

APPENDIX

SALP BOARD REPORT

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U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

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SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

50-382/85-30

Louisiana Power & Light Company

Waterford Steam Electric Station  
Unit 3

December 18, 1984 - December 31, 1985

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## I. INTRODUCTION

The Systematic Assessment of Licensee Performance (SALP) program is an integrated Nuclear Regulatory Commission (NRC) staff effort to collect available observations and data on a periodic basis and to evaluate licensee performance based upon this information. SALP is supplemental to normal regulatory processes used to ensure compliance to NRC rules and regulations. SALP is intended to be sufficiently diagnostic to provide a rational basis for allocating NRC resources and to provide meaningful guidance to the licensee's management to promote quality and safety of plant operation.

An NRC SALP Board, composed of the staff members listed below, met on February 27, 1986, to review the collection of performance observations and data, and to assess the licensee performance in accordance with the guidance in NRC Manual Chapter 0516, "Systematic Assessment of Licensee Performance." A summary of the guidance and evaluation criteria is provided in Section II of this report.

This report is the SALP Board's assessment of the licensee's safety performance at Waterford 3 Steam Electric Station (W3 SES) for the period December 18, 1984, through December 31, 1985.

SALP Board for W3 SES:

- E. H. Johnson, Director, Division of Reactor Safety and Projects, Region IV
- R. L. Bangart, Director, Division of Radiation Safety and Safeguards, Region IV
- D. M. Crutchfield, Assistant Director for Technology-PWR B, Nuclear Reactor Regulation
- J. E. Gagliardo, Chief, Reactor Projects Branch, Region IV
- G. L. Constable, Chief, Project Section C, Reactor Project Branch, Region IV
- J. H. Wilson, Project Manager, Nuclear Reactor Regulation
- J. G. Luehman, Senior Resident Inspector, W3 SES

## II. CRITERIA

Licensee performance was assessed in eleven selected functional areas. Each functional area normally represents areas significant to nuclear safety and the environment.

One or more of the following evaluation criteria were used to assess each functional area.

1. Management involvement and control in assuring quality.

2. Approach to resolution of technical issues from a safety standpoint
3. Responsiveness to NRC initiatives
4. Enforcement history
5. Operational events (including response to, analysis of, and corrective actions for)
6. Staffing (including management)

However, the SALP Board is not limited to these criteria and others may have been used where appropriate.

Based upon the SALP Board Assessment, each functional area evaluated is classified into one of three performance categories. The definitions of these performance categories are:

Category 1. Reduced NRC attention may be appropriate. Licensee management attention and involvement are aggressive and oriented toward nuclear safety; licensee resources are ample and effectively used so that a high level of performance with respect to operational safety is being achieved.

Category 2. NRC attention should be maintained at normal levels. Licensee management attention and involvement are evident and are concerned with nuclear safety; licensee resources are adequate and are reasonably effective so that satisfactory performance with respect to operational safety is being achieved.

Category 3. Both NRC and licensee attention should be increased. Licensee management attention or involvement is acceptable and considers nuclear safety, but weaknesses are evident; licensee resources appear to be strained or not effectively used so that minimally satisfactory performance with respect to operational safety is being achieved.

### III. SUMMARY OF RESULTS

Significant improvement has been achieved in the areas of Preoperational/Startup Testing, Security and Safeguards, and Surveillance. Performance has declined in the area of Quality Programs and Administrative Controls Affecting Quality. Areas needing improvement include Plant Operations and Maintenance.

The licensee's performance is summarized in the table below, along with the performance categories from the previous SALP evaluation period.

<u>Functional Area</u>	<u>Previous Performance Category (7/1/82 to 6/30/83)</u>	<u>Present Performance Category (12/18/84 to 12/31/85)</u>
A. Preoperational/Startup Testing	2	1
B. Plant Operations	2	3
C. Surveillance	Not Assessed	2
D. Maintenance	3	3
E. Quality Programs and Administrative Controls Affecting Quality	1	2
F. Fire Protection	Not Assessed	2
G. Radiological Controls		2
1. Radiation Protection	2	
2. Radwaste Systems, Effluent Releases, and Monitoring	2	
3. Transportation Activities	2	
4. Confirmatory Measurements, Chemistry/Radiochemistry	3	
5. Environmental Surveillance	2	
H. Emergency Preparedness	3	2
I. Training and Qualification Effectiveness	2	2
J. Security and Safeguards	2	1
K. Licensing Activities	2	2
L. Outages	Not Assessed	Not Assessed

The total NRC inspection effort during this SALP evaluation period consisted of 30 inspections, including resident inspector inspections and emergency exercises, for a total of 4,065 direct inspection hours. The plant availability factor from commercial operation on September 24, 1985, through December 31, 1985, was 76.1.

#### IV. PERFORMANCE ANALYSIS

##### A. Preoperational/Startup Testing

###### 1. Analysis

This area was inspected on a continuing basis by the NRC resident inspectors during the performance of the initial startup testing program. Routine inspections conducted by the NRC resident inspectors during these tests included procedure review, test witnessing, and test results evaluation. No violations were identified in the functional area of startup testing. No LERs associated with this area were submitted.

The NRC inspections conducted during the startup program revealed management involvement and oversight was good, resources were effectively utilized, and minimal retesting was required. In general, the startup program can be characterized as a smooth, well controlled evolution.

###### 2. Conclusions

Licensee management demonstrated excellent prior planning and effective control of startup testing. The licensee is considered to be in Performance Category 1 in this functional area.

###### 3. Board Recommendations

###### a. Recommended NRC Actions

The NRC inspection program in this functional area is complete.

###### b. Recommended Licensee Actions

Licensee management is encouraged to apply the same attention to detail during future facility operation including post-outage testing.

B. Plant Operations

1. Analysis

This area has been inspected on a continuing basis by the NRC resident inspectors. One violation was identified involving failure to follow the boron management system operating procedures which resulted in the secondary side of the plant becoming contaminated. (Severity IV, 85-16)

The 34 LERs associated with plant operations are listed below.

