedure contained in a controlled POM binder. This inconsistency, as well as other examples of a lack of document control, are discussed in paragraph 6 of this report.

The following observations were noted by the NRC inspectors:

- a. Records to be retained by LP&L were identified by a Record Type Listing that also designated retention time for each record. This listing appeared to be inclusive and compatible with the FSAR and TS.
- b. The record storage facility appeared to be adequately protected from fire by a Halon fire protection system and by a 3 hour rated fire door.

There did not appear to be any special precautions taken to protect the vault from flooding; however, duplicate records were being stored separately at a contractor's vault in Mississippi (Southern Vital Records Center).

A custodian was designated for the record storage facility and access to the stored records was controlled by an approved and posted access list.

- c. Records received for storage were transmitted by the use of a transmittal document. These records were reviewed for completeness against this document prior to being placed in storage. If a discrepancy was noted, the sender was notified and the discrepancy resolved before the record package was placed in storage.
- d. Several record packages were reviewed (non conformance reports, corrective maintenance, and calibration packages) to ensure they were stored in designated files and were readily retrievable. No problem areas were noted.
- e. The conduct of interviews with record and administration personnel showed a satisfactory understanding of policies and procedures that governed this area.

No violations or deviations were identified.

11. Test and Experiments

The purpose of this portion of the inspection was to determine whether the licensee had developed a program to control tests and experiments that

conformed with regulatory requirements and commitments and industry guides and standards.

The NRC inspectors reviewed LP&L's written program for control of testing during operations as described in:

- o Proposed TS, Sections 6.5.1.6 and 6.5.2.7
- o FSAR, Sections 13.5 and 17.2.11
- o LP&L Nuclear Operations Quality Assurance Manual
- o UNT-1-002, Revision 7, "Procedure Classification, Numbering, and Format"
- o UNT-1-003, Revision 7, "POM Procedure Development, Review and Approval, Change and Revision, and Deletion"
- o UNT-1-004, Revision 4, "Plant Operations Review Committee"
- o UNT-6-004, Revision 0, "Annual 10 CFR 50.59 Report"
- o QP-011-001, Test Control (Draft)
- o QI-005-002, Revision 0, "Quality Review of Procedures and Work Packages"

The NRC inspector's review of the draft version of QP-011-001, which was to become the principal document for control of plant testing during operations, revealed several problems. Subsequently, QP-011-001 was sent to QA for review and comment and a number of changes to resolve QA comments were developed. A revised draft version of QP-011-001 began to be processed through LP&L's procedure review system. This item is considered open until the revised procedure is issued (382/8431-10).

No violations or deviations were identified.

12. Measuring and Test Equipment (M&TE)

The purpose of this portion of the inspection was to ascertain whether LP&L had developed and implemented a program to control M&TE that was in conformance with regulatory requirements and commitments, including Regulatory Guides and industry standards.

LP&L's M&TE program for Waterford 3 was described in Chapter 12 of the Nuclear Operations Quality Assurance Manual and in three station procedures:

UNT-5-006, Revision 0, Measuring and Test Equipment Control

MI-1-005, Revision 1, Administrative Controls of Calibration and Maintenance

MD-1-004, Revision 5, Preventive Maintenance Scheduling

UNT-5-006 required that each department within the maintenance group, mechanical, electrical and instrumentation and control (I&C), establish its own departmental level M&TE procedure. At the time of the inspection, only I&C had established a procedure, MI-1-005. This fact had been recognized by LP&L and documented in Operations QA Audit Report SA-W3-QA-83-16, Finding No. 18.

Interviews revealed that the only maintenance department storing, issuing, calibrating, or controlling M&TE was I&C although all three departments used M&TE in the field. As a result, UNT-5-006 and MI-1-005 were to be replaced by two new procedures, which had been drafted but had not completed the review process:

QP-12-001 (Draft), "Control of Measuring and Test Equipment"

MD-01-01S (Draft), "Measuring and Test Equipment Control"

The NRC inspectors reviewed these draft procedures and noted that the definition of M&TE scope of in QP-12-001 appeared to be restricted to that M&TE used for TS surveillance. Such a restriction would not be consistent with the Quality Assurance Manual, which applied to ". . . M&TE utilized in or related to operation of quality-related structures, systems and equipment is controlled in accordance with written procedures or instructions." The definition of "quality-related" in the Quality Assurance Manual appeared to extend beyond TS surveillance.

Interviews revealed two concerns on the part of personnel directly involved in M&TE:

- o The space available for storage and calibration of M&TE appeared inadequate. However, a 6 to 7 month effort to inactivate much of the M&TE used during construction and acceptance testing, but not routinely used for operational surveillance and calibration, was underway. Plans were to calibrate and then store the inactive M&TE outside the present metrology lab in a facility with suitable security and environmental controls. The NRC inspector's tour of the metrology lab and issue room confirmed the fact that the area was cluttered and had limited working space.

- o Personnel involved in MT&E were concerned about whether they were adequately staffed to support operations. The NRC inspectors noted that the present workload was high due to the preoperational and startup testing programs and due to the program to calibrate, inactivate, and stored MT&E that was no longer needed.

Interviews revealed that LP&L management was aware of both these concerns of adequate space and staffing for the MT&E program and were addressing the issues. Three deficiencies were noted by the NRC inspectors during an examination of MT&E program implementation:

- o A multiamp motor overload/relay tester, Waterford local control No. MEET 51.12, model MSIA, SN 5724, was stored in the M&TE issue room with its calibration sticker indicating it was past its calibration due date of May 8, 1984. Further investigation revealed the calibration frequency in the Maintenance Planning and Scheduling (MPSS) was listed as annual instead of 6 months as required. The inspector observed appropriate action taken to remove the tester from the issue room to the metrology calibration lab for a calibration check and the initiation of a change to the MPSS.
- o One of the completed surveillance procedures reviewed, ME-3-200, completed May 14, 1984, listed a piece of M&TE as having been used during the surveillance; but the equipment could not be found in the M&TE index.
- o Another piece of M&TE used in the same surveillance was required by procedure to be model 202-107800-280. The model number listed for the piece of M&TE (MEST 25.51) in the M&TE index was Z02-107800-280.

These deficiencies were considered minor and isolated in an otherwise well run M&TE program. The licensee initiated corrective action when the above deficiencies were identified by the NRC inspectors.

No violations or deviations were identified.

13. Unresolved/Open Items

An unresolved item is one about which more information is required to determine whether the item is acceptable or is a violation. Two unresolved items are discussed in this report as indicated below:

<u>Item</u>	<u>Paragraph</u>	<u>Subject</u>
8431-04	2.b	Provision allowing POM procedure steps to be performed in any sequence.

8431-09 8.a Supplier evaluator training records six new open item identified in paragraphs 2.b, 5.a, 5.b, 5.c, 7, and 11, are summarized below:

Six new open items identified in paragraphs 2.b, 5.a, 5.b, 5.c, 7 and 11 are summarized below.

<u>Item</u>	<u>Paragraph</u>	<u>Subject</u>
8431-03	2.b	QI-005-002 guidance for procedure review not adequate
8431-05	5.a	UNT-05-002 Determination of "quality-related" vice "safety-related" not clear
8431-06	5.b	No requirement evident for review of corrective maintenance activities
8431-07	5.c	UNT-05-002 allows blowing out of sensing lines without a CIWA
8431-08	7	Prompt SS notification of surveillances, calibration and PM activity status
8431-10	11	QP-011-001 revisions in review

14. Exit Interview

The NRC inspectors met with LP&L staff members during various stages and at the conclusion of the inspection to summarize the scope of the inspection and the findings.