

# GOVERNMENT ACCOUNTABILITY PROJECT

Institute for Policy Studies

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HAND-DELIVERED

July 25, 1984

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

Re: NRC Letter Dated June 13; 1984, Docket No. 50-382

Louisiana Power and Light Company Dated June 28, 1984  
Waterford 3 Review

Dear Mr. Eisenhut:

On behalf of Citizens for Safe Energy, the Sierra Club (Delta Chapter), and the Government Accountability Project ("GAP"), we are writing to you to urge you to reject the proposed plan of the Louisiana Power and Light Company ("LP&L"), as set forth in its letter of June 28, 1984, to correct the problems found by the NRC Special Review Team at the Waterford 3 nuclear plant.

LP&L has a history of putting its schedule for completion of Waterford ahead of concern for ensuring that construction of the plant is adequate to protect the public's health and safety. Its proposal demonstrates that history is repeating itself.

We ask that the Nuclear Regulatory Commission ("NRC") Staff require nomination of an independent third party to conduct a thorough review of the problems laid out in your letter of June 13, 1984, and to develop a plan and methodology to resolve those issues.

Our demand is based in part on the fact that the NRC's investigation into construction and quality assurance deficiencies at Waterford has substantiated allegations of falsification of quality assurance records. It is our understanding further that the NRC's Office of Investigations is preparing to refer a number of these cases to the Department of Justice for possible criminal prosecution. Given the substantiation of serious charges and the long history of LP&L's failures to correct the quality assurance breakdowns at Waterford, LP&L cannot be trusted now to carry out a thorough, honest and complete reform program to correct past mistakes and verify the adequacy of construction of Waterford.

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LP&L's letter of June 28, 1984, proposing a reform plan, is fresh evidence of the company's complete disregard and disrespect for NRC regulations and the NRC Staff's directives.

Throughout its response, the utility disputes the NRC Staff's evaluation of the problems at Waterford and presents solutions so woefully inadequate that they barely deserve comment. The Review Team has clearly stated that the items it listed in its June 13, 1984, letter are concerns which need to be adequately addressed before issuance of an operating license for Waterford because they present potential safety problems. Yet LP&L presents in its response a plan by which many of the items will not be resolved prior to fuel load or low-power operation. The company's failure to read the clear words of your letter and the clear warnings you expressed to them in many meetings, both public and private, is irrefutable evidence, we believe, that LP&L does not have sufficient integrity to carry out an honest reform program at Waterford.

We also request that the NRC provide greater opportunity for public input and comment on LP&L's resolution of the quality assurance breakdown at Waterford. The NRC Staff should hold public meetings in New Orleans with the intervenors and other interested members of the public to receive comments on any third party LP&L proposals, as well as any proposed plan and methodology to deal with the problems. The NRC Staff has instituted similar channels for public comment at both the Zimmer and Midland plants where it found QA breakdowns of equivalent magnitude. In both cases we believe public comment led to improved third party reviews of the quality of construction and design of those plants. In both cases, allowing the public to scrutinize the utilities' resolution of the problems aided the NRC Staff in its monitoring of the utilities' performance.

The public is growing increasingly skeptical about whether the NRC has the problems at Waterford under control. Therefore, if the NRC wishes to regain public confidence, it is imperative at this junction that it open its enforcement efforts and meetings with utility officials to public scrutiny.

## I. BACKGROUND

The NRC Special Review Team discussed with LP&L on June 8, 1984, the problems of safety significance it had uncovered at the Waterford plant. It emphasized, somewhat to LP&L's surprise, that these problems were serious enough that they needed to be resolved prior to fuel load.

On June 13, 1984, the Team set forth in a detailed letter, similar to an inspection report, these same problems and asked LP&L to propose a program to resolve them. Apparently the NRC Staff originally intended to demand that LP&L nominate an independent third party to propose and implement this reform. The NRC Staff removed this requirement for a third party in its final letter to LP&L.

It appears to GAP that the Staff's initial instincts were right -- a third party program is needed at Waterford. As you know, third party reviews have been ordered at the Diablo Canyon, Zimmer and Midland nuclear plants. In all these cases, the NRC Staff or the Commission ordered independent assessments of the quality of the design and construction of these plants after they lost faith in the utilities' trustworthiness and commitment to quality work.



The wisdom of requiring an independent third party review at Waterford is becoming increasingly apparent. On June 28, 1984, LP&L submitted a response suggesting that a Task Force of individuals well-known in the nuclear field, and a Special Review Committee with a former NRC commissioner and chairman, could solve Waterford's problems. However, LP&L's "proposal" presents little hint of what its plan to resolve the problems will actually be. What is absolutely clear from the proposal is that LP&L is gearing its strategy to load fuel at the earliest possible time and does not intend to resolve all the problems prior to fuel load. This letter demonstrates LP&L's arrogance and near defiance of NRC directives.

According to Mr. James Gagliardo of the NRC Staff, to whom I have spoken over the last few weeks, the NRC Staff has told LP&L to propose a new approach to resolution of the problems laid out in the NRC's letter of June 13. Although Mr. Gagliardo informed me that LP&L's response was to be submitted last Friday, July 20, 1984, to our knowledge it has not yet been filed. In addition, I learned from him at that time that the NRC Staff was no longer discussing whether to require LP&L to nominate a third party to assess the significance of and develop solutions to the safety-significant problems the Staff has uncovered. Mr. Gagliardo also told me the NRC Staff had held several closed meetings with LP&L officials to inform them of the inadequacy of their response.

Further, we have learned that the NRC's Office of Investigations has substantiated some allegations of falsification of quality assurance records, and is preparing to refer several cases to the Department of Justice for potential criminal prosecution.

The recent history of quality assurance failures at the Waterford plant provides ample evidence of LP&L's grossly negligent or apparently intentional disregard of documentation and quality assurance requirements. In December, 1982, the Nuclear Regulatory Commission fined LP&L \$20,000 for its failure to adequately control the activities of its construction manager, Ebasco Services, Inc. ("Ebasco"). The most serious problems it found were with the work of the Mercury Company of Norwood, Inc., the contractor which installed the instrumentation and control systems at Waterford. These deficiencies included: the as-built configuration of the systems did not match the "as-built" drawings; reversed slope of tubing runs; incorrect seismic support designations; missing supports; improper bolting; and deformed tubing.

These inspection findings mirrored similar reports by LP&L in July of 1982 concerning the work of subcontractor Tompkins-Beckwith ("T&B"). In inspecting 20 hangers in the low pressure safety injection system, LP&L found 16 of the 20 hangers had quality problems needing engineering evaluation, which led to a requirement that T&B do 100 percent reinspection of all installed hangers to be followed by a 100 percent reinspection by Ebasco of the same work.

A special document review team at Waterford found in the Spring of 1983 missing or faulty documentation for 30 percent of the work of American Bridge. An inspection of the hardware installed by American Bridge found that 30 percent had deficiencies, primarily that the as-built condition did not match the approved design.

The document review team found similar problems with the J.A. Jones documentation for the foundation and cadwelding work. Documentation was missing concerning the certification of QC inspectors responsible for safety-related work. Because

no extensive reinspection of J.A. Jones work has yet been done, one can only assume that hardware deficiencies similar to those found for T&B, Mercury and American Bridge work would be discovered if an intensive inspection were done.

In June, 1983, the NRC formed a Special Inquiry Team to investigate the increasing number of allegations by former workers of missing, faulty or falsified QA documents, a cracking foundation mat, and a lack of QA coverage for Combustion Engineering equipment supplied to Waterford. Many of these allegations first surfaced in news reports in the local newspaper Gambit.

In September, the Special Inquiry Team asked LP&L to find answers for the same sort of QA deficiencies the NRC had documented the year before.

In February, 1984, the NRC Staff did an intensive CAT inspection of Waterford, reviewing hardware in seven major areas. The Staff at that time found the following:

- (a) Eighty instances in which FSAR commitments were not met for installation of electrical raceway;
- (b) Seventeen out of 20 safety-related cable tray supports not shown on design drawings;
- (c) Loads on cable trays which were 50 percent over the permitted load;
- (d) Three out of 20 pipe hangers and/or restraints had problems of safety significance;
- (e) Documentation problems with concrete pours, cadwelding, backfilling, and masonry walls;
- (f) Welds in the HVAC system which did not meet requirements and a significant deficiency in the main steam line penetration;
- (g) Twenty-one out of 37 fasteners included the wrong bolting material and lack of markings which indicated material traceability problems;
- (h) Failure to incorporate design and field changes in approved design drawings and documents; and
- (i) Deficiency notices which were not upgraded to nonconformance reports.

Of greater significance was the CAT Team's conclusion that LP&L had failed to carry out prior commitments to the NRC to take corrective action. Further, LP&L still, the NRC stated, was unable to look beyond the specific deficiencies to the programmatic problems at Waterford and the causes of those problems.

The results of the NRC's current Review Team, begun in April, 1984, offer a bleak assessment of LP&L's ability to take control of the situation at Waterford.

In following up on its 1982 inspection, the Team found LP&L, Ebasco and Mercury had failed to carry out LP&L's promises of reform, including an audit of its entire QA program; correction of problems uncovered in the audits and management reviews which were conducted; and identification and analysis of

of the root cause of the QA breakdown at the plant.

Similarly, LP&L failed to fulfill its commitment to interview current and past QA employees to draw out their potentially serious concerns about the quality of Waterford's construction. Although it conducted 407 interviews in January, 1984, the NRC found that LP&L had not followed up on incomplete interviews or responses, and never did any meaningful evaluation of the interviews and data collected. Again in June, the NRC directed LP&L to develop a program to assess the problems raised in those interviews.

What has become increasingly clear over the last two years is that LP&L is institutionally incapable or unwilling to determine the root cause of the QA breakdown at Waterford and make decisive and programmatic changes to correct these problems. That is why we urge the NRC Staff to require a third party, chosen and approved according to the so-called Palladino criteria, to develop and implement the corrective action program for Waterford. 1/

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1/ Chairman Palladino, in a letter of February 1, 1982, to Congressmen Dingell and Ottinger set out the criteria by which an independent auditor would be chosen to conduct an independent seismic design review of Diablo Canyon. Since that time these criteria have been used for nomination and approval of a third party to conduct a management audit at the Zimmer plant, the third parties who reviewed the ongoing soils and construction work at the Midland plant, and the third party conducting a design review of Midland.

The three criteria are:

(1) Competence: Competence must be based on knowledge of and experience with the matters under review.

(2) Independence: "Independence means that the individuals or companies selected must be able to provide an objective, dispassionate technical judgment provided solely on the basis of technical merit. Independence also means that the design verification program must be conducted by companies or individuals not previously involved with the activities . . . they will now be reviewing."

(3) Integrity: "Their integrity must be such that they are regarded as respectable companies or individuals."

The Commission considered five factors in evaluating the most important requirement, independence:

(1) Whether the individuals or companies involved had been previously hired by PG&E to do similar seismic design work;

(2) Whether any individual involved had been previously employed by PG&E, and the nature of any such employment;

(3) Whether the individual owns or controls significant amounts of PG&E stock;

(4) Whether members of the present household of individuals involved are employed by PG&E; and

(5) Whether any relatives are employed by PG&E in a management capacity.

(continued)

## II. MANAGEMENT STRUCTURE FOR LP&L PROGRAM

LP&L proposes essentially three overlapping organizations to manage its proposed program.

First, the LP&L Project Manager for nuclear projects is responsible for the overall management of the plan, including:

- (1) determining how to resolve the 23 issues of potential safety significance;
- (2) determining the "collective significance" of the outlined problems; and
- (3) recommending programmatic changes to prevent recurrence of the types of problems outlined.

Second, a "Safety Review Committee" has been established, composed of top management personnel reporting directly to Mr. Leddick, Senior Vice-President in charge of Waterford. A subcommittee of the SRC is composed of three Waterford licensing, construction and quality assurance managers and two outside consultants. One consultant LP&L has hired is Joseph M. Hendrie, former member of the NRC's Advisory Committee on Reactor Safeguards and former chairman of the Nuclear Regulatory Commission.

The subcommittee reports to the management committee, which in turn reports through Mr. Leddick to Mr. Cain, LP&L President and Chief Executive Officer. The subcommittee reviews the company's resolution of the NRC's 23 stated concerns.

Third, LP&L has established a Task Force staffed by officers and employees of UNC Nuclear Industries, Inc., and the NUS Corporation. The Task Force will report directly to Mr. Cain. It is responsible for developing a program and implementation of a schedule for dealing with NRC concerns, as well as reviewing SRC's recommended solution to the 23 items.

LP&L's recommended management structure cannot do an honest and thorough job of evaluating the root cause of the NRC's concerns or resolving these problems for a number of reasons.

### (A) Conflict-of-Interest

The SRC subcommittee is composed of individuals who are essentially responsible for a portion of the QA problems at Waterford. Certainly Mr. Gerrets, Corporate QA Manager, cannot be expected to make an objective assessment of his and his staff's past failings.

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(continued) In addition, the Commission allowed the Joint Intervenor and Governor Brown 15 days to comment on the proposed independent third party auditor and the proposed verification program, and to present their views at public meetings before the Commission and NRC senior management. The intervenors, together with the NRC Staff, received all status reports for the independent verification program, as well as transcripts of all meetings held between the third party, PG&E, NRC Staff and the public. Additionally, the Commission ordered that PG&E was to have no editorial control over the third party's final report.

Moreover, the SRC itself is composed largely of construction managers who are responsible for the pressure to cut corners in the QA program throughout Waterford's construction history. Certainly they are unlikely to target themselves or their organizations as the root cause of the QA breakdown.

Task Force member Hendrie as former NRC Chairman and Commissioner was ultimately responsible for adequate NRC oversight of Waterford's construction. He has a conflict of interest in that he has a stake in demonstrating that the NRC provided adequate oversight and regulation of the Waterford project throughout its construction, and that problems now being discovered are not of a nature that the NRC should have discovered and documented them years ago. It is becoming more evident daily that Region IV has defaulted in its responsibility to maintain adequate oversight over Waterford. The NRC's December, 1982, inspection report and the civil penalty imposed upon LP&L only scratched the surface of the QA problems at the site. It appears that the NRC in its report and in imposition of a civil penalty attempted to downplay to some extent the severity of the QA problems at Waterford. Certainly, Mr. Hendrie will not feel secure in making a judgment that LP&L's problems are serious enough that the NRC should have uncovered them long before completion of the plant, when he would have to take personal responsibility for that failure as Chairman of the Commission during Waterford's construction.

#### B. Lack of Independence

Neither the SRC subcommittee nor the Task Force has independence of LP&L management. It is clear that the SRC, which reports through Mr. Leddick and Mr. Cain to the NRC, and the Task Force, which reports through Mr. Cain, are both ultimately bound by LP&L management. LP&L's managers, their attitude toward the NRC and the safety concerns outlined by the NRC Staff, and their eagerness to rush Waterford to completion, may easily prejudice whatever findings the SRC subcommittee and the Task Force make. It appears that Mr. Cain has ultimate editorial and substantive control over the Task Force's conclusions so that it can hardly be labeled independent. Similarly, the subcommittee's findings must make their way up through at least three management levels of review before reaching the NRC.

#### C. Rejection of the Most Basic of Quality Assurance Principles -- Independence from Construction

LP&L has established two teams to assess the problems at Waterford. Both are composed of construction and QA personnel. This violates the primary principle of quality assurance that QA should serve as an independent check -- free from the time and financial pressures of construction -- of the quality of nuclear plant construction. The NRC has already found that construction and engineering's attempts to rush completion of Waterford led to serious quality problems, including premature turnover and testing of systems.

The inherent strains between quality assurance and construction at Waterford, between rapid completion of the plant and verification that the plant is constructed in a safe manner, have been replicated in the two teams. The NRC cannot by any stretch of the QA criteria approve a re-review of documentation and reinspection of safety-related work at Waterford necessitated by a QA breakdown to be controlled by teams primarily composed of LP&L construction and licensing officials.



#### D. Inadequate Staff

LP&L has not provided the number or qualifications of individuals who will be resolving the 23 concerns laid out in the NRC's June 13 letter. LP&L has not provided any information on their educational background, prior work experience, or experience at any other nuclear plants, including Waterford. Further, to allow any meaningful evaluation of these individuals, one would need to review their work at other nuclear plants to determine whether they were in any way responsible for or involved in similar QA breakdowns.

### III. LP&L PROGRAM AND METHODOLOGY

LP&L, in its bare-bones proposal, has failed to outline its methodology for evaluating the problems at Waterford. 2/

The approach it suggests is aimed toward loading fuel at Waterford at the earliest possible date, not to resolving the construction and QA deficiencies which place the quality of Waterford's construction in doubt.

The NRC Staff stated in clear terms at the June 8 public meeting in Bethesda and in its June 13 letter that LP&L had to resolve 23 problems before the NRC would issue a license for the plant. In spite of this clear direction, LP&L presented to the NRC only two weeks later a matrix which suggested that a large number of these problems were not of safety significance and could be resolved after fuel load and low-power operation.

Yesterday, LP&L issued a press release indicating it believed it could place Waterford in commercial operation by early 1985.

As will be described in greater detail below, LP&L has taken an argumentative tone in its response and refuses to acknowledge that many of the problems outlined by the NRC are in fact of potential safety significance, or, in some cases, are problems at all.

The history of QA breakdowns at Waterford; LP&L's inability or unwillingness to take corrective action, even when the NRC orders it to do so, and its current recalcitrance; show an uppermanagement which cannot be trusted to verify Waterford complies with NRC requirements and protects the public health and safety.

LP&L proposes no methodology to review the problems at Waterford, determine their root cause, or determine their generic implications.

At a minimum, any program must include the following:

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2/ LP&L promised by July 6, 1984, to provide target dates for developing assessments and recommended changes for the 23 problem areas. It appears that LP&L has not met that schedule. LP&L's continuing establishment of unrealistic schedules indicates its inability to recognize the serious nature of the QA problems it must resolve.

- (1) Definition of a sample size of the documents to be reviewed and the hardware to be inspected and justification for that sample size;
- (2) Definition of the criteria for the selection of the sample;
- (3) Hold points for NRC review in inspection and document review plans;
- (4) A realistic schedule to allow appropriate NRC review and public review and comment on both the overall plan and on the particular methodologies contained within the plan;
- (5) A system of regular reports, made simultaneously to the NRC and the public, of the reviewers' findings and recommended corrective actions;
- (6) A system to ensure the independence of the review. A minimum requirement is that LP&L maintain no editorial or other control over the reviewer's findings and conclusions;
- (7) Financial independence of the reviewer from LP&L. The reviewer must be permitted to complete its review and be able to expand the scope of its assessment if necessary. This means LP&L cannot terminate the reviewer at will but only after approval from or consultation with the NRC. Further, any contract between LP&L and the reviewer must be carefully scrutinized to ensure it does not allow LP&L to exert subtle control over the reviewer's activities or conclusions.
- (8) Public scrutiny. The reviewer's activities must be open to public scrutiny. As at Zimmer and Midland, the NRC should mandate regular public meetings to ensure public oversight of the reviewer's activities and findings, and LP&L's adherence to the approved program.
- (9) Consultation with knowledgeable NRC officials, and current and former workers alleging QA and construction deficiencies. The reviewer should speak to the former and current construction and QA workers and document reviewers who have brought to the NRC's attention many of the deficiencies LP&L is not forced to resolve. These workers could provide valuable information about the programmatic problems at Waterford and the root cause of the problems.
- (10) Incorporating as a main objective of the program determination of the root cause of the problems. Although the words "root cause" and "generic concern" are mentioned at various points throughout the LP&L proposal, nowhere does the company outline a method to determine the "root causes" of the problems.

Any serious inquiry into the causes of the QA breakdown requires research into the history of NRC inspections at Waterford; a review of LP&L audits; and a review of LP&L's corrective action to answer the concerns raised in those audits. It should also make an independent audit of current management, focusing on their attitude toward QA principles and NRC regulation.

#### IV. LP&L'S APPROACH TO RESOLVING THE TWENTY-THREE PROBLEM AREAS

LP&L's approach to resolving the problems outlined in the NRC's letter of June 5 surely deserves comment. It is heartening that the NRC Staff has rejected

the approach and asked for a broader and deeper scope for assessment of the problems.

However, review of LP&L's initial proposal does demonstrate its attitude toward the NRC and its directives. The response is argumentative, misleading and presents no clear plan for ensuring that Waterford has been built to protect the public safety. Analysis of a few portions of that response will aptly demonstrate this point.

#### Item 1. Inspection Personnel Issues.

The NRC found the certification and qualifications of 30 to 40 percent of QC inspectors for Mercury and Tompkins-Beckwith in question. It required LP&L to verify the credentials of 100 percent of QA/QC personnel and to do 100 percent reinspection of the work of those inspectors found unqualified.

LP&L refuses to carry out the NRC's directive and has agreed to verify the certification of only 20 percent of QC inspectors. It states its preliminary evaluation of its inspectors indicated they were qualified to perform their assigned work function.

The lack of an adequate number of adequately trained and qualified QC personnel has been a major cause of the QA breakdown at the Waterford site. As the NRC found in July, 1982, a document review team found in the Spring, 1983, and the Review Team found only last month, a large percentage of QC inspectors working for contractors who did safety-related work at the plant were not qualified. Inspections of the work of the unqualified inspectors has uncovered significant problems. It is therefore hard to understand how LP&L can at this late date justify anything less than verification of the certification of 100 percent of the QC inspectors and 100 percent inspection of unqualified inspectors' work.

In addition, it appears that LP&L will not verify the certification of QC inspectors to ANSI N45.2.6-1977, but only to contractors' lower standards. Part of the problem with Tompkins-Beckwith QC inspectors, however, was that although they met the T&B qualification requirements they did not meet ANSI requirements and were not in fact performing their inspections properly. Therefore, LP&L must verify certification of all QC inspectors to the ANSI standards or reinspect their work.

#### Item 2. Missing N1 Instrument Line Documentation.

LP&L did not provide QA coverage for installations of this instrumentation on the basis that the equipment was not ASME Class I, II or III. However, the NRC found that in fact QA coverage should have been provided for instrumentation for local mounted instruments and demanded documentation of such coverage. It is clear from LP&L's response that it cannot meet this requirement since it has not represented that it can assure full compliance for any of the 90 locally mounted instruments in question. Instead, LP&L indicates it has reclassified the installations for which it cannot produce QA documentation or claims an exemption from the requirement on some other basis.

#### Item 4. Failure to Upgrade Lower-Tier Documents.

The NRC found that up to 70 percent of "lower-tier" corrective action reports

examined, including Field Change Requests ("FCR's"), Design Change Notices ("DCN's"), Engineering Discrepancy Notices ("EDN's") and Discrepancy Notices ("DN's") were not properly upgraded to nonconformance reports and thereby reported to LP&L and dispositioned in accordance with the strict requirements of NRC's.

Improper use of lower-tier documentation systems can lead to design control problems and improper dispositioning of serious nonconforming conditions. LP&L refuses in its response to do any review of the actual lower-tier documentation beyond the review the NRC has already carried out. Instead, it proposes to look merely at the lower-tier document reporting "paper program" to see if it is properly structured.

LP&L refuses even to recognize the problem pointed out by the NRC. The problem is not the paper program but the implementation and abuse of the lower-tier reporting system. A paper review of the structure of the system will do little to allay NRC concerns.

Item 5. Vendor Documentation -- Conditional Releases.

The NRC found deficiencies in the handling of conditional certification of equipment supplied by Combustion Engineering. The underlying problem in this instance is not only the lack of receipt inspection documentation, but in addition, lack of adequate manufacturing documentation. LP&L addresses only the first portion of the problem and fails to address the latter.

The manufacturing documentation should be available and checked to ensure the vendor order meets all applicable codes, standards, and project specifications, and that all manufacturer QA program procedures were followed.

Item 8. Visual Examination of Shop Welds During Hydrostatic Testing.

LP&L refuses to acknowledge the problem documented by the NRC. Instead of providing documentation that the shop welds were properly inspected during hydrotests, LP&L states that inspections performed by Authorized Nuclear Inspectors ("ANI's") fulfill the NRC requirement. However, ANI's only review the welds for code compliance and do not review whether proper documentation has been completed.

LP&L also states that the ASME N-5 Code data reports confirm that the welds were properly inspected. However, this report in fact confirms only that the system of which the shop welds form a part was inspected.

Finally, LP&L has artfully promised the NRC to verify inspection by "qualified", not certified inspectors. As noted above, the inspectors may very well meet the qualification requirements of their employers but not nuclear industry standards.

Item 14. Improper Use of J.A. Jones Speed Letters and EIR's.

The NRC concern was in part that design changes were being made through informal lower-tier reporting documents. This can cause, and has in fact caused, a breakdown in design or configuration control at Waterford. LP&L has refused to acknowledge any problem in their use of Speed Letters and EIR's to make design changes, and further failed to examine the programmatic failure of their design control program.

In this case, the NRC has already documented numerous instances of significant differences between the as-built condition of the plant and the approved as-built drawings.

It is also unclear from the review LP&L has conducted what the period of time for the sample review was. The earlier period from 1974 to 1982 should be the relevant sampling period.

Item 21. Failure to Properly Disposition Construction Deficiencies  
During Transfer/Turnover of Systems to LP&L.

The NRC concern expressed first in July, 1982, is that construction deficiencies have not been properly dispositioned after transfer and turnover of systems to LP&L because of pressure to turnover systems for testing. LP&L completely misinterprets the NRC's concern and states that the NRC need not worry about lack of proper QA documentation because it will not impact on testing. Presumably, LP&L is referring to the testing schedule.

The NRC's concern, however, is not LP&L's testing schedule but the failure of LP&L to resolve significant problems identified prior to or during turnover because of missing or faulty documentation. If significant nonconforming conditions are not corrected on important safety systems they could potentially impair the proper functioning of those systems.

VI. CONCLUSION

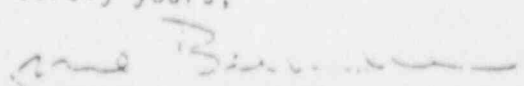
Many factors point toward the need to appoint an independent third party to resolve the problems at Waterford:

- The abysmal history of QA failures at Waterford;
- The inability and unwillingness of LP&L to resolve the problems even at this late hour;
- The NRC investigations' substantiation that records have been falsified at Waterford and the current consideration of referring these cases to the Department of Justice for criminal prosecution; and
- The utility's recent defiance of NRC directions to develop a sound program to ensure the quality of Waterford's construction.

We urge you to require an independent third party to review and present a plan to verify the quality of Waterford's construction and address the 23 concerns outlined by the NRC Staff in its letter of June 13. We urge you also to incorporate public participation and scrutiny into the process through public meetings, public comment, and public consultation.

Already we have lost faith in LP&L's ability to put aside construction and schedule pressures to construct Waterford safely. The public is now judging the NRC's seriousness in ensuring the adequacy of the plant's construction.

Sincerely yours,

  
Lynne Bernabei  
General Counsel



ORIGINAL

# UNITED STATES NUCLEAR REGULATORY COMMISSION

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IN THE MATTER OF:

DOCKET NO:

MEETING BETWEEN THE NRC STAFF AND  
REPRESENTATIVES OF LOUISIANA POWER  
& LIGHT TO DISCUSS THE APPLICANT'S  
RESPONSE TO THE JUNE 13, 1984  
STAFF LETTERS

LOCATION: BETHESDA, MARYLAND

DATE: FRIDAY, AUGUST 17, 1984

PAGES: 1 to 171

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NATIONWIDE COVERAGE

## NUCLEAR REGULATORY COMMISSION

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MEETING BETWEEN THE NRC STAFF  
AND REPRESENTATIVES OF  
LOUISIANA POWER & LIGHT TO  
DISCUSS THE APPLICANT'S  
RESPONSE TO THE JUNE 13, 1984  
STAFF LETTERS.  
:  
:  
-----X

Room P-118  
NRC-Phillips Building  
7920 Norfolk Avenue  
Bethesda, Maryland  
Friday, August 17, 1984

The meeting was convened at 10:15 a.m.,  
Dennis Crutchfield, NRC Staff Representative, presiding.

PRESENT:REPRESENTATIVES OF LOUISIANA POWER & LIGHT:

JAMES CAIN  
MICHAEL LEDDICK  
DALE DOBSON  
KENNETH COOK  
THOMAS GERRITS  
C. J. SAVONA  
PETE JUDD  
SAUL LEVINE  
RAY BURSKI  
SAM HORTON  
DICK CUMMINGS  
TONY CANTRONA  
MIKE YATES  
MR. CHERNOFF  
LON BASS

NRC STAFF REPRESENTATIVES:

DENNIS CRUTCHFIELD  
J. HARRISON  
DARRELL EISENHUT

1            NRC STAFF REPRESENTATIVES (Continued):

2            DALE THATCHER  
3            MARK PERANICH  
4            MR. SHAU  
5            JIM GAGLIARDO  
6            LES CONSTABLE

7            ALSO PRESENT:

8            LINDA TROUTMAN O'SULLIVAN, ESQ.,  
9            Gadsby & Hannah,  
10           1129 Twentieth Street, N.W.,  
11           Washington, D. C. 20036,  
12           on behalf of Mercury Company.

13           HOMER C. SCHMIDT, P.E.,  
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P R O C E E D I N G S

MR. CRUTCHFIELD: Let's go ahead and get started.

We have here a meeting today between the NRC staff and the licensee and contractors of Louisiana Power & Light. The purpose of this meeting is to get a better understanding of the program plan from Louisiana Power & Light as well as a summary of the initial findings that you folks, I gather, have found on your first set of the questions.

Mr. Eisenhut and Mr. Denton will be here shortly, but I think we ought to go ahead and begin anyway.

I understand, Mr. Cain, that you may have an opening statement.

We are keeping a transcript of this meeting and it will be publicly available after the meeting due to some ingenious arrangements that the staff went through at the last possible moment. I would also invite each of you to sign the attendance list. There's one cycling around, and there's one stuck on the back of the door, so we can get you a copy of the meeting summary or whatever else needs to be taken care of.

MR. CAIN: Good morning. My name is Jim Cain, Chief Executive of Louisiana Power & Light, and it is indeed a pleasure for us to be here with you this morning.

What I would like to do is give you a brief overview of what we are going to talk about this morning. We are



1 going to discuss with you the participants that are going to  
2 be on our program this morning. We are going to talk about the  
3 process that we're following, the issues that we are dealing  
4 with, and the progress that we think is being made to resolve  
5 those issues.

6 We are not here to talk about the schedule for  
7 licensing. We will discuss with you the schedule, however,  
8 for the submission of issues. We have prioritized those issues  
9 which we feel have the greatest importance and bear the need  
10 for the most discussion. We have devoted a great deal of man-  
11 power to the resolution of the issues that have been raised.  
12 For example, in personnel records review we have had over 36  
13 people working on that item. On the verification of qualifica-  
14 tion of inspectors, we have had 31 people working. And in the  
15 inspection work we have had 40 personnel working.

16 We hope to discuss this morning any variance between  
17 the Draft SSER No. 7 and Mr. Eisenhut's letter discussing the  
18 23 issues.

19 To the extent that there are allegations outstanding  
20 which bear need for discussion, if there is the opportunity to  
21 get into such, we would welcome that opportunity.

22 We are very appreciative of the NRC's innovative  
23 approach to dealing with the issues and concerns, and we  
24 appreciate the opportunity to participate with the NRC in  
25 developing a program and an organization to deal with the

1 resolution of the issues before us.

2 I'd now like to introduce Mr. Mike Leddick, Senior  
3 Vice President of Operations, who is going to briefly give you  
4 an introduction of the players that we will put on the program  
5 this morning.

6 Mr. Leddick.

7 MR. LEDDICK: Good morning, gentlemen.

8 Quickly I will put up what we think is an agenda for  
9 today, and a very simple agenda. I'm not sure it can be seen  
10 very well.

11 The people we expect to be making presentations this  
12 morning will be myself; Dale Dobson, Project Manager for  
13 Waterford III; Ken Cook, the Licensing Manager for Waterford  
14 III; Ray Burski, the Project Engineer for Waterford III. They  
15 will be doing most of the presenting, and then there are four  
16 issues that will be covered appropriately at the right time by  
17 Tom Gerrits, the Quality Assurance Manager, and C. J. Savona,  
18 who is the Senior Quality Assurance -- what is your title?