- . Automatic actuations of the engineered safety features portion of the control room ventilation system including electrical spikes and spurious alarms. (84-01, 85-02, 85-05, 85-30, 85-39, 85-43, 85-45, 85-48)
- . An inadvertent containment spray actuation occurred while performing a matrix test on Channel D of the plant protection system. (85-06)
- . While in Mode 3 an inadvertent actuation of the reactor protection system occurred due to noise in the Core Protection Calculation Channels C and D. (85-07)
- . The reactor tripped on high steam generator level once in Mode 2 (4.5% reactor power) and once in Mode 1 (15% reactor power). In each case, steam generator levels were being manually controlled. (85-08)
- . The reactor tripped due to low water level in the steam generator caused by loss of the Main Feedwater Pump B. (85-13, 85-14)
- . The liquid effluent monitor was found inoperable due to a valve misalignment. (85-15)
- . The reactor tripped from 17% power following an inadvertent closure of Main Steam Isolation Valve 2. (85-17)
- . A reactor coolant system unidentified leakage of 6.1 gallons per minute was calculated while at 65% power. (85-18)
- . The reactor tripped from 25% power due to a malfunction in the condensate polisher system. (85-20)

- . The reactor tripped from 65% power due to low water levels in the steam generators. The reactor trip resulted when a flow perturbation in the condensate system tripped the main feedwater pump on low suction pressure. (85-21)
- . The Emergency Diesel Generator B output breaker and both emergency feedwater pump motor breakers failed to close during a surveillance test due to a problem with the breaker racking motor interlocks. (85-23)
- . The reactor tripped from 91% power following the loss of the main feedwater pump due to a fire. (85-27)
- . The reactor tripped at 2E-4 percent power due to the control element assembly position deviation initiating a large enough penalty factor to generate a DNBR and local power density trip. (85-28)
- . The reactor tripped from 15% power on high steam generator level due to unisolating the main feedwater regulating valve in preparation for power ascension. (85-29)
- . The reactor tripped from 100% power on low water level in the steam generator due to a loss of a main feedwater pump. (85-31)
- . The reactor tripped from 58% power on high water levels in the steam generator due to a malfunction in the speed controller for the main feedwater pump. (85-33)
- . The reactor tripped from 90% power on low water level in the steam generators due to a flow perturbation causing both main feedwater pumps to trip on low suction pressure. (85-34)
- . The reactor tripped from 100% power when reactor coolant system pressure was out of the range allowed by the core protection calculators due to an electrical fault in the digital electro-hydraulic control panel. (85-35)
- . Loss of 4.16 KV bus resulting in automatic start of EDG and reactor trip. (85-40)
- . Reactor trip due to operator distraction. (85-42)
- . Reactor trip due to over feeding steam generator. (85-44)
- . Reactor trip as a result of deluge system actuation. (85-47)

- . Reactor trip on inadvertent low DNBR. (85-51)
- . Loss of offsite power due to lightning strike in Waterford switchyard. (85-54)
- . Mode change with inoperable containment spray pump. (85-55)
- . Reactor trip resulting from condenser level perturbation. (85-56)

Twelve of these events involved operator error.

The operations department has experienced a significant loss of licensed personnel during this appraisal period. Attrition due to resignations (9) and two transfers to another department prevented the licensee from manning a full six shift rotation as they did at the beginning of the appraisal period. The addition of nine licensed operators after the October 1985 examination has improved the situation somewhat and the operations department currently has 30 licensed operators. The licensee has started an incentive program for the licensed operators in which they would receive pay bonuses, and it is hoped this program will reduce the attrition rate.

Observations of operator conduct and performance in the control rooms and in the other areas of the plant have indicated that the operators perform their duties in a professional manner. No distractions such as extraneous reading materials or excessive noise have been observed in unauthorized areas as required by licensee's procedures. NRC findings and LER reviews indicate that a contributing factor to some events has been a failure to follow procedures, especially for the secondary plant.

Licensee management involvement in reducing congestion and noise in the control room is evident, yet the results of some efforts have been mixed. The rear portion of the control room has been partitioned with glass. This allows the shift supervisor and other operations personnel to carry out required administrative tasks and to interface with personnel from other departments without interrupting the overall functioning of the control room. The areas around the control panels have been carpeted and this substantially reduces ambient noise. The licensee has chosen ball caps as a kind of distinctive clothing to identify key shift personnel. This effort has not been entirely successful as numerous reactor operators (ROs) and/or senior reactor operators (SROs) do not wear their caps. Even with the partitioned area in back of the control room, the number of



nonessential personnel allowed in the control board area varies by shift crew.

The performance of licensed personnel during operational events, such as reactor trips, was very good. The reactor operators carried out the required actions under the supervision of the control room supervisor, while the shift supervisor remained free to respond to other problems. Other personnel, including plant management, remained clear of the area near control boards until conditions were verified as being stable.

The licensee has started a program of upgrading the W3 SES annunciator system to eliminate nuisance alarms and to have a minimum of annunciators illuminated during power operation. Along with the required hardware modifications, this program needs to include the updating of the numerous incorrect annunciator response procedures that were identified by the NRC, to assure that the operator has information to adequately respond. The licensee has initiated a program which is heavily involved in overview of this effort as there are a substantial number of annunciators that need to be addressed.

The large number of automatic actuations of the engineered safety system features portion of the control room ventilation system, along with the numerous problems with both the control room ventilation system chlorine and ammonia detection systems too often diverted the reactor operator's attention away from monitoring overall plant operations. The underlying problems associated with these events are, in some cases, design problems to which quick solutions are unlikely. In the meantime, the licensee provided a spurious ventilation actuation diagnostic to the operators to assist them in dealing with any future problems. Because of the assorted problems, operation of the control room ventilation in the recirculation mode has become almost the normal practice.

As discussed in the Radiological Controls section of this report, the plant has had a continuing problem of high concentrations of short lived airborne radioactivity in various portions of the reactor auxiliary building (RAB). There has not been a coordinated effort, allotting sufficient time and manpower, between the operating staff and the radiological controls personnel to eliminate the causes. Some efforts have been made in this area but other operational priorities have consistently been deemed more important; so the problem continues to exist.

The plant experienced 22 at-power reactor trips during 1985. This number of trips is high; even for a newly licensed plant. Many of the trips have occurred due to problems in the secondary plant and the utilization of the Reactor Power Cutback System (RPCS) should help reduce the number of future trips. Although use of the RPCS should reduce the number of reactor trips due to secondary side problems, it will not eliminate the causes of those problems related to human error.

## 2. Conclusions

The NRC staff views the licensed operators (on shift) as highly professional and dedicated to safe operation, lacking only in long-term experience.

Lack of experienced operators due to the age of the plant and the turnover of licensed operators were contributing factors to the high number of reactor trips, as was the performance of the initial startup program. But, these factors do not explain all the problems. Other factors, including lack of a plant specific simulator, the long term reliability of control element assembly (CEA) system, and the followup of operational events (discussed in the Supporting Data and Summaries), need to be considered.

Though operator distractions (such as spurious ventilation isolations and numerous illuminated annunciators) were being addressed, progress was slow, forcing the operators to monitor the plant under less than ideal conditions.

The frequency of reactor trips did not decrease appreciably as the appraisal period progressed. In most cases, licensee management took the necessary corrective actions to fix the individual problems as they were identified, but an aggressive overall trip reduction program was not evident. The licensee has in place the organizations (Independent Safety Engineering and Operations Quality Assurance) to assist in such a program; however, a lack of direct involvement of individuals with operations experience in the groups may limit their effectiveness.

The licensee is considered to be in Performance Category 3 in this functional area.