19 MR. GERRITS: Rep.

20 MR. LEDDICK: -- Representative.

21 Generally speaking, the way we have approached  
22 dealing with these 23 issues and other things as they come  
23 along that are related to this, we are using our line manage-  
24 ment to do this. I have designated Dale Dobson, the Project  
25 Manager, as the person that manages this whole effort. He is

1 what the role of the task force is.

2 All operating plants have a Safety Review Committee  
3 or a Safety Review Board or something of that nature. This is  
4 ours. It's been functioning since June of 1981. It has a  
5 membership of appropriate people from my staff plus three out-  
6 side members.

7 The subcommittee that has been set up to review the  
8 answers to the 23 issues has four people on it. It is headed  
9 up by Ken Cook, who also heads up the SRC. It has Ray Burski,  
10 the Project Engineer. It has Bob Douglas, Quality Assurance  
11 Manager from Baltimore Gas & Electric, former plant manager of  
12 Calvert Cliffs. And it has Joe Hendrie, and I think everybody  
13 knows Mr. Hendrie. Those two gentlemen have been members of the  
14 SRC for quite some time. It's an in-place committee. It's  
15 designed to deal with safety issues. We thought it appropriate  
16 that they would be involved in this process.

17 In terms of the task force, I think Mr. Cain would  
18 like to personally talk to you a little bit about that.

19 MR. CAIN: In responding to Mr. Eisenhut's letter on  
20 the 23 issues, I felt it necessary to have technical advice,  
21 independent of my normal line organization, to better assure  
22 myself as to the accuracy of developing a response to the  
23 issues.

24 On June 20, I established a chart for an independent  
25 task force composed of Robert Ferguson, Chairman of UNC,

1 Larry Humphries, President of UNC, and Saul Levine, Vice  
2 President and Group Executive of NUS. These gentlemen, I  
3 believe, are well-known to the NRC, both for their technical  
4 expertise and their independent views. I am pleased they have  
5 agreed to help us.

6 In addition to establishing the task force, LP&L has  
7 also contracted with NUS to supply technical support to the task  
8 force. This support work is being done independent of the  
9 LP&L line organization.

10 I'd like to introduce Saul Levine at this point to  
11 let him personally describe his functions to me and that of  
12 the task force.

13 Mr. Levine.

14 MR. LEVINE: Good morning. I am happy to be back at  
15 the NRC where I spent many years.

16 I'd like to second one thing that Mr. Cain mentioned.  
17 I think many of you know personally the three members of the  
18 task force and know that we are technically competent and know  
19 about how we are competent and also know about our independence  
20 of you. I think I need not emphasize that anymore.

21 I'm going to talk today about two things. One is the  
22 role of the task force, and the second is the role of the NUS  
23 support group.

24 Some of the words are very obvious. The task force  
25 works closely together, mainly by means of phone calls. We

1 are mailed or receive when we are at the site various draft  
2 responses being worked on by LP&L. We review them. We discuss  
3 them among ourselves. We feed back to Peter Judd, who is the  
4 NUS Project Manager, our comments to help the support group  
5 follow up on the things we are interested in and to help feed  
6 comments back to LP&L.

7         The comments we are making are not on the detailed  
8 wording of the responses. We are mainly interested in address-  
9 ing the logic, making sure that the logic in the responses is  
10 directly coupled to the NRC suggested things they want to hear  
11 about. So that's the logic we are pursuing.

12         Our charter is covered here in this bullet to provide  
13 program plan implementation schedule, the program plan we have  
14 had input into. The implementation schedule is a difficult  
15 matter. It is difficult to set a schedule that's firm because,  
16 as you know, many of the things are still being looked into.  
17 There are walkdowns being conducted. There are statistical  
18 sampling things going on. And you can't really determine where  
19 those are going to end for sure until you go through them once.

20         But we have schedules for certainly the first go-  
21 arounds. We have guess schedules for the second go-arounds.

22         We will look at the adequacy of the responses and  
23 the validation of the responses. We will look to the safety  
24 significance as well as the generic implications of each of  
25 the issues.



1 Finally, the last two items, D and E, the adequacy  
2 of the past program with QA/QC, and recommendations for future  
3 improvements, will be wrapped up in your question about  
4 collective significance of all these issues.

5 The task force will finally formalize its assessments  
6 and send a report to Mr. Cain and to NRR at the same time.  
7 The implication of that is there will be no editing of our  
8 report. It will be our report to Mr. Cain and to NRR at the  
9 same time.

10 MR. EISENHUT: May I ask this: When you say the  
11 task force will formalize its assessments, are you going to do  
12 this item by item? For example, are you commenting on the  
13 program plan at some point and say that this is a program which,  
14 if taken to fruition, should be a program to solve these  
15 problems?

16 MR. LEVINE: We have already made such a comment.  
17 When the program plan was sent to the NRR, there was a task  
18 force letter written saying we had reviewed the plan and we felt  
19 that if properly implemented it could result in the resolution  
20 of the issues. That was forwarded along with the plan to you.

21 MR. EISENHUT: So the plan, as you are referring to,  
22 is this July 27, 1984, letter that came in and said, "This is  
23 basically an item-by-item approach saying this is what's going  
24 to be done to answer each basic question."

25 MR. LEVINE: Yes. Now, of course, it's formative.

1 As each of these items is explored further and further, there  
2 are changes from time to time, not so much in principle but  
3 changes in detail. As more information is found out, the  
4 emphasis will shift a little bit. But basically we felt that  
5 if that plan were implemented, it would result in resolution of  
6 the issues.

7 MR. EISENHUT: I guess what I'm looking for is: At  
8 what point do you get to resolution on things like sampling  
9 plans or sampling details? Do you feel this program, as laid  
10 out in the July 27 letter, is specific enough to say how you  
11 would go or in what direction you would go in terms of sampling  
12 techniques, when you would trip off to do more sampling, or  
13 how much is enough to lead you to a conclusion?

14 MR. LEVINE: Without being able to recall all the  
15 details in the plan, I think in general that sampling is a level  
16 of detail below that presented in the plan. But we are hard at  
17 work at that now. We are developing the technical basis and  
18 principle for sampling, and we will develop a sampling plan for  
19 each issue we are sampling as appropriate. We hope to have a  
20 meeting with you to go over that at the appropriate time.

21 MR. EISENHUT: That leads me back to the other basic  
22 question, though, and I'm really just trying to understand how  
23 this all fits together. Because the program itself -- first,  
24 the utility has to elect to do something.

25 Let me pick an easy one. Question 1, I believe, is

1 the QA/QC inspector qualifications. The utility could have  
2 elected to do a fraction of those by some approach, and then  
3 using that approach you could have a criterion. But that  
4 program, in the first instance, is really a utility program.

5 MR. LEVINE: That is correct.

6 MR. EISENHUT: So when you say you are developing the  
7 sampling technique, do you mean you are providing that input to  
8 the utility for their front-end work, or is it really more of  
9 a level you are looking at in terms of overview, which are  
10 really two separate things?

11 MR. LEVINE: Let me talk about each of those  
12 separately.

13 MR. EISENHUT: All right; good.

14 MR. LEVINE: We have had some meetings with the  
15 utility where we have developed the principles we think should  
16 be followed in sampling. There have been some discussions  
17 about that. This is a mutual educational process, if you will,  
18 and the attempt to establish a sound scientific basis for a  
19 sampling program. Where the utility is using sampling, the  
20 task force will review that sampling and comment on it to find  
21 discrepancies.

22 Then, in many cases the utility is doing 100 percent  
23 reinspection or rechecking or what have you, and the NUS  
24 support group, which I will be talking about, will sample some  
25 of that, not redo 100 percent, and we will then have a sampling

1 program and a sampling procedure laid out to cover that work.

2 MR. EISENHUT: Okay. So in that context, then, the  
3 middle bullet on your slide, which says it's really providing  
4 an independent assessment to the CEO, really isn't so much an  
5 independent assessment, because I would take the third bullet  
6 to say that when you provide independent assessment inputs to  
7 the CEO you send those to us at the same time.

8 MR. LEVINE: Yes.

9 MR. EISENHUT: So, for example, you are providing a  
10 different level of sort of informal input back to work out the  
11 details of what the utility has to get developed, if you will,  
12 in terms of more of a detailed program.

13 MR. LEVINE: We have, I would say, an open inter-  
14 change with the utility. Both the task force and the NUS  
15 support group are working that way. The task force is en-  
16 couraging the NUS group to in fact have such an open inter-  
17 change. This interchange could be described as helping to  
18 formulate the program, but mostly in the sense of looking at  
19 the logic: Is the logic being developed that will be respon-  
20 sive to your directions? And that's what we are looking at  
21 principally. We are reviewing it, the NUS people are re-  
22 viewing it, and we are commenting to the utility on that,  
23 mostly on the logic.

24 We are at the same time developing validation steps,  
25 validating document review, validating sampling inspections and

1 the like. And I'm going to cover this in more slides.

2 MR. EISENHUT: I'm trying to look at the overall  
3 structure. The way I read the July 27 submittal -- and I guess  
4 what I'm really looking to is: I looked at it not so much as a  
5 program in terms of something you can implement as much as  
6 sort of the elements of where you're going, and a lot of work  
7 had to be developed along the line.

8 MR. LEVINE: That's exactly right. That's exactly  
9 the way to view it.

10 MR. EISENHUT: It wasn't a detailed program plan in  
11 the way we normally use that terminology.

12 MR. LEVINE: That's correct; that's correct.

13 MR. EISENHUT: So there will be -- I guess I would  
14 expect, at some point into the process, that I would get another  
15 letter back which would say, "This program that we discussed  
16 some basic elements of in the July 27 letter, we have now  
17 formulated it into a detailed program plan. Here is what we,  
18 the utility, are implementing; here is the independent assess-  
19 ment being done in the following, and here is where it's going  
20 down the line."

21 I guess I would expect that at some point, granted  
22 the details will vary item by item.

23 MR. LEVINE: I'm not sure that's necessary, Darrell,  
24 although we are open to suggestion. My view of the way the  
25 situation is developing is that the program plan was a statement

1 of principle of what would be done for each of the issues,  
2 and now there are drafts -- there have been many drafts -- of  
3 each issue.

4 MR. EISENHUT: But those drafts haven't been sub-  
5 mitted to the NRC, so you'll have to admit I'm speaking from  
6 ignorance.

7 MR. LEVINE: Five of them have.

8 MR. EISENHUT: The last five pieces. But at that  
9 point it's really the implementation of the five.

10 MR. LEVINE: That's right. What I'm saying is in  
11 my personal view I don't think there's a step needed between  
12 that program plan that was submitted by the utility and the  
13 submission of the responses to the issues.

14 MR. EISENHUT: You appreciate, though, at the same  
15 time that in essence it's a major gamble by the utility. If  
16 you wait until you're the end of the line, until you've com-  
17 pleted the implementation of a particular component of the 23  
18 and submit the implementation, you run a major risk of the  
19 staff saying, "Well, if you had done it a little better during  
20 the front end, we'd be happy with the product. As it is, we  
21 can't quite buy the conclusion."

22 MR. LEVINE: That's a valid statement, no question  
23 about it. But we hope in a meeting like this and maybe future  
24 meetings to go over these instruments and play the logic and  
25 hear responses. In some cases we're not sure we are addressing



1 exactly the right question because we understand that there is  
2 more information available.

3 MR. EISENHUT: Absolutely.

4 MR. LEVINE: So I think you're right in saying we  
5 can't go from that program plan to responses to issues that  
6 we are sure will be on the mark, and we hope to have discussions  
7 like this to go over them.

8 MR. EISENHUT: Right. But it's hard for the staff to  
9 do a review and approve something in a meeting in terms of the  
10 depths of what you're looking at item by item. It's something  
11 I think we are really going to have to focus on hard.

12 MR. LEVINE: I agree.

13 MR. EISENHUT: Because the July 27 letter really  
14 didn't spell out the details of what you plan to do, how you  
15 plan to do them, who the utility plans to use to do the job  
16 in the first flush, why those people are qualified or at least  
17 what criteria you're using for who is doing the job, so that  
18 we could have confidence in the process.

19 MR. LEVINE: The process is going to be discussed  
20 here today.

21 MR. EISENHUT: I appreciate that. And the second  
22 level would be the independent assessment, and my second  
23 question is: In your mind, how do you define "independent"  
24 as used on that chart? Because many, many different people  
25 have a definition of "independence."

1 MR. LEVINE: There are many definitions of  
2 "independence." To me, independence is really an intellectual  
3 statement. There is no way to achieve independence except by  
4 what goes on in your mind.

5 If I were to say that I would let or NUS were to say  
6 that they would let LP&L influence their evaluations and their  
7 validations in any way, that would be a detriment to indepen-  
8 dence. On the other hand, in the course of developing the  
9 program, in the course of checking logic, in terms of gathering  
10 information, there should be a free and open interchange. And  
11 I see that as the only way to do technical work. You have to  
12 have technical people talking to technical people to exchange  
13 information and to exchange ideas, but when you do the work  
14 that results in the independent assessment, it should in fact  
15 be independent of the utility.

16 And I think that's the way we're working. In fact,  
17 NUS has a project plan, which I will summarize for you, that  
18 says just that.

19 MR. EISENHUT: Let me ask you this: You will agree  
20 that clearly there has to be the free and open exchange of  
21 information to enable you to do the job, but clearly if you take  
22 credit, so to speak -- the utility does, I guess -- for this  
23 to be an independent assessment, you have to some degree  
24 demonstrate and explain how and why we should believe this is  
25 an independent assessment.

1 MR. LEVINE: I have slides to cover this, actually.

2 MR. EISENHUT: I appreciate that. So clearly one of  
3 the things for this process to be a valuable process, it has to  
4 come off with being able to convince people that it was an  
5 independent assessment.

6 MR. LEVINE: We agree with that.

7 MR. EISENHUT: I'll be quiet and let you continue.

8 MR. LEVINE: Let me say I can't convince you com-  
9 pletely, but I can tell you what we are doing and what we are  
10 going to do, but the final crux will be your looking at some of  
11 our records.

12 MR. EISENHUT: Right. And that's the point I was  
13 making earlier. The way I look at this process is that there  
14 have been smaller questions that have been raised in the past  
15 where the utility was to follow up on a program, and the  
16 effectivity of that follow-up wasn't as good as we'd like to  
17 have seen. And we got ourselves to the point where we had 23  
18 questions that we laid out.

19 The first thing I think the utility has to convince  
20 us of is he has aggressively pursued those 23, and first we  
21 should have confidence in his assessment of those 23. He's  
22 got to have a program. Here is how he's going about doing it.  
23 Here's the people he's used; here's why they're qualified.  
24 Here's the result of the program.

25 That is the first, most thorough tier, so to speak.

1           The second tier is: In this case you're saying you  
2 are providing an independent professional assessment to the  
3 CEO. We have to understand that process. The NRC will likely  
4 audit the bottom tier, the utility; second, audit your tier;  
5 and third, do some of its own independent checking to get its  
6 confidence level.

7           MR. LEVINE: That's what I anticipate would be  
8 happening.

9           MR. EISENHUT: Right. The reason my first question  
10 was laid out like it was is I was looking to -- before you can  
11 define and create the appropriate way that you as an independent  
12 checker is going to do the job, you clearly have to know how  
13 the utility is going to approach the job.

14          MR. LEVINE: That's where the free and open inter-  
15 change comes in.

16          MR. EISENHUT: Right. And you can give him feedback  
17 that his program isn't as good as it should be or whatever.  
18 Secondly, another job would be for you to audit his program  
19 as he proposes doing it.

20          MR. LEVINE: That's right. That's the way we are  
21 set up.

22          MR. EISENHUT: That's the way I'm looking at it,  
23 and, Denny, you may want to comment. But that's sort of the  
24 direction I'm heading in.

25          MR. LEVINE: May I go on?

1 MR. EISENHUT: Yes.

2 MR. LEVINE: I think I may have used most of my  
3 presentation, but I'll go it over it anyhow.

4 MR. EISENHUT: Do it twice for the slow folks.

5 MR. LEVINE: There are more details here.

6 I talked about the task force at some length, and  
7 these slides are going to talk about the NUS support group and  
8 its independence.

9 The work scope of the task force is to assist the  
10 task force in independent assessment, and the second element  
11 is to provide inspections, validation and other assistance to  
12 LP&L on items not covered in the charter. This doesn't have to  
13 do with the 23 issues. I have a slide to explain that in a  
14 moment.

15 MR. EISENHUT: Let me ask you a more philosophical  
16 question. You raised it in the slide. When you said you  
17 provide inspectors, sort of another level of inspectors --

18 MR. LEVINE: I should say inspections.

19 MR. EISENHUT: All right. But if you provide in-  
20 spections, you have to have inspectors to do the inspections.

21 MR. LEVINE: Right, but they are working for NUS,  
22 and they're taking direction from NUS and not from LP&L. And  
23 that's the difference in the two words.

24 MR. EISENHUT: Right. Now, if you provide the  
25 inspector working under NUS, does that mean that NUS goes back

1 before it provides someone to do an inspection in a particular  
2 area -- you must first define the job they are going to do, and  
3 then look at that person's qualifications to see that he is  
4 qualified to do that inspection work.

5 MR. LEVINE: Yes.

6 MR. EISENHUT: Did you do that and go through that  
7 kind of process?

8 MR. LEVINE: In fact, we review the LP&L procedure.  
9 In these inspections we are following behind LP&L. These are  
10 not your 23 issues. These are the CAT items, and there are two  
11 such items -- electrical separations and pipe hangers. LP&L  
12 had a procedure prepared. They defined the job they wanted us  
13 to do. We reviewed the procedure. There were some modifica-  
14 tions that we could assure ourselves that the inspectors could  
15 in fact perform competent inspections, and then they do the  
16 inspection for our project manager and we report the results to  
17 LP&L.

18 But the task force is not involved in that work except  
19 to say, "We think it's okay for you to let this work go ahead,  
20 and it will not interfere with us."

21 I have a slide on this that covers it.

22 MR. EISENHUT: Right. Are your products, when you  
23 complete an inspection -- do I follow the last bullet on the  
24 previous slide to imply that everything you're talking about  
25 through the discussion, that is, when you provide the products



1 of your work on an inspection, for example, you would send  
2 those to the NRC at the same time you send those to the  
3 utility?

4 MR. LEVINE: Yes and no. There are two elements.  
5 When we finish an inspection having to do with one of the 23  
6 items, that will appear as a validation part of the task force  
7 report which you will get. We will not send the internal  
8 report. The task force is going to write one report which says,  
9 "We have reviewed these 23 issues. Here's what we think about  
10 them; here's how we validate them; here's what we've found."  
11 That will be one report all wrapped together on each issue and  
12 collective significance on all of them. But there will be at  
13 the site reports of the results of those inspections documented  
14 in our files.

15 MR. EISENHUT: But if they are available at the site,  
16 why wouldn't it be a lot easier to send them in to us for us  
17 to have the benefit of your thinking as you go along.

18 MR. LEVINE: When you get an inspection done, that is  
19 not entirely a thought process. It has to be evaluated.

20 MR. EISENHUT: I appreciate that.

21 MR. LEVINE: So we can give you what I would call  
22 raw data, but I would think you'd want to wait for the evalua-  
23 tion of it.

24 MR. EISENHUT: Well, I may want both. Otherwise I  
25 won't be able to audit, so to speak, your process, your work,

1 as the independent assessor until the end of the line otherwise.

2 MR. LEVINE: No, I think --

3 MR. EISENHUT: If you send one report, I'll be able  
4 to review that report, but that report undoubtedly will not  
5 have all the details in it.

6 MR. LEVINE: That's right. I would think you would  
7 want to audit some of our site files.

8 MR. EISENHUT: All right.

9 MR. LEVINE: And I think you could audit the site  
10 files before we send our report. But I think there's a danger  
11 to that kind of auditing, because to look at an inspection  
12 report doesn't necessarily give you the kind of perspective you  
13 need as to how that inspection relates to the whole issue.

14 MR. EISENHUT: Sure, what it really means. I appre-  
15 ciate that.

16 MR. LEVINE: That has to be done as an evaluation.

17 MR. EISENHUT: I admit I'm struggling with another  
18 consideration. That is, as you are well aware, we are continu-  
19 ing to review progress and developments and continue our own  
20 inspections. We could just sort of fold up our tent and go  
21 away for a period of time and wait and see the end product and  
22 do what you are suggesting, look at the end product. But it's  
23 not clear to me that that's the most effective way for us to  
24 work.

25 MR. LEVINE: I understand that.

1 MR. EISENHUT: Nor does it appear to me -- by defini-  
2 tion, that's going to extend the process.

3 MR. LEVINE: I understand that. But remember what I  
4 said before. We're hoping to have some interchanges like this  
5 where such kinds of information can be interchanged. If you  
6 think it's necessary, I guess you could come down and look at  
7 whatever you want to look at.

8 MR. EISENHUT: Yes. I think if we really want to  
9 believe in the independence of the process, we would want to  
10 look and see what kind of guidance, advice, comments, feedback  
11 is going on during this process.

12 MR. LEVINE: I sent Denny a letter yesterday. I  
13 think you got it yesterday. I don't know if you have it.

14 MR. CRUTCHFIELD: It hasn't showed up in the mail  
15 yet.

16 MR. LEVINE: All right. You asked us for resumes a  
17 week ago. We sent them, and then we sent some more perspective.  
18 And what we have now is the NUS project plan which discusses  
19 most of the issues you're talking about here, and I plan to  
20 summarize those.

21 MR. EISENHUT: Good. And I appreciate we are working  
22 considerably behind your thought process, the utility's thought  
23 process, only because we are delayed in time and we haven't  
24 had the benefit of looking at that. A number of my questions  
25 may be a little naive, but I'm trying to understand how things

1 really are going to fit together, and the philosophy you are  
2 using of how this is all going to fit together to work. Be-  
3 cause the single biggest achievement, short of having the safety  
4 product, is that it's a creditable process for the utility, and  
5 it has to have credibility coming from NUS in terms of our  
6 auditing it and looking at our template over the top.

7 As you mentioned, you sent us the resumes of the NUS  
8 inspectors.

9 MR. LEVINE: More than inspectors.

10 MR. EISENHUT: Resumes of a number of the NUS people  
11 involved.

12 MR. LEVINE: They perform three functions. They  
13 perform review of issues. Some of them are engineers, some  
14 are inspectors. There are people who validate documents and  
15 there are people who do inspections.

16 MR. EISENHUT: Right. And I should say there are two  
17 ways we could work the process. In this case, we certainly  
18 were aware that NUS had a number of people on the site doing a  
19 number of things, so we could go in with a surprise inspection,  
20 so to speak. We could go in as a result of that, as we did in  
21 this case, and ask for resumes of all the people involved and  
22 check after the fact. It's a whole lot easier in the front of  
23 the process if you say, "This is the kind of work we're going  
24 to do; these are the kindsof people we're going to use to do  
25 it, and here's why they qualify."

1 MR. LEVINE: That's what's covered in my presentation  
2 today, and in our project plan.

3 MR. EISENHUT: Saul, I will try to be quiet.

4 MR. LEVINE: No, I don't mind.

5 MR. EISENHUT: Go ahead. You're making good progress.

6 MR. LEVINE: Independently of the task force, the  
7 utility has contracted with NUS to supply technical support  
8 to the task force. The scope of this work is covered in our  
9 project plan which I said we have sent to you. The paramount  
10 objective of the support group is to insure independence of the  
11 task force efforts.

12 The task force encourages full and open discussion by  
13 the support group with LP&L for information. Validation  
14 efforts and recommendations to the task force are to be inde-  
15 pendent of LP&L.

16 Again, as I said before, the principal emphasis in  
17 our information exchange has been to gather information, to  
18 gather background, but also to provide real time feedback on  
19 the logical structure of the responses, to make sure that when  
20 the task force gets to evaluating them we are pretty sure the  
21 logic that we need will be in there.

22 MR. EISENHUT: Let's see. You are careful to charac-  
23 terize the kinds of discussions you're having. Let me give  
24 you a hypothetical.

25 Suppose in your review you think you find, for the

1 lack of characterizing it any other way, something that could  
2 exhibit itself as a safety problem, something where the process  
3 didn't work as well as it should, which could exhibit itself  
4 as a safety problem. Would that be something you provide back  
5 to LP&L directly, or would that be something you would also  
6 make -- well, let me ask you this: How would you handle such  
7 information?

8 MR. LEVINE: These things have arisen in terms that we  
9 have found what we think are missing pieces in logic. We give  
10 that comment to LP&L. We say, "We think this logic step is  
11 missing. You ought to put it in." And they have.

12 We have found in what I would call our prevalidation  
13 efforts, but in looking at the kind of information that's  
14 available we have found some difficulties. We have called  
15 these to LP&L's attention, and we have found in fact that some  
16 documentation we couldn't find was available or some work had  
17 to be done that wasn't being done that they then planned to do,  
18 and so forth. So this is going along. It's sort of what I  
19 would call information exchange and helping to formulate the  
20 program, which I said before we were doing.

21 But now when it comes to doing the review of docu-  
22 ments, doing the inspections to find out what is physically  
23 there in the plant, that's done independently of them. We  
24 just do that ourselves and get our data and write our report.

25 Does that answer the question?



1 MR. EISENHUT: Yes.

2 MR. LEVINE: Okay. I've said this two or three times,  
3 but the NUS effort is directed principally to getting the  
4 correct logic in the responses, in particular to those aspects  
5 in your letter where you say, "LP&L shall address the following  
6 matters." We are trying to make sure that the responses as  
7 being prepared contain the correct logical elements to respond  
8 to those things.

9 Then it's independent validation of documents to  
10 support the facts, independent inspections to validate the  
11 facts, development of sampling approaches that are soundly  
12 based. And I said we are in the midst of doing that. We will  
13 discuss that with you. And the preparation of results of  
14 analyses and recommendations to the task force. Then the task  
15 force will use it as a basis for writing its reports.

16 MR. HARRISON: I'm having a problem. You previously  
17 said you were commenting on giving LP&L feedback aside from the  
18 independent validation process.

19 MR. LEVINE: That's right.

20 MR. HARRISON: Missing items, missing work, or what-  
21 ever. Are you documenting that?

22 MR. LEVINE: A lot of it has been oral. Pete, is  
23 there any documentation of that?

24 I have some examples I can give of things we have  
25 done.

1 MR. HARRISON: In the way I understand independence,  
2 I'm not sure how you are addressing independence in that regard.  
3 It looks to me like a mixed bag of independence and that that  
4 is not independent.

5 MR. LEVINE: The information exchange is free and  
6 open. When we comment about logic, we have been doing that  
7 orally. I have some examples of the things we have told them  
8 that have affected the logic which I think I can give to you.

9 I'm not sure we are documenting that, Pete. It will  
10 be documented in our report, however. Where we have said we  
11 have encouraged LP&L to do so and so and they have done it, it  
12 will be in our report. And if you wish, we could write up a  
13 file, not a document, of all that stuff.

14 MR. CRUTCHFIELD: The problem is that makes it diffi-  
15 cult for us to go back after the fact and audit it.

16 MR. LEVINE: We'll start it right now. We will re-  
17 construct it from the beginning and keep it current if you  
18 want that.

19 MR. HARRISON: I still don't understand the indepen-  
20 dence of your effort, the true definition of what independence  
21 is all about.

22 MR. LEVINE: Well, let's see. Are you hung up on the  
23 comments on the logic?

24 MR. HARRISON: The comments on the logic. And the  
25 other example was you were saying they may have missed a work

1 activity that you brought to their attention that they didn't  
2 plan to do.

3 MR. LEVINE: That's sort of a logic, too.

4 MR. HARRISON: Okay.

5 MR. LEVINE: It all fits.

6 I think for the task force to be able to assure itself  
7 that it can reach a conclusion that has a chance of being  
8 favorable, we have to be sure that in the LP&L responses, which  
9 is what we are commenting on, there has to be a correct logic  
10 structure. So I think that has to be ongoing in real time.  
11 And I don't think that jeopardizes our independence.

12 MR. EISENHUT: No, but there's a fallacy in the argu-  
13 ment, though. If, for example -- well, it might jeopardize  
14 independence, too. I'd have to think about it a minute. But  
15 there might be a fallacy in the argument.

16 Let me stipulate the worst. Suppose, for example,  
17 the proposal that the utility planned to use to resolve these  
18 23 issues in your mind was that every single one was totally  
19 devoid of key pieces. The utility laid out a structure and  
20 in each item you went back and said, "Mr. Utility, you just  
21 really don't have a program here that would answer the problem.  
22 You'd have to do this and you'd have to do these following  
23 things."

24 And if you had to do that on every one, that flags to  
25 me a bigger issue. It flags to me that the utility's program

1 that they would devise in that hypothetical would not have  
2 been very effective, and it brings into question the utility's  
3 ability to lay out an effective program.

4 MR. LEVINE: I understand the question.

5 MR. EISENHUT: The first part of it is, I think those  
6 are very important to us in terms of the effectiveness of the  
7 utility's efforts, both from a managerial standpoint and a  
8 technical standpoint, to get to the bottom and the heart of  
9 these issues. But secondly, it is not clear that there is not  
10 a conflict in terms of if you then in effect are the one laying  
11 out the program -- in my hypothetical, all 23 you fixed --

12 MR. LEVINE: But we're not.

13 MR. EISENHUT: But, you see, I don't know that,  
14 because I won't know the degree to which you have had to fix  
15 their 23 programs.

16 MR. LEVINE: You will when you see our report. And  
17 you will if we prepare the kind of file you want. If we prepare  
18 that file, you will be able to see that.

19 MR. CAIN: Mr. Eisenhower, I think perhaps a comment  
20 from me is appropriate at this point. As I view the process  
21 we are going through in developing the logic and organization to  
22 respond to each of these 23 issues, we didn't start and say,  
23 "This is the process we're going to follow and it's rigidly  
24 defined." It is a moving, flexible process that, as we get into  
25 the issue and as we have better appreciation for it, and as we

1 learn more about it, the process may change. And I would hope  
2 you would afford us that flexibility.

3 MR. EISENHUT: Sure.

4 MR. CAIN: In the development of the process, we are  
5 utilizing NUS, we are utilizing various consultants to work  
6 with the company in developing the process.

7 However, in the conclusion of whatever that process  
8 is determined to be, NUS will stand up and tell me in writing  
9 that they have reviewed the work that has been done and they  
10 are satisfied that the work has been done accurately and is an  
11 appropriate response to the particular issue being raised, just  
12 as Joe Hendrie will and just as Larry Humphries. And I in no  
13 way, nor has the company in any way, intimidated them or inter-  
14 fered with their ability to stand off and disagree with any  
15 conclusions.

16 MR. LEVINE: You just gave my last slide, but that's  
17 all right.

18 MR. HARRISON: I think our concern is that the NUS  
19 task force is providing consultation to your program, helping  
20 define that program and the scope and the direction, and then  
21 in the sense of the way the NRC looks at a third-party effort,  
22 they are also going to assess something they were part of.  
23 That places that independence somewhat in question. That's the  
24 problem.

25 MR. LEVINE: Let me talk about that.



1           When we got involved in this for the first time --  
2 there were already draft responses prepared on some of the  
3 issues -- we started to review those, we started to talk to  
4 people to be sure we understood the issues and the responses.  
5 We then decided what we should be concentrating on is the  
6 logic as a necessary ingredient to help us perform our jobs  
7 without waiting until all their responses were done and then  
8 there were errors in logic that we would find. That is not a  
9 productive enterprise. We felt we had to give comments on  
10 logic. So we are doing that. The task force is doing that with  
11 help from NUS. But it is basically the task force that is  
12 providing advice to the LP&L on missing logic.

13           And I see nothing wrong with that. In fact, I see  
14 no way to do that, because if you did it serially it would take  
15 forever. Not that we found that many deficiencies in logic.  
16 We have found a few. But why go through months of work and  
17 then say, "Well, this is no good; we've got to do it over  
18 again." If we can do that as we are going along, and our  
19 thought process all the while we are doing that is we are  
20 ultimately going to validate the correctness of these facts,  
21 independently of LP&L and its contracts, I don't see any  
22 conflict in that and I don't see any lack of independence.