## 3. Board Recommendations

### a. Recommended NRC Actions

The NRC inspection effort in this functional area should increase and should include increased emphasis in monitoring the licensee's actions to improve overall operations and reduce the frequency of reactor trips.

b. Recommended Licensee Actions

An aggressive reactor trip reduction program, including human factors evaluations and root causes determination, should be instituted to reduce the reactor trip frequency toward the industry average. This program should include an in-depth review of the events by experienced operators from outside the plant operations department.

Licensee management must reverse the overall trend related to staffing which should help reduce the number of reportable events. Additionally, support of the completion of the program to upgrade the control room annunciator system should continue. Licensee management should initiate a preplanned program to eliminate the RAB airborne radioactivity problem. Also, licensee management should use the formulation and review of the Technical Specification (TS) for the broad range toxic gas detection system required by License Condition 2.C.4 as an opportunity to review the progress being made toward reliable monitoring systems associated with the control room ventilation system.

c. Surveillance

1. Analysis

This area has been inspected by region-based NRC inspectors and on a continuing basis by the NRC resident inspectors. Violations involving the failure to complete the data review on the emergency diesel generator surveillance test prior to changing operational modes (Severity Level IV, 85-20) and failure to comply with the requirements for ultimate heat sink cooling tower level (Severity Level IV, 85-28) were noted.

Eight LERs involved activities in the functional area of surveillance.

- . A licensee review discovered that the surveillance used to prove the operability of the containment air lock had not been performed within the required time frame specified in the TS. (85-09)
- . A licensee review found that W3 SES changed modes with an inoperable hydrogen analyzer and neglected to perform the

appropriate surveillance on the excore nuclear instrumentation. (85-10)

- . Failure to sample the oxygen and hydrogen concentration in the gas decay tank as required by TS. (85-11, 85-19)
- . Failure to do a proper data review of the emergency diesel generator surveillance test prior to changing operational modes. (85-25)
- . Wet cooling tower basin level instrument discrepancy. (85-49)
- . Inoperable radiation monitor without collecting and analyzing required samples. (85-52)
- . Core protection calculator surveillance deficiency due to inadequate procedure. (85-53)

The NRC inspectors' review of the W3 SES surveillance program indicated that components and systems reviewed had been tested in accordance with controlled procedures and that the testing had been completed on schedule. During the early stages of power ascension a weakness was identified in ability to keep the status current for surveillances. The licensee took steps to improve the communication between different disciplines and revised procedures to help eliminate this problem. Additionally, the plant's computerized surveillance tracking system was continuously refined to provide a more accurate status of pending surveillance requirements.

During the appraisal period the licensee's surveillance program effectively controlled routine surveillance requirements. As evidenced by some of the LERs the control of nonroutine activities such as those surveillances required by TS action requirements, was not as good.

## 2. Conclusion

Licensee management involvement in the functional area of surveillance has resulted in positive steps to overcome weaknesses identified in the early part of the assessment period. Their approach to the resolution of technical issues has improved as reflected in the type and reduced number of operational events identified later in the appraisal period.

Problems with nonroutine activities continued to exist because, in part, the method of tracking TS action requirements that the

licensee used was not completely effective. The mere listing of action statements on a turnover sheet does not alert the operators to action statement entries that have multiple causes. Also, the use of a listing of TS numbers does not provide the operator with a reference for review of the action statement requirements.

The licensee is considered to be in Performance Category 2 in this area.

3. Board Recommendations

a. Recommended NRC Actions

The NRC inspection effort in this area should be consistent with the basic inspection program. Emphasis should focus on nonroutine surveillance activities such as those required for mode changes.

b. Recommended Licensee Actions

Licensee management should continue improvements in this area, especially in the area of communications between different disciplines. The licensee should develop an integrated and more descriptive action statement tracking system. The combining of the equipment out of service log and the tracking of action statements would make the task of tracking TS related problems easier for the control room operator.

D. Maintenance

1. Analysis

This area was inspected by region-based NRC inspectors and on a continuing basis by the NRC resident inspectors. Seven violations described below were identified in this functional area during the appraisal period.

- . Failure to have procedures which assure proper documentation for spare and replacement parts, assure that design control reflects changes in spare and repair parts, and assure that safety class spare parts are not downgraded. (Severity Level IV, 84-42)
- . Failure to have maintenance procedures for safety-related equipment which reflect equipment manufacturer's

recommended or suggested maintenance. (Severity Level IV, 85-01)

Failure to have procedures which verify supplier documentation of changes to safety-related purchase orders, require design change review for purchase order major exceptions affecting design specifications used to assure the design bases upon which the plant was licensed, assure the review of spare and replacement material, parts and components for design and quality changes, and implement maintenance of equipment qualification prior to fuel load as committed in Section A6 of Revision 2 (November 1982) of LP&L's W3 SES response to NUREG-0588. (Severity Level IV, 85-04)

Failure to have procedures which provide adequate control of classification of maintenance activities so that preventive maintenance tasks involving equipment qualification are properly identified, controlled and provide adequate instructions for O-ring replacement and lubrication or torquing of instrument covers to maintain component qualifications. (Severity Level IV, 85-27)

Failure to follow procedural requirements for replacement and lubrication of instrument cover O-rings per NI-3-323, Revision 2 and for performing the required spare parts equivalency evaluation request per UNT-8-042, Revision 1 and UNT-7-021, Revision 0 prior to using an O-ring. (Severity Level IV, 85-27)

Failure to follow procedures UNT-5-002, MM-6-003, and OP-10-001 when performing work on Charging Pumps A and AB under Condition Identification Work Authorizations (CIWAs) 022173 and 022169. (Severity Level V, 85-28)

Failure to follow procedures relating to periodic calibration of measuring and test equipment (M&TE). (Severity Level V, 85-33)

Six LERs listed below involved activities in the area of maintenance as described below:

Maintenance personnel, while troubleshooting a ground, inadvertently shorted two leads together causing both the operating Low Pressure Safety Injection Pump B and Electrical Bus 3B-32 to trip. (85-03)

An inadvertent reactor trip occurred while plant personnel were installing heat shrink on the logarithmic power level nuclear instrumentation. (85-04)



- . A turbine bypass valve suddenly opened, swelling the steam generator water levels and causing a reactor trip. (85-22)
- . A loss of offsite power occurred due to personnel errors while troubleshooting the Main Generator Oil Circuit Breaker B. (85-24)
- . An inadvertent actuation of the engineered safety features portion of the control room ventilation system caused by small holes/tears in the foil on the detectors for the radiation monitors. (85-36)
- . Reactor trip due to failure of feedwater control system (FWCS) steam flow square root extractor. (85-41)

Several major maintenance efforts were accomplished during this appraisal period. Maintenance activities were accomplished including replacement of the main generator rotor retaining rings, replacement of a low pressure turbine rotor, replacement of reactor coolant pump seals, chemical cleaning of the main electrical generator, and steam generator tube plugging. During these outages the backlog of CIWAs was reduced substantially. Extensive management involvement at the planning level enabled these activities to be accomplished essentially on schedule. This type of extensive planning is evident in the licensee's contingency forced outage planning. Almost daily updates ensure that in the event of a forced outage, each maintenance group will have preplanned tasks to accomplish, thus reducing outage time.