23           You make assessments of licensee applications and  
24 all kinds of things, and you have meetings with them as a way  
25 of exchanging information, with suggestions made on both sides.



1 That's the normal process by which technical work is done. But  
2 then when you make your assessment, you make an independent  
3 assessment. That's what we're going to do. We're going to make  
4 an independent assessment.

5 MR. HARRISON: Is this whole process part of your  
6 project plan?

7 MR. LEVINE: Yes, which I'm going to summarize.

8 MR. EISENHUT: I think that's something that will  
9 help us and is something we are obviously going to have to look  
10 at in some depth. This is obviously an area that is causing  
11 us a little bit of difficulty because if you were commenting on  
12 the utility's program -- if you had a detailed program plan,  
13 for example, you could comment on it, and that would be one  
14 thing. And let me use an example.

15 The first question here relates to QA/QC inspector  
16 qualification. The utility could have proposed a program which  
17 was a sampling technique, and he could propose a program which  
18 samples a certain percentage, and he could propose the criteria  
19 for when he trips into further detailed sampling, et cetera.  
20 He could have laid out a program in that kind of way.

21 MR. LEVINE: He could have done so.

22 MR. EISENHUT: And you could have commented on the  
23 details of how that worked. That is one thing, and we would  
24 certainly understand that. And if those were auditable comments  
25 on the program plan, we could go in and look at those, just as

1 we would very likely have comments on a program plan.

2 But if it's a different situation, if it were more  
3 of the utility embarked on checking QC inspectors, he didn't  
4 really initially have a guideline of what he was going to try to  
5 do, whether he was going to try to assess a fraction with a  
6 sampling technique, whether he was going to do them all, and  
7 he was giving preliminary results to NUS, and NUS started looking  
8 at them and saying, "Gee, these are pretty bad" or "pretty  
9 good," and "You'd better phase down or phase up the program,"  
10 we'd want to know that. We would want to know that that feed-  
11 back came from NUS that told the utility, "Hey, I think you're  
12 in difficulty" or, "I think you're in good shape." That's why  
13 we're struggling. We are just going to have to look at the  
14 difference between the program plan, the processes at work,  
15 or the implementation as I call it, in some depth. But that's  
16 an area we are having some difficulty in understanding exactly  
17 how it's going to work.

18 MR. LEVINE: Let me say just a few more words on this  
19 subject and repeat what I said before. I think the step between  
20 the program plan that has been submitted and the responses is  
21 close enough in time that to have a more detailed program plan,  
22 as you initially suggested, would not be a meaningful step.  
23 That is my opinion.

24 MR. EISENHUT: One of the things I'd consider, then,  
25 is saying that you had an early program at some point, using

1 again the first item on the agenda. At some point, regardless  
2 of the program that was laid out, whether it was statistical  
3 sampling or whether it was 100 percent sampling. The utility  
4 could have a detailed program that says, "I am going to check  
5 100 percent of the people. I'm going to check it with these  
6 people with these qualifications. Here is how I'm going to do  
7 it."

8 MR. LEVINE: They are going to do 100 percent check.

9 MR. EISENHUT: I understand they are, and that's why  
10 I used it as an example.

11 MR. LEVINE: In other areas they are going to use  
12 sampling.

13 MR. EISENHUT: And the details of that is not clear  
14 to me. I don't think those would be very valuable to us prior  
15 to them being implemented by that kind of approach. But as I  
16 say, it's something we're going to have to take a look at.

17 A CONFEREE: Saul, I have a question. With respect  
18 to your documents in the second bullet, would you characterize  
19 those as including both proposed actions and completed actions?

20 MR. LEVINE: The second bullet talks to documents that  
21 are LP&L and contractor documents that are referenced or that  
22 are needed to understand the validity of statements made in  
23 the responses. There are mountains of documents to back up the  
24 factual statements made in the responses. So we are going to  
25 review those documents to assure ourselves that they are in fact

1 there and they do in fact say what they are supposed to say.  
2 So that is what we mean by documentation review. We validate  
3 by reviewing the document.

4 Does that answer your question?

5 THE CONFeree: Yes.

6 MR. LEVINE: Why don't we go on to the next slide,  
7 because if I can move along a little bit, I think some stuff  
8 will get a little clear, hopefully, with time.

9 I mentioned before we had three kinds of people.  
10 We call them reviewers of issues, documentation reviewers, and  
11 inspectors.

12 What do reviewers of issues do? They evaluate the  
13 issues, including their safety significance and generic impli-  
14 cations. Their initial step is to really get background infor-  
15 mation to be sure they understand the issues and everything they  
16 have to to be able to evaluate it. Then they do their evalua-  
17 tion of the logic, as I said before, and then they develop pro-  
18 cedures for documentation reviews and inspections needed to  
19 factually validate the LP&L responses.

20 Then we have documentation reviewers who carry out the  
21 procedures written by the reviewers of issues and doing their  
22 documentation reviews. They will be done in accordance with  
23 approved procedures, and they will be trained in the execution  
24 of those procedures.

25 Then we have inspectors who will be qualified and

1 certified in accordance with ANSI 45.2.6-1973, and they will  
2 perform inspections by the procedures written by the reviewers  
3 of the issues after being trained and tested on the inspection  
4 procedures.

5 MR. CRUTCHFIELD: The first two groups of those are  
6 principally dealing with the 23 questions. In the third group  
7 the inspectors are also dealing with the CAT follow-up items.

8 MR. LEVINE: A small part of their effort is the CAT  
9 follow-up, and I'm going to cover that.

10 Here is how we qualify our inspectors, certify our  
11 inspectors. This is a routine we follow in NUS all the time.

12 We verify their educational history and their employ-  
13 ment history, and then a Level III inspector certifies that that's  
14 okay, and we get a general certification. Then he gets class  
15 instruction and testing on specific procedures that he will have  
16 to implement, and then he is further certified by Level III to  
17 execute those specific procedures.

18 The first certification is in general areas, like  
19 mechanical, electrical, or what have you.

20 The second certification is to test him and see if  
21 he can implement the procedures on hand.

22 Finally, he gets a certification to perform the field  
23 inspection of that procedure. And it's all done by Level III  
24 inspectors.

25 MR. CRUTCHFIELD: Are the LP&L's Level IIIs involved

1 in any of the two-way hand blocks?

2 MR. LEVINE: This is all NUS.

3 Here is the one you asked about just a minute ago.  
4 This is support on other than the 23 issue work. LP&L, in  
5 fact, has requested NUS to provide assistance to them to perform  
6 inspections to back up some LP&L inspection work related to CAT  
7 items. They are the electrical separation issue and the pipe  
8 hanger issue.

9 MR. HARRISON: That's an overinspection type of  
10 activity?

11 MR. LEVINE: They are reinspecting, and we are doing  
12 the same reinspection over theirs.

13 MR. HARRISON: Okay.

14 MR. LEVINE: This work is being done with approval  
15 by the NUS project manager and the task force under the direction  
16 of the NUS project manager. It is also being done in accor-  
17 dance with LP&L procedures that have been reviewed and modified  
18 by the NUS project manager. He has yet to write the approval  
19 letter but he will.

20 In no case will the NUS project manager assign  
21 personnel to such work if in his judgment or the task force's  
22 judgment there was a conflict of interest or it jeopardized  
23 the independence of the support group.

24 The fact they are overinspecting some work in areas  
25 not covered by the 23 issues seems to me to be no conflict of



1 interest.

2 Now let's talk about the independence of the support  
3 group. Remember that it reports to the task force who reports  
4 to the CEO, so it's not reporting to anyone in the line organi-  
5 zation. It has the freedom to establish its own scope of work  
6 within the framework of the task force charter. There is no  
7 one telling them what to do except the task force members.  
8 There is no one telling them to do more, less, or whatever,  
9 except task force members. They have the freedom to add the  
10 type and number of people needed to execute the scope. There  
11 is never any question that if we need five more people we'll  
12 get the five more people and the kind we think we need.

13 The validation work that we do, both in documentation  
14 review and in inspection, will be documented and will be  
15 available to the NRC. And the formal report that the task force  
16 writes will go to the CEO and NRC simultaneously.

17 The last thing I'd like to mention -- you asked a  
18 lot of questions about independence, and you, the staff, are  
19 independent of the utilities when you grant a license. You  
20 feel you're independent because you're representing the  
21 government and you have a law to comply with, you have regula-  
22 tions to comply with.

23 Companies like NUS have nothing but their technical  
24 reputation to rely on. They have their own internal rules and  
25 regulations. They have to operate in accordance with your

1 regulations.

2 But we must necessarily be independent, because if we  
3 are not independent, then we are of no good to anybody. Every-  
4 body will know that, and we will not get any work.

5 So our work is based on our reputation for doing  
6 competent technical independent work. We are hired to give our  
7 independent viewpoints. That's what consultants are. We are  
8 a consulting company. And I think that issue transcends every-  
9 thing else we do. We can't jeopardize our reputation by doing  
10 work that degrades our independence.

11 That's all I have to say this morning.

12 MR. CAIN: We would now like to ask Mr. Dobson to  
13 address the process.

14 MR. GAGLIARDO: Jim, I would like to ask one question  
15 of Saul before you leave.

16 Saul, in your discussions you put an awful lot of  
17 emphasis on the program plan review and reviewing the logic  
18 of the plan and lesser on the validation effort. Could you  
19 address roughly what percentage of the effort is going to be  
20 involved in this actual validation of the effort, recognizing  
21 that in the 23 issues that we have submitted to the utility we  
22 didn't shoot a whole lot of holes in their program; it was  
23 primarily the fact that the utility had failed to implement  
24 their program. So I am interested in a comfortable feeling of  
25 the fact that you're going to be looking very closely at their

1 implementation of that program plan.

2 MR. LEVINE: Well, I hear several questions, and let  
3 me try to straighten them out first before I give an answer.

4 The word "program plan" to me has a very specific  
5 meaning. It's the document filed with the NRC. The program  
6 plan is in response to Darrell's letter.

7 We are not going to validate the program plan. The  
8 program plan is a statement of, "Here's how we are going to go  
9 about developing responses to the issues."

10 If you talk about the issues, the 23 issues plus  
11 their collective significance, that we are going to validate.  
12 We are going to take the responses from LP&L to the NRC, and  
13 where there are facts in those responses that are necessary to  
14 confirm the logic that we think is responsive to what NRC said  
15 it wanted to hear, we are going to validate those facts. We  
16 will validate them with sampling techniques where appropriate.  
17 And where sampling techniques are not appropriate, we won't  
18 use sampling techniques. If it's document review and it  
19 involves the review of 15 documents, we'll review the 15  
20 documents. On the other hand, if it's inspecting -- in one  
21 issue, for instance, there were 12,000 bolts reinspected by  
22 LP&L. We are not going to overinspect 12,000 bolts. We're  
23 going to take a sample. But we will do validation of all the  
24 facts necessary to confirm the logic in the responses.

25 I don't have an estimate in my head as to how much is

1 review the responses and how much is validate, but I suspect  
2 it's half and half.

3 Pete, do you have some feeling about that?

4 MR. JUDD: I think initially it's been half and half.  
5 As long as we've got more draft of responses, more effort is  
6 going to be put on validation.

7 MR. LEVINE: Toward the end there is going to be more  
8 and more effort on validation. But then we'll come back again  
9 to a final evaluation that is necessary to write the task  
10 force's report.

11 I don't know if that answers your question.

12 MR. GAGLIARDO: I just wanted to get a sense of that.

13 MR. CAIN: Now Mr. Dobson, the Project Director, will  
14 speak to the process that we're following in developing the  
15 responses to the 23 issues.

16 MR. DOBSON: I would like to go through the process  
17 as to how we go about putting our responses together and the  
18 program plan as well.

19 Both prior to and after receipt of your letter of  
20 June 13, we assembled for each issue all of the expertise we  
21 could bring to bear on the individual issues, and we attempted  
22 to understand the real concern. We addressed the option with  
23 regard to how we were going to go about responding to your  
24 direction, the portions that we would use, how long it would  
25 take, et cetera; the root cause of the concern and the issue;

1 the generic implications, how broad would they be and how  
2 broad should they be; and finally how are we going to resolve  
3 the concerns and the issues.

4 At the front end, we put together a preliminary  
5 program plan in response to the June 13 letter. That was dated  
6 the 28th of June. It was labeled "Preliminary," and it was our  
7 judgment at that time that that was our intention. Our inten-  
8 tions were expressed in there. And there are four pieces to  
9 that program plan.

10 There is the letter signed by Mr. Cain. That is  
11 followed by, I think, a four-page document that describes the  
12 roles of all the participants in addressing the 23 issues.  
13 That is followed by some detail on each issue which is, in  
14 itself, kind of a mini program plan. And that is followed by  
15 the charter of the task force.

16 If there is anything missing in that program plan,  
17 in my judgment it would be more description on the resources  
18 and perhaps the process that is followed.

19 MR. EISENHUT: Let's see. Is that July 27 plan --  
20 you submitted -- is it still the working document, so to speak,  
21 or has it changed in any way?

22 MR. DOBSON: Yes, it is. We thought it served two  
23 purposes. One, its direction to the people we have working on  
24 the various issues and, secondly, it's addressed to the NRC  
25 to indicate what our intentions are with regard to each issue.

1 MR. EISENHUT: No, I'm sorry, my question was a lot  
2 simpler. It was issued relatively early in the process that  
3 you're in. It is now a month later. Mr. Levine made the point  
4 that the process was evolving and developing.

5 My question is: Is the July 27, 1984, document still  
6 an accurate portrayal of the program plan today, or has it  
7 evolved in time and changed?

8 MR. DOBSON: There are several issues in which we  
9 have modified our methodology.

10 MR. EISENHUT: So what was in the letter is no longer  
11 today valid or it needs to be updated.

12 MR. DOBSON: It needs to be updated in the case of a  
13 few issues.

14 As we put the responses together, NUS participates in  
15 the review of the response. They are excluded from no meetings  
16 whatsoever that we have. They are excluded from no places on  
17 the site. And I believe that it helps them to understand what  
18 the subjects are, what the options are, and why the solution  
19 is like it is.

20 I think it is helpful to them to the degree that out  
21 of that rose some comments which are helpful to us. I think  
22 that is to everybody's benefit.

23 If they are going to document the comments that they  
24 provide, I would simply request that they document all the  
25 comments they provide, because a lot of their comments end up



1 proving to be invalid when the subject is really understood or  
2 explained adequately.

3           Anyway, when we get done with our response, the last  
4 step is to address the safety significance in terms of fuel  
5 load and power ascension.

6           The validation process is basically as described here.  
7 LP&L goes line by line through the responses, and every item of  
8 fact is annotated. The backup for that factual statement is  
9 either copied and put in a folder or there's an indication as  
10 to where it can be found, so that should anybody want to come  
11 along behind us and validate the response, it's a little bit  
12 easier to do so.

13           We have a detailed joint review of the written  
14 responses. The project principals, as Mr. Leddick indicated,  
15 would be myself, Scott Lockhart, who is the representative of  
16 our plant manager, Ross Barkers, Ken Cook, Ray Burski, and Tom  
17 Gerrits.

18           We go through them in great detail. They are  
19 forwarded to the SRC subcommittee via Ken to get their responses  
20 or comments, and they are forwarded at the same time to the  
21 task force for whatever comments they care to make.

22           Following all of that starts the task force indepen-  
23 dent validation. In actual practice, the task force independent  
24 validation sometimes gets ahead of our completion of the  
25 response. They have people there, and the people have started

1 based on a draft in some cases.

2 We, of course, have tried very hard to insure that  
3 the scope of our reviews and our corrective actions fully  
4 address the NRC concerns. In some cases we think it's justi-  
5 fiable to use a sampling process to insure that the concerns  
6 are addressed adequately. And when we do that, we will commit  
7 that we are going to provide the justification for the sampling  
8 size.

9 The NUS support group has hired a consultant who  
10 I think is quite noted in statistical sampling, and we have  
11 asked the NUS if they would provide a review of our sample  
12 sizes and the validity thereof.

13 All of the reinspections that are being done and will  
14 be done are managed by LP&L directly. They are by formal pro-  
15 cedure, approved by Mr. Gerrits. They are done with personnel  
16 qualified to ANSI 45.2.6 of the '73 versions, and they're  
17 documented. And those would be part of the audit package that  
18 the NRC could utilize.

19 MR. HARRISON: Who is the NUS consultant you're going  
20 to use for the sampling?

21 MR. LEVINE: Dr. Horner, Ted Horner.

22 MR. DOBSON: Mr. Eisenhut, the next thing on our  
23 agenda was to have been Issue 16, which is interviews with  
24 QA/QC personnel. We have been told you might have to leave.

25 MR. EISENHUT: That's fine, I would continue down

1 your agenda as you planned.

2 MR. DOBSON: You mentioned Issue No. 1 several times,  
3 and it kind of addresses in large fashion the role of the task  
4 force. So if you'd prefer --

5 MR. EISENHUT: That's fine if you'd like to switch  
6 to No. 1.

7 MR. DOBSON: Issues 1, 10, and 20 all deal with  
8 inspector qualifications.

9 A brief description, if you are concerned, is that  
10 we may have had safety-related systems that were inspected by  
11 personnel who weren't properly qualified for their job. Your  
12 direction was different for the three issues. In the case of  
13 Issue 20, it dealt with GEO testing personnel, and the direction  
14 was to provide further assurance that they were qualified to  
15 do the job.

16 In the case of Issue 10, that dealt with J. A. Jones  
17 and Fegles, and you indicated we were to insure their qualifica-  
18 tion in accordance with the project plan, and then describe the  
19 adequacy of the work that fell within those contract scopes.

20 In the case of Issue 1, the NRC direction is as  
21 specified here. What that says is, "Verify the credentials of  
22 100 percent of the site QA/QC personnel; reinspect the work  
23 performed by inspectors found unqualified." And then as a  
24 follow-on, "Verify certification of remaining site QA/QC  
25 personnel to ANSI 45.2.6 - 1973."

1           So Issue No. 1 is the common thread to the three  
2 issues.

3           I have to point out that there is a change in the  
4 program plan from that that was submitted on July 27, and I  
5 will describe what that is. But let me say this is probably  
6 our toughest issue in terms of both manpower and time, and we  
7 take it very, very seriously. When it is done, we believe it  
8 will reinforce our conviction that we have provided a good  
9 product and the plant is absolutely safe to operate, and we  
10 believe it will convince the public and the NRC of that fact.

11           On that basis alone, the effort is worth the time and  
12 the trouble. And I have to admit that based upon our efforts  
13 to date, in the case of several contractors it was warranted.

14           MR. EISENHUT: We said that unqualified inspectors  
15 may have conducted inspections on safety-related systems. You  
16 have concluded that there were in fact unqualified inspectors  
17 who --

18           MR. DOBSON: I'm going to choose my words carefully.  
19 It's a long process to validate credentials of contractors  
20 that have been demobilized for some period of time.

21           MR. EISENHUT: Yes, sir, I understand.

22           MR. DOBSON: You have to go back to the high schools  
23 and previous employers and that sort of thing. Where we stand  
24 today in that process it indicates to us we have some contractors  
25 in which we are going to have to justify the satisfactory

1 completion of the work that they did inspect. Somehow we are  
2 going to have to do that.

3 MR. EISENHUT: Because you could not find them or  
4 because you have concluded they did not, at the time they did  
5 the inspections, possess the appropriate qualifications?

6 MR. DOBSON: I could answer your question with the  
7 word "Yes." There are both of those.

8 MR. EISENHUT: Both of those cases?

9 MR. DOBSON: There are cases in which you just can't  
10 find the data.

11 MR. EISENHUT: No, I appreciate that, any time you go  
12 back to this large number of people at this point in time.

13 MR. DOBSON: That's right.

14 MR. EISENHUT: But I take it there are some in the  
15 other category also.

16 MR. DOBSON: There are cases in which so far the  
17 indications are that there were discrepancies in their back-  
18 grounds or their education.

19 But once you get to that point, you work on it very,  
20 very hard, because that's a tough thing to say about an in-  
21 dividual.

22 I think for those who aren't really involved in the  
23 inspector qualification process, this might be interesting.  
24 I think for some of the people here it's very simplistic.

25 The change to our July 27 program plan -- we are

1 committed now to validate the credentials of all site QA and QC  
2 personnel.

3 MR. EISENHUT: I've got to back up to the more  
4 generic question. If you made changes to the July 27 program  
5 plan, I would think that is something you would want to formally  
6 submit for revision to that program plan posthaste, even if  
7 it is a minor change, because we are developing our reverifica-  
8 tion and rereview program, matched against your program, and  
9 NUS is matching theirs against yours. Granted, from what I  
10 understand, they are close enough linked that they understand  
11 what you're doing as you do it. I would think those are the  
12 kinds of things you would want to formally tell us to correct  
13 this change.

14 MR. CAIN: My impression is that we have corrected  
15 the changes, perhaps not formally but certainly informally;  
16 that there has been ongoing dialogue between ourselves and the  
17 NRC as to what we're doing and how we've gotten where we are.

18 MR. EISENHUT: I appreciate it very well. We have  
19 had people at the site back and forth, and I'm sure there has  
20 been a dialogue where people know there have been some changes.  
21 However, formally the proposal of record is the July 27 letter.  
22 I think it's something you ought to update. And I think,  
23 following the flavor of the previous comments, you ought to  
24 look at the details in there and amplify those to the extent  
25 you can following today's discussion.



1 MR. CAIN: To the extent that we have not done so, we  
2 will.

3 MR. EISENHUT: To the extent you have not done so  
4 formally.

5 MR. CRUTCHFIELD: Dale, I'd like to ask you: What  
6 the hell is the difference between what's up there and what  
7 you have proposed? As I read the first sentence in your  
8 proposal of the 27th, it says, "A verification program has been  
9 established to review the professional credentials of 100  
10 percent of the site QA/QC personnel, including supervisors and  
11 managers."

12 MR. EISENHUT: The reason I reacted is because there  
13 are subtle differences, and that's why I think it is very im-  
14 portant, so that the staff appreciates those subtle differences,  
15 that you update the proposal.

16 MR. DOBSON: It says that it be done on a sampling  
17 basis in some of the contracts. Now we are saying we are going  
18 to go back and for every individual that was on the site  
19 validate the credentials.

20 MR. EISENHUT: With no assumption of sampling  
21 techniques and programs whatsoever.

22 MR. DOBSON: Not in this part.

23 MR. EISENHUT: I'm only talking Item 1 here. And  
24 that makes this matter to some degree a lot easier for us and  
25 a lot simpler. We don't have to discuss bringing in expert

1 statistical samplers. Frankly speaking, I am very encouraged  
2 to see that you've done this because it shows that you are going  
3 to go to revalidate the credentials of all site QA/QC personnel,  
4 including all contractors in toto, which is a much easier job  
5 from our standpoint, a much harder job from your standpoint.

6 MR. DOBSON: You don't need to be in such a hurry to  
7 check us on this one.

8 (Laughter.)

9 MR. EISENHUT: I might do that to make sure, because  
10 the kinds of questions I'll ask are: Who is the checker?  
11 What is the qualification of the checker? How is he going  
12 about doing the checking? So if, in fact, your rechecking  
13 methodology we have a problem with, we would certainly inter-  
14 act with you very early on that, and I'm sure you would want  
15 to do that.

16 MR. DOBSON: I'm going to cover that later, but we  
17 are going to request just that. Because it would be very  
18 painful for us to go two months down the road and then have to  
19 start something over again.

20 The validation of the inspectors will be against  
21 45.2.6, dated 1973. We could talk about that a while. There  
22 are two ANSI standards and there are two reg guides and there  
23 is a circular and there is a PASR and there is the Green Book.  
24 Mr. Harrison and I had that conversation, and I ended up  
25 nodding my head this way (indicating). And I understand the

1 basis for the direction and I don't disagree with it.

2           Getting down to the inspectors themselves, there are  
3 three levels, of course, III, II, and I, and that is the order  
4 of merit.

5           Level II: The standard said that the guy has to be  
6 a graduate of a four-year engineering or science college, plus  
7 have two years of inspection experience in a related industry,  
8 or be a high school graduate plus four years of inspection  
9 experience in a related industry.

10           At the top of that it says that those are not  
11 absolutes; other factors may be substituted.

12           Between that and the '78 standard, they indicate  
13 what kinds of things might be substituted, and it has to do with  
14 training programs and that sort of thing.

15           The bottom line in the ANSI standard indicates that  
16 they must be competent to perform their function.

17           Now, this gets subjective. It just invariably gets  
18 subjective.

19           What if you have an individual who has three years  
20 of college in engineering and science and three years of  
21 experience? How does that balance?

22           What about the fact where you have months on-the-job  
23 training followed by an exam? What do you do with that? How  
24 much credit can you take for that?

25           What do you do in the case of a pipefitter-welder who

1 has 10 years' experience as a pipefitter-welder? Should that  
2 be ignored simply because he wasn't an inspector?

3 So it does get kind of subjective. I'm going to come  
4 back to that a little bit later.

5 I'd like to briefly address the basis for the NRC  
6 direction and at the same time the cause of the concern. They  
7 are both the same.

8 At the Waterford project, the inspectors were quali-  
9 fied by the individual contractors. Their contract requirements  
10 varied and their QA programs varied. So there is variance  
11 across the site.

12 The NRC is of the opinion that we were quite liberal  
13 in the substitution of other factors, and that probably is  
14 factual. I have no basis for comparison of Waterford against  
15 other projects, but we did do a lot of substitution of other  
16 factors.

17 We felt that the difficulty of performing as a Level  
18 II at Waterford might have been simpler in some cases because  
19 our Level II inspectors, in the case of most contracts, did not  
20 perform nondestructive examinations, which could be considered  
21 the toughest part of the Level II job. As I said, the con-  
22 tractors have for the most part demobilized, and we have the  
23 records that they left behind. They have the records that they  
24 took with them. So we have to go back and put the two back  
25 together and see what more information we can put in each

1 individual folder. And I would say that we are getting much  
2 better cooperation from the contractors and from the schools  
3 and the previous employers than we anticipated that we would  
4 get.

5 Some of them asked for a letter of authorization from  
6 the individual being talked about, but for the most part they  
7 are quite frank in responding.

8 Our process is that there are cases in which, based  
9 upon the files and successful validation -- let me go back.

10 There are folders that indicate that the individual,  
11 based upon successful validation, was certainly fully qualified.  
12 There are cases in which it is questionable, either because you  
13 don't have enough information or because some of the information  
14 you have doesn't look quite right, for whatever reason.

15 Then there are those whose qualifications are not  
16 verifiable. You cannot get the data, or the data you have  
17 have some inconsistencies in them. They are not qualifiable.  
18 I'm not going to say they are unqualifiable, but I am saying  
19 they are not qualifiable in the sense of ANSI, the '73 version.

20 In any case, the questionable ones have to be  
21 resolved. They have to either be qualified or they have to  
22 be put in the "not verifiable" pile, one or the other.

23 At that point, because of the subjectivity and because  
24 of the layering process that I will describe in a minute, we  
25 have got to come up with some kind of criteria to reduce that

1    subjectivity so we at the site buy into, "Yes, these are  
2    reasonable substitutions, and those are not reasonable substi-  
3    tutions," because of the degree of substitution that was done.  
4    So we are going to put that together, and we certainly will  
5    share it with the NRC when it is put together.

6            MR. CRUTCHFIELD: Again, this is a situation where,  
7    to discuss that ahead of time, before you are actually getting  
8    into that subjective process, would be most beneficial for  
9    both of us.

10           MR. DOBSON: Yes, I absolutely agree. Mr. Harrison  
11    was down last week, had fruitful and candid discussions with  
12    myself, Tom, C. J., and I think some of the personnel from  
13    Ebasco, and that was helpful to us.

14           Reinspections. There have been a lot of reinspections  
15    performed on the site. Hangers have been reinspected; piping  
16    has been reinspected. The quality of our NDEO piping, we  
17    believe, is as good as exists anywhere. The piping was, after  
18    all, signed off by ANI. So should someone find something that  
19    is not right with Tompkins-Beckwith, then you have the issue  
20    of, "Is a reinspection really necessary in order to insure the  
21    confidence that we need?"

22           We intend to be conservative in our approach, and  
23    we recognize that the burden is certainly on us. When we find  
24    inspectors who we cannot validate their certifications, the  
25    burden is on us to justify whatever level of reinspection we



1 feel is appropriate.

2 MR. SHAU: For areas where reinspection is not  
3 possible, what is your plan?

4 MR. DOBSON: That's a tough question. We haven't  
5 gotten to that point because we are still in the validation  
6 process. Certainly we have high hopes we won't have to get  
7 to that point. But you're talking about Cadweld --

8 (Inaudible.)

9 MR. DOBSON: Perhaps by analysis, perhaps by some  
10 kind of a statistical justification of the data that we do  
11 have.

12 I don't know; I don't know. We haven't had that  
13 problem yet. But that is the hardest part, as I understand it.

14 Validation of remaining QA/QC personnel to ANSI  
15 45.2.6 - 1973.

16 MR. CRUTCHFIELD: What is the difference between the  
17 first bullet and the last bullet?

18 MR. DOBSON: I think the secretary got ambitious  
19 and got carried away.

20 (Laughter.)

21 The reinspections have to do with the nature of the  
22 work: What was the work? How many overinspections were per-  
23 formed? How many reinspections were performed? The nature and  
24 the number of the nonverifiable inspectors.

25 If you have a contractor in which, say, 23 out of

1 25 come clean as a whistle and you just can't get the data on  
2 the other two, would a reasonable person really suspect the  
3 other two, absent just the plain ability to get the information?

4 We will address that as appropriate.

5 Then the nature of the testing and inspection that  
6 was done. We have cases where individuals might have been  
7 qualified to a pretty high level but never really did the in-  
8 spection that would have been expected of them under that level.

9 So those factors all have to be considered.

10 MR. HARRISON: Dale, before you leave, I'd like to say  
11 on the factors not being absolute or other factors or competency  
12 to perform functions as being subjective, I think we under-  
13 stand that. And what we are looking for is a basis to address  
14 those factors, as you say, to minimize the subjectivity. And  
15 we are looking for documentation for an individual that maybe  
16 did not have a high school degree that was testing whatever or  
17 inspecting whatever, the basis for why that person was certi-  
18 fied.

19 And I think we know it's not a hard and fast rule.  
20 As long as you document that activity adequately, that's all  
21 we are looking for.

22 MR. DOBSON: I understand that.

23 MR. HARRISON: And we are willing to periodically  
24 come to the site and evaluate this process as you go forward  
25 so that we can assure that we think you're doing what we want

1 and at the same time you won't be spinning your wheels.

2 MR. DOBSON: It is the critical path, we believe.

3 MR. HARRISON: Okay.

4 MR. DOBSON: To capture another part of the basis  
5 for the NRC concerns, the contractors didn't do a very good job  
6 in most cases of validating the credentials -- the foundation  
7 upon which the substitutions were made, in other words. They  
8 substituted other factors for lack of something over here  
9 (indicating). Maybe the guy had two years' experience, but  
10 nobody validated that two years. And that's another part of  
11 the issue, and we understand that.

12 MR. CRUTCHFIELD: Are you going to have available for  
13 us a list of qualifications of those individuals who are looking  
14 at the qualifications of other folks, a list of names as well  
15 as their qualifications?

16 MR. DOBSON: Yes.

17 MR. CRUTCHFIELD: Some of them, Saul, are part of  
18 the list that you sent us?

19 MR. LEVINE: No.

20 MR. HARRISON: Last week I discussed this with Mr.  
21 Gerrits and Mr. Savona about making sure that the people who  
22 are involved in this process for LP&L have also been checked  
23 out, that their backgrounds and qualifications are known.

24 MR. DOBSON: There is no known standard to qualify  
25 them to, but we understand they have to be capable of

1 performing the job. In the instance of people calling out and  
2 validating data, those are largely personnel-type individuals,  
3 as you would expect.

4 MR. HARRISON: We are not looking at those people  
5 as being qualified to ANSI as a Level I, II, or III. We are  
6 looking at them as being competent with the applicable type  
7 experience, training, procedure, and so forth. That's all  
8 we're really looking for, that their background checks have  
9 also been done.

10 MR. DOBSON: The thing I'd like to point out in this  
11 chart is that we do have some checks and balances built in here  
12 which I think you will appreciate.

13 Starting with Ebasco, as I indicated, the contractors  
14 are demobilized, et cetera, and it's their chore to go to the  
15 contractors, write to the contractors, bring the contractors to  
16 Waterford, and review and collect the data on all except the  
17 LP&L personnel. They also take the first passthrough of all  
18 of the contracted personnel on an initial sort in order to give  
19 us a leg up on, "Okay, how is it going to shape up?"

20 Background checks. They have, I think, about 20  
21 people performing background checks. Some of those are by  
22 phone, some of them are in writing, and some of them you have  
23 to go back to the contractor's home office and do it there.  
24 They are averaging about 40 people a day, two validataions per  
25 person per day. There is that time consumed.

1           Then they are going to identify the inspectors whose  
2 qualifications are not verifiable. In other words, "We at  
3 Ebasco give up on these individuals."

4           Then LP&L, their role -- and again, I'm sorry, J.,  
5 but their typist got ambitious here.

6           Mr. Gerrits' folks have audited and are continuing to  
7 audit and overview the Ebasco implementation of the Ebasco  
8 procedure.

9           LP&L will review all of the LP&L personnel, all of  
10 the Ebasco personnel, plus a 30 percent sample of those whom  
11 Ebasco found qualified. So that's an overlay there.

12          Then they will do the background checks on all LP&L  
13 and all Ebasco and the remainder, which is about 1170, and  
14 on that, too, they are experiencing about 40 a day. That is  
15 done by contract, and the name of the contractor is Corporate  
16 Strategy, who are professionals in that kind of business.  
17 That's the same company that does some of our security.

18          Then LP&L will make the final determination on those  
19 inspectors who are not qualified, or whose qualifications are  
20 not verifiable.

21          MR. EISENHUT: Excuse me just a minute. The second  
22 bullet under "LP&L" says LP&L will review all LP&L personnel  
23 and all Ebasco personnel?

24          MR. DOBSON: All Ebasco personnel.

25          MR. EISENHUT: The next part says that they will also

1 review 30 percent of the number of people that Ebasco found  
2 qualified?

3 MR. DOBSON: Yes.

4 MR. EISENHUT: Are those some of the same people in  
5 the previous Ebasco?

6 MR. DOBSON: No, these are other contractors.

7 MR. EISENHUT: You're saying other than Ebasco.

8 MR. DOBSON: Other than Ebasco.

9 The task force follows behind them. They will  
10 validate the process. They have reviewed and commented on our  
11 procedures. They are overviewing the process on a continuing  
12 basis. And they will audit the results.

13 Now, again the size I'm not sure, but I don't think  
14 they have come up with the size of their audit. They have not  
15 yet initiated it. And the reason therefor is there's no sense  
16 handing them stacks of folders that are unqualified. Sure,  
17 you're going to get the answer back they're not qualified.

18 So when we get people who we believe are qualified,  
19 then the folders go to them for their audit purposes.

20 And I have talked to Mr. Levine about them reviewing  
21 all LP&L personnel. So there is a layering process here which  
22 I think is very helpful.

23 MR. CRUTCHFIELD: How far has this process been com-  
24 pleted? What would your estimate be on background checks?  
25 What percent are you done on that?



1 A CONFEREES: Next slide.

2 MR. DOBSON: Ideal question.

3 (Laughter.)

4 MR. HARRISON: Good timing.

5 MR. CRUTCHFIELD: I'm glad I read the script.

6 MR. DOBSON: The first pass by Ebasco -- and we  
7 haven't had time to look at it yet -- is 95 percent done.  
8 People in the A stack are qualified. If they're in the B stack,  
9 we think they might be but we need more information. The C  
10 stack is questionable, and the D pile. These look like we  
11 might not be able to validate.

12 MR. CRUTCHFIELD: But those in the A pile absolutely,  
13 positively meet the ANSI standard for education and/or ex-  
14 perience? There is no subjectiveness in any of those?

15 MR. DOBSON: Subject to validation of credentials.

16 MR. CRUTCHFIELD: Correct. But they clearly meet the  
17 four years in high school and the two years in college or what-  
18 ever. No question?

19 MR. DOBSON: Oh, no, no; you can still substitute  
20 other factors to the degree it's reasonable.

21 MR. CRUTCHFIELD: But what I'm getting to is the  
22 question of the subjectivity factors that you are going to lay  
23 out as to what is acceptable and what isn't acceptable. You  
24 have already made some of those judgments.

25 MR. DOBSON: Uh-huh.

1 MR. EISENHUT: Let me put it a different way. Ninety-  
2 five percent of all the people you have looked at at least once,  
3 and they fall into one of four bins, A, B, C, or D. Subjective  
4 factors enter into A, B, C, or D -- all of them?

5 MR. DOBSON: Yes.

6 MR. EISENHUT: Or is it that A, clearly in your mind  
7 at this juncture, meets the ANSI standard?

8 MR. DOBSON: Yes.

9 MR. CRUTCHFIELD: But they do subjectivity in  
10 arriving at that.

11 MR. DOBSON: With reasonable subjectivity.

12 We need additional data on about 45 percent. That  
13 puts them in the B category.

14 The background checks are, of course, lagging behind.  
15 They are about 15 percent done.

16 MR. EISENHUT: Wait a minute. You mixed A, B, C, D --  
17 the background checks apply to all of them?

18 MR. DOBSON: All of them.

19 MR. EISENHUT: You said 45 percent are in B today,  
20 roughly.

21 MR. DOBSON: Yes.

22 MR. EISENHUT: Those are where you need additional  
23 information.

24 MR. DOBSON: Yes.

25 MR. EISENHUT: Of the ones you looked at, can you

1 give me a feeling for the breakdown between A, B, C, and D,  
2 just a rough percent?

3 MR. DOBSON: No, they are not totaled, but we can  
4 provide that.

5 MR. EISENHUT: All right.

6 MR. DOBSON: Can you, C.J., or you, Tony, give an  
7 approximation of that?

8 MR. GERRITS: Tony can give it.

9 MR. CRUTCHFIELD: Why don't you go ahead until he's  
10 ready with the number.

11 MR. DOBSON: Two percent of those in the first pass  
12 appear as though we will end up not being able to validate.

13 MR. EISENHUT: That's D?

14 MR. DOBSON: Yes. In some cases people have exhausted  
15 themselves and just not come up with the information, and in  
16 some cases the information that they have validated, there's  
17 inconsistencies in it.

18 MR. EISENHUT: In your A, B, C, D, as you go through  
19 the validation process, it ultimately boils down to, to put it  
20 a different way, Group 1 and Group 2, or A and D.

21 MR. DOBSON: A and D is where we're heading.  
22 Ultimately the B and C piles have to go one way or the other.

23 MR. EISENHUT: And we agree they are going to A as  
24 being all right, or D, additional work required.

25 MR. DOBSON: It's very possible that A, when you

1 get into the verification process, will slip over into the D.  
2 It's always possible.

3 MR. EISENHUT: Yes; good point.

4 MR. HARRISON: As an example, when I was there, with  
5 J. A. Jones there were a considerable number within the B and C  
6 category, but the Ebasco people had just returned from J. A.  
7 Jones and said they thought they were going to be able to  
8 resolve almost all of those issues. So all the Bs and Cs could  
9 become As.

10 MR. LEDDICK: We've got to move them one way or  
11 the other. We would expect most of them would move to the A  
12 but some are certain to move to the D.

13 MR. PERANICH: I'm looking at your method for moving  
14 them into the A category. Will it be strictly based on the  
15 documentation background, factors other than reverification of  
16 the work they did, or will it include reverification of the  
17 work they did?

18 MR. DOBSON: Reverification would be limited to the  
19 people who you can't validate credentials on.

20 MR. PERANICH: I just wanted to make sure what step  
21 in the process you were going to use that mode of verifying  
22 their work or their qualifications.

23 MR. DOBSON: I'm going to discuss it.

24 MR. HARRISON: One other questions before you  
25 continue. The 95 percent complete on first pass, is that the

1 Ebasco effort?

2 MR. DOBSON: That's the Ebasco effort; yes, sir.

3 MR. SHAU: After you look at A, B, C, and D, do you  
4 have a criteria for A, no action; B, certain action; C, certain  
5 action; D, certain action?

6 MR. EISENHUT: No, because they ultimately end up  
7 in A and D only. You either agree that the person was  
8 qualified and his inspections are valid, or you agree that his  
9 work was not valid.

10 MR. SHAU: A is no action, B is certain action, and  
11 C -- it's on a case-by-case basis?

12 MR. LEDDICK: We'll get to that. What do we do about  
13 the Ds? That's the key.

14 MR. DOBSON: To date, it looks as those six con-  
15 tractors on the top might come clean (indicating).

16 In the second group of contractors, reviews are in  
17 process and additional data are required. They are just in  
18 never-never land right now. We can't go one way or the other.  
19 We're not saying there's anything suspect about these con-  
20 tractors (indicating). It's just that we're not there yet.

21 The review is in process in the case of Mercury, and  
22 we believe that it is to our advantage at this point to start  
23 an across-the-board reinspection in the case of Mercury for work  
24 that we have not reinspected before and can take credit for.

25 We would hope that would come out cleaner than that

1 and maybe it will. Because of the timing involved, we have  
2 started an across-the-board sampling process.

3 We have also started through the records on Mercury.  
4 And the way you find out what an individual inspected, you go  
5 through all of your files and you extract off his initials on  
6 exactly what the individual reinspected. It takes weeks to do  
7 that. So when we get done with the Mercury validation, we  
8 will also, having gone through the files, be able to pair up  
9 what an individual did inspect.

10 Now, we are not saying that we are going to go out  
11 and reinspect his work. We are kind of coming at it from both  
12 directions. We are starting with an across-the-board process,  
13 and we are doing this as well. So somewhere we'll meet in the  
14 middle here.

15 We hope this becomes a best seller (indicating). If  
16 you want some detail on this, I'm going to have to call on  
17 somebody else.

18 This is a schematic sketch, a simplistic diagram on  
19 what the scope of Mercury's work is. There's a piping run  
20 that probably was put in by Tompkins-Beckwith. They put this  
21 out to the first isolation valve, and here is Mercury's work  
22 (indicating).

23 Here's the tubetrack and the seismic supports  
24 (indicating), and here's the anchors over here and the  
25 instruments over there (indicating), again on probably a seismic



1 support.

2           Categorized down the sides here are the things that  
3 have already been reinspected (indicating). Again, the burden  
4 is on us to validate the fact that we can take credit for those  
5 reinspections based on who did the reinspection. I understand  
6 that. But what we have started is a 10 percent program on  
7 things that have not been reinspected. Now, we are not saying  
8 the 10 percent is it. We are saying we have to get it started  
9 and we started on a 10 percent basis. We can expand the sample  
10 size as it appears necessary.

11           In the case of other contractors where any reinspection  
12 might be required, we would hope to be able to come up with some  
13 kind of a display which would make it easier to understand.

14           MR. EISENHUT: In the boxes where it refers to NCRs  
15 specifically by number, what does that mean on the chart?

16           MR. DOBSON: The disposition of these NCRs, some  
17 inspection had to have been done. If you had a bad weld on  
18 a seismic support, the disposition of the NCR, you might have  
19 had to have gone back and looked at other seismic support.

20           MR. EISENHUT: So under "Seismic Supports," it says  
21 Ebasco QC inspected 39 percent.

22           MR. DOBSON: That's what it says, but I'm not  
23 capable of talking about that in detail.

24           MR. EISENHUT: I'm just trying to understand this  
25 chart, because you said at the right are items that were

1 reinspected. So two things were reinspected, following those  
2 four NCRs and the Ebasco QC inspections, or was one the result  
3 of the other?

4 MR. DOBSON: I'd have to ask Mike Yates if he knows  
5 the answer to that.

6 MR. YATES: What is the question?

7 MR. EISENHUT: I'm trying to understand what this box  
8 to the right, as one example, means.

9 MR. YATES: The Ebasco QC reinspection was done as a  
10 result of our review of the documentation, our QC document  
11 review group. The NCRs are, generally speaking, additional  
12 reinspections over and above the 39 percent done as to certain  
13 problems.

14 MR. EISENHUT: All right.

15 MR. DOBSON: We were discussing this earlier this  
16 morning amongst ourselves, and we think this is a conservative  
17 list. This is Ebasco's first passthrough of major inspections  
18 that have already been accomplished in the case of Mercury.  
19 Startup people examined those lines. ANI examined those lines.  
20 So we have other sets of eyes looking at the work. We really  
21 have a high degree of confidence that the work as installed  
22 now is quite satisfactory.

23 Prior to the start of an inspection or prior to the  
24 increase in an individual qualification level, a package will  
25 be put together that will include his resume, the certifications,

1 and the validation of the credentials.

2 Status: All reinspections stemming from this and  
3 the CAT inspections are being performed by personnel who we  
4 have gone back and requalified or validated the qualifications  
5 to the '73 version.

6 Verificiation of the qualifications of the remaining  
7 site inspectors has been accomplished. However, we have not  
8 yet completed the validation of all of their credentials.  
9 In some cases that just takes time. And we realize there is  
10 a little exposure there but I think we can overcome that.

11 Do you have a comment, Tony?

12 MR. CANTRONA: Somebody wanted percentages on the  
13 total amounts of A, B, C, and D. Right now we have approxi-  
14 mately 51 percent in the A category, 35 percent in the B  
15 category, 12 percent in the C category, and 2 percent in the  
16 D category.

17 These numbers fluctuate, as you know, from day to  
18 day as you progress into this, but this is about what we are  
19 looking at right now.

20 MR. EISENHUT: Good. Thank you.

21 MR. CAIN: This is the first issue discussion that  
22 we have had. Would it be appropriate to get some NRC feedback  
23 on our approach to this one? We feel it may be a critical path  
24 item. Do you see any problems with what we are doing? Is it  
25 satisfactory? Adequate? Is there something else we should be

1 doing?

2 MR. HARRISON: I think the program is sound, and I  
3 think you are headed in the right direction. I know it's a big  
4 task and it's going to take a lot of time, but I think you are  
5 using the right approach.

6 I have suggested to Mr. Crutchfield and Mr. Eisenhower  
7 that we be involved periodically throughout this process until  
8 you are done to make sure that we are going to be satisfied  
9 with what you are doing all along, that the end product is  
10 something we are all going to be able to live with.

11 MR. CAIN: We invite your audit or involvement in any  
12 way you would like to involve yourselves.

13 MR. EISENHUT: You saw the preaudit last week, and  
14 you'll see it show up sort of periodically.

15 I second what Jay has said. I am encouraged to see  
16 you doing this in a thorough way. Obviously, the full-blown  
17 thing you could do is a 100 percent recheck, and I'm very  
18 encouraged to see that. We will continue to look at things  
19 like the qualifications, the resumes, the people doing the job  
20 how they are doing it. We will be spot-checking it. We will be  
21 watching NUS' validation and verification of the program,  
22 et cetera.

23 MR. LEDDICK: I think the principal reason we have  
24 evolved from a sampling technique that we thought would  
25 be sufficient to the 100 percent is that as we get into it

1 it appears to us the sampling wasn't enough. We are trying  
2 to do what makes sense, and that's why we have gone this route.

3 MR. CRUTCHFIELD: I would urge that as you get to the  
4 key locations, you get in touch with us and get back to us.  
5 When you decide what necessary reinspections you think are  
6 needed, please get back to us so we both agree that the level of  
7 reinspection is what is needed.

8 MR. LEDDICK: We would like to have that conversation  
9 very soon because we are right now embarking on this sampling  
10 inspection of Mercury.

11 MR. DOBSON: I think Mr. Harrison already looked at  
12 that, did you not?

13 MR. HARRISON: What's that?

14 MR. DOBSON: The sampling reinspection program of  
15 Mercury.

16 MR. HARRISON: No, I did not look at that. We talked  
17 about it but --

18 MR. DOBSON: It started yesterday.

19 MR. LEDDICK: I would say it's timely because we are  
20 starting that process, and we're trying to do the other one.

21 MR. PERANICH: I have a comment. Since one of the  
22 items is associated with line item (inaudible), I have no  
23 problem with the method and I think it's sound and acceptable.  
24 What is the status of the GEO? I gather that you have started  
25 in that area.

1 MR. CAIN: We are into that.

2 MR. LEDDICK: The first pass is nearly complete, and  
3 that involves all contractors.

4 MR. SHAU: This particular issue you address, Issue 1,  
5 are you also going to address Issue 10?

6 MR. CRUTCHFIELD: It's 1, 10, and 20.

7 MR. SHAU: You have no problems with J. A. Jones so  
8 far?

9 MR. DOBSON: The numbers I have don't reflect the  
10 input that the people got from Charlotte in the case of J. A.  
11 Jones.

12 MR. CANTRONA: The people in Charlotte, J. A. Jones,  
13 will have to submit more information to us.

14 MR. LEDDICK: As I recall, most of the J. A. Jones  
15 people were in Category B.

16 What about Fegles?

17 MR. CANTRONA: Approximately 8 A's with Fegles and  
18 there are some B's in Fegles.

19 But as I say, these numbers could fluctuate from day  
20 to day. A guy could be a C and the next day you get something  
21 in the mail and it changes. It's a living document.

22 MR. CAIN: Could we have some guidance on our program  
23 now? Do you want us to go into the next item? Do you want to  
24 break for lunch?

25 MR. CRUTCHFIELD: I think it would probably be



1 worthwhile to break for lunch and reconvene at about 1:30.  
2 That would give everybody adequate time to get back. How long  
3 do you think you have in the way of presentation?

4 MR. CAIN: We would like to and have planned for  
5 addressing Item 16, Item 4, Items 13 and 6, and Item 23, which  
6 we have prioritized as having a higher priority.

7 Now, we have prepared to talk about any of the items  
8 that I have not mentioned and we have personnel here to get  
9 into whatever technical depth the NRC would like to do so.

10 MR. EISENHUT: Yes, I guess there's another side to  
11 this. One of your bullets in the previous slide -- to make sure  
12 you understand the concern as we had it, I appreciate that as  
13 you look at it the concern may become a bigger concern. I hope  
14 it might even become a bigger concern for you in some cases.  
15 But if there's any information you need or any questions you  
16 have of any of the people, make sure that you add those to the  
17 list, too.

18 MR. CAIN: In some of the presentations we conclude  
19 with questions to the NPC.

20 MR. EISENHUT: Good.

21 MR. DOBSON: My question on these three issues is:  
22 Is there any information that you have at your disposal, via  
23 draft SSER or whatever, that we don't have with respect to  
24 Issues 1, 10, and 20?

25 MR. CRUTCHFIELD: I don't believe so.

MR. DOBSON: The other comment was that we do -- we

1 really do -- request that Mr. Harrison or whoever he designates,  
2 or Mr. Peranich, come down and make sure you are going to be  
3 satisfied with the results.

4 MR. CRUTCHFIELD: We will be doing that regularly, rest  
5 assured.

6 MR. LEDDICK: We do think that is important. We really  
7 don't want to have everything in series. I don't see any indi-  
8 cation that that's the way it would be.

9 MR. PERANICH: What is the status of the GEO per-  
10 centagewise so I can get a sense of the schedule?

11 MR. BURSKI: In the sense of completion? How far are  
12 they along?

13 A CONFEREE: About a week and a half.

14 A CONFEREE: Would you run over the list of the items  
15 you consider the priority ones again following the 1, 10, and 20?

16 MR. CAIN: The next item we would propose discussing  
17 is Item 16, then Item 4, then Item 13 and 6, and then Item 23,  
18 and any other item in whatever order you all want to talk about.

19 MR. CRUTCHFIELD: We will give you some guidance after  
20 lunch. I would urge you to get your questions together so if  
21 we don't have enough time to cover the remaining issues we can  
22 at least answer your questions.

23 MR. LEDDICK: A lot of them center around discrepancies  
24 between Darrell's letter and the draft SSER.

25 MR. HARRISON: There was one issue that was not

1 addressed in Mr. Eisenhower's letter, which I brought to Mr.  
2 Dobson's and Mr. Gerrits' attention last week, on missing NCRs,  
3 that that should be expanded to include Mercury. That's the  
4 only one I could think of.

5 MR. DOBSON: Okay.

6 MR. CRUTCHFIELD: All right; 1:30.

7 (Whereupon, at 12:25 p.m., a luncheon recess was  
8 taken, to reconvene at 1:30 p.m.)  
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AFTERNOON SESSION

MR. CRUTCHFIELD: Why don't we pick up where we left off.

MR. LEDDICK: This is Item 16. This has already been submitted to the NRC.

First of all, description of the concern can be summarized pretty quickly, and that is that the interviews were not vigorously pursued for root cause, safety significance, and generic implications. The investigations were not timely. The LP&L program was not independent nor formal, and senior management was not well-informed.

I think that summarizes the concern.

Some of the characteristics of the initial program: It was voluntarily initiated, due to our concern about much more attention on allocations at that point in time, and we did conduct the initial interview program in January in a timely fashion, 407 people. It was limited to all QA and QC people on site. It was conducted by members of our LP&L QA staff. However, the exit interview program -- all of the people who were interviewed in the exit process had been interviewed previously. However, the follow-up on that was not timely at all.

The program was not auditable. Systematic records were not maintained on the follow-up. That doesn't mean there were no records, but they were far from systematic.

1           Interestingly enough, in that initial program, 72  
2 concerns were identified among the 407 interviews. Thirteen  
3 of those were identified as requiring corrective action. Four  
4 of them involved procedure revisions. Five of them had impact  
5 on NCRs in one way or another, particularly in terms of our  
6 going back and reviewing NCRs on a fairly large scale. There  
7 were three records review impacts and one limited inspection  
8 that resulted from that.

9           As of July 1, there had been 174 exit interviews  
10 conducted by our people in the same fashion, and several addi-  
11 tional concerns were identified, one which required corrective  
12 action.

13           The reason I say "several" is because that whole pro-  
14 gram was inherited by what I'm about to tell you, and that's  
15 the new program.

16           There was a review by our Independent Safety Engineer-  
17 ing Group in June of the program up to that point, and they  
18 did in fact uncover, to the best of my recollection, another  
19 issue that had fallen through the cracks, that had been in the  
20 original program.

21           MR. CRUTCHFIELD: In some cases in the exit inter-  
22 views, one of the problems we had was there was information  
23 given that appeared to warrant further elaboration from the  
24 individual. Were you able to go back and talk to those people?

25           MR. LEDDICK: Let me talk to you about what we are

1 doing now. I think you'll find what we are doing now answers  
2 that concern in spades.

3 The program did have some benefits. I think it was  
4 of significance that the majority of the people that had the  
5 opportunity did not have any concerns. It is also true that  
6 many concerns, as I just pointed out, were identified. It is  
7 also significant that there was follow-up and corrective action  
8 in a number of cases.

9 The program shortcomings are also pretty evident,  
10 and NRC certainly brought those out. That is, it was far from  
11 auditable, the program. There were no formal procedures that  
12 dealt with how it should be operated. And the interviewers  
13 were QA people who were not trained interviewers, no doubt  
14 about that.

15 As a result of our own and your concerns, we did,  
16 as quickly as we could, establish a new team under another  
17 format. We hired Quality Technology Company, an independent  
18 consultant that has already been operating in the Wolf Creek  
19 site. And the people that they have assembled down there --  
20 and they are still assembling their team but their team is  
21 pretty far along toward being assembled now and I think has  
22 some pretty good people in it, and I have some resumes with me  
23 if anybody is interested. Several of these are former NRC  
24 people. One is a former FBI agent who happens to be a lawyer,  
25 who also has been a sheriff in a local parish. It looks like



1 the people that QTC is assembling are quite well-qualified  
2 in this business.

3 This team is functioning administratively out of  
4 the quality assurance organization for budgetary purposes,  
5 but the team leader, who is Scott Schaum, former senior resident  
6 at Wolf Creek, reports to me directly.

7 This reporting involves almost daily sessions in  
8 which we talk about things, plus weekly reports, monthly  
9 reports which take into account trends, status reports on  
10 various things that are happening. It's a very involved  
11 program but there is regular reporting in a number of different  
12 ways.

13 It's an auditable program. It has formal procedures.

14 Confidentiality is paramount. And, frankly, although  
15 I have access to the names of people that have concerns, I have  
16 never exercised that at this point in time. I would think there  
17 might be occasions where I might. But right now it is operating  
18 completely confidential.

19 There is aggressive follow-up because the whole  
20 program deals with not only responding to people who have  
21 concerns but taking action on these concerns with the appropri-  
22 ate organization in my organization, plus following up on that.

23 All personnel are being given an exit interview --  
24 given the opportunity for an exit interview, not just QA people  
25 but all people.

1           Finally, it is being conducted retrospectively as well  
2 as prospectively. That is, they are dealing with every in-  
3 dividual who leaves, say, plus walk-ins. And I'm kind of  
4 interested to see they are getting walk-ins frequently that  
5 probably in the past have gone to the NRC. I really do believe  
6 there are people coming in there who would have gone to the  
7 resident inspector's office if this hadn't been available.

8           Also, they have prioritized all of the past concerns  
9 that took place from the beginning of January up until the time  
10 they went into operation. They have prioritized and they are  
11 working on those with highest priorities first, going back and  
12 revisiting the issues, insuring that they were properly  
13 analyzed, and that proper action was taken.

14           MR. CRUTCHFIELD: Are they trying to contact some of  
15 the people that have since left?

16           MR. LEDDICK: They are.

17           MR. CRUTCHFIELD: As part of this process is there a  
18 feedback to the individuals of what you guys found and what  
19 you're doing about it?

20           MR. LEDDICK: Every attempt is being made to do that,  
21 yes. I think I'd have to characterize where they are now. I  
22 believe they are fully operational. I believe so far that it's  
23 operating awfully well, and that to date there is probably  
24 still more learning process to go on. But all evidence that I  
25 can get is that this program, which is about a month old, is

1 functioning well. And I have to say that hindsight is marvelous.  
2 If I had known six months ago what I know today, I'd have had  
3 those people down there in that time frame, no doubt about it.  
4 It really is the right way to go.

5 MR. EISENHUT: Do they end up, then, at the end of  
6 the process with a record which I'll call an auditable record,  
7 that if we wanted to go in and see what the concern was, how it  
8 was handled, the products, basically what was done, we could do  
9 that?

10 MR. LEDDICK: Certainly. And they have a whole  
11 series of records. With me I have their basic procedure that I  
12 signed initiating it.

13 MR. EISENHUT: Good.

14 MR. LEDDICK: I have some samples of some of their  
15 internal procedures. I have samples of some of the reports that  
16 they've made. There is no doubt about it that the issues they  
17 are dealing with -- and many of them on the surface have sig-  
18 nificance. Now, a lot of them remain to be closed clearly,  
19 and most of the ones that they've had to go back retrospectively  
20 to be looked at --

21 MR. EISENHUT: Do you have a rough idea of how many  
22 concerns, when you say the concerns they're working with?

23 MR. LEDDICK: They are working on somewhere around --  
24 I have a list of it right here and they are categorized. They  
25 are probably working on several hundred issues right now.

1 MR. EISENHUT: Good; thank you.

2 MR. LEDDICK: Most of those are retrospective, but  
3 I have that information. I can't quote it off the top of my  
4 head.

5 MR. EISENHUT: I'd appreciate it.

6 MR. LEDDICK: As I said before, they are getting not  
7 just an exit interview process but they are being utilized by  
8 walk-ins, as they term them.

9 We have a commitment to have any safety concerns  
10 that have been identified and verified to be resolved prior to  
11 exceeding 5 percent power.

12 This is one of the issues that we have already sub-  
13 mitted to the NRC.

14 MR. EISENHUT: Yes.

15 MR. LEDDICK: If there are not any more questions,  
16 I'll move on to Item No. 4, and I think Tom Gerrits is  
17 scheduled to talk about that.

18 MR. GERRITS: One thing I might add is that on all  
19 these concerns, each one as it's brought up is reviewed for  
20 reportability also with regard to the significance of it.  
21 We have front-end screening for reportability within that group,  
22 and if they feel it is potentially reportable it is sent  
23 directly to the group that does the completion of that particu-  
24 lar thing.

25 MR. DOBSON: May I say one thing for the record.

1 The procedure was assigned by me for Mike. It was signed on  
2 I think it was a Saturday.

3 MR. GERRITS: But it was reviewed by him in detail.

4 MR. DOBSON: Well, it was cycling the days before  
5 that.

6 MR. GERRITS: The issue I am going to discuss is  
7 known as Issue No. 4, commonly called the lower-tier corrective  
8 action issue, in which there was some concern that lower-tier  
9 documents -- that is, FCRs, DCNs, EDNs, and DNs -- were not  
10 being upgraded to NCRs.

11 Related issues had to do with EDNs, which are  
12 engineering discrepancy notices, which were apparently being  
13 voided with no action taken.

14 And the overall QA program requirements for NCRs  
15 and DNs and so forth were not being complied with.

16 As a result, the NRC required certain actions of  
17 LP&L, those being that we should review all FCRs, DCNs, EDNs,  
18 and Tompkins-Beckwith DNs to insure that proper corrective  
19 action was taken.

20 By the way, FCR is the field change request; DCN  
21 is the design change notice; and EDN is the engineering  
22 discrepancy notice; and DN is discrepancy notice.

23 Secondly, the review was to include those steps  
24 required by 10 CFR 50 Appendix B, Criterion XVI, and 10 CFR  
25 50.55(E).

1           And we are also to review for improper voiding of  
2 all other design changes and DNs and for misclassification of  
3 those documents.

4           In response to this concern, we responded with our  
5 plan to assess our lower-tier reporting system and to specifi-  
6 cally review the NRC-cited examples to assure that, one,  
7 corrective action was taken and whether any safety significance,  
8 that is, reportability significance, was involved with each of  
9 those issues.

10           In addition to that, LP&L, we said, would review an  
11 additional sample of approximately 700 documents to provide  
12 confidence that the program was adequate.

13           I'd like to point out here is one area where we  
14 differed in our program plan with what the NRC had recommended.  
15 They had recommended all. We felt that 700 would be adequate  
16 on a statistically significant basis. And I'll talk a little  
17 bit more about that later.

18           With regard to our progress to date, for the NRC -  
19 cited examples we have determined that five of the 72 should  
20 have been NCRs. Those were reviewed for reportability and  
21 none were evaluated as being reportable.

22           With regard to the actual sample that we did take,  
23 which was 940 documents, as opposed to the 700 we told you we  
24 would look at -- we looked at 240 more -- 64 or 7 percent of  
25 those should have been NCRs. And, once again, none were



1 evaluated to be reportable.

2 As a result of our review of the overall system, we  
3 felt the program was being complied with, and in most cases the  
4 decision to upgrade a document to an NCR was a judgmental  
5 decision.

6 And the bottom line, as we have stated, was that the  
7 design change, discrepancy notice, NCR system, was being  
8 complied with.

9 I'd also like to say that our review, we feel, was  
10 very conservative, which resulted in an approximately 7 percent  
11 across-the-board upgrading of those documents to NCRs.

12 MR. CRUTCHFIELD: Do you feel comfortable that the  
13 discrepancy-nonconformance system assured proper corrective  
14 action as far as safety is concerned?

15 MR. GERRITS: Yes, I do. And the reason I feel that  
16 way is based on two facts. One is, based on our review of the  
17 DNs, no disposition would have changed. We have determined  
18 that the dispositions that were made were correct. So even though  
19 it was on a DN and not an NCR, the disposition was in fact  
20 correct, and it would not have been changed had it been an SER.

21 MR. CRUTCHFIELD: But did you get the proper,  
22 necessary reviews that you would have had had it been an NCR?

23 MR. GERRITS: All of these documents are reviewed  
24 according to a specific procedure. The reviews are generally  
25 the same, but there are some differences with the type of

1 engineering review they would get. That is one difference.  
2 And the review process, we feel, was adequate, and we did get  
3 the necessary reviews for the type of document it was.  
4 In other words, one would be maybe reviewed by Construction Engi-  
5 neering versus Design Engineering.