Several NRC inspections during this assessment period have revealed inadequacies in procurement of spare parts, implementation of applicable vendor technical information in maintenance procedures, maintenance of environmentally qualified safety-related equipment, control of measuring and test equipment, and documentation of accomplished maintenance. As a result of the violations discussed above, the licensee is formulating a plan to address the possible generic weaknesses identified in the maintenance program.

One licensee initiated comprehensive improvement project is the establishment of the maintenance segment station information management system (SIMS) toward the end of the assessment period. This is a computer system with an equipment database containing detailed information on each piece of plant equipment. It is expected to enhance identification of quality

requirements, maintenance history, CIWA tracking, and nuclear plant reliability data system reporting.

2. Conclusion

Most of the weaknesses identified appear to be at the program level as evidenced by inadequate procedures or procedures that do not properly implement requirements. On the working level, maintenance personnel generally do a good job on assigned tasks with the procedural guidance provided. The licensee, at the end of the appraisal period, appears to be implementing a maintenance management system that should adequately address the identified programmatic weaknesses.

The licensee is considered to be in Performance Category 3 in this area.

3. Board Recommendations

a. Recommended NRC Actions

The NRC inspection effort in this functional area should be increased due to programmatic deficiencies and violations identified during this assessment period.

b. Recommended Licensee Actions

The licensee should continue their increased management attention to resolve the weaknesses identified in this area. Those areas which should be of particular concern are:

- (1) Improving the interface with outside organizations to ensure spare parts are properly procured, vendor information is properly incorporated in procedures and information from the architect engineer (AE) is used when making changes to or replacing plant equipment.
- (2) Upgrading the M&TE program to provide for timely calibration of potentially radioactively contaminated equipment.
- (3) Ensuring effective programmatic guidance is in place for maintenance of equipment environmental qualification.



E. Quality Programs and Administrative Controls Affecting Quality

1. Analysis

This functional area includes all verification and oversight activities which affect or ensure the quality of plant activities, structures, systems, and components. This area can be viewed as the comprehensive management system for controlling the quality of work performed and for controlling the quality of verification activities that are intended to confirm that the work was performed correctly. Appraisal in this area is based on the results of management actions to ensure that the necessary people, procedures, facilities, and materials are provided and used during the operation of the plant. Emphasis in the appraisal of this area is placed on the effectiveness and involvement of management establishing and ensuring the implementation of the quality assurance (QA) program. Also considered in this area is the licensee's performance in the areas of committee activities, design and procurement control, control of design change processes, inspections, audits, corrective action system, and records.

Activities under this functional area were inspected by region-based NRC inspectors and by the NRC resident inspectors. Four violations were identified in this area during the assessment period.

- . Failure to have procedures to assure compliance with W3 SES operations QA program. (Severity Level IV, 85-01)
- . Failure to have adequate documentation for EBASCO safety-related ventilation heating system and replacement parts used with charcoal filters. (Severity Level IV, 85-04)
- . Failure to update procedures dealing with design changes. (Severity Level IV, 85-16)
- . Failure to conduct a proper 10 CFR 50.59 review dealing with the control room heating and ventilating system. (Severity Level IV, 85-20)

The two LERs listed below involved activities in this functional area.

- . One of the two banks of pressurizer heaters powered from the 1E bus was isolated due to a drawing discrepancy. (85-16)

- . A reactor trip occurred at 6% power due to axial shape index being out of range allowed by the core protection calculator. The operating procedure did not include adequate guidance for calculating the axial shape index below 6% reactor power. (85-32)

The NRC inspectors noted some changes in the area of QA. The QA organization has undergone a reorganization in which the QA group was broken down into three sections which are listed below.

- . Vendor QA
- . Operations QA
- . System Development/Analysis QA

All of these sections report to the corporate QA manager. QA audits were found to have been conducted in accordance with approved checklists and were performed within the required intervals, with one exception, which is still under review (Unresolved Item 8520-03). QA audits were well documented, and the audit findings were addressed by the audited organization and tracked by the QA group. QA auditor qualification records were reviewed and found to meet applicable requirements.

Improvement programs were started in the area of quality control (QC) which should increase the effectiveness of QC activities. The improvements included:

- . Increased staffing including QC engineers.
- . Training of maintenance personnel to be qualified QC inspectors.

The NRC inspectors conducted a detailed inspection of the control of design changes and modifications. The inspectors reviewed documents which outline the requirements and responsibilities for the preparation, control, and review of station modifications from request through implementation and final closeout. The station modification package (SMP) is the vehicle by which design changes and modifications are made and the use of the forms and documents that become a part of the SMP provide the required control of design changes.

The inspection determined that there was a very large backlog of SMPs in the work completion notice (WCN) and drawing update stage. There were, in fact, only 17 SMPs completely closed out and in project files with all documented updates done. There

were 125 awaiting drawing update and 206 SMPs completed but awaiting some other form of review or document update. This backlog of SMPs causes some problems in the operational documents such as the red line drawings, where in at least one case, 5 SMPs were posted on the drawing as being completed but not marked on the drawing, as well as 3 additional SMPs marked up on the drawing. This represents a total of 8 SMPs affecting one drawing without any of them incorporated on the drawing.

Reliability of the plant monitoring computer has been a constant problem during the appraisal period. Frequent losses of the core operating limit supervisory system (COLSS) due to computer problems has caused numerous power reductions in order to comply with TS action requirements. These power reductions, and the subsequent power increases upon restoration of the COLSS, are avoidable plant transients which require plant operator attention and generate unnecessary liquid waste. Near the end of the rating period the licensee submitted a request for a change to the TS that should minimize the operational impact of COLSS failures.

## 2. Conclusions

The licensee's performance in the area of QA and QC was adequate. Specific improvement is needed in the area of design change control. Also, management involvement is required to assure evaluation and resolution of problems with the plant computer system. An overall decrease in performance in this functional area is possibly due to the QA reorganization. The QA organization does not appear to be as actively and aggressively involved in day-to-day operational activities as has been previously observed.

The licensee is considered to be in Performance Category 2 in this area.

## 3. Board Recommendations

### a. Recommended NRC Actions

The NRC inspection efforts in this functional area should be consistent with the basic inspection program, with increased attention to the evaluation of the effectiveness of the QA program.

### b. Recommended Licensee Actions

The licensee management needs to work toward:

- (1) A timely resolution of the NRC concerns regarding procurement control.

- (2) Involving the QA organization and other independent organizational elements, such as the Independent Safety Evaluation Group (ISEG), in problem areas. Representative attendance at NRC exit interviews would enhance their involvement.
- (3) Devote the necessary resources to eliminate the SMP backlog.
- (4) Bring in the necessary resources from LP&L and Middle South Utilities to help resolve the plant computer problems.

F. Fire Protection

1. Analysis

This area was inspected on a continuing basis by the NRC resident inspectors. One violation involving the removal of a fire door from service was noted. (Severity Level IV, 85-16)

The eight Licensee Event Reports (LERs) listed below involved activities in the functional area of fire protection.

- . Fire doors were not verified operable. (84-02)
- . Continuous fire watch with backup fire suppression equipment was not established within 1 hour. (85-01)
- . A fire zone did not have a fire detector capable of automatically activating. (85-12)
- . Fire barriers were found to be degraded. (85-26, 85-37)
- . Fire wrap did not cover several of the conduit support points. (85-38)
- . Fire watch tours were not properly performed. (85-46)
- . Deficient fire watch tours. (85-50)

The licensee has responded to the NRC violation and concerns and the related LERs by implementation of an improved fire protection program. Responsibility for performance of fire watch tours was reassigned to the security department. This was accompanied by changes in personnel, supervision, administration, and training practices. The security computer

is now routinely used to audit performance of fire watch tours. Plant operations personnel have also received additional training in their fire protection responsibilities, particularly in the area of performing compensatory actions when fire barriers, detection or suppression systems are degraded.

The licensee reinspected fire seals related to TS 4.7.11.1c in response to a number of identified deficiencies. The licensee is to analyze data from this inspection to determine the root cause of the deficiencies and establish whatever programs are necessary to ensure fire barriers are maintained functional.

In general, plant cleanliness is good with materials and equipment properly stored; however, cleanliness in less frequently accessed areas is not maintained as high as in the plant in general.

## 2. Conclusions

The licensee has improved the level of technical competence in the area of fire prevention/protection. Management interest and involvement have been demonstrated in the responsiveness to identified technical problems by revamping the fire watch program and demonstrating increased emphasis on staffing and training.

The licensee is considered to be in Performance Category 2 in this functional area.

## 3. Board Recommendations

### a. Recommended NRC Actions

The level of NRC inspection in this functional area should be consistent with the basic inspection program.

### b. Recommended Licensee Actions

Licensee management should be directed toward:

- (1) Installation of the fire protection equipment required by license conditions.
- (2) Resolution of fire barrier problems including implementation of a program to maintain fire barriers functional.

G. Radiological Controls

i. Analysis

Ten inspections concerning radiological controls were conducted during the assessment period by region-based radiation specialist inspectors. These inspections involved the following areas: occupational radiation safety; radioactive waste management and radiological effluent control and monitoring; water chemistry controls; and transportation of radioactive materials. Three violations and one deviation were identified:

- . Failure to provide proper storage of radioactive material shipping containers. (Severity Level IV, 85-26)
- . Failure to provide training for solid radwaste operators. (Severity Level IV, 85-26)
- . Failure to establish sampling procedures for waste gas decay tanks. (Severity Level V, 85-17)
- . Failure to store low-level radioactive waste in designated areas. (Deviation 85-26)

a. Occupational Radiation Safety

This area was inspected three times during the assessment period. No violations or deviations were identified.

The release of airborne and liquid contaminants from valves and fittings in various plant systems has resulted in excessive contamination of personnel and plant areas. Licensee management has not demonstrated an aggressive attitude for implementing a maintenance program to correct the root cause of these contamination problems. In addition, the licensee's As Low As Reasonably Achievable (ALARA) program has been ineffective regarding its ability to bring about the necessary corrective actions to correct the contamination problems. The licensee's approach to handling these contamination problems has been the use of additional health physics personnel for increased radiation protection coverage instead of taking proper action to repair the leaking valves and fittings.

The radiation protection organization has performed in an acceptable manner considering the contamination problems they must contend with. The licensee maintained an adequate radiation protection program to support plant



operations. This was accomplished by the use of overtime and supplementing the permanent plant staff with about 20 contractor health physics technicians. The personnel turnover rate at the technician level has been low.

The licensee has implemented a radiological training program for general employee training, radiation worker training, and training for radiation protection staff. The radiation protection staff includes the necessary qualifications and levels of experience.

Management oversight is evident by the support the corporate radiation protection group provides to the onsite organization. Management oversight also involved QA audits and program reviews by the corporate office.

b. Wa Chemistry Controls

This area was inspected three times during the assessment period. Two of the inspections included onsite radiochemistry confirmatory measurements of actual gas and liquid with the Region IV mobile laboratory. One violation involving the lack of proper sampling procedures for the waste gas decay tanks was identified.

The first confirmatory measurement inspection results only indicated 76% agreement with the NRC. A followup inspection was performed and results for this inspection indicated greater than 95% agreement. An effective program for these kinds of measurements should have comparative agreement greater than 90%.

No problems were identified concerning management oversight, resolution of technical issues, and responsiveness to NRC initiatives. The chemistry/radiochemistry staff consists of well qualified and experienced personnel. The staff has experienced a low turnover rate. A comprehensive training program has been implemented. All identified NRC concerns in this area have been resolved. Management oversight was apparent by the performance of QA audits and program reviews by the corporate office.

c. Radioactive Waste Management and Radiological Effluent Control and Monitoring

The area of radioactive waste management and radiological effluent control and monitoring was inspected twice during

the assessment period. No violations or deviations were identified.

The licensee has established a dedicated radwaste organization. Staffing for this area has been stable with a low turnover rate. Management oversight was evident by the performance of QA audits and program reviews. Responses to audit findings have been completed in a timely manner. The licensee's responsiveness to NRC initiatives has been generally acceptable. A liquid release permit program has been implemented to assure that planned releases receive the necessary review and approval prior to release. No problems were identified in the areas of effluent releases, effluent monitoring, effluent monitoring instrumentation, air cleaning systems, or reactor coolant water chemistry.

The training and qualification programs for Nuclear Auxiliary Operator responsible for radwaste operation has indicated some weaknesses. These weaknesses were apparent by the numerous operator errors associated with the operation of the various radwaste systems.

The radiological environmental monitoring program was inspected once during the assessment period. No violations or deviations were identified. The licensee has implemented a well managed, comprehensive program. The program is considered adequate in the areas of management oversight, staffing, training and qualifications, resolution of technical issues, responsiveness to NRC concerns, reports, control of contractor activities, and QA audits. All previous NRC identified concerns for this area have been resolved.

d. Transportation of Radioactive Materials

This area was inspected once during the assessment period. Two violations and one deviation were identified. These three enforcement items were minor concerns and not an indication of an inadequate transportation/solid radwaste program.

This program area is well managed and staffed with qualified personnel. Personnel turnover has been low for this area. Management oversight was evident by the performance of QA audits and program reviews. The licensee's responsiveness to NRC initiatives and resolution of technical issues has been adequate.



2. Conclusions

Although within regulatory limits, excessive personnel and plant area contamination exists. Management has not established the necessary priority concerning these chronic contamination problems to assure corrective action is implemented in a timely manner. The ALARA program has also exhibited weaknesses in that contamination problems that exist in the plant are contrary to good ALARA practices.

Management oversight was evident for the various program areas by the performance of QA audits and program reviews. A low personnel turnover rate was noted in each area.

The licensee is considered to be in Performance Category 2 in this area.

3. Board Recommendations

a. Recommended NRC Actions

The NRC inspection effort in this area should be consistent with the routine program.

b. Recommended Licensee Actions

Management attention is needed in order to correct the numerous gaseous and liquid leaks that have resulted in excessive contamination of workers and plant areas. The training and qualification program for radwaste operators should be improved for the purpose of reducing the number of operator errors associated with operating the various radwaste systems.

H. Emergency Preparedness

1. Analysis

During the assessment period, four emergency preparedness inspections were conducted. One violation was identified; failure to perform adequate training (Severity Level IV, 85-23).

The first inspection conducted on March 11, 1985, involved inspecting the newly constructed emergency operations facility and the relocation of the emergency equipment and communications to the new facility.

The second was a routine emergency preparedness inspection during the period of May 6-10, 1985. The three major areas inspected were program review, changes to the Emergency Plan, and knowledge and performance of duties. It was determined during a review of the licensee's action item list that some open items had not been corrected within one year. Additionally, there were operations personnel that had been identified as weak in emergency detection and classification. Due to responsibilities associated with start up, emergency preparedness walk-throughs for the operators were deferred to the August 1985 inspection.

During the third inspection, conducted August 5-9, 1985, operator walk-throughs were conducted in conjunction with reviewing LP&L corrective actions on previously identified open items. It was determined that three of five crews did not utilize protective response areas when formulating protective action recommendations. Two of five crews were unable to make correct protective action recommendations for the conditions of a general emergency without a radiological release occurring. These findings resulted in a Notice of Violation being issued for inadequate emergency response personnel training.

The final inspection during this assessment period was conducted September 16-20, 1985. The licensee conducted a joint emergency response exercise with the NRC, state, and both parishes participating. The results of this inspection indicated that there was reasonable assurance that LP&L could adequately protect the health and safety of the public during an emergency. Five deficiencies were identified for LP&L action. Two of the deficient areas were previously pointed out to LP&L management following the operations walk-throughs as areas of concern. The deficiencies involved not notifying the NRC of the declaration of an emergency and updating information to the state. The three remaining deficiencies involved management restrictions on information to the NRC, duties of the emergency director, and inadequate space for the NRC site team personnel in the technical support center command center.

The licensee has reduced the requirements for personnel retraining to approximately one-half those in place for initial training. Staffing appears adequate to man positions established by the emergency response plan.

## 2. Conclusions

It appears that some essential portions of training were reduced or deleted by the retraining program that was established. This

reduced program resulted in areas of ineffective response by licensee emergency response personnel during operations walk-throughs and the annual exercise. Licensee management's response to NRC concerns did not appear to be timely and effective.

LP&L entered this assessment period with no significant deficiencies and a minimal number of open items. The findings of the NRC inspections conducted during the evaluation period indicate that, overall, the licensee's emergency preparedness program is adequate to protect the health and safety of the public.

The licensee is considered to be in performance category 2 in this area.

3. Board Recommendations

a. Recommended NRC Actions

The level of NRC inspection in this functional area should continue at the same level.

b. Recommended Licensee Actions

The level of management attention to the implementation of the emergency preparedness program should be increased to ensure proper response to NRC-identified items. Emphasis should be given to addressing the NRC Notice of Violation and deficiencies. The licensee should evaluate the emergency preparedness retraining program as to scope and depth.

I. Training and Qualification Effectiveness

1. Analysis

An inspection of training was performed to ascertain that the licensee is accomplishing maintenance training and establishing a program of licensed and nonlicensed training to meet Institute for Nuclear Power Operation (INPO) guidelines by December 1986. Selected licensee potentially reportable event reports (PREs) were reviewed to determine if events were apparently caused by, or negatively influenced by, maintenance training. No problems attributable to training were identified.

Two LERs were causally related to technical support personnel training:

- . Missed sample on gas decay tank. (85-19)
- . Failure to take gas decay tank samples. (85-11)

Ten LERs were causally related to operator training:

- . Mode change was made with inoperable containment spray pump. (85-55)
- . Radiation monitor was made inoperable for trouble shooting and required sampling was not performed. (85-52)
- . Reactor trip caused by operator entering incorrect addressable constant to control element assembly calculator (CEAC). (85-51)
- . Reactor trip due to over feeding the steam generators. (85-44)
- . Reactor trip caused by out-of-range axial shape index (ASI). (85-32)
- . Reactor trip caused by CEA position deviation. (85-28)
- . Failure to correctly "rack in" 4160 v breakers. (85-23)
- . Reactor trip initiated by opening suction isolation valve on out-of-service condensate pump. (85-14)
- . Reactor trip from high steam generator water level. (85-08)
- . Containment spray actuation caused by failure to reset initiation relays. (85-06)

On October 16, 1985, the NRC administered the only set of operator (RO and SRO) licensing examinations during this appraisal period. Of the 22 candidates taking the examination, 9 passed. All failures were on the written examinations. The success rate attained on this examination was low compared to the last examination administered at W3 SES in which 16 of 17 candidates passed.

Since the last appraisal period the plant training department has moved into a new training facility. This facility has space allotted for the plant-specific simulator that is presently

under construction. Additionally, licensee management has approved a plan to remodel one of the present site buildings to house the maintenance training laboratories and general employee training.

2. Conclusion

Overall performance in training has been satisfactory. Management involvement is apparent as evidenced by the expanded facilities, plans for a plant-specific simulator, and plans to remodel one of the present site buildings to house maintenance training laboratories and general employee training. Staffing of the training department appears to adequately support stated goals. Analysis of the LERs and the high failure rate on the October 16, 1985, RO/SRO examination indicate that the training conducted is not always effective. However, most of the candidates who failed the examination exhibited a weakness in only one area.

The licensee is considered to be in Performance Category 2 in Training and Qualification Effectiveness.

3. Board Recommendations

a. Recommended NRC Actions

The NRC should continue to monitor licensee progress towards INPO accreditation. Inspections in the training area should continue at the basic level.

b. Recommended Licensee Actions

The licensee should closely monitor his program to assess completion of all actions necessary to obtain INPO accreditation by December 1986.

Furthermore, the licensee should evaluate PREs, LERs, CIWAs, quality notices, and other problem identification documents to measure and increase training effectiveness.

Continued LP&L management attention needs to be directed toward timely completion of the plant specific simulator.

J. Security and Safeguards

1. Analysis

The physical security staff performed four inspections during this assessment period. No violations or deviations were identified. The security program made a smooth transition into the operating license phase because of the prior experience gained through early implementation of the security program. Two of these four inspections focused on following up on allegations. The security officers were well prepared and guided through training and supervision. The program is well supported by management and the access control and intrusion detection equipment is maintained effectively under a surveillance and preventive maintenance program. Corrective maintenance is prompt.

There is effective communication between the site security management and the regionally based NRC inspectors.

2. Conclusion

The licensee's security program has recently evolved from the startup phase to commercial operations. The extensive preparation during the pre-startup phases is reflected in their current effective security operations. Licensee corporate and site management attention and involvement are strong and responsive to NRC initiatives.

The licensee is considered to be in performance category 1 in this area.

3. Board Recommendations

a. Recommended NRC Actions

The level of NRC inspection effort in this functional area should be maintained at the normal level as prescribed in the security and safeguards operational procedures during the first year of commercial operation.

b. Recommended Licensee Actions

Care must be taken to ensure that the quality of the selection and training techniques for the replacement of security personnel continues at the high level employed to begin the program.



K. Licensing Activities

1. Analysis

The NRC Office of Nuclear Reactor Regulation has performed an assessment of licensee performance in the functional area of Licensing Activities. Refer to Attachment 1 for details of this assessment.

2. Conclusions

As discussed in Attachment 1, the licensee is considered to be in Performance Category 2 in this functional area.

3. Board Recommendations

a. Recommended NRC Actions

The NRC should continue timely processing of licensing actions.

b. Recommended Licensee Actions

Licensee management should continue to be highly involved in licensing activities. They should concentrate on those items suggested for improvement in Attachment 1.

L. Outages

Two outages occurred within the context of the startup program and initial operations. Specific inspections to assess outage performance were not performed. Therefore, the licensee was not assigned a performance category in this functional area.

V. SUPPORTING DATA AND SUMMARIES

A. Major Site Activities

W3 SES began the appraisal period having just received a low power (5%) license. Initial criticality was achieved on March 4, 1985, with the issuance of the full power license occurring March 16, 1985. The plant entered commercial operation September 24, 1985. Other significant events of the appraisal period included:

1. An extended outage to repair the main generator.
2. The Middle South Utilities capacity run.

3. Outage to replace reactor coolant pump seals and a reactor coolant system (RCS) resistance temperature detector (RTD).

B. Enforcement Actions

On May 24, 1985, the NRC issued Enforcement Package EA 85-10, which contained a Notice of Violation and Proposed Imposition of Civil Penalties in the amount of one hundred thirty thousand dollars. The violations, which related to deficiencies in construction activities identified by the NRC W3 SES Task Force, occurred prior to this SALP period. The licensee responded on July 19, 1985, and this response was being evaluated by the NRC at the end of this SALP period. Refer to Table 1 for a cross reference of violations and deviations by functional area for the current SALP period.

C. Licensee Conferences Held During Appraisal Period

A number of W3 SES status meetings were held between LP&L and NRC management at the request of the licensee during this SALP period. They involved a mutual exchange of regulatory and operating information. None of these meetings dealt with regulatory performance or enforcement.

D. Review of Licensee Event Reports (LERs)

Individual LERs were reviewed by the NRC and a discussion of their relationship to performance is covered under the appropriate functional areas. It should be noted that a single LER can relate to performance in more than one functional area. The following discussion is a summary of the licensee's overall effectiveness in generating LERs which adequately identify the problems involved and provide appropriate corrective action. To assist the licensee in correcting any identified deficiencies, a detailed analysis supporting this discussion is being forwarded under a separate cover letter.

An evaluation of the content and quality of a representative sample of the LERs submitted by W3 SES during December 18, 1984, to December 31, 1985, SALP period was performed using a refinement of the basic methodology presented in NUREG/CR-4178, "An Evaluation of Selected Licensee Event Reports Prepared Pursuant to 10 CFR 50.73 (Draft)." The results of this evaluation indicate that W3 SES has an overall average LER score of 7.3 of a possible 10 points, thus ranking it 23rd out of 35 units that have been evaluated to date using this methodology.



The principal weakness identified involves the root cause discussions in the report. Deficiencies in the discussions involving root cause determination, especially for those events involving personnel error, prompts concern that the corrective actions implemented as a result of the investigation into cause may not adequately address the root cause. Further, the licensee's LER outline does not include a section specifically devoted to cause. Such a section is needed as it would prompt better root cause discussions.

E. Investigations and Allegations: Review

The NRC received and reviewed five new allegations during 1985. None of the allegations identified substantive safety issues.

During this evaluation period, numerous previously identified technical allegations were closed based on the earlier findings of the NRC W3 SES task force. These allegations were identified and resolved prior to the beginning of this evaluation period.

TABLE 1

## ENFORCEMENT ACTIVITY

Functional Area	*No. of Violations in Each Severity Level		
	V	IV	DEVIATION
Plant Operations		1	
Radiological Controls	1	2	1
Maintenance	2	5	
Surveillance		2	
Fire Protection		1	
Emergency Preparedness		1	
Security			
Preoperational/Startup Testing			
Quality Programs and Administrative Controls Affecting Quality		4	
Licensing Activities			
Training and Qualification Effectiveness			

TOTAL                    3                    16                    1

\*No violations were identified in Severity Levels I, II, or III.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION IV  
611 RYAN PLAZA DRIVE, SUITE 1000  
ARLINGTON, TEXAS 76011

Enclosure

FACILITY: Waterford Steam Electric Station, Unit 3  
LICENSEE: Louisiana Power and Light Company  
EVALUATION PERIOD: December 18, 1984 to December 31, 1985  
PROJECT MANAGER: James H. Wilson

I. Introduction

This report contains NRR's input to the SALP review for the Waterford Steam Electric Station, Unit 3. The assessment of the licensee's performance was conducted according to NRR Office Letter No. 44, NRR Inputs to SALP Process, dated January 3, 1984. This Office Letter incorporates NRC Manual Chapter 0516, Systematic Assessment of License Performance.

II. Summary

NRC Manual Chapter 0516 specifies that each functional area evaluated will be assigned a performance category (Category 1, 2 or 3) based on a composite of a number of attributes. The performance of the Louisiana Power & Light company in the functional area of Licensing Activities is rated Category 2.

III. Criteria

The evaluation criteria used in this assessment are given in NRC Manual Chapter 0516 Appendix, Table 1, Evaluation Criteria with Attributes for Assessment of License Performance.

IV. Methodology

This evaluation represents the integrated inputs of the Project Manager (PM) and those technical reviewers who expended significant amounts of effort on Waterford Steam Electric Station, Unit 3 licensing actions during the current rating period. Using the guidelines of NRC Manual Chapter 0516, the PM and each reviewer applied specific evaluation criteria to the relevant licensee performance attributes, as delineated in Chapter 0516, and assigned an overall rating Category (1, 2 or 3) to each attribute. The reviewers included this information as part of the safety evaluation for each review. The PM, after reviewing the inputs of the technical reviewers, combined this information with his own assessment of licensee management and technical performance and, arrived at a composite rating for the licensee. A written evaluation was

then prepared by the PM and circulated to NRR management for comments, which were incorporated in the final draft.

The basis for this appraisal was the licensee's performance in support of licensing actions that were either completed or had a significant level of activity during the current rating period. These actions consisted of requests for license amendments, exemption requests, responses to generic correspondence and requests for information, TMI items, and other licensing actions. The elements considered in the basis for this appraisal are as follows:

- o Steam Generator Limitations
- o Inservice Inspection Program
- o CECOR Methodology
- o Fire Protection
- o Masonry Walls
- o Remote Shutdown Capability
- o Containment Coatings  
(for Changes to the Technical Specifications)
- o Review of Basemat Confirmatory Analyses
- o Final Closure of 23 Issues of 6/13/84 Eisenhut letter to LP&L (Task Force)
- o Overall Licensing Activities (including Requests

#### V. Assessment of Performance Attributes

The licensee's performance evaluation is based on consideration of the seven attributes specified in NRC Manual Chapter 0516. These are:

- Management Involvement and Control in Assuring Quality
- Approach to Resolution of Technical Issues from Safety Standpoint
- Responsiveness to NRC Initiatives
- Staffing
- Training Effectiveness and Qualification
- Enforcement
- Reportable Events

#### A. Management Involvement and Control in Assuring Quality

The management team which was assembled to assure timely construction project completion and to support the operating phase has demonstrated active participation in licensing activities and kept abreast of all current and anticipated licensing actions. In order to enhance their involvement and increase their control of licensing activities, LP&L has maintained an office in Bethesda. This licensing presence near NRC, which included both technical and administrative liaison, enabled LP&L management to be highly responsive to staff suggestions and comments and expedited the resolution of licensing issues. Through these actions, LP&L's management has demonstrated a willingness to work closely with the NRC staff to establish realistic schedules for completion of licensing activities. In addition, the management's involvement

in licensing activities assured timely response and closure of issues. The licensee's management consistently exercised good control over its internal activities and its contractors, and maintained effective communications with the NRC staff.

On the basis of the above observations, a rating of 1 is assigned to this attribute.

#### B. Approach to Resolution of Technical Issues from a Safety Standpoint

The licensee's management and staff have demonstrated adequate technical understanding of issues involving licensing actions. Its approach to resolution of technical issues has demonstrated technical expertise in all licensing actions. The establishment of a licensing presence in Bethesda has enabled LP&L to focus quickly and accurately on technical issues and to determine which resources needed to be brought to bear to reach timely resolution based on sound communications. The decisions related to licensing issues have been thoughtful and routinely exhibit conservatism in relation to significant safety matters. The licensee has provided adequate technical justification for most licensing actions.

The licensee has made frequent visits to NRC to discuss proposed responses to staff requests prior to making formal submittals. This practice, coupled with a local office to serve as a technical and administrative liaison between the staff and the licensee, has been found to be beneficial to both the staff's and the licensee's efficiency in processing licensing actions.

Based on the above discussion, the rating of a strong 2 is assigned to this category.

#### C. Responsiveness to NRC Initiatives

The licensee has been consistently responsive to NRC initiatives. During the rating period, it has made every effort to meet or exceed the established commitments and schedules for licensing activities, particularly those associated with full-power licensing.

One area where LP&L could be more responsive is in providing the NRC staff with information concerning licensee events. Waterford 3 had well over 50 reportable events during the rating period. Many of these events, where the staff perceived a possible safety problem, were of great interest to the staff, yet because 10 CFR 50.73 allows 30 days in which to file a written report, often information about these events was available only after a several-day lag following the staff's request for information. While the staff does not expect to have analyses and written reports available immediately following an event, the staff feels a need for accurate information about those events in which it has significant safety interest. We would encourage LP&L to provide for better communication between their plant staff and the LP&L licensing group to enable the NRC to quickly and accurately follow future events.

Based on the above considerations, a rating of 2 is assigned to this attribute.

#### D. Enforcement History

During the rating period, LP&L was assessed a proposed civil penalty of \$130,000 as a result of weaknesses in LP&L's construction QA program during the multi-year construction phase of the Waterford 3 facility. The NRC staff's review, inspection and evaluation of the issues involved has been extensively documented. Although the violations did not appear to lead to an end-product of unacceptable quality, the civil penalty was assessed to emphasize the weaknesses in the construction quality assurance program and to assure that these weaknesses did not carry over to the operational QA program. LP&L's corrective actions during the rating period demonstrated a good understanding of the technical issues involved, were responsive to the technical staff initiatives and were aggressively followed by utility management to ensure timely completion.

Based on the above the considerations, a rating of a strong 2 is assigned to this attribute.

#### E. Reportable Events

During the evaluation period, the licensee had more than 50 events reportable under 10 CFR 50.73. Many of these events were due to equipment problems that arose during the conduct of the startup test program. Where the occurrence of several related events indicated a trend, LP&L aggressively pursued necessary corrective actions to avoid a recurrence. Although the required reports were filed within the specified time, some appeared to lack the depth needed to closely examine the root cause. Also, as described in Section C above, information concerning these events was often unavailable to the staff in the time frame needed to support NRC follow up activities. It is hoped that development of better communication between plant staff and LP&L licensing will enhance the licensee's responsiveness in the future.

Based on the above considerations, a rating of 2 is assigned to this attribute.

#### F. Staffing

During the first part of the rating period, the licensee had licensed operators in excess of those required for six operating shifts. Towards the middle of the rating period, after full power licensing and after achieving 100%, several licensed operators had resigned for various reasons. LP&L still maintained adequate operating staff to support five shifts, including SROs with hot operations experience to serve as advisors. Furthermore, the licensee has maintained a licensing and technical staff to evaluate events and design changes, support license amendment requests and assist in responding to NRC needs and requests.

Based on the above consideration, a rating of 1 is assigned to this attribute.

#### G. Training Effectiveness and Qualification

The licensee's responses to staff requests for additional information and

previously identified open items regarding plant personnel training programs demonstrates a clear understanding of the issues. Resolution of these concerns has been timely. LP&L has exceeded Commission criteria and requirements in two key areas concerning training. The licensee elected to have shift advisors train and obtain SRO licenses and has committed to installing a plant-specific simulator to assist in operator training and requalification (this simulator is currently scheduled to become operational in the 4th Qtr of 1986. The licensee's training and requalification program has sufficient enrollment and appears capable of providing qualified, well-trained operators in excess of LP&L's needs for the foreseeable future.

On the basis of the above considerations, an rating of 1 is assigned for this attribute.

#### VI. Conclusion

A complete performance rating of a strong 2 has been assigned by the NRR SALP evaluation effort for the current rating period.