6 MR. CRUTCHFIELD: But if it was an EDN that was done  
7 by one of your subcontractors, it would have been resolved  
8 within that subcontractor activity, more or less. If it had  
9 been upgraded --

10 MR. GERRITS: If it was an EDN, it was an Ebasco  
11 document, but a DN --

12 MR. CRUTCHFIELD: If it had been upgraded to an NCR,  
13 that would involve Ebasco QA, and it would involve LP&L QA.

14 MR. GERTITS: That's true, but the process within the  
15 individual subcontractor requires a review by the QA organiza-  
16 tion, for example, Tompkins-Beckwith. Their QA would use an  
17 S-plotted procedure, and that procedure was complied with. But  
18 it would not have been reviewed by Ebasco necessarily. But as  
19 part of the program, the contractors did screen the DNs for  
20 upgrading to NCRs.

21 The review is different. I'm not saying it's  
22 exactly the same. But our review indicated that the con-  
23 tractors' programs were complied with. Many of the DNs were  
24 on very minor issues.

25 MR. CRUTCHFIELD: So you're saying, as far as you are

1 concerned, 93 performance at an acceptable level is satisfac-  
2 tory.

3 MR. GERRITS: What I'm saying is that, based on the  
4 results of our sample, we have 95 percent confidence that 95  
5 percent of the unsampled documents contain no safety signifi-  
6 cant reportable issues. That's what I can say, based on our  
7 sample. And we don't believe that any further review is neces-  
8 sary. I can make that statement.

9 And we based our reject -- a reject would have been  
10 if a document should have been reported under 55(E) or Part 21.

11 MR. CRUTCHFIELD: Of the problem documents or  
12 ones that you thought individually should have been upgraded,  
13 are they concentrated in any particular subcontractor or con-  
14 tractor, or are they just generally spread across the board?

15 MR. GERRITS: I don't believe they were concentrated.  
16 I think it was just across the board. That is my understanding.

17 There was some percentage that, with the benefit of  
18 hindsight, it appears as though they should have been NCRs.  
19 We have called them NCRS, or they should have been NCRs. It  
20 was a fairly low percentage in our estimation, especially the  
21 way we reviewed it with a fairly conservative approach.

22 MR. SHAU: But if two different-type people looked  
23 at the thing, would they come to different conclusions, the  
24 NCR or the DN? Would they arrive at different conclusions?

25 MR. GERRITS: Design Engineering did review these

1 documents. The Design Engineering people that did this review  
2 didn't come to any different conclusions. The dispositions  
3 they felt that were identified on the DNs were adequate.

4 MR. SHAU: So even if it was an NCR, you think they  
5 would have come to the same conclusion?

6 MR. GERRITS: We took an independent look at 940 of  
7 the total population.

8 MR. SHAU: Could you give us an example?

9 MR. GERRITS: I don't have those at my fingertips.

10 MR. HARRISON: Do you recall what the total population  
11 was?

12 MR. GERRITS: Yes, I do. It's over 30,000. It's  
13 approximately 30,000-plus.

14 MR. HARRISON: Let me ask you this: One of the docu-  
15 ments that I recall was, for example, a damaged cable that was  
16 reported on a DCN and was resolved on a DCN. One of the  
17 problems we had, it wasn't on an NCR. It appeared the condi-  
18 tion was reported on a DCN, was resolved on a DCN, and was  
19 cleared on a DCN. We could find no inspection records for that  
20 cable repaired other than documented.

21 The concern is not just that the system wasn't  
22 properly used. That's sort of a peripheral-type issue. A  
23 design change was used to identify a nonconforming condition.  
24 The corrective action concern is: Was the proper corrective  
25 action taken? And if it was, was it documented?

1 MR. GERRITS: Yes, I understand your concern. I can't  
2 speak to that specific issue. We'd have to sit down and look  
3 at it. But I understand that concern, yes.

4 MR. CRUTCHFIELD: When you come in with your specific  
5 answer to No. 4, you ought to be sure that you address that  
6 issue.

7 MR. GERRITS: Basically you're looking at an inspec-  
8 tion issue there: Was it completely closed out? Yes, I under-  
9 stand.

10 MR. HARRISON: You are also at a little bit of a dis-  
11 advantage because the examples we cited in the SSER -- you  
12 haven't had that information available to you yet, so I think  
13 if you had that it would lay it out on the table for you so you  
14 could evaluate it a little more clearly.

15 MR. GERRITS: The focus of our response was on the  
16 upgrading issue. That's what we really looked at, whether a  
17 document was appropriately upgraded, and that's what we really  
18 focused on, based on the information that we had.

19 MR. CRUTCHFIELD: But as a key part of that, we want  
20 to be sure that the process served the function it was supposed  
21 to serve, that a nonconforming condition was handled as a  
22 nonconforming condition and not as a design change.

23 MR. GERRITS: Yes. As I understand it, one of the  
24 concerns also was that some of the FCRs were written on  
25 after-the-fact deficiencies, which would tend to put that in

1 the nonconforming area.

2 MR. HARRISON: Another example is the snubbers we  
3 talked about in our June meeting, that you procured a standard  
4 travel-stop snubber, and it was resolved on a design change.  
5 And we couldn't tell from interviewing your staff what was  
6 installed and what wasn't installed. What's installed is what  
7 we are after.

8 MR. GERRITS: I understand.

9 MR. CAIN: Are there other examples that we might  
10 benefit from having access to that are in the SSER?

11 MR. HARRISON: Those are the two that I can remember  
12 right offhand.

13 MR. CAIN: Snubbers and -- ?

14 MR. HARRISON: There was a damaged cable, and there  
15 were some others. These documents we spelled out in the letter  
16 to you I think are the examples. We didn't write up what they  
17 were, but the documents identified were the ones that were in  
18 question.

19 MR. GERRITS: Like I said, we did vary from the NRC  
20 direction with a sampling plan in this case. Would you have any  
21 comment on that? It is something I need to bring out right on  
22 the table, that it is different from what you had recommended,  
23 and we would like to get some feedback on that.

24 MR. CRUTCHFIELD: We haven't talked to our sampling  
25 people in detail. It's good to know this one is there and



1 we'll focus on that very promptly.

2 MR. GERRITS: We feel this is one that does lend  
3 itself to that type of approach, and we would like to have some  
4 feedback on it.

5 MR. SHAU: In Issue 4 and Issue 14 there are some  
6 similarities. Issue 14 is speed letters and EIRs. Are you  
7 going to address that?

8 MR. GERRITS: No. Someone else is going to cover that  
9 section.

10 MR. GAGLIARDO: One of the things I think you should  
11 address also in your response, not only on this one but on  
12 certainly No. 1 and any of the others, is the implications and  
13 what you are going to do to assure that something like this  
14 does not occur as you get into the operation phase.

15 MR. GERRITS: Yes.

16 MR. DOBSON: That is covered.

17 MR. GERRITS: That is covered.

18 Now, on the "Action to Prevent Recurrence," with  
19 regard to operations, all hardware problems are identified on  
20 our LCIWA, which is Conditions Identification Work Authoriza-  
21 tion. These are evaluated for nonconforming conditions and  
22 reportability. We have only one document for that phase, other  
23 than receiving inspection documents.

24 Also, problems that are encountered during the  
25 installation of plant modifications which involve design

1 changes require a change in the design be approved prior to the  
2 implementation of the change in accordance with the station  
3 modification program.

4 So those two areas we already have in place and  
5 should prevent the types of questions that arose in this par-  
6 ticular issue. This is strictly related from now on to the  
7 operation phase.

8 MR. CAIN: C. J. Savona.

9 MR. SAVONA: I'd like to talk to both Issue 13 and 6.

10 Issue 13, as you described it, there were 10 NCRs  
11 that were not in the card index file, and others you found were  
12 missing from the Ebasco QA vault in connection with the card  
13 index file.

14 The action that you asked us to do was to obtain the  
15 missing NCRs, explain why they were not maintained in the  
16 filing system, and review for proper voiding, and assure that  
17 NCRs are properly filed for tracking and closure.

18 I'd like to start off, first of all, by let's find  
19 out what the source of the problem was. What we did was we  
20 wanted to investigate and explain the source of the problem.

21 Basically the problem came from two sources.  
22 Initially when Ebasco first started to track NCRs, they were  
23 being tracked via a manual log and not separate and definitively  
24 located like in a nice little computer system or otherwise.  
25 That was number one.

1           Number two, Ebasco at one point in time co-located,  
2 Ebasco engineers with Mercury -- during that time Ebasco's  
3 engineering personnel calling the QA people to obtain numbers.  
4 Consequently, with the two-shift effort, the same discrepancy  
5 was being recorded twice. In other words, we were using two  
6 Ebasco NCR numbers against the same discrepancy. Consequently,  
7 what occurred was one would wind up being voided and nulled  
8 out because it wasn't necessary to have two items against the  
9 same one.

10           Basically that's where we came from, and that's what  
11 we feel the problem was.

12           The next item was to determine the status of the  
13 NCRs that you specifically questioned. We did that. And on  
14 six of those they were in fact truly voided, and we did obtain  
15 copies of the voided NCRs or the actual NCR itself, and it was  
16 in fact voided. Each one of those NCRs was reviewed to  
17 determine that they were properly voided.

18           The other four -- we also found one additional one  
19 in the same pile so it turned out to be five -- were voided  
20 also. However, we could not resurrect that particular NCR,  
21 but we were able to resurrect what the problem was that was  
22 cited with the NCR, and we also were able to determine the  
23 date, the certain time it was issued, because of the log  
24 reading.

25           Therefore, what we did was reconstruct the time

1 frame with the discrepancy, and went back to the various other  
2 discrepancies which would have possibly elevated this thing to  
3 an NCR to begin with, and attempt to find that. In those five  
4 instances we feel that we did.

5 So in the case of the 10 you denoted, plus the other  
6 additional one, we feel we have satisfactorily found where those  
7 were, and they were properly voided.

8 However, we didn't stop there. We wanted to go a  
9 little further, because it's an awful big system. You're talk-  
10 ing about 8,000 documents, roughly, and they are in and out of  
11 files continuously.

12 So what occurred after this is we attempted to take  
13 the three systems which we used, actually four systems if you  
14 count the QA card index file, and reconcile all systems that  
15 actually had any meaningful tracking on NCRs.

16 By doing that, we did come out basically with 14  
17 additional numbers which were not logged in in one book or the  
18 other or could not be relocated. In addition to that, because  
19 of the fact that we were going ahead early on in reviewing  
20 NCRs, we were actually making a numerical count. As we re-  
21 viewed one, it got checked off, so we knew at the end we had  
22 reviewed all NCRs that we looked at, and if we had not there  
23 had to be some that fell out of the barrel.

24 So in essence what I'm saying is that we reconciled  
25 all the logs, we did a numerical count, and in the end we came

1 out with X number, which is 14, that were ultimately missing  
2 as far as numbers were concerned. But we went back, and in  
3 looking we could not find any evidence, by going through all  
4 the logs, that those numbers were actually ever given out  
5 against discrepancy in the system. And by that, what I mean  
6 is the card system that was used to log and track NCRs, which  
7 also logs and tracks the transmittals that move the NCR in and  
8 around the site, the master tracking system which is a com-  
9 puterized system, which is a backup to the card index file,  
10 and the card index file itself in the vault. None of those  
11 systems had any evidence of those NCRs ever being issued at all  
12 as far as numbers are concerned. So in our estimation we feel  
13 that those numbers were never issued. There is no evidence of  
14 them ever being logged out into the NCR stream.

15       The last item was to correct discrepancies found.  
16 In order to avoid the problem again coming up with someone else  
17 coming back in and looking at it, the various logs that are  
18 concerned were in fact updated and corrected.

19       And I must draw attention to something. We did also  
20 look at New York-generated NCRs. There was a slight problem  
21 there in that the New York-generated NCRs -- their procedure  
22 didn't properly cover for voiding NCRs directly. There were, I  
23 believe, seven that came out of that. Those NCRs were resurrected;  
24 they were properly voided. Their procedure has been modified  
25 to better address the voiding of NCRs now, and I think that

1 problem has been put to bed.

2 As far as this issue is concerned, in fact it did  
3 put us on track, as we know where all our NCRs are for sure now,  
4 we don't have a problem with where they are, and we feel all  
5 actions with regard to Item 13 are complete.

6 MR. CRUTCHFIELD: With respect to the 14 items you  
7 folks said you had found the missing numbers, and there is no  
8 way that you can find any of those numbers, did you do any  
9 check of lower-tiered action during the time period when those  
10 numbers may have been given out?

11 MR. SAVONA: Yes. The interesting part about that is  
12 that all 14 of those numbers occurred in the time frame -- and  
13 I think we can take care of that -- when the Ebasco engineers  
14 were co-located with the Mercury people. That's where we feel  
15 this problem occurred. It was, I believe, in the '82 time  
16 frame. When it was recognized that this was happening, back  
17 during that frame, what Ebasco did, rather than have the  
18 engineers call in and get a number, to avoid the possibility  
19 of that happening they gave them group lots of NCR numbers to  
20 use and control so they would not be going back into the system  
21 to draw a number out. So those numbers actually all fell into  
22 that same time frame, and we believe that is the reason.

23 If you go back and look at the tracking systems that  
24 were employed, in fact you had three different tracking systems  
25 for the numbers. An NCR does not move without a transmittal



1 document being attached to it as well. And none of those  
2 systems had any evidence at all of those numbers ever falling  
3 into the system at all.

4 MR. CRUTCHFIELD: But if someone would have proposed  
5 an NCR and gotten a number from Mercury and someone else would  
6 have said, "No, this is not a proper issue to be an NCR" and  
7 just chucked it away, you'd have no evidence of that. That's  
8 why I'm asking whether you went back and looked at the EDNs  
9 or DNS or whatever in the Murcury files or other files to see  
10 whether there were any situations that might have been con-  
11 sidered to be NCR conditions, that somehow were nominated and  
12 received a number because of the cohabitation problem, and then  
13 were chucked for one reason or another.

14 MR. SAVONA: As a matter of fact, we believe that is  
15 the case with those 14 numbers, that indeed the numbers were  
16 drawn out to be used. Consequently, take a two-shift effort.  
17 The number was drawn out on the first shift to be used against  
18 a problem. The same problem would maybe be detected on the  
19 second shift -- the same problem -- and the fellow thought he  
20 was writing it up again and drew a second number, the same one,  
21 and when the thing finally comes into being they find out they  
22 have two NCRs that relate to the same thing, and one of the  
23 numbers was actually dumped off.

24 The problem we have there is that obviously the  
25 administrative end of that did not catch up with itself. It was

1 obvious that it was detected because of Ebasco's changeover  
2 in that system and blocking the numbers to the engineers in  
3 Mercury at that time.

4 They all fell in that time frame, so it is fairly  
5 obvious that is what occurred there.

6 MR. CRUTCHFIELD: You indicated a block of numbers  
7 was given to Mercury because of the quantity that was being  
8 written up at the time. Did they fall within the block that  
9 Mercury was given or T&B was given or Fegles or somebody else?

10 MR. CHERNOFF: The block of numbers was issued to  
11 the Ebasco NCRs in the Mercury area after they recognized they  
12 had this problem of duplication. In other words, what C. J. is  
13 saying is they had these Ebasco QA engineers in the Mercury  
14 area upgrading a large volume of Mercury NCRs to Ebasco NCRs.  
15 You might have two engineers call in with the same number to  
16 the central Ebasco QA group, and that's where the duplication  
17 came in. So in order to prevent that situation from occurring,  
18 they issued to the Ebasco QA engineers in the satellite area,  
19 over in Mercury, a separate block of numbers. This all occurred  
20 before they issued that separate block of numbers over to those  
21 engineers in the Mercury area.

22 MR. CRUTCHFIELD: I understand your answer.

23 MR. SAVONA: I indicate all actions are complete here,  
24 but based on your question earlier about Mercury, it is our  
25 understanding that you are really looking for an accountability

1 of all Mercury NCRs.

2 MR. HARRISON: Would you repeat that?

3 MR. SAVONA: Based on your comment before about  
4 Mercury, I understand, I think, that you are looking for an  
5 accountability of all Mercury NCRs.

6 MR. HARRISON: That's correct.

7 MR. SAVONA: So we are going to go back and physically  
8 account for all Mercury NCRs in much the same fashion.

9 HARRISON: One of our concerns here was that if  
10 you had numbers, was it a possibility that an NCR  
11 condition existed, a number may have been assigned but the  
12 condition never got reported. In other words, it was issued  
13 but it never traveled anywhere. It stopped.

14 MR. SAVONA: Yes. That's exactly the proposal and  
15 what we did up front with the voided ones, where we could  
16 establish the fact that we did go down the lower-tier documents  
17 and pull them out.

18 On these other ones, they did fall into that particu-  
19 lar time frame and it really became a moot issue on those. But,  
20 yes, we will go back and account for all the Mercury NCRs.

21 MR. CHERNOFF: C. J., it should be clarified that on  
22 five of those NCRs, four of the original 10 that were identi-  
23 fied by the NCR and the one additional one that LP&L has  
24 identified -- those NCRs were never issued. We have determined  
25 that they have never been issued. But we have also determined

1 that the condition, as identified in the log entry, was covered  
2 by a lower-tier document, either a DN, deficiency notice, or on  
3 an audit finding. We have put together a description of how  
4 it was handled for each of those five.

5 MR. HARRISON: Those were not issued; they were  
6 covered under something else.

7 MR. CHERNOFF: We determined that they were never  
8 issued.

9 MR. SAVONA: Each one of the specific 11, where it  
10 tiered down to a lower document or was voided promptly, is all  
11 put together very specifically.

12 MR. CRUTCHFIELD: That will be part of the package?

13 MR. SAVONA: Part of the package response, yes.

14 Issue No. 6. The concern was that some Ebasco and  
15 Mercury NCRs and EBASCO DRs were questionably dispositioned.

16 The action you required was to propose a program that  
17 assures that all NCRs and DRs are appropriately upgraded,  
18 adequately dispositioned, and corrective action completed, and  
19 to correct any problems detected.

20 Our plan is to address the specific deficiencies  
21 identified by NCR, review the EBASCO NCRs, perform an in-depth  
22 verification, a sample of EBASCO NCRs, review the Mercury NCRs,  
23 and review the DR process and the cited DRs.

24 I'd like to go through our progress to date.

25 To date the review of the Ebasco NCRs -- and I must

1 say that we had to put a time frame on it, so our time frame  
2 stopped us with approximately 7700 NCRs, so we could put a time  
3 line on and finish it.

4 MR. EISENHUT: Out of an inventory of how many?

5 MR. SAVONA: There's approximately 7779 or some  
6 number like that. I'm not sure.

7 A CONFERE: It's 8200 total New York and --

8 MR. SAVONA: But we had to put a time line on it or  
9 it could have gone on forever. So we stopped at approximately  
10 7750, if you take into consideration the issues we talked about  
11 earlier.

12 That was a preliminary review. We started this back  
13 in January, and we started back in January basically because  
14 of our own concerns that the NCRs themselves had some problems,  
15 very much the same concerns that you expressed, I might add.

16 During the review we didn't find our concerns al-  
17 together not so. We did find some problems with them, no  
18 question about that. The problems that we found basically  
19 surrounded the reportability stamp not being applied,  
20 signatures not being in the blocks, disposition possibly not  
21 covering the corrective action in detail, or the corrective  
22 action statement maybe not being fully carried out, documentation  
23 not following through on the pathway to support the fact that  
24 the corrective action was completed.

25 We determined to do it around mid-January, and I

1 think we kicked it off about the 1st of February or in that  
2 ballpark.

3 After the June 23 letter, I decided to increase that  
4 activity slightly and do a little bit deeper review on the  
5 balance of the ones that we did. The purpose behind that, to  
6 be very frank with you, was to determine if the defect ratio  
7 we were getting off our preliminary scanning, because it was  
8 not a detailed in-depth review at all; in fact, it was a cursory  
9 review of the NCR package frontal system -- if in fact the  
10 disposition didn't appear to address the problem, I did make  
11 them go deeper. But if it appeared to address the reportability,  
12 signatures, we just stopped.

13 But as of June 25, I made them go deeper anyway just  
14 to see exactly what was happening. And I also wanted to see  
15 if maybe your concerns, which were just on top of ours, made  
16 them even more of a problem. And I was pleased anyway to find  
17 out that the defect ratio -- we had about a 7 percent defect  
18 ratio on these things initially -- did not go up at all with  
19 the detailed review.

20 MR. CRUTCHFIELD: What type of people did you have  
21 doing your verification or reviews?

22 MR. SAVONA: The people I had were actually lead  
23 auditor type individuals. In fact, I have to admit to you  
24 what I did there was I started off with about four people  
25 working part time. And any time you go back and look over



1 somebody else's shoulder, especially when you go back and look  
2 at paper, you not only bring in the conservatism aspects but  
3 you bring in so much subjectivity because of the background on  
4 it that it all of a sudden becomes a very detailed hodgepodge.

5 And what I did there was I stopped it, and I put one  
6 man on it and ultimately put two. Both of them were qualified  
7 leads; both of them had detailed experience. One of them has  
8 a master's in mechanical engineering, and I think he's even a  
9 Level II, if I'm not mistaken. But both individuals have a  
10 significant amount of experience in QA as well as in auditing.  
11 That's what they were doing. They were doing package review.

12 Now, I didn't use a procedure. I used a work in-  
13 structure. The reason I did that at first is it was meant to  
14 be a desk instruction. We weren't talking about doing a  
15 detailed procedural type review which integrated various  
16 people. It was meant for one person to sit down and do his job.

17 When I kicked up the process around June 25, I  
18 believe, I stuck with only one guy and let him finish out the  
19 remainder of them on the detailed review.

20 Again, like I say, the actual defect rate on those  
21 did not go up any higher. And I believe we ultimately came  
22 out with roughly 500 potential deficiencies. And if I'm not  
23 mistaken-- and Sam can correct me -- I think we're down to maybe  
24 five or six of those that are still open. The majority of  
25 them again were things of a frontal nature, and they went back

1 into areas like inspection reports not being available. One of  
2 the real cute ones is the typed signature of the fellow on  
3 the top cover saying, "Corrective action is closed." In that one  
4 we go back to the pink copy of the NCR which has the guy's  
5 signature on it. I guess at one time they must have gotten fancy.

6 But at any rate, it's that type of thing.

7 Looking at that, though, we still felt in our mind  
8 that we wanted to do more. So we got involved in what I'm  
9 going to call an in-depth verification. The in-depth verifica-  
10 tion was meant to do more than just simply scan the NCR and  
11 determine if the NCR was closed. But we wanted to be able to  
12 prove that not only did the NCR get closed properly but in fact  
13 that the hardware that that NCR had an effect on was appro-  
14 priately corrected and the work was done.

15 The second thing we wanted to prove was, if in fact  
16 the NCR had some effect on as-built documentation, that the  
17 as-built documentation was upgraded properly. In other words,  
18 the SER was issued against the drawing or the drawing was  
19 appropriately revised in accordance with whatever the NCR stated.

20 The third thing, which is really the humdinger, is to  
21 determine that any and all inspection documentation and/or  
22 engineering justifications that reflect against an NCR were  
23 available. Could we retrieve them if we had to retrieve them?

24 In doing that, we threw Ebasco's procedure away and  
25 didn't even consider it. What I mean by that is if the

1 procedure at points in time said the documentation had or had  
2 not to be attached, we didn't pay any attention to those. We  
3 focused on whether the documentation was retrievable or avail-  
4 able on the NCR, regardless; it had to be found.

5 We are still in the process of finalizing that. That  
6 also was utilized as a work instruction. One person did the  
7 entire review, period. We did not use other than one person.  
8 Consequently, if any subjectivity came in, it went in and went  
9 out.

10 So I feel very confident about that. And right now  
11 at this point in time I can say the hardware we looked at came  
12 out fine, very good.

13 On the Mercury program --

14 MR. HARRISON: How far along are you in that process  
15 now?

16 MR. SAVONA: We are probably about 65 or 70 percent  
17 complete.

18 On the Mercury program, in the review of the Ebasco  
19 NCRs, approximately 2000 of 3700, I believe is the right  
20 number -- don't quote me -- Mercury NCRs were in fact elevated  
21 to Ebasco NCRs. Consequently, in both the initial review  
22 that we did, plus the in-depth verification, because some of  
23 those fell out in the sample, Mercury NCRs, 2000 of each, were  
24 reviewed in the Ebasco NCR review. So that's a little bit  
25 better than half.

1 In addition to that, Ebasco went back and took the  
2 Mercury log, and any NCRs in the Mercury log which were  
3 indicated as void or administratively closed were also pulled  
4 and rereviewed.

5 And that came out how, Sam? I wasn't sure about that.

6 MR. HORTON: I think there were about 38 total  
7 administratively closed and void NCRs. Most of the adminis-  
8 tratively closed NCRs were of nonsafety significance. In other  
9 words, they were nonsafety B31.1. Some of it was P-2  
10 and P-3. What we did is we went back and tracked down the  
11 documentation to show that work had been acceptably done.

12 MR. SAVONA: Also, in investigating other things  
13 that were done on Mercury NCRs, there was one other category on  
14 Mercury, and that was "Use as is." Per Mercury's program, any  
15 Mercury NCR that they dictated, "Use as is" out of their program  
16 was required to be elevated to Ebasco for review.

17 Ebasco, around October of '83, detected that that  
18 wasn't being done in total. Consequently, Ebasco issued an  
19 NCR which required Mercury to submit all "Use as is" Mercury  
20 NCRs back to them for review. And there were some 437 of those.

21 Ebasco reviewed all 437, and I think the number came  
22 out that 37 of those were upgraded to Ebasco NCRs and finally  
23 dispositioned. So those actually went into the lot of Ebasco  
24 NCRs.

25 So if you take it all into context, of the Mercury

1 NCRs, in total 3700, Ebasco and/or ourselves have looked at  
2 probably, as a conservative estimate, 2500 already. So we feel  
3 in that regard that the Mercury NCRs, to be frank with you,  
4 other than accountability to make sure that the numbers fanned  
5 out -- that that program is really okay and complete.

6 I have to mention, since I neglected to up front,  
7 we did review in fact the specific NCR concerns that you fellows  
8 mentioned, and those details will be supplied within the re-  
9 sponse.

10 I've got to admit -- and I think I talked to Ed Fox  
11 about this -- I can appreciate what you found when you looked at  
12 the NCRs. Indeed, it doesn't leave as clear a trail as you  
13 would like it to leave, but I think in the end we will be able  
14 to show that the documentation in fact was retrievable.

15 On the DRs, Ebasco has reviewed the DR process and  
16 the specific DRs that were cited within your report. One of  
17 the things that came out there was very much similar to the  
18 NCR process in that not necessarily was the documentation in  
19 total within the DR package to support the end disposition made  
20 by the reviewer.

21 The DR process and the procedure that was used during  
22 the records review, because of the amount of records that were  
23 being reviewed, because of the purpose in mind at attempting  
24 to pedigree records, we were not looking at hardware deficien-  
25 cies or the possibility of them. We were attempting to pedigree

1 records.

2 Ebasco wrote the procedures such that they were  
3 allowed to write engineering memos to Engineering to disposition  
4 certain problems that were identified. If Engineering could not  
5 disposition it and it was a hardware-affecting item, it was  
6 elevated to a DN and then possibly elevated out to an NCR.

7 The unfortunate part about that is that in some cases  
8 the problems found in the DR packages were fairly generic and  
9 maybe you had one memo that may have satisfied several DRs.  
10 The cross-referencing of those memos did not take place very  
11 well.

12 But what was done specifically with the ones you  
13 looked at is that we did go back in there and Ebasco was in fact  
14 able to retrieve the documentation or support additional docu-  
15 mentation which satisfied the specific concerns that you  
16 addressed.

17 We feel the documentation is in fact available. The  
18 unfortunate part about that is that it was a record review  
19 process; it was not necessarily a hardware review process.  
20 And the overall schema of the things allowed the sort of  
21 informal latitude in the way it was handled.

22 But in retrospect it appears that that does appear  
23 to be one point that is satisfiable, and it is retrievable.  
24 And it really depends on how far we want to go as far as  
25 satisfying that particular aspect. And I think we are kind of



1 a little bit up in the air on that one because you are back  
2 looking at records again, and it's records against records, so  
3 to speak. The appearance of the thing would allow you to think  
4 that possibly hardware decisions were being made. In reality  
5 they were not. The point is we've got to satisfy you that you  
6 feel that way.

7 MR. HARRISON: The big problem we had with the DR  
8 process especially was a referencing document used to close  
9 out -- maybe a memo or whatever -- couldn't be located. The  
10 Mercury files were pretty much in a state of disarray. A lot  
11 of questions we asked were resolved while we were there, but  
12 all of them were not. That's why we had to withdraw finally.  
13 You had a lot of paper, but you just couldn't put the label on  
14 where it belonged necessarily.

15 MR. SAVONA: We feel very comfortable and confident  
16 that the paper is there. It's not a point that it is not  
17 there. We also feel very confident that the program was  
18 designed, as it did, to do a records process. It was not  
19 necessarily meant to do any hardware process. And the procedure  
20 did in fact allow for that elevation, and we can show that  
21 the elevation occurred. What I mean by elevating is bringing  
22 it up to a DN or higher.

23 So the end of the line on here is just how far do  
24 we have to go in fact to get to the bottom of that particular  
25 issue. We don't feel at this time that it is a problem, but

1 we really don't know how far to go with it.

2 MR. HARRISON: So on the DR issue, you feel like  
3 you have answers for all of those.

4 MR. SAVONA: We have the answers specifically for the  
5 ones you mentioned, and we've gone a little further now. But  
6 in essence it's a huge program. You're talking about a lot of  
7 pieces of paper. And I guess what I'm saying is that there was  
8 a procedure in place. The procedure appears to be followed.  
9 Administratively it had a little nightmare, but you're looking  
10 at a lot of paper in a short period of time.

11 MR. HARRISON: Have you looked at sampling this so  
12 some type of a confidence level can be established?

13 MR. SAVONA: We have considered sampling it. In fact,  
14 we were talking about it just the other day, on developing some  
15 type of sampling that would satisfy that. But you are talking  
16 about a lot of paper.

17 MR. CRUTCHFIELD: If at some time in the future, if  
18 you have been operating for 20 years and you have a problem with  
19 a particular system or components, you are going to want to  
20 have that data available, and you're not going to want to have  
21 to scrounge around through a bunch of different trailers looking  
22 from here and there trying to track down Joe Smith to see what  
23 he knows about it or whether he has a piece of paper on it.  
24 It seems to me you need to answer the question for us and for  
25 yourselves: What are you going to do about it in the future?

1 So that you can at some point come back and look at those  
2 records and see what your plant looks like.

3 MR. SAVONA: We feel very confident with the records  
4 themselves. It's essentially the manner and way that the  
5 reviewer himself went about processing the closure of the  
6 actual record. I guess I'm saying that we feel comfortable  
7 with the records. It's the manner and the way it was handled  
8 that I would think gives anybody any heartburn by looking at it.  
9 As far as the pure record itself on the system, we don't have  
10 a problem. It's the methodology used by the reviewer in  
11 closing it that really draws attention to it.

12 MR. CRUTCHFIELD: But I would think you'd want to  
13 have those documents available also in the future, to see what  
14 techniques an individual used to close it out, not just that  
15 it was closed out.

16 MR. SAVONA: If we take into consideration that this  
17 was a record review of records that were previously closed out,  
18 I think that's the key. But I would think we could look at  
19 developing some sample methodology that would go back and do  
20 those again if that would give you a better feel of confidence.

21 MR. CRUTCHFIELD: I'm looking for you to have  
22 confidence in your facility, that at some point in the future if  
23 you're going to have a problem with an instrument line or a  
24 problem with the support or a hanger, you're going to want to  
25 know everything you can about that. If those documents are

1 scattered around the site, and at some point they may get  
2 lost, disposed of, or whatever --

3 MR. LEDDICK: I understand your question, and I think  
4 we need to talk about how we answer that.

5 MR. HARRISON: If I understood you correctly, you  
6 looked at the Ebasco NCRs 100 percent.

7 MR. SAVONA: That's correct.

8 MR. HARRISON: But you didn't look at all the  
9 Mercury's.

10 MR. SAVONA: Not every Mercury, no.

11 MR. HARRISON: You looked at 2000 of 3700.

12 MR. SAVONA: Yes. In our review of the Ebasco NCRs,  
13 we definitely looked at approximately 2000.

14 MR. HARRISON: And those 2000 were the ones that  
15 were elevated, though?

16 MR. SAVONA: That's correct.

17 MR. HARRISON: Okay.

18 MR. SAVONA: In addition to that, there were some  
19 437 that were looked at in '83 by Ebasco.

20 MR. HARRISON: Additionally.

21 MR. SAVONA: Additionally. In addition to that, just  
22 recently we did go back through the Mercury NCR log and any  
23 voided or administratively closed NCRs were in fact pulled  
24 and reevaluated.

25 MR. CAIN: Is there any other feedback the NRC would

1 like to give us on this particular item?

2 MR. HARRISON: And on the DRs, you only looked at the  
3 ones that we identified?

4 MR. SAVONA: We looked at the ones you specifically  
5 identified, and we personally haven't looked at any other than  
6 that.

7 Sam, did you guys look at any others than the ones  
8 they identified as yet?

9 MR. HORTON: No. Let me say one thing. In 1982  
10 (inaudible), a lot of times record reviewers would bring  
11 problems to the QA surveillance group that may be hardware im-  
12 pacting, and the surveillance group from Ebasco would go out  
13 to the field and do verifications on the as-built configuration  
14 to determine whether the document was wrong or the paperwork  
15 was wrong.

16 I think if you see anything needs to be done, we may  
17 need to go back to the VR program which basically is meant for  
18 cosmetic document review problems, like cross out the whiteouts  
19 or inaccurate or incomplete documentation -- something that's  
20 cosmetic as opposed to hardware.

21 The hardware problems -- (inaudible).

22 MR. EISENHUT: Just to make sure I got this together,  
23 on DRs you, as of this time, only looked at the ones we  
24 identified.

25 MR. SAVONA: The ones that you particularly identified

1 were looked at and the documentation which would support that --

2 MR. EISENHUT: The second part of the question is:  
3 Do you have plans to look at more than the ones we identified?

4 MR. SAVONA: Yes. My point is really: How deep do we  
5 go? And I guess, going back to Sam's discussion, how deep do  
6 we go in looking at something that was really a cosmetic look  
7 to begin with. And there are good indications through the  
8 system that in fact, due to the QIRG review, other inspections  
9 were in fact kicked off. I think Mike mentioned one a little  
10 earlier in Mercury. I think that was a direct result of the  
11 QIRG review.

12 So the program as such did in fact kick off inspec-  
13 tions in the area of Mercury, it did kick off DNs. So the  
14 process worked. What we are really looking at is there were  
15 some administrative things in it, but basically those were  
16 cosmetic.

17 (Discussion off the record.)

18 MR. EISENHUT: On the DRs, I guess one thing that  
19 bothers me is that in our letter that went out we identified a  
20 certain number of -- I'm trying to find it -- Ebasco DRs  
21 related to packages, et cetera. We identified a short list  
22 of about 10 in here.

23 I guess basically the question I have to you is:  
24 You are going to have to come back with a program that shows  
25 you are now confident that DRs were properly taken care of,



1 dispositioned. I certainly hope that your program, so to speak,  
2 is not limited to what we label here as our sample DRs.

3 So when you say to this point you have looked at the  
4 ones we have identified, it gives me some trouble. I am  
5 pleased to see you are going to go further. Because I think  
6 what you need to do is make sure that the DRs and NCRs and all  
7 these documents were properly dispositioned.

8 Today on several occasions you have mentioned you  
9 are following the NCR's direction to do the following. I think  
10 that word was even used two or three times.

11 Setting that kind of tone, that you are following  
12 the questions on the items as we directed, and that so far you  
13 have looked at the ones we have pointed out, bothered me a  
14 little bit, if I understand correctly, because we gave you  
15 sample problem areas. I said in that meeting we had back in  
16 June that I was not going to list all the problems we knew  
17 about at the time but that there were certainly enough sample  
18 problems for you to understand the kinds of problems we  
19 identified.

20 The thing we are going to look to you for is for you  
21 to be able to convince us -- first, for you to have the  
22 confidence but, secondly, for you to be able to convince us  
23 that you have done an adequate job following up on these kinds  
24 of concerns. It applies to this Question 6. It applies to  
25 other questions similarly.

1           So I think the first thrust is that obviously you  
2 have to be confident that you've found problems. I trust that  
3 is what you're saying, even though a few times it probably  
4 didn't come across that way. And in this one specifically I  
5 want to make sure that the guidance or the comments or whatever  
6 we gave you were really only an example of what we had. We  
7 said, "Here are 10 typical DRs where we have some problems,"  
8 but it was meant to be only a sample of 10 DRs.

9           We look at records as a serious matter that show  
10 how the plant is handled, how it was taken care of, how it was  
11 designed, constructed, et cetera. We look at this as a pretty  
12 important item. And what you've got to do is to come up with  
13 that program with the right confidence level and talk to us,  
14 but I think you've got to do that on all of them.

15           MR. LEDDICK: There's no doubt about it. I'm not sure  
16 C. J. meant it the way he said it, but he did say, "What do you  
17 want us to do?" That isn't the correct question at all. You  
18 are absolutely right. We have to be satisfied that we have  
19 the confidence.

20           MR. DOBSON: I have a full confession. It brings up  
21 the value of getting prepared for a meeting like that. We put  
22 together a program plan. The individuals that put that piece  
23 of the program plan together unfortunately were working on a  
24 copy of your letter, the one before the official copy came.  
25 I think we got it a day before, and it hadn't been run back

1 through the word processor, and that one didn't have DRs in it,  
2 and the letter the next day did have the DRs in it. And the  
3 people who were putting the program together had the wrong  
4 letter. It's as simple as that. We recognized it yesterday.  
5 We thought, "Oh, oh." And this is a weakness.

6 MR. EISENHUT: I don't know what you referred to.  
7 I know the meeting we had here in June had DRs. We talked  
8 about DRs. But it's really not meant to be limited to DRs.

9 MR. DOBSON: We understand that.

10 MR. EISENHUT: And what you have to do is portray to  
11 us that all of these items -- we have identified some 23  
12 questions. The first thing you have to say -- I mean, you  
13 had some options. One of them was you could come back and say,  
14 "These 23 questions are trivial questions. They all go away.  
15 There's no problem." If you found that, you could very  
16 easily, or a lot easier, argue that was the total scope of the  
17 look you did.

18 If you verified that some of the items where we felt  
19 we weren't to the point, where we had reached the bottom line  
20 conclusions, starting with Question 1 -- we said, "These may  
21 be problems." But once you reach the point that there are  
22 some problems there, you obviously have to lay out a program  
23 in order to take care of it.

24 MR. GERRITS: We used examples as a means to give us  
25 further definition of the problem. We definitely don't have

1 in mind only to address those specific examples, not at all.  
2 In every case we used those to give us a better understanding  
3 and further definition of what we really need to look at from an  
4 overall standpoint. We have done that in the other cases I  
5 have been involved in.

6 MR. LEDDICK: Your comments are right to the point.  
7 We are not going to submit something until we feel satisfied,  
8 and we don't think we can satisfy you if we're not satisfied.

9 MR. EISENHUT: I appreciate that.

10 MR. HARRISON: Let me make one other comment. The  
11 term "cosmetic" was used, and our concern is that some DRs in  
12 this case were written, and the way the action was cleared --  
13 our concern is the record reflects, as Darrell previously  
14 said, the construction or the inspection of the items, and we  
15 were concerned about how these items were cleared relative  
16 to that activity. We just want to be sure that the appropriate  
17 action was taken to assure these documents were properly closed  
18 out.

19 MR. LEDDICK: The next presentation will be by  
20 Mr. Ken Cook on Item 23.

21 MR. CRUTCHFIELD: Why don't we take about a 10-minute  
22 break.

23 (Whereupon, a short recess was taken.)

24 MR. LEDDICK: The next speaker is Mr. Ken Cook on  
25 Item 23.

1 MR. COOK: The description of the concern really  
2 had five aspects to it in the June 13 letter. All but one of  
3 those dealt with the issue of previous NRC enforcement action  
4 associated with Mercury. The last item on the list that I  
5 have there is associated with the more general topic of LP&L's  
6 corrective action associated with management audits.

7 The action required was basically, in my view, to  
8 determine the cause of a breakdown and, more explicitly, to  
9 determine whether it really was a continued breakdown. And I  
10 believe we can address that fairly well here.

11 The corrective action that occurred as a result of  
12 that will be covered, as well as our discussion of what we  
13 plan to do in the vein of an overall QA program assessment.

14 LP&L's plan to address this issue really is to do  
15 an extensive review of the corrective actions that did result  
16 from that enforcement action, and that is in process.

17 The program also is to review the QA audit program  
18 associated with Mercury and its effectiveness and the corrective  
19 actions from that.

20 Also to try to identify lessons learned from this  
21 entire issue and factor those into our evaluation of collec-  
22 tive significance, which I'll try to give at the end of this a  
23 view of how we are planning to approach collective significance.

24 The response to management audits and the overall QA  
25 program -- the QA program at issue is one that we will try

1 also to pull in the collective significance.

2 In terms of our progress to date, we still are  
3 involved in reviewing corrective actions. We plan to do those  
4 and make sure that all of those plans that have been identified  
5 as part of the enforcement action will be implemented and are  
6 done adequately.

7 We have essentially completed the reviews of the  
8 audit program associated with Mercury. And I'll give you some  
9 conclusions on that.

10 And the management assessment findings have also been  
11 completed.

12 I don't really want to go through the details of the  
13 corrective actions that were associated with the initial  
14 enforcement action. Those are generally a matter of the docu-  
15 mentation that already exists.

16 A few areas I did want to point out are items where we  
17 went beyond what was called for as part of the enforcement  
18 action as a result of our view of what was necessary to try to  
19 correct this problem. They included organizational changes  
20 within Mercury, establishment of the Ebasco QA team to oversee  
21 Mercury. We had a quality analysis group that was basically  
22 there to try to close out SCDs and make sure those were being  
23 done properly.

24 Over a period of time, from the time of enforcement  
25 action through the time that Mercury left the job site, there



1 was a reduction in work scope to try to cope with some of that  
2 work effort.

3 A number of procedural changes were made in Mercury's  
4 procedures, and the records review issue was assumed by Ebasco.

5 Now, to get a little more attention by our own QA  
6 people, the significant destruction deficiency and inspection  
7 report following was shifted from the QA organization to  
8 Licensing during the same time period.

9 In order to look at the corrective actions and try to  
10 assess whether they were effective or whether there was a  
11 continuing problem, it becomes a little difficult to try to do  
12 in a short presentation here. But I think there are some key  
13 points that need to be made.

14 One of the major corrective actions was to do a  
15 system-by-system walkdown. At the time this was initiated,  
16 Mercury had completed somewhere in the order of 90 percent of  
17 their work. So these systems were fairly complete.

18 We started out with four systems, and that was shortly  
19 thereafter expanded to a walkdown of all the Mercury systems.

20 There was a project decision to try to structure that  
21 walkdown program. At that point in time the project was trying  
22 to get into the startup phase, and there was an attempt to  
23 structure that review cycle so that it would match with the  
24 sequencing of system turnovers associated with those instrumen-  
25 tations for the systems.

1           The scope of that walkdown was centered on tubing,  
2 tubetrack, supports, and the configuration of those systems.

3           In doing this, one thing we are attempting to do now is  
4 to look at the time frame of NCRs to see if there is a correla-  
5 tion. Some of the initial looks at this seems to indicate that  
6 while the number of NCRs may not be directly correlatable to  
7 new work versus old work, there seems to be significantly fewer  
8 deficiencies in the NCRs that are associated with that re-  
9 maining 10 percent of the work that we went beyond here  
10 (indicating), as compared to some of the work packages from  
11 the initial 90 percent and the rework that was being done at  
12 that time.

13           This is not complete, however, and we are hoping that  
14 we will be able to get some kind of correlation there.

15           One of the other areas that we are looking very  
16 strongly at is that record review effort. It was expanded  
17 considerably in the early part of this effort, but like the  
18 system walkdown there was an effort to prioritize that records  
19 review, and it was primarily focused on tubing, once again to  
20 try to support the sequence of system turnovers.

21           At the time we talked about a 100 percent rereview or  
22 a review by Ebasco. At the time that happened, not all of that  
23 document review had been completed by Mercury. When Ebasco  
24 took it, rather than undertaking an attempt to finish up that  
25 review package, there was a decision to do a 100 percent

1 rereview of it, but it did include packages that had not been  
2 completed by Mercury before they left the job site.

3         There were a number of reinspections that were  
4 necessary as a result of the record deficiencies that were  
5 found in that review process. And the exact correlation hasn't  
6 been determined, but it is obvious a lot of those, because  
7 they were associated with supports and other things other than  
8 the tubing, which had been given the top priority in the  
9 process -- a lot of those appear to be associated with the  
10 turnover packages that had not been finished by Mercury before  
11 they left and may well have been caught in that process had it  
12 been continued.

13         The final area there is really the current reinspection  
14 that we talked about in Item No. 1. And there we are going to  
15 be getting a little more view of how effective that corrective  
16 action is as a result of the system walkdowns and reinspections  
17 and where we stand in that whole process.

18         I think the fair assessment is that we believe the  
19 appearance of a continued problem throughout the July '82 to  
20 '83 time frame is really a result of the sequencing of our  
21 walkdown and records review process, rather than an indication  
22 of continued breakdown.

23         The other area I'd like to address is the audits of  
24 the Mercury QA program. We did go through and evaluate all the  
25 audits. Mercury had done 75 internalized; Ebasco had done 100

1 audits of Mercury; and LP&L had done 85 percent of their  
2 scheduled audits on Mercury, as well as 13 unscheduled  
3 surveillances.

4 We are correlating these now, and there seems to be  
5 a pretty good correlation to show that these audits do seem to  
6 cover, with some exceptions that we are now evaluating to see  
7 how they fit in, the programmatic requirements for the Mercury  
8 and Ebasco programs.

9 One of the key things in terms of the NRC concern  
10 and how many audits were performed over a certain time period  
11 -- I think part of that can be attributed to the fact that  
12 audits are frequently scheduled several times before they are  
13 actually performed. What we are looking for now is going back  
14 to the programmatic requirements -- an issue is supposed to be  
15 audited once a year; was it audited during that time period?  
16 -- and not looking so much at how many audits were scheduled,  
17 but did you do what was required. And in many cases we are  
18 finding we had considerably more audits than the program  
19 required.

20 The other area is the completion of the audit  
21 corrective actions. That is another case where the record  
22 trail probably caused the NRC as much difficulty as it did us  
23 initially. We found that it was necessary to go in and set up  
24 those files before we could verify that the corrective actions  
25 were set up. We have done that now. Those files are in a

1 condition that they can be audited. And we are convinced those  
2 corrective actions were indeed implemented.

3 The other area that is outside of the Mercury issue  
4 is management audits. There is a little misleading statement  
5 in terms of the early '78-to-'80 time frame when MAC was in.  
6 Those were really not true audits. They were more of what I'd  
7 call a management assessment. They were not an in-depth audit  
8 function. It is true that LP&L was very slow to respond to  
9 those, and I think that's been addressed previously. But when  
10 we came to a true audit situation, we did have in 1982, I  
11 believe was the time frame, MAC come in to do an audit of our  
12 training program. We have reviewed that record, and we have a  
13 very good record, I think, of timely responses to that audit,  
14 and the corrective action was implemented effectively. And  
15 that did result in a plant staff program and training staff  
16 being reorganized.

17 MR. HARRISON: Before you leave that slide, one of  
18 the points we were trying to make was whether you want to call  
19 it a MAC effort, an audit, or an assessment really is irrele-  
20 vant, because one of the problems we saw was a problem was  
21 identified and action wasn't taken to resolve that issue.

22 MR. COOK: Yes, I understand. I think at that time  
23 there were certainly several of those that related to the  
24 staffing problem. And the actions by LP&L were indeed slow to  
25 respond to that. I guess I can't say much more about what we

1 can do about something that happened four years ago other than  
2 the decisions right then were not to take immediate effective  
3 action on those issues.

4 MR. CONSTABLE: Ken, one of the things we are trying  
5 to get at here, too, is with regard to the audits we are not so  
6 much interested in bean counting of: Were X number of audits  
7 done per year? and this sort of thing, but rather: Were the  
8 audits of sufficient depth and scope to, in the first place,  
9 identify problems, and then the identified problems properly  
10 corrected in such a way that the problems don't keep going down  
11 the road like they ended up doing.

12 The point is, though, were there early audit findings  
13 that perhaps could have avoided the problems that occurred  
14 with Mercury? I believe we think there were findings that were  
15 not adequately followed up on. Did I hear you say they were  
16 adequately followed up?

17 MR. COOK: On those audit findings, I think what we  
18 are saying is in terms of the corrective actions that were  
19 identified, those were followed on and implemented.

20 Now, we have been discussing in terms of an assess-  
21 ment of that audit program what more we need to do. There has  
22 been some discussion of that in terms of the kind of issue  
23 you're talking about, and that hasn't really had a decision  
24 yet on how much further we need to go into looking at whether  
25 there were audit findings that in retrospect you say could have



1 led you to detect these issues earlier or maybe prevent them in  
2 some cases.

3 MR. CAIN: I think we would acknowledge, referencing  
4 the MAC audits, we did not respond as timely as we should have  
5 in reviewing our situation and trying to correct that. In many  
6 instances those recommendations dealt with personnel additions,  
7 adequacy of staffs, and so on, and I don't think you can level  
8 that charge against the company now. I think we do have  
9 adequate staffs, in my judgment, and if we don't we are trying  
10 to get them.

11 MR. HARRISON: I think the point is that you need in  
12 your response to make sure you cover all these issues. I was  
13 talking this over with Tom Gerrits when I was at the site last  
14 week. And you should also take credit for the level of staffing  
15 that you currently have. Our concern is what happened and  
16 what are you going to do to prevent this from recurring in  
17 the future?

18 MR. COOK: What I was referring to at that time in  
19 terms of looking at assessing those audits, if I understand  
20 what Les was asking for, those are with respect to the Mercury  
21 audits.

22 MR. CONSTABLE: Audits of the Mercury organization.

23 MR. COOK: That's the one area where I think we are  
24 still looking at whether we need to do something further in the  
25 way of assessment. What we have done to date has been to look

1 at meeting the contractual and programmatic commitments and  
2 number of audits and frequency of those.

3 The other area that I'd like to quickly run through  
4 and keep it short, because we are really just getting into this  
5 one, is that we are attempting to try to develop an assessment  
6 of the collective significance of all these issues. It is  
7 clear that that can't be finalized until we have come to at least  
8 an internal conclusion on all of these issues. However, we are  
9 trying to get something started that may have to be at least  
10 modified but at least try to find out what the structure and  
11 content would be.

12 Our first attempt is to really go through and assess  
13 the safety significance, the generic implications, and the  
14 cause that we identify on each individual issue. And right  
15 now we are looking at trying to categorize all of the 23 issues  
16 and subissues that may be contained within that into one of  
17 four categories. This is really just a preliminary cut at  
18 what those categories would be. We may end up with more or  
19 less than that. But this is something we are just trying to  
20 go through right now.

21 We are going to look at other pertinent issues, such  
22 as CAT, the recent inspections. The decision on how far to go  
23 back on inspection reports we haven't looked at. We want to  
24 try to roll all those things into it so we can look at areas  
25 and look at, first of all, an assessment of the collective

1 significance of all the items that fall in training and quali-  
2 fication: What does that mean to the plant configuration and  
3 the hardware that is out there right now?

4         The second thing is to look at what lessons we have  
5 learned -- not necessarily the things that would apply to con-  
6 struction efforts, but how can we correlate those into correc-  
7 tive actions which we have already implemented as part of our  
8 either construction program or the operational QA program, but  
9 how can we identify additional areas that we need to take  
10 corrective action on.

11         So we are trying to look at both of these things and  
12 trying to look at these issues not just as Issue 14 or Issue 15,  
13 and what is the significance of that issue, but taking all the  
14 ones that seem to have some correlation and trying to find out  
15 what we can learn from what has happened there.

16         If there are no questions, I guess that's all I  
17 have to say.

18         MR. CAIN: Maybe we could have a little discussion  
19 on the term "collective significance." I would find it helpful  
20 personally. We have batted this around in a great deal of  
21 depth internal to the company trying to get our arms around it.  
22 How do you feel about this very broad outline we are beginning  
23 to close in on as far as collective significance? I think  
24 "lessons learned" is a key that we will certainly dwell on.  
25 I think in approaching lessons learned, you need to categorize

1 where some of these 23 areas fall out so you can begin to  
2 develop policies and procedures through lessons learned,  
3 prevent them from happening again, and what is the significance  
4 of that on the management of the project.

5 MR. CRUTCHFIELD: I think the approach you have laid  
6 out there -- Jay and I were just talking about it -- is a good  
7 approach. I think we feel comfortable that doing that you will  
8 better understand what went on at your plant during construc-  
9 tion; you will better understand the weaknesses of that  
10 process; you will be able to address them so that you won't  
11 have those problems in the future. I feel comfortable with  
12 that.

13 MR. HARRISON: Part of this is going to be some type  
14 of looking at root cause determination?

15 MR. CAIN: I think it's going to be woven through the  
16 whole report in that each of the items -- you're asking what  
17 is the collective significance of each one of them. And then  
18 we are going to try to give you an overall summary, a general  
19 management statement as to where we are and where we're going.

20 MR. CRUTCHFIELD: I think that's the right approach.  
21 I think it will give you a good feel for where you stand,  
22 where your problems were and the necessary fixes you have  
23 tried to implement to take care of them.

24 MR. COOK: I think the key to our approach right now  
25 is to say it is difficult to look at 23 issues and say what

1 is the significance of all those together, but if you can  
2 categorize them in some manner like this, it gives you an  
3 opportunity to look maybe at areas that are a little more narrow  
4 and be able to identify what the lessons learned from those  
5 things are.

6 MR. CRUTCHFIELD: I think regardless of how you cross-  
7 cut them, whether it's those four areas or six areas that are  
8 different or whatever, you are going to come to the same  
9 conclusions relative to where the problems were.

10 MR. PERANICH: You said those were the initial four  
11 areas, not necessarily the four areas?

12 MR. CAIN: That's what we are beginning to look at.  
13 And as Ken indicated, those are the four categories we are  
14 evaluating as to the ones we want to use, and we may expand them.

15 MR. LEDDICK: We are trying to look at this in the  
16 context of an operating organization.

17 MR. PERANICH: I had one thought. You have just dis-  
18 cussed that, and I recognize you have brought interpretations  
19 to those areas. But that is a consideration of staffing.

20 MR. CAIN: Yes.

21 Any other questions?

22 If not, I'd like to recall Mr. Dobson to the stand.

23 MR. CRUTCHFIELD: Dale, before you start, I'd like  
24 to suggest that as far as the staff is concerned, these are  
25 perhaps the real bread-and-butter issues that you have

1 addressed so far. They are the real key issues as far as we  
2 are concerned. They are indicative of the key problems and  
3 key questions that we had asked.

4 Subsequently, if you could speed the process a little  
5 bit, it might help us all, because I know a number of people  
6 have planes to catch, including yourselves.

7 MR. CAIN: I agree. Mr. Dobson has assured me he  
8 was going to cover four or five there in about five minutes.

9 MR. DOBSON: Mathematically I have determined we're  
10 going to be done at 6:30.

11 MR. CRUTCHFIELD: Good. You may not have a very  
12 large audience.

13 (Laughter.)

14 MR. DOBSON: I'm going to go through these very  
15 quickly, but that is not to detract from the importance of the  
16 issues themselves. We have a high confidence that we have our  
17 arms around what your concerns are, what our concerns are, and  
18 what the proper solutions are.

19 I'm going to cover No. 5, which is conditional  
20 releases; No. 7, backfill; No. 8, shop welds; No. 11, cadwelding;  
21 and No. 12, main steam restraints.

22 The NRC was concerned about the deficiencies with  
23 regard to our tracking of conditional certifications on CE  
24 equipment. Their concern was certainly valid, and we had to  
25 go straighten that out.



1           We did find that we did not do a proper job of track-  
2 ing conditional certifications in the case of Combustion  
3 Engineering. However, on review we found no adverse conse-  
4 quences, and that will be totally resolved by the middle of  
5 next month. We have only two remaining subtier vendor manuals.  
6 But there is no adverse consequences with relation to the  
7 hardware. And that will be behind us within the next month.

8           Stretching it to the generic portion of the concern,  
9 where else might this have happened? The cause of it -- and  
10 it's not an excuse, but it was the perception on the part of  
11 some people that the conditions on the combustion equipment  
12 were related to commercial concerns. And that turns out not to  
13 be true. That was a false perception.

14           The other part of that problem is it is one of these  
15 manufacture, deliver, and erect contracts. It doesn't go  
16 through the warehouse, doesn't go through the normal process,  
17 as do other materials that arrive on site. So it had that  
18 peculiarity.

19           So we went back and addressed the VQAR concerns,  
20 whether or not we had tracked those, the vendor quality  
21 assurance; Ebasco's New York office NCRs, whether or not those  
22 were transferred to the project, and we did track those; and  
23 a heavy sample of the manufacture, deliver, and erect contracts  
24 to see whether or not we had any problems similar to combustion.  
25 We found that we did not.

1           We further looked at our receipt inspection process  
2 to see whether or not that was adequate. And we took a look  
3 at the spare parts orders from Combustion Engineering on 148  
4 purchase orders.

5           We found we had one that was released on a conditional  
6 certification. However, it was tracked and it was installed  
7 in the plant under a conditional release, and it was tagged.

8           Are there any questions about conditional certifi-  
9 cation?

10           (No response.)

11           No. 7 is backfill.

12           During your inspection efforts, you addressed the  
13 backfill soil density packages. We did not locate for you  
14 records on in-place density tests in one area of the backfill.  
15 These are important in order to assure the correct seismic  
16 response of the backfill.

17           We did err in that we just didn't direct you to the  
18 right place where the records were. The records were still  
19 formally in GEO testing, in their possession. There's nothing  
20 wrong with that. They are still active on site. However,  
21 they have a more complete set of records. Ours are for the most  
22 part copies.

23           We did find those for that one area. We do have a  
24 complete set of soil density tests. We have a complete set of  
25 lab tests. We are missing some inspection records which we

1 have analyzed our way through, and we have concluded that the  
2 backfill did meet the specifications and that the missing  
3 inspection records do not constitute an unforgiveable problem.

4 MR. CRUTCHFIELD: The records are now on site and  
5 available for the staff to come down and examine?

6 MR. DOBSON: Yes, sir, they are. And we have gone to  
7 a lot of trouble on this one. There were six previous in-  
8 stances in which a statistical analysis was made of the back-  
9 fill, over time. The last one, I think, was made in 1978 or  
10 '79 time frame. But most of the backfill was in place at that  
11 point. The balance of the backfill since then has been  
12 minuscule by comparison. Those are available.

13 We have an overlay plot of all the density tests,  
14 however many overlays it takes to get from minus whatever to  
15 the top. You can overlay those and see the spread of the  
16 density tests and all those packages are available. We have  
17 since moved the records into the Ebasco vault.

18 MR. SHAU: So the records are available now.

19 MR. DOBSON: Yes.

20 MR. SHAU: We had trouble finding it.

21 MR. DOBSON: That was our error, that we didn't take  
22 you to the right location.

23 Shop welds, No. 8.

24 It has to do with lack of proof of visual examination  
25 of shop welds, and we were requested to provide the documentation

1 that the shop welds were indeed hydro-tested, or provide a  
2 statement from the responsible personnel. We have witnessed  
3 the test to the effect that the shop welds were indeed in-  
4 spected during hydro.

5 We have done both things. We have gone back, and  
6 we have reviewed the documentation that does exist. And we can  
7 make the statement that all shop welds were indeed hydroed.  
8 We also got a statement about a month ago from the ANI that  
9 indicates that all the shop welds were hydroed. So we went  
10 at it from both directions, and we think we can put that to  
11 rest.

12 This is one of those cases that has a long history.  
13 We thought the problem had been solved about a year ago, but  
14 we addressed it again in this context. But the letter from the  
15 ANI is a different version from the one that was available when  
16 you were there.

17 MR. SHAU: Those ANI are the ones that tests were  
18 made many years ago. These are the same ANI?

19 MR. DOBSON: It's the same ANI, the one in Atlanta;  
20 isn't that right?

21 A CONFeree: Correct.

22 MR. DOBSON: But it's a new statement from them.

23 A CONFeree: The statement from ANI is from the  
24 Atlanta supervisor who did personally witness several of the  
25 tests that were performed. It was not the only ANI used.

1 MR. HARRISON: He was the ANI supervisor?

2 THE CONFeree: He was the supervisor on all ANIs --  
3 he was on site several times and personally witnessed a lot of  
4 the tests.

5 MR. CRUTCHFIELD: That's the letter you attached to  
6 your August 10 package?

7 MR. DOBSON: Yes.

8 Issue 11, Cadwelding.

9 Cadweld data, of course, is stored in the placement  
10 package, and they are hard to analyze on that basis. They are  
11 scattered. The NRC requested that we provide it in such a form  
12 that it can be assessed to see whether or not we did meet the  
13 technical specifications and requirements, and also that we  
14 break it down by building or structural, type program, bar  
15 size, bar position, cadwelder, and those kinds of things.

16 In order to do that, we had to go back through all  
17 this and pull out the data and put it in a computer program  
18 so we can run it back and forth and analyze it ourselves.

19 The data in each category will include those aspects  
20 (indicating), and supplement that NCR to address any new  
21 findings.

22 The effort to date indicates we are confident that  
23 we did meet the requirements. In some cases it was an overkill.  
24 We have a good spread, a good test pattern, and we think we  
25 met the PASR commitment in the number of tests. We show down

1 here the data is now in the computer where we can manage it  
2 now, and we haven't quite finished our analysis. But that will  
3 be done very shortly.

4 Issue 12.

5 This is one of our unhappy stories. It has to do  
6 with SCD 78, which was a previous reinspection of the steel put  
7 in place by American Bridge, in which we went back and rechecked  
8 a lot of bolted connections. Because of the status of con-  
9 struction at the time that was done, the work above the steam  
10 generators was not included in that, and we failed to pick that  
11 back up.

12 So we reopened the SCD. We issued an NCR to identify  
13 that. We reviewed the scope of American Bridge to make sure  
14 we had the right scope, so that that plus the previous rein-  
15 spection did account for the total amount, and then went out  
16 and started a reinspection program.

17 Now, the number of bolts replaced looks very high.  
18 The reason for that is, given the status we were at at that  
19 point, we said, "If there's a question, just replace the bolt.  
20 Let's don't spend time taking bolts out and send them off to  
21 a test lab and that sort of thing. Let's get the job done and  
22 get on with it."

23 The scoping completed involves that many bolts  
24 (indicating). Seven hundred have been replaced to date. The  
25 majority of those have to do with the inability to confirm the



1 bolting material -- readily confirm the bolting material.

2 And we have approximately 150 bolts remaining to be replaced.

3 Also, we recently determined that we believe we have  
4 some more inspection to do on some welds. At one point in the  
5 installation of that steel, we had to cut out some shop welds  
6 and replace them with field welds, and we are not sure we have  
7 the right documentation on the field welds and we are going to  
8 go back and look at that.

9 MR. CRUTCHFIELD: It's an encouraging sign. In spite  
10 of the fact that you found problems, it's an encouraging sign  
11 that your process is working in identifying problems.

12 MR. CAIN: And we also acknowledge that we do say so  
13 and correct them.

14 MR. DOBSON: I really believe, Mr. Crutchfield, that  
15 you are going to find that as our answers come in they really  
16 are going to be a complete set of answers. We have, I believe,  
17 addressed the generics perhaps more than would have been  
18 normally required.

19 MR. CRUTCHFIELD: Good.

20 MR. DOBSON: I will be followed by Ray Burski, who is  
21 going to cover nine issues.

22 MR. LEDDICK: He's got half an hour to do it, three  
23 minutes an issue.

24 MR. DOBSON: I didn't leave any questions?

25 MR. CRUTCHFIELD: There's no questions we can answer

1 for you?

2 MR. DOBSON: No.

3 MR. BURSKI: I have all the remaining issues except  
4 No. 14. Three of those issues have already been submitted and  
5 I'll address those last.

6 No. 9, documentation for instrument cabinets.

7 The description of concern in the NRC letter was that  
8 some documentation on welds appear to be missing, and some of  
9 the involved welders may not be certified to all positions used.  
10 Our review indicated an attempt should be made to locate the  
11 missing documents and determine if the welders were appro-  
12 priately certified.

13 Specifically, we issued an NCR to identify and  
14 resolve the deficiencies, to determine if the welders were  
15 appropriately certified, and locate the missing documents or  
16 take appropriate action.

17 Generically we were going to determine if there was  
18 any other J. A. Jones weld-related work for which we didn't  
19 have documentation.

20 Our progress to date on this issue is: Looking at the  
21 documentation of the 18 instrument cabinets that J. A. Jones  
22 welded, seven of them didn't have all of the documentation,  
23 four of the seven had partial documentation, three had no  
24 documentation at all.

25 These seven cabinets have been reinspected and the

1 welds have been found to be acceptable.

2           Review of the J. A. Jones welding inspection reports  
3 confirm that the welders were certified to positions that they  
4 used. The inspector noted on the form that he checked the  
5 welder qualifications prior to the welder work.

6           Since we found that seven had no documentation  
7 generically, we went ahead and identified all the welding J. A.  
8 Jones potentially could have done. We have narrowed that down  
9 to five J. A. Jones weld-work-related items which we haven't  
10 totally found the documentation. Those five are still in  
11 the evaluation stage, and if we find we don't have the proper  
12 documentation we are going to reinspect those five areas of work.

13           The next is Issue 15, welding of D level material in  
14 containment. "D level" refers to the CB&I nomenclature given  
15 to material that was nonpressure binding material.

16           The description was that we lack traceability on  
17 supports, weld rod, and welder identification and certification.

18           Our review determined that we should attempt to  
19 locate and verify the adequacy of the information or perform  
20 a material analysis or rework the welds as required.

21           MR. SHAU: I'm a little confused. In one of your  
22 responses you mentioned T&B.

23           MR. BURSKI: Not T&B; CB&I.

24           MR. SHAU: When you responded you mentioned T&B.

25           MR. BURSKI: I'll get to that on my next slide.

1           We started on a review of the specific supports  
2 identified in the letter, and I'll go down to the "Progress,"  
3 and it determines the specific supports on the Class D welding  
4 on the spray ring were in fact welded by T&B with the exception  
5 of two, and those two were welded by CB&I. They have gone back  
6 and looked at all the documentation associated with the T&B  
7 welding and determined that the documentation is in place.  
8 But for the two that CB&I did, we have analyzed the condition  
9 and have assumed that those supports no longer exist, distri-  
10 buted the loads to the surrounding supports, and that analysis  
11 is in progress. And we feel comfortable that we will be able  
12 to show that, without those two supports, the supports will  
13 adequately support the ring.

14           Having had that problem pretty much identified and  
15 out of the way -- I do want to point out there were some  
16 spring clips or spray clips that were welded in place by CB&I  
17 but were never used.

18           MR. SHAU: What are the major loadings?

19           MR. BURSKI: John, do we know what the major loadings  
20 are on the ring?

21           (Inaudible.)

22           MR. BURSKI: The question is: Are the major loadings  
23 the dead weight or the SSE?

24           A CONFEREE: I believe they will be dead weight. We  
25 can check that out. It depends on the response factors.

1 MR. SHAU: (Inaudible.)

2 MR. BURSKI: We were redoing the analysis assuming  
3 the two supports CB&I did don't exist.

4 MR. SHAU: (Inaudible.)

5 MR. BURSKI: It's probably a combination of SSE and  
6 dead weight load. You take the worst-case condition. It will  
7 be the design loads for that system.

8 MR. SHAU: Can we see the calculations?

9 MR. BURSKI: I don't have them with me. We will  
10 provide it in the response.

11 MR. CRUTCHFIELD: You still have that calculation  
12 underway?

13 MR. BURSKI: That's not complete.

14 A CONFERE: Whether it's thermal, deadweight, or SSE.

15 MR. BURSKI: That calculation will be provided.

16 MR. CRUTCHFIELD: I think we will need to look at  
17 that to make very clear what the loads are you are redistributing  
18 to the remaining supports.

19 MR. BURSKI: Well, when you take a support out, you  
20 redistribute it.

21 MR. CRUTCHFIELD: But be very clear whether it's  
22 thermal or SSE or local loads or whatever the case may be.

23 MR. BURSKI: Okay.

24 The next thing we did was to scope the additional D  
25 material welds that CB&I did. We said, "Where are the welds

1 outside of the spray header?" That scoping is complete.

2 We did a document search on CB&I and found that  
3 generally there was not documentation for the D material welds.

4 There were a lot of D material welds that were stairs  
5 and handrails and things. Those were eliminated, and we are  
6 doing a 10 percent sample of the Category 1 D welds that CB&I  
7 did, which is approximately 405 welds.

8 MR. SHAU: Would D material be in Class 2 or Class  
9 3 or any particular class?

10 MR. BURSKI: You mean for CB&I's program? Anything  
11 greater than 4 inches away from the pressure boundary --

12 MR. SHAU: (Inaudible.)

13 A CONFeree: It's not the ASME material.

14 (Inaudible.)

15 A CONFeree: Ray, I think I can answer the question.  
16 The D material in CB&I's definition is the material that lies  
17 outside of the ASME code jurisdictional boundary but which was  
18 nevertheless within their scope to supply and erect under their  
19 contract with LP&L. That code boundary, as you know, runs  
20 out 4 inches away from the pressure boundary.

21 MR. SHAU: (Inaudible.)

22 A CONFeree: I think Waterford may have predated --

23 MR. SHAU: I'd like to have you compare them to the  
24 present code of ASME.

25 THE CONFeree: It depends what it's used for. The



1 largest part of D material in terms of quantity is the polar-  
2 train ring guarder. I'm not sure that would be enough. I don't  
3 think we have really addressed it for Waterford.

4 MR. BURSKI: Going back, on the Class D material,  
5 trying to trace the materials in the weld rod, we have found  
6 that there is no unique traceability on the material in weld  
7 rod, except we know that all material on the purchase order  
8 was receipt-inspected and had the proper certifications, both  
9 for the material and the weld rod. We also went back and  
10 looked at CB&I's welders and found they were all qualified to  
11 Section 9.

12 Next is No. 17 which is the Mercury installation for  
13 anchors.

14 On review of Mercury procedure SP-666, it didn't  
15 appear to have the QC verification of many characteristics  
16 that the installer was required to adhere to.

17 Our review determined we should revise the Mercury  
18 procedure SP-666 and initiate a reinspection program of  
19 sufficient size and scope to indicate whether these anchors  
20 are able to perform their intended function.

21 Our plant was, since this procedure is no longer used  
22 on site, to review the procedure to determine the adequacy of  
23 the procedure, review any Mercury documentation and field  
24 verifications during the transfer review that was performed,  
25 perform a sample reinspection to ensure adequacy, and to analyze

1 the critical anchor to embedded plate installations.

2 Our progress is that we have completed the procedure  
3 for review for adequacy. The procedure references a lot of  
4 specific details that would infer that the inspector did in-  
5 spect the proper attributes. It is not the best paper trail.  
6 It is available but it's a hard and treacherous paper trail.

7 We then went back to look at the installation records  
8 from the transfer review to see what other inspections may  
9 have been done. There were 896 inspection requests. These  
10 inspections included torque verification, embedment, and a  
11 sketch of the anchor plate to have the reviewer's response  
12 against the detailed drawings.

13 Even with that we couldn't adequately verify that  
14 some of the attributes were properly inspected, so as a result  
15 of the decision to reinspect Mercury on some other issues we  
16 are reinspecting these three attributes on the Mercury in-  
17 spection. That's spacing between adjacent anchors, spacing  
18 between an anchor and the edge of a concrete surface, and  
19 minimum anchor embedment depth.

20 The analysis of the critical anchor to embedded plate  
21 installations is complete. The worst-case analysis shows what  
22 we have is acceptable.

23 I would like to point out, Denny, that this re-  
24 inspection isn't in our July 27 letter.

25 No. 18 is the documentation of walkdowns of nonsafety

1 related equipment.

2 The NRC description of the concern is that the follow-  
3 up documentation of the final walkdowns did not list equipment  
4 in detail. Therefore, they couldn't conclude that the  
5 instrument air piping, tubing, and supports had been adequately  
6 addressed regarding potential damage to safety equipment.

7 We were asked to provide documentation that clearly  
8 shows what equipment was reviewed during the walkdowns and on  
9 what basis it was concluded that the installation was acceptable.

10 Our plan was to describe the design actions taken to  
11 prevent nonseismic failures from adversely affecting safety-  
12 related components, provide the documentation on walkdowns  
13 including our bases for acceptance, and reinspect the nonseismic  
14 portions of the instrument air system.

15 Our progress to date is we do have the documentation  
16 on walkdowns and a description of the design basis and actions  
17 that we will include in the response. We will also include  
18 the drawings that show what equipment was looked at during  
19 these walkdowns.

20 MR. CRUTCHFIELD: But you've expanded it beyond  
21 the instrument air system?

22 MR. BURSKI: Yes. Well, in the documentation review,  
23 yes, we did expand it.

24 MR. CRUTCHFIELD: And you felt comfortable that the  
25 documentation review of those walkdowns of other nonsafety

1 systems was adequate to verify that it had indeed been done.

2 MR. BURSKI: From the fact that we can relate the  
3 equipment that was looked at to the inspection that was done.  
4 It wasn't done on a system-by-system basis. It was done on an  
5 area basis. It went into an area. They looked at the safety-  
6 related equipment and reviewed the surrounding systems and  
7 structures to see what could impact if it would fall during a  
8 seismic event. And we can relate the documentation of those  
9 walkdowns to the specific safety-related equipment.

10 MR. HARRISON: So by doing the areas, you covered  
11 whatever was in that area.

12 MR. BURSKI: Right. But to assure ourselves that the  
13 walkdowns were adequately done, we are going to walk down the  
14 instrument air system using a multidiscipline engineering  
15 walkdown, and that walkdown will be in the RCB, the RAB --  
16 the nonseismic portions.

17 MR. PERANICH: That's also changed from the July 27  
18 letter?

19 MR. BURSKI: Yes, that's different from what we  
20 indicated in our July 27 letter.

21 Item 21 is the LP&L QA construction system status  
22 and transfer reviews.

23 During the NRC review, it was determined that findings  
24 generated by LP&L construction QA on 15 systems may not have  
25 been adequately dispositioned. The open findings not identified

1 to LP&L operations may have affected the testing of these  
2 systems.

3 The review indicated that we should complete the  
4 review of all significant LP&L status and transfer review  
5 findings to ensure closure or proper tracking, and to determine  
6 whether any open findings that were not identified could have  
7 adversely affected the testing work that was conducted on these  
8 systems.

9 Our plan was for LP&L and Ebasco to perform a review  
10 to identify the correspondence associated with the 15 systems  
11 listed in the letter as having questionable dispositions; to  
12 have Ebasco perform a review to determine if all LP&L comments  
13 had been responded to and accepted by LP&L.

14 LP&L will perform a review to determine whether any  
15 generic implications or significant trends would have developed  
16 on the comments that were generated and not been resolved.

17 And LP&L will perform a review to determine whether  
18 or not there was any impact on system testing or operation by  
19 the comments not being responded to by Ebasco.

20 Our progress to date is we have completed the review  
21 on the 15 systems identified in the letter, and all comments  
22 have been resolved.

23 Reviews have been completed by LP&L on Ebasco on  
24 comments generated during the status and transfer reviews, and  
25 all LP&L comments have been resolved.

1           LP&L has done their review for generic implications  
2 or significant trends, and none were identified

3           We had LP&L Startup perform a review of the comments  
4 issued on these systems. This review determined that none  
5 were significant or would have impacted system testing or  
6 operation.

7           MR. PERANICH: I have a question. When you say  
8 "LP&L comments have been resolved," are you referring to  
9 resolved as a result of your review of the situation or resolved  
10 as a result of the initial action taken and prior to the  
11 transfer of systems to Operations?

12           MR. BURSKI: Are you talking about all the safety-  
13 related ones I did or just on the 15?

14           MR. PERANICH: Right now I'm talking about the 15.

15           MR. BASS: Would you state the question again,  
16 please?

17           MR. PERANICH: My comment is you say, "LP&L comments  
18 have been resolved." My question is: Have they been resolved  
19 subsequent to the initial transfer and acceptance by Operations  
20 QA?

21           MR. BASS: No, not all of them.

22           MR. PERANICH: But there were some that weren't?

23           MR. BASS: Right.

24           MR. PERANICH: The next question I have is: How do  
25 I know there aren't more like that?



1 MR. BASS: Because all the comments have been  
2 determined to be resolved.

3 MR. PERANICH: That was my third question, if that's  
4 how I should interpret that, that you looked at all systems.

5 MR. BASS: Yes.

6 MR. BURSKI: That's right.

7 MR. PERANICH: Then I have a comment. I don't  
8 believe the May 14 date is appropriate.

9 MR. BASS: We'll check that.

10 MR. BURSKI: No. 22. We think there are really two issues:  
11 welder qualification for Mercury, and filler material control  
12 at the site.

13 Let's talk about the welder qualification first.

14 In the letter we determined that the concern was  
15 Mercury welders were not qualified to the correct welding  
16 procedure. They may have been qualified for a specific process,  
17 even though they were not tested for that process. There were  
18 dates on Mercury qualification records that appeared question-  
19 able, and one welder may have welded prior to being tested.

20 Our action was to attempt to locate the missing docu-  
21 mentation and determine if the welders were properly qualified.  
22 And if we couldn't find the document, LP&L shall propose a  
23 program to assure the quality of welds performed by questionably  
24 qualified welders.

25 We also reviewed the specific Mercury welder

1 qualifications given to us by the NRC staff and take corrective  
2 action as required.

3 Our progress to date is we started out by reviewing  
4 the specific Mercury welders that were pointed out and deter-  
5 mined that their qualifications were in order. However, there  
6 were three documentation discrepancies that were identified.  
7 As a result of that, an NCR was issued to address these docu-  
8 mentations and to perform a 100 percent review of Mercury  
9 welder qualifications for similar problems, and we found no  
10 similar-type problems in that 100 percent review. Corrective  
11 action and the NCR is complete.

12 There was also an NCR written back in November 1983  
13 that addressed Mercury qualification concerns. We went back  
14 and did a rereview on this NCR, and our review showed that  
15 the Mercury welders performing safety and seismic weldments  
16 were properly qualified, and no additional corrective action  
17 was required.

18 Under "Filler Material Control," it appears that the  
19 rebaking of low hydrogen electrodes did not meet ASME and AWS  
20 code requirements.

21 We should provide engineering justification for  
22 allowance of rebake temperatures and holding times that differ  
23 from requirements of the ASME and AWS codes.

24 Our plan was to clarify the welding material storage  
25 requirements, and to assure that technical deviation from the

1 code was properly evaluated and implemented.

2 Our reason for clarifying the welding material storage  
3 requirments is that rebaking was not a process that was per-  
4 formed on Waterford III, and we went back and reviewed all the  
5 site procedures to make sure that none of the other contractors  
6 used the term "rebake." In our review we found that rebaking  
7 was for electrodes that did not come in hermetically sealed  
8 cans. All electrodes received on site were in hermetically  
9 sealed cans, and the ovens that were on site were used as  
10 holding ovens and not rebake ovens. We understand there was  
11 an oven that was titled "rebake." We determined that was mis-  
12 labeled. It was a mislabeled oven. Actually it was a holding  
13 oven.

14 However, we did go back and review the ASME require-  
15 ments for holding and found that the procedures were in com-  
16 pliance with the ASME requirements. We went back to the AWS  
17 and looked at two requirements, one in D1.1 and one A5.1.  
18 And there are internal discrepancies between the AWS. We meet  
19 the requirements of AWS A5.1. We don't meet the requirements  
20 of AWS D1.1. But we have evaluated it and found that these  
21 internal inconsistencies in the code pose no detrimental  
22 effects to the weld rod. This may be an area where we need to  
23 get your code people with our people to discuss the terms  
24 that we are using versus the terms that were in the letter and  
25 code interpretation.

1 MR. HARRISON: The concern came up because we found  
2 an NCR where power had been lost to the holding ovens for, let's  
3 say, a weekend. The concern is if these rods went down to an  
4 ambient temperature, did they possibly absorb moisture that  
5 could have been detrimental to the welding process. There were  
6 several NCRs that reflected this condition. That's how the  
7 thing originally came up.

8 So the way that I understand the code, if that did  
9 occur you would have to rebake prior to being allowed to use  
10 that electrode.

11 MR. BURSKI: We'd have to go back and double-check,  
12 but I think in those cases we would have probably disposed of  
13 that rod. Upshur, is that right?

14 MR. UPSHUR: I'm not familiar with the NCR that you  
15 are speaking of. I am familiar with a lot of DNs on the  
16 temperatures on the ovens. The thermometers when they were  
17 recalibrated would fall out of calibration. We'd evaluate  
18 that and throw away the rod.

19 There is an NCR where the oven was off for a whole  
20 week, and I'm sure the disposition would have had to have been  
21 we would have destroyed the rods.

22 MR. HARRISON: If I remember correctly, I think it  
23 was a T&B DN, I guess it would have been. It's not just the  
24 normal process. It's the process of where you needed to  
25 actually rebake. If the rod was thrown away, I don't have a

1 problem, but we'll have to look at that when we come to the  
2 site.

3 A CONFEREE: Under the code, "rebake" really isn't  
4 a term in existence right now. It's considered drying.  
5 The ovens at Waterford were never intended for drying purposes.  
6 They don't have a temperature range, for one thing.

7 MR. HARRISON: The concern was after we saw the NCR  
8 we went out to the weld rod issue area, and one oven was  
9 tagged "rebake oven" and the individual was issuing rod out of  
10 that oven and we didn't understand what was being done, and  
11 I don't think he did either. That's why the question came up.

12 MR. BURSKI: Moving right along, this is an item  
13 that we have already submitted. It's Issue 2, N1 instrument  
14 line documentation.

15 The concern was that the lack of quality records for  
16 locally mounted safety-related instruments installed to ANSI  
17 B31.1 calls into question the acceptability of these installed  
18 components.

19 Our action was to provide the missing documentation  
20 required by Appendix B for those who are installing the B31.1,  
21 review other design changes and documentation for N1 instru-  
22 mentation to assure all system installations were properly  
23 documented and accepted. And if we couldn't find that docu-  
24 mentation, we will take action to assure the systems comply  
25 with the requirements.

1           Our plan was to complete the ongoing review of the  
2 quality records of all safety-related N1 instrumentation in-  
3 stallations.

4           Secondly, it was determine the status of documentation  
5 for all instruments installed prior to April 7, 1982.

6           Our progress is that of the 192 instruments installed  
7 prior to that date, only 12 instrument installations were of  
8 concern.

9           We did an exhaustive record search. There was  
10 partial documentation on some, and some documentation that was  
11 in accordance with B31.1 but not entirely with the ASME III.

12           We have decided to rework those portions of the N1  
13 instrumentation installation under B31.1. We have completed  
14 review of the quality records of the other N1 and all were  
15 found acceptable.

16           Item 3 is the instrumentation expansion loop separa-  
17 tion.

18           During the review there was a separation criteria  
19 violation noted.

20           The action was to correct that one and to provide a  
21 program for review of the other systems.

22           This one has also been provided to the staff. We did  
23 evaluate the separation criteria in System 52A. The specific  
24 expansion loop was reworked and removed.

25           We performed a QC verification of all instrument



1 lines where redundant tubing was run in proximity to each other  
2 to assure compliance with the separation criteria.

3           Basically, as I said, the one item has been evaluated  
4 and corrective action completed. Our walkdowns are complete.  
5 Our preliminary evaluation of the results of the walkdowns  
6 has concluded that there was one section of tubing that we will  
7 enclose -- I believe it has already been done -- in the tube track  
8 prior to fuel load.

9           There were other deviations. None of these were  
10 determined to affect safety.

11           Are there any questions?

12           MR. HARRISON: No.

13           MR. BURSKI: The last one I have is No. 19, which  
14 is water in the basemat instrumentation conduit.

15           The concern was that there was water noted in one  
16 conduit, and if the seals should fail there would be a potential  
17 direct path for groundwater to flood the auxiliary building.

18           We were asked to look at assuring that the potential  
19 direct access paths of water are properly sealed to prevent  
20 flooding.

21           Our plan was to identify each conduit stub-up which  
22 shows evidence of past or present leaking. Leaks were reviewed  
23 by Engineering to determine whether there was a safety hazard.

24           We did walkdown all conduits to the minus-35 level  
25 of the auxiliary building. Our evaluation is complete

1 and the findings are that the permanent conduits are entirely  
2 within the building and they present no direct leakage path for  
3 groundwater and are not a safety hazard. The conduits that  
4 were initially entering the basemat from outside were temporary  
5 construction conduits. Those have been grouted and their  
6 blockout pits have been filled with concrete, and they no  
7 longer serve as a path for groundwater.

8 The piezometer riser which goes through the basemat  
9 will be sealed, and a standpipe for two other piezometers  
10 will be pressure-grouted.

11 We have committed to replace the existing seal  
12 material with a different type if sometime the seepage would  
13 become a problem to maintenance.

14 Questions?

15 MR. CRUTCHFIELD: No.

16 MR. DOBSON: One more.

17 MR. CRUTCHFIELD: Okay.

18 MR. SAVONA: Item 14 is the J. A. Jones speedletters.

19 The concern was that during the Ebasco QA review of  
20 the Jones speedletters and EIRs, information requests, several  
21 items which could affect plant safety were noted. Based on its  
22 sample, the staff does not expect that any of these items will  
23 significantly affect plant safety.

24 However, you had asked us to complete the actions  
25 identified in these reviews, and issues raised shall be resolved

1 promptly.

2 Our approach was to complete the review of the J. A.  
3 Jones speedletters, approximately 1100, and in addition to that  
4 do an additional 10 percent review of any other safety-related  
5 contractors who have had information requests, speedletters,  
6 et cetera, similar to.

7 The J. A. Jones review is complete. Out of the 1100  
8 items, they were all reviewed by Ebasco Civil Engineering.  
9 Approximately 270 had potential design connotations. A little  
10 over 100 of those actually had SERs and DCNs written. The  
11 remainder were reviewed and engineering analysis performed,  
12 and there is no modification required.

13 On the balance of the contractors, there was a 10  
14 percent sample derived of the remainder of any of the items,  
15 information requests, speedletters, et cetera, on those con-  
16 tractors. However, contractors who had 50 or less documents  
17 received a total review, period. Based on the type or number  
18 of findings, the review of three contractors' documents was  
19 expanded. No findings to date have resulted in modifications  
20 based on this.

21 Presently two contractors are still being evaluated,  
22 of which one contractor will require additional physical  
23 inspections.

24 MR. HARRISON: Who are the two additional contractors?

25 MR. SAVONA: American Bridge and F&M.

1           A CONFEREE: On American Bridge, in going through some  
2 of the IRs there were some welds uncovered that had not been  
3 inspected before.

4           (Inaudible.)

5           MR. SAVONA: On our action to prevent recurrence, a  
6 retraining of individuals involved with information requests  
7 with emphasis on appropriate documentation of design changes  
8 has been accomplished and is continuing.

9           MR. HARRISON: Since you haven't seen the SSER, let me  
10 also pass on to you that during my team's review we did review  
11 the request for information or information requests for T&B  
12 and Nisco, and we found no problems with those two contractors.  
13 In fact, we did quite a large sample.

14          MR. SAVONA: Thank you.

15          MR. CAIN: That concludes our presentation. We  
16 would like to thank you all for the attention you have given  
17 our speakers and the opportunity to dialogue with you and  
18 interface with you concerning the 23 issues.

19           I feel that it has been a very productive experience  
20 and it has certainly given us some insights that we will take  
21 home with us and utilize in the development of a more definitive  
22 plan to enable the NRC to evaluate more closely what we are  
23 doing. We will certainly approach the question of independence  
24 and how that is defined and how it is being viewed at Waterford  
25 III. We will certainly incorporate all of the individual

1 comments as they relate to the particular issue in our final  
2 response.

3 We look forward to your continued involvement at the  
4 plant site and we welcome you there. As I keep telling people,  
5 Waterford III is a pretty plant, and it's getting prettier,  
6 and we think it's getting closer to the point where we are  
7 going to get some beautiful kilowatt hours out of it.

8 Thank you very much.

9 MR. CRUTCHFIELD: Speaking for the staff, I think  
10 generally we are very encouraged by what we have heard today.  
11 The elaborations that you provided us on each of the issues  
12 are very useful to us and very informative, and I think it will  
13 expedite the process.

14 Some information we have passed on to you today  
15 relative to Mr. Levine's team documenting his advice that he  
16 is presenting to you, some subjective criteria for qualifica-  
17 tions of individuals and things like that I think are very  
18 useful and will help both of us get this process moving forward.

19 We do need to keep in regular contact. I think you  
20 can expect to see our teams or team members down there on a  
21 regular basis over the upcoming weeks and hopefully not too  
22 many months.

23 I would urge you, though, when you find yourselves in  
24 a position where you need to make a modification to your July  
25 27 letter, let us know that as soon as you can so we can factor

1 that into our work.

2 This is in the way of administrative material. Copies  
3 of the slides will be available to those who need them. The  
4 staff will have a copy. We will place a copy in the transcript  
5 also. The lady who is making a transcript of the meeting will  
6 get a copy to us, and we will place it in the public document  
7 room as soon as we can.

8 Again, we thank you for bringing up the team of  
9 people that you have.

10 I have one last item to take care of.

11 MR. LEDDICK: I can't recall whether it was brought  
12 to your attention or not but it's in that handout, a schedule  
13 of when we expect to submit answers.

14 MR. CRUTCHFIELD: Good. We will take a look at those.

15 One last item I would like to take care of is to  
16 offer the opportunity for any member of the public who may wish  
17 to make a statement.

18 MS. BURNOVIC: I'm Lynn Burnovic from the Government  
19 Accountability Project, and as most of you know we have been  
20 somewhat involved in this project. We have called for an  
21 independent reviewer in contrast to the current situation that  
22 exists. I believe that many of the items that were brought up  
23 today really emphasize the need for an established independent  
24 reviewer in contrast to the system that the staff up to this  
25 point has supported.



1 I think that although there has been more information  
2 submitted today than at any time prior, neither the utility nor  
3 apparently the NUS corporation really appreciates the concern  
4 with regard to independence. And I'd like to go over just a  
5 few points Mr. Eisenhut and some other members of the team brought  
6 up. Basically our evaluation would be that they haven't been  
7 adequately addressed, which is what we have been saying in the  
8 past.

9 Mr. Eisenhut talked about the need for a detailed  
10 program plan. I have not heard any commitment from the utility  
11 to provide that. In fact, I heard Mr. Levine say he didn't  
12 think it was necessary.

13 Mr. Eisenhut and other staff members said that the  
14 reviewer needs to be truly independent, that is, it should not  
15 be involved in development of the program that it will later  
16 review. And I heard absolutely no commitment to that concept.  
17 In fact, I heard Mr. Levine say the opposite, that he thought  
18 NUS should be involved in development of the program.

19 The most important thing I heard Mr. Eisenhut say  
20 and other staff members was that the utility and not its  
21 consultants, not NUS, and certainly not the NRC staff,  
22 had to demonstrate the managerial capacity to identify the  
23 problems and develop a solution.

24 You have heard some talk about the utility proceeding  
25 at its own risk, and a lot of questions about what the NRC

1 wants the utility to do. I think those of us who have been  
2 involved in other projects, such as the Midland project, heard  
3 exactly the same questions asked by the utility when they are  
4 essentially asking NRC staff to act as a consultant to them.  
5 I think that it really is a matter of the utility itself  
6 developing the kind of program in identifying the problem and  
7 appreciating the seriousness of the problem. And it can't be  
8 the staff that does that identification, that develops the  
9 program, and then essentially acts as a consultant remedying  
10 the problem.

11 I think given the fact that this has been sort of an  
12 ongoing problem, I would say since December of 1982 when the  
13 civil penalty was assessed, it is really time for the NRC staff  
14 to demand the kind of independent program that was put into  
15 effect at other troubled plants with very similar quality  
16 assurance breakdowns.

17 We will submit a detailed analysis of the current  
18 submission of LP&L, but I'd like to address by way of illus-  
19 tration one of the items brought up here today which may be  
20 potentially the most important one. And that is the qualifica-  
21 tion certification of the QC inspectors.

22 I would urge the NRC staff, which does have experience  
23 in other plants with very similar problems, not to lower the  
24 standards for what it requires to remedy the problem. At  
25 Midland, at Zimmer, and generally throughout Region III when

1 similar qualification problems were discovered, what was re-  
2 quired was documented proof with quality assurance documents  
3 that 100 percent of the QC inspectors were qualified. When  
4 the utility could not come up with that, what was required was  
5 a 100 percent reinspection of their work.

6           What is being proposed here by LP&L -- and I must  
7 say this is the third submission, and with today it's probably  
8 the fourth presentation to the NRC -- is, first of all, 100  
9 percent review of the qualification of QC inspectors. However,  
10 if the quality assurance documentation required by Appendix B  
11 is not provided, they are going to go to extraordinary lengths  
12 to try to come up with some indication that people are qualified,  
13 including employment at a security agency. I don't think  
14 that's equivalent to what has been required at other plants  
15 when similar problems have occurred.

16           Secondly, there has been absolutely no indication  
17 that 100 percent reinspection is being considered. And there  
18 is no excuse in this instance for less than 100 percent re-  
19 inspection. What has been proposed, I assume by way of illus-  
20 tration, was 10 percent reinspection. I think that is  
21 obviously inadequate when in the past 100 percent reinspection  
22 of the work of Mercury, J. A. Jones, and American Bridge has  
23 shown that up to 30 percent of the work had some nonconforming  
24 conditions or problems.

25           There has also been a suggestion made that higher

1 reinspections could substitute for 100 percent reinspections.  
2 I think that is really disingenuous when in fact those prior  
3 reinspections have themselves been the subject of Office of  
4 Investigations investigations and claims that there were  
5 falsified records.

6 In short, to conclude, I would say that the staff's  
7 experimental approach in this case to encourage the utility  
8 to develop and implement an independent plan and not to  
9 impose an independent review plan doesn't seem to be working up  
10 to this point. And I would urge them to reconsider requiring  
11 an independent review, an independent reviewer, an independent  
12 review plan, that meets the established Paladina criteria  
13 and allows public comment and input into that plan.

14 MR. CRUTCHFIELD: Thank you.

15 Anyone else?

16 (No response.)

17 Gentlemen, thank you very much.

18 (Whereupon, at 4:25 p.m., the meeting was adjourned.)  
19

20 \*\* \*\* \*

CERTIFICATE OF OFFICIAL REPORTER

171

This is to certify that the attached proceedings before the  
UNITED STATES NUCLEAR REGULATORY COMMISSION in the matter of:

NAME OF PROCEEDING: MEETING BETWEEN THE NRC STAFF AND  
REPRESENTATIVES OF LOUISIANA POWER  
& LIGHT TO DISCUSS THE APPLICANT'S  
RESPONSE TO THE JUNE 13, 1984  
STAFF LETTERS

DOCKET NO.:

PLACE: BETHESDA, MARYLAND

DATE: FRIDAY, AUGUST 17, 1984

were held as herein appears, and that this is the original  
transcript thereof for the file of the United States Nuclear  
Regulatory Commission.

(Sigt)  
(TYPED)

*Claire Tepper / k4 Sq*  
CLAIRE TEPPER

Official Reporter

Reporter's Affiliation

ACE-FEDERAL REPORTERS, INC.

AUGUST 17, 1984

SCOPE OF REVIEWS/REINSPECTIONS

- SCOPE OF REVIEWS DESIGNED TO FULLY ADDRESS  
NRC CONCERNS
- SOME UTILIZE SAMPLING PROCESS WHEN JUSTIFIABLE
- ALL NECESSARY REINSPECTIONS MANAGED BY LP&L/  
BY FORMAL PROCEDURE/WITH QUALIFIED PERSONNEL/  
DOCUMENTED



AUGUST 17, 1984

## PARTICIPANTS/ROLES

- PROJECT PERSONNEL
  - LINE MANAGEMENT
  - PRINCIPAL MANAGERS
- SRC SUBCOMMITTEE
  - MEMBERSHIP
  - ROLE
  - REPORTING
- TASK FORCE

AUGUST 17, 1984

DETAILED PROCESS

- UNDERSTAND REAL CONCERN
- ADDRESS METHODOLOGY
- ROOT CAUSE
- GENERIC IMPLICATIONS
- RESOLUTION OF CONCERN AND GENERICS
- SAFETY SIGNIFICANCE IN TERMS OF  
FUEL LOAD AND POWER ASCENSION

AUGUST 17, 1984

DETAILED PROCESS (CONTINUED)

- LP&L DATA VALIDATION PROCESS
  - VALIDATE STATEMENTS OF FACT
  - AUDIT AS APPROPRIATE
  - ASSEMBLE BACKUP
- DETAILED JOINT REVIEW OF WRITTEN RESPONSES FOR CLARITY, LOGIC AND COMPLETENESS
  - PROJECT PRINCIPALS
  - SRC SUBCOMMITTEE
  - TASK FORCE
- TASK FORCE INDEPENDENT VALIDATION

# RESOLUTION SUBTOTAL OBJECTIVES

AUGUST 17, 1984

- 2 - CLASS BREAK
- 3 - EXPANSION LOOP
- 8 SHOP WELDS
- 16 QA/QC INTERVIEWS
- 19 CONDUIT SEEPAGE

8-10-84 ACTUAL

- 4 UPGRADE TO NCRs
- 5 CONDITIONAL RELEASES
- 7 BACKFILL
- 9 J.A. JONES WELDERS
- 11 CADWELDING
- 14 SPEED LETTERS
- 15 'D' LEVEL WELDING
- 17 EXPANSION ANCHORS
- 21 SYSTEM TRANSFER
- 22 WELDER QUALIFICATIONS

8-27-84

- 1 MERCURY & T.B. INSPECTORS
- 6 DISPOSITIONING OF NCRs
- 10 JONES & FEGLES INSPECTORS
- 12 MAIN STEAM RESTRAINTS
- 13 MISSING NCRs
- 18 TWO-OVER-ONE WALKDOWNS
- 20 GEO TESTING PERSONNEL
- 23 MERCURY/EBASCO/LP&L

9-3-84

COLLECTIVE SIGNIFICANCE

9-19-84

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT  
ISSUES 1, 10 & 20  
INSPECTION AND TESTING PERSONNEL QUALIFICATIONS

NRC DESCRIPTION OF CONCERN:

- UNQUALIFIED INSPECTORS MAY HAVE INSPECTED SAFETY-RELATED SYSTEMS

NRC DIRECTION:

- VERIFY CREDENTIALS OF 100% OF SITE QA/QC PERSONNEL
- REINSPECT THE WORK PERFORMED BY INSPECTORS FOUND UNQUALIFIED
- VERIFY CERTIFICATION OF REMAINING SITE QA/QC PERSONNEL TO ANSI 45.2.6 - 1973

- LP&L WILL VALIDATE CREDENTIALS OF ALL SITE QA/QC PERSONNEL
- VALIDATION OF INSPECTOR QUALIFICATIONS WILL BE TO ANSI 45.2.6 - 1973

x THREE LEVELS

x LEVEL II

- GRADUATE OF 4 YR. ENGR/SCIENCE  
COLLEGE + 2 YRS INSP EXPERIENCE
- H.S. GRADUATE PLUS 4 YEARS  
INSP EXPERIENCE

- NOT ABSOLUTE
- OTHER FACTORS
- COMPETENTLY  
PERFORM FUNCTION

SUBJECTIVE

- INSPECTOR QUALIFICATION PROCESS
  - FULLY QUALIFIED
  - QUESTIONABLE —————→ RESOLVED (EVALUATION CRITERIA NEEDED  
TO MINIMIZE SUBJECTIVITY)
  - QUALIFICATIONS NOT VERIFIABLE
- REINSPECTION WILL BE PERFORMED AS CONSERVATIVELY APPROPRIATE
- VERIFICATION OF REMAINING QA/QC PERSONNEL TO ANSI 45.2.6 - 1973



## ISSUES 1, 10 &amp; 20 (CONT'D)

## VALIDATION PROCESS

- EBASCO:
  - REVIEW PROGRAM REQUIREMENTS OF ALL CONTRACTORS
  - REVIEW/COLLECT DATA (ALL EXCEPT LP&L)  $\approx$  2110
  - BACKGROUND CHECKS (NO LP&L OR EBASCO)  $\approx$  1000 (40/DAY)
  - IDENTIFY INSPECTORS WHOSE QUALIFICATIONS AGAINST 45.2.6 NOT VERIFIABLE
- LP&L
  - AUDITING EBASCO IMPLEMENTATION OF EBASCO PROCEDURE
  - REVIEW ALL LP&L AND EBASCO + 30% SAMPLE OF QUALIFIED  $\approx$  1200
  - BACKGROUND CHECKS ALL LP&L AND EBASCO AND REMAINDER  $\approx$  1170 (40/DAY)
  - AUDITING EBASCO IMPLEMENTATION OF EBASCO PROCEDURE
  - REIVEW/FINAL DETERMINATION ON ALL INSPECTORS WHOSE QUALIFICATIONS NOT VERIFIABLE
- TASK FORCE
  - VALIDATION
  - REVIEW/COMMENT ON PROCEDURE
  - OVERVIEW PROCESS
  - AUDIT RESULTS (NOT YET INITIATED) (REQUESTED TO REVIEW ALL LP&L)

TO DATE

- 95% FIRST PASS
- ADDITIONAL DATA NEEDED ON ABOUT 45%
- BACKGROUND CHECKS ABOUT 15% COMPLETE
- ABOUT 2% OF FIRST PASS SHOW QUALIFICATIONS MAY NOT BE VERIFIABLE

PROGRESS ON SPECIFIC CONTRACTS:

REVIEW IN PROCESS - LITTLE OR NO PROBLEMS FOUND:

AMERICAN BRIDGE	GEO (NDE)
CB&I	GULF
COMBUSTION ENGINEERING	EBASCO (NDE)

REVIEW IN PROCESS - ADDITIONAL DATA REQUIRED:

B&B	NOOTER
FEGLES	SLINE
FISCHBACH & MOORE	TOMPKINS - BECKWITH
GEO (CMT)	WALDINGER
J A JONES	EBASCO
NISCO	

REVIEW IN PROCESS - REINSPECTIONS IN PROCESS:

MERCURY

LP&L ACTION TO PREVENT RECURRENCE:

- REQUIRE COMPLETE QUALIFICATION PACKAGE PRIOR TO START OF INSPECTION  
OR INCREASE IN LEVEL INCLUDING:

RESUME

CERTIFICATIONS

VERIFICATION OF CREDENTIALS

- STATUS:

ALL REINSPECTIONS STEMMING FROM THIS & CAT BY QUALIFIED  
INSPECTORS VERIFIED QUALIFICATIONS OF REMAINING SITE INSPECTORS-  
CREDENTIAL VALIDATION IN PROCESS

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT  
ISSUE #2  
N1 INSTRUMENT LINE DOCUMENTATION

NRC DESCRIPTION OF CONCERN

- THE LACK OF QUALITY RECORDS FOR LOCALLY MOUNTED SAFETY-RELATED N1 INSTRUMENTS INSTALLED TO ANSI B31.1 CALLS INTO QUESTION THE ACCEPTABILITY OF THESE INSTALLED COMPONENTS.

LP&L ACTION REQUIRED

- PROVIDE MISSING DOCUMENTATION REQUIRED BY 10CFR50 APPENDIX B FOR THE B31.1 INSTRUMENTATION FOR LOCAL MOUNTED INSTRUMENTS.
- REVIEW OTHER DESIGN CHANGES AND DOCUMENTATION FOR ALL SAFETY-RELATED N1 INSTRUMENTATION SYSTEMS TO ASSURE ALL SYSTEM INSTALLATIONS WERE PROPERLY DOCUMENTED AND ACCEPTED.
- IF DOCUMENTATION CANNOT BE LOCATED, ACTION MUST BE TAKEN TO ASSURE AFFECTED PORTION OF SAFETY-RELATED SYSTEMS COMPLY WITH NRC REQUIREMENTS.

ISSUE #2  
(CONT'D.)

LP&L PLAN

- COMPLETE THE ON-GOING REVIEW OF THE QUALITY RECORDS OF ALL SAFETY-RELATED N1 INSTRUMENT INSTALLATIONS.
- DETERMINE STATUS OF DOCUMENTATION FOR N1 INSTRUMENT INSTALLATIONS WHICH HAD PORTIONS INSTALLED TO ANSI B31.1 PRIOR TO APRIL 7, 1982.

PROGRESS TO-DATE

- OF THE 192 N1 INSTRUMENTS INSTALLED DURING THAT PERIOD, ONLY 12 N1 INSTRUMENT INSTALLATIONS ARE OF CONCERN.
- THE ANSI B31.1 PORTIONS OF THESE 12 N1 INSTRUMENT INSTALLATIONS WILL BE REWORKED, REINSPECTED AND DOCUMENTED IN ACCORDANCE WITH ASME SECTION III REQUIREMENTS PRIOR TO EXCEEDING 5% POWER.
- ALL OTHER N1 INSTRUMENT INSTALLATION QUALITY RECORDS HAVE BEEN REVIEWED AND FOUND ACCEPTABLE.
- RESPONSE SUBMITTED TO THE NRC AUGUST 10, 1984.



ISSUE #2  
(CONT'D.)

LP&L ACTION TO PREVENT RECURRENCE

- AFTER APRIL 7, 1982, ALL N1 INSTRUMENT INSTALLATIONS WERE REQUIRED TO BE INSTALLED TO ASME SECTION III REQUIREMENTS FROM THE PROCESS LINE TO THE INSTRUMENT. THIS PREVENTED THE RECURRENCE OF LACK OF INSTALLATION AND INSPECTION RECORDS FOR N1 INSTRUMENTS.

SAFETY IMPLICATIONS

- THERE IS NO CONSTRAINT TO FUEL LOAD OR POWER OPERATION.

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT  
ISSUE #3  
INSTRUMENTATION EXPANSION LOOP SEPARATION

NRC DESCRIPTION OF CONCERN

- SEPARATION CRITERIA HAD BEEN VIOLATED WHERE INSTRUMENT LINES FROM DIFFERENT TRAINS LEAVE THEIR RESPECTIVE TUBE TRACKS.

LP&L ACTION REQUIRED

- CORRECT THE SEPARATION CRITERIA VIOLATION FOUND IN SYSTEM 52A.
- PROVIDE A PROGRAM FOR REVIEW OF OTHER SAFETY-RELATED SYSTEMS FOR SEPARATION CRITERIA VIOLATIONS AND TAKE NECESSARY CORRECTIVE ACTIONS.

LP&L PLAN

- EVALUATE THE SEPARATION VIOLATION FOUND IN SYSTEM 52A.
- PERFORM A QC VERIFICATION OF ALL INSTRUMENT LINES WHERE REDUNDANT TUBING LINES WERE RUN IN PROXIMITY TO EACH OTHER TO ASSURE COMPLIANCE WITH THE SEPARATION CRITERIA.

ISSUE #3 (CONT'D)

PROGRESS TO DATE

- THE SEPARATION VIOLATION FOUND IN SYSTEM 52A HAS BEEN EVALUATED AND CORRECTIVE ACTION COMPLETED.
- QC VERIFICATION WALKDOWNS ARE COMPLETE.
- THE PRELIMINARY EVALUATION OF THE RESULTS OF THE WALKDOWNS HAS CONCLUDED THAT ONE ADDITIONAL SECTION OF TUBING IS REQUIRED TO BE ENCLOSED IN TUBE TRACK WHICH WILL BE COMPLETED PRIOR TO FUEL LOAD; ALL OTHER SEPARATION DEFICIENCIES DO NOT AFFECT THE SAFE OPERATION OF THE PLANT.

SAFETY IMPLICATIONS

- NO DEVIATIONS AFFECTING SAFETY IDENTIFIED.
- ANY DEVIATIONS FOUND DURING WALKDOWN TO BE CORRECTED PRIOR TO FUEL LOAD.

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT  
ISSUE #4  
LOWER TIER CORRECTIVE ACTIONS  
ARE NOT BEING UPGRADED TO NCR's

NRC DESCRIPTION OF CONCERN

- LOWER TIER DOCUMENTS (FCR's, DCN's, EDN's, DN's) ARE NOT BEING UPGRADED TO NCR's.
- EDN's VOIDED WITH NO ACTION TAKEN.
- QA PROGRAM REQUIREMENTS FOR NONCONFORMANCE IDENTIFICATION, CONTROL AND PROPER ACTION DO NOT APPEAR TO HAVE BEEN COMPLIED WITH.

LP&L ACTION REQUIRED

- REVIEW ALL FCR's, DCN's, EDN's AND T-B DN's TO ASSURE THAT PROPER CORRECTIVE ACTION WAS TAKEN.
- REVIEW SHALL INCLUDE STEPS REQUIRED BY 10CFR50 APPENDIX B, CRITERION XVI AND 10CFR50.55(E).
- REVIEW FOR IMPROPER VOIDING OF ALL OTHER DESIGN CHANGES OR DISCREPANCY NOTICES AND OR MISCLASSIFICATION OF DCN's, FCR's OR DN's.

ISSUE #4 (CONT'D)

LP&L PLAN

- LP&L TO ASSESS LOWER TIER REPORTING SYSTEM.
- LP&L TO REVIEW NRC CITED EXAMPLES:
  - TO ASSURE PROPER CORRECTIVE ACTION WAS TAKEN
  - TO DETERMINE SAFETY SIGNIFICANCE [10CFR50.55 (E)]
- LP&L TO REVIEW AN ADDITIONAL SAMPLE (APPROXIMATELY 700 DOCUMENTS) TO PROVIDE CONFIDENCE THAT PROGRAM WAS ADEQUATE.

PROGRESS TO DATE

- NRC CITED EXAMPLES
  - 5 OF 72 SHOULD HAVE BEEN NCR'S
  - NONE WERE EVALUATED AS REPORTABLE
- ACTUAL SAMPLE (APPROX. 940 DOCUMENTS)
  - 64 (7%) SHOULD HAVE BEEN NCR'S
  - NONE WERE EVALUATED AS REPORTABLE
- IN MOST CASES, DECISION TO UPGRADE IS JUDGEMENTAL.
- DESIGN CHANGE/DISCREPANCY/NONCONFORMANCE SYSTEMS WERE COMPLIED WITH.

ISSUE #4 (CONT'D)

PROGRESS TO DATE (CONT'D)

- BASED ON RESULTS OF THE ADDITIONAL SAMPLE, LP&L:
  - HAS A 95% CONFIDENCE LEVEL THAT 95% OF UNSAMPLED DOCUMENTS CONTAIN NO SAFETY SIGNIFICANT (REPORTABLE) ISSUES.
  - BELIEVES THAT NO ADDITIONAL REVIEWS ARE NECESSARY.

LP&L ACTION TO PREVENT RECURRENCE

- ALL HARDWARE IDENTIFIED PROBLEMS ARE IDENTIFIED USING A COMMON FORM (LCIWA). THESE PROBLEMS ARE EVALUATED FOR NON-CONFORMING CONDITIONS AND REPORTABILITY.
- PROBLEMS ENCOUNTERED DURING THE INSTALLATION OF PLANT MODIFICATIONS WHICH MAY REQUIRE A CHANGE IN DESIGN ARE APPROVED PRIOR TO THE IMPLEMENTATION OF THE CHANGE IN ACCORDANCE WITH THE STATION MODIFICATION PROGRAM.

PRE-LICENSING ASSESSMENT  
ISSUE #5  
VENDOR DOCUMENTATION - CONDITIONAL RELEASE

NRC DESCRIPTION OF CONCERN

- THE STAFF FOUND DEFICIENCIES WITH THE HANDLING OF CONDITIONAL CERTIFICATION OF EQUIPMENT FOR CE
- THE SAFETY SIGNIFICANCE IS THAT PROBLEMS WITH VENDOR QA RECORDS COULD AFFECT INSTALLED SAFETY-RELATED EQUIPMENT

NRC DIRECTION

- "LP&L SHALL EXAMINE THEIR RECORDS AND DETERMINE IF CONDITIONAL CERTIFICATIONS OF EQUIPMENT HAVE BEEN IDENTIFIED, REVIEWED AND PROMPTLY RESOLVED"

LP&L PLAN

- CE CONDITIONAL RELEASES RESOLVED EXCEPT 2 DUE 9/15/84
    - NO ADVERSE CONSEQUENCES FOUND
  - REVIEW CONDUCTED IN CASES OF SIMILAR EXPOSURE
    - VQAR CONCERNS PRE-SHIPMENT
    - EBASCO N.Y.O. NCRs
    - MANUFACTURE, DELIVER AND ERECT CONTRACTS
- NO SAFETY CONCERNS FOUND



- RECEIPT INSPECTION PROCESS REVIEWED
  - QI-10-006 ADEQUATE
  - 1 OF 148 CE SPARE PARTS ORDERS HAD CONDITIONAL  
CERT-TAGGED/TRACKED

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT  
ISSUE #6  
NRC DESCRIPTION OF CONCERN

NRC DESCRIPTION OF CONCERN

- o SOME EBASCO AND MERCURY NCRs AND EBASCO DRs WERE QUESTIONABLY DISPOSITIONED

LP&L ACTION REQUIRED

- o PROPOSE A PROGRAM THAT ASSURES THAT ALL NCRs AND DRs ARE
  - APPROPRIATELY UPGRADED
  - ADEQUATELY DISPOSITIONED AND
  - CORRECTIVE ACTION COMPLETED
- o CORRECT ANY PROBLEMS DETECTED

LP&L PLAN

- o ADDRESS SPECIFIC DEFICIENCIES IDENTIFIED BY NRC
- o REVIEW EBASCO NCRs
- o PERFORM INDEPTH VERIFICATION, SAMPLE OF EBASCO NCRs
- o REVIEW MERCURY NCRs
- o REVIEW DR PROCESS AND CITED DRs

AUGUS, 17, 1984

PAGE 2 OF 2

ISSUE 6 (CONT'D)

PROGRESS TO DATE

- o REVIEW EBASCO NCRs - COMPLETE
- o IN DEPTH VERIFICATION - IN PROCESS
- o REVIEW MERCURY NCRs - COMPLETE
- o REVIEW DR PROCESS AND CITED DRs - IN PROCESS

ISSUE #7

BACKFILL SOIL DENSITIES

DESCRIPTION OF NRC CONCERN

- o RECORDS MISSING FOR IN-PLACE DENSITY IN AREA 5
- o THESE DOCUMENTS ARE IMPORTANT - SEISMIC RESPONSE A FUNCTION OF SOIL DENSITIES

NRC DIRECTION (PARAPHRASED)

- o REVIEW ALL SOIL PACKAGES FOR COMPLETENESS AND ADEQUACY AND
- o PROVIDE CLOSURE ON TECHNICAL CONDITIONS, OR
- o PERFORM SUITABLE TESTS, OR
- o JUSTIFY BY ANALYSIS

LP&L RESPONSE

- o EBASCO/LP&L/GEO RECORDS CONSOLIDATED
- o DENSITY TESTS LOCATED
- o A FEW INSPECTION RECORDS NOT FOUND
- o THOROUGH DATA REVIEW PERFORMED
- o PERVIOUS AND CURRENT ANALYSES INDICATE SPECS MET

CAUSE

- o DID NOT LEAD INSPECTOR TO RIGHT PLACE
- o A FEW INSPECTION RECORDS NOT SUBMITTED BY CONTRACTOR

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT  
ISSUE #8  
VISUAL EXAMINATION OF SHOP WELDS DURING HYDROSTATIC TESTING

NRC DESCRIPTION OF CONCERN

- LACK OF PROOF OF VISUAL INSPECTION OF ALL SHOP WELDS DURING HYDROSTATIC TESTING, BY TOMPKINS-BECKWITH, OF ASME CLASS 1 AND 2 PIPING SYSTEMS.

LP&L ACTION REQUIRED

- PROVIDE DOCUMENTED EVIDENCE THAT SHOP WELDS WERE INDEED INSPECTED, OR
- SUBMIT A STATEMENT ATTESTING TO SHOP WELD INSPECTION BY RESPONSIBLE PERSONNEL WHO HAD WITNESSED THE HYDRO TESTS.

LP&L PLAN

- REVIEW TO ASSURE ALL CLASS 1 AND 2 PIPING SYSTEMS AND SHOP WELDS HAD BEEN HYDROTESTED AND THAT APPROPRIATE INSPECTION DOCUMENTS DO EXIST, AND
- SUBMIT A STATEMENT FROM RESPONSIBLE PERSONNEL WHO WITNESSED THE TESTING THAT SHOP WELDS WERE INSPECTED.

ISSUE #8 (CONT'D)

PROGRESS TO DATE

- THE REVIEW OF THE HYDROSTATIC TEST RECORDS HAS BEEN COMPLETED. THE REVIEW SUBSTANTIATED THE FOLLOWING:
  - ALL ASME CLASS 1 AND 2 PIPING SYSTEMS WERE TESTED IN ACCORDANCE WITH CODE REQUIREMENTS.
  - ALL TESTS WERE INSPECTED AND ACCEPTED BY TOMPKINS-BECKWITH QC INSPECTORS, AUTHORIZED NUCLEAR INSPECTOR, AND TEST COORDINATOR.
  - TEST DOCUMENTATION WAS IN ACCORDANCE WITH CODE REQUIREMENTS (ASME CODE DOES NOT REQUIRE EACH WELD EXAMINED TO BE LISTED).
  - ASME REQUIREMENTS WERE MET AS ATTESTED TO BY ANI SIGNATURE ON HYDROSTATIC TEST AND N-5 REPORTS.
- A STATEMENT FROM TOMPKINS-BECKWITH'S AUTHORIZED NUCLEAR INSPECTOR HAS BEEN SUBMITTED CONFIRMING THAT SHOP WELDS WERE INSPECTED.

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PAGE 3 OF 3

ISSUE #8 (CONT'D)

LP&L ACTION TO PREVENT RECURRENCE

- NONE REQUIRED

SAFETY IMPLICATIONS

- LP&L BELIEVES THAT THIS ISSUE IS OF NO SAFETY SIGNIFICANCE TO FUEL LOAD OR POWER OPERATION SINCE NO DEFICIENCY EXISTS.



AUGUS. 17, 1984

PRE-LICENSING ASSESSMENT  
ISSUE #9  
DOCUMENTATION FOR INSTRUMENT CABINETS

NRC DESCRIPTION OF CONCERN

- NRC REVIEW OF INSTRUMENT CABINET SUPPORT INSTALLATION RECORDS INDICATE:
  - SOME DOCUMENTATION ON WELDS APPEAR TO BE MISSING.
  - INVOLVED WELDERS MAY NOT BE CERTIFIED TO ALL POSITIONS USED.

LP&L ACTION REQUIRED

- ATTEMPT TO LOCATE THE MISSING DOCUMENTS
- DETERMINE IF THE WELDERS WERE APPROPRIATELY CERTIFIED

LP&L PLAN

- SPECIFIC PROBLEM -
  - ISSUE NCR-W3-7549 TO IDENTIFY AND RESOLVE DEFICIENCIES
  - DETERMINE IF WELDERS WERE APPROPRIATELY CERTIFIED
  - LOCATE MISSING DOCUMENTS OR TAKE APPROPRIATE ACTION
- GENERIC IMPLICATIONS -
  - DETERMINE IF OTHER WELD RELATED J A JONES WORK HAS MISSING DOCUMENTS

## ISSUE #9 (CONT.D)

## PROGRESS TO DATE

- SPECIFIC PROBLEM -
  - DOCUMENTATION FOR WELDING 7 OF THE 18 INSTRUMENTATION CABINETS NOT LOCATED. 4 OF THE 7 HAVE PARTIAL DOCUMENTATION, 3 HAD NO DOCUMENTATION.
  - THE 7 INSTRUMENT CABINETS HAVE BEEN REINSPECTED. THE WELDS ARE ACCEPTABLE.
  - J A JONES WELDING INSPECTION REPORTS CONFIRM WELDERS CERTIFIED TO POSITIONS USED.
- GENERIC IMPLICATIONS -
  - REVIEW IDENTIFIED OTHER POTENTIALLY J A JONES WELD RELATED WORK ITEMS.
  - TO DATE, 5 J A JONES WELD RELATED WORK ITEMS LACK DOCUMENTATION.
  - INSPECT/EVALUATE THE 5 WORK ITEMS FOR ACCEPTABILITY, ECD 8/24/84.

PRE-LICENSING ASSESSMENT

ISSUE #11

CADWELDING

NRC DESCRIPTION OF CONCERN

- LP&L HAS PROVIDED ONLY LIMITED DATA (IN OTHER THAN RAW FORM) ON STATISTICS OF THE CADWELD TESTING PROGRAM
- THE NCR DOCUMENTING CADWELD TESTING DEFICIENCIES HAS BEEN REOPENED AS RESULT OF CAT AND ALL ISSUES HAVE NOT BEEN RESOLVED

NRC DIRECTION

- LP&L SHALL PROVIDE CADWELD DATA IN SUCH A FORM THAT IT CAN BE READILY COMPARED TO THE ACCEPTANCE CRITERIA (REQUIREMENTS DETAILED)

LP&L PLAN

PREPARE LISTINGS OF CADWELDS BROKEN DOWN BY ATTRIBUTES SPECIFIED FOR ADMINISTRATION OF TEST CYCLES INCLUDING BY:

- BUILDING OR STRUCTURAL ELEMENT
- TEST PROGRAM TYPE
- BAR SIZE
- BAR POSITION
- CADWELDER

DATA PROVIDED IN EACH CATEGORY WILL INCLUDE:

- TOTAL SPLICES
- VISUAL REJECTS
- PRODUCTION TESTS AND FAILURES
- SISTER TESTS AND FAILURES
- WELDER QUALIFICATION AND REQUALIFICATION INCLUDING DATES

IN ADDITIONAL NCR-W3-6234 WILL BE SUPPLEMENTED TO ADDRESS ANY NEW FINDINGS OF A COMPLETE REVIEW FOR SPECIFICATION COMPLIANCE OF ALL DATA GENERATED.

PROGRESS TO DATE

- THE LISTINGS HAVE BEEN COMPLETED AND SUMMARIZED IN TABULAR FORM. THE REVIEW AND EVALUATION FOR SPECIFICATION COMPLIANCE IS UNDERWAY, WITH ECD OF 8/24/84.

PRE-LICENSING ASSESSMENT  
ISSUE #12  
MAIN STEAM LINE FRAMING RESTRAINTS

NRC DESCRIPTION OF CONCERN

- NRC STAFF FOUND SEVERAL BOLTED CONNECTIONS HAD NOT BEEN INSPECTED (OR DOCUMENTED) FOR THE FRAMING

NRC DIRECTION

- COMPLETE THE INSPECTIONS OF THE RESTRAINTS REQUIRED BY SCD
- MAKE DOCUMENTATION OF SUCH INSPECTIONS AVAILABLE TO THE STAFF

LP&L PLAN

- ISSUED NCR-W3-7736 TO IDENTIFY AND RESOLVE ALL STEAM GENERATOR BOLT DEFICIENCIES
- PROCEDURES PREPARED AND PERSONNEL TRAINED FOR REVIEW AND CORRECTIVE ACTION PROGRAM
- REVIEW THE SCOPE OF AMERICAN BRIDGE WORK TO ASSURE 100% IDENTIFICATION INCLUDING A REVIEW OF DOCUMENTS RELATED TO AMERICAN BRIDGE (FCRs, DCNs, IRs, ETC)
- REINSPECTION OF ALL AMERICAN BRIDGE BOLTED CONNECTIONS COMPLETE

PROGRESS TO DATE

- SCOPING COMPLETED
- APPROXIMATELY 12,000 BOLTS INVOLVED WITHIN 340 CONNECTIONS
- APPROXIMATELY 700 BOLTS OUT OF APPROXIMATELY 12,000 INSTALLED REPLACED TO DATE
- MAJORITY OF THE DEFICIENCIES ( $\approx 60\%$ ) RELATE TO THE INABILITY TO READILY CONFIRM THE REQUIRED BOLTING MATERIAL
- APPROXIMATELY 150 BOLTS REMAIN TO BE REPLACED

LP&L ACTION TO PREVENT RECURRENCE

- REVIEW TO ASSURE SCOPING IS ACCURATE AND CORRECTIVE ACTION DOCUMENTED

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT  
ISSUE #13  
MISSING NCR'S

NRC DESCRIPTION OF CONCERN

- 10 NCR'S WERE NOT IN CARD INDEX FILE
- OTHERS WERE MISSING FROM EBASCO QA VAULT

LP&L ACTION REQUIRED

- OBTAIN MISSING NCR'S
- EXPLAIN WHY THEY WERE NOT MAINTAINED IN FILING SYSTEM
- REVIEW FOR PROPER VOIDING
- ASSURE NCR'S ARE PROPERLY FILED FOR TRACKING AND CLOSURE



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PAGE 2 OF 2

ISSUE #13  
(CONT'D.)

LP&L PLAN

- INVESTIGATE/EXPLAIN SOURCE OF PROBLEM
- DETERMINE STATUS OF NCR'S QUESTIONED
- DETERMINE IF ANY ADDITIONAL NCR'S WERE NOT ACCOUNTED FOR
- CORRECT DISCREPANCIES FOUND

LP&L PROGRESS TO-DATE

- ALL ACTIONS COMPLETE

AUGUST 17, 1984

PRE-LENCENSING ASSESSMENT  
ISSUE # 14  
J.A. JONES SPEEDLETTERS AND EIRS

NRC DESCRIPTION OF CONCERN:

- o DURING THE EBASCO QA REVIEW OF J.A. JONES SPEED LETTERS AND ENGINEERING INFORMATION REQUESTS, SEVERAL ITEMS WHICH COULD AFFECT PLANT SAFETY WERE NOTED. BASED ON ITS SAMPLE OF THESE ACTIONS, THE STAFF DOES NOT EXPECT THAT ANY OF THESE ITEMS WILL SIGNIFICANTLY AFFECT PLANT SAFETY.

LP&L ACTION REQUIRED:

- o THE APPLICANT SHOULD COMPLETE THE ACTIONS IDENTIFIED IN THESE REVIEWS AND ISSUES RAISED SHALL BE RESOLVED PROMPTLY.

LP&L PLAN:

- o LP&L'S APPROACH TO RESOLUTION OF THIS CONCERN CONSISTS OF THE FOLLOWING:
  - o COMPLETE THE REVIEW OF THE J.A. JONES SPEED LETTERS AND ENGINEERING INFORMATION REQUEST (APPROXIMATELY 1100).
  - o MINIMUM 10% REVIEW OF INFORMATION REQUEST DOCUMENTS UTILIZED BY REMAINING SAFETY RELATED CONTRACTORS (15 CONTRACTORS).

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PAGE 2 OF 2

ISSUE #14 (CONT'D)

PROGRESS TO DATE

- J. A. JONES REVIEW IS COMPLETE WITH NO ITEMS REQUIRING MODIFICATION
- BASED ON SAMPLE RESULTS, THERE WAS AN EXPANSION OF THE REVIEW PROCESS
  - ANY CONTRACTOR WITH 50 OR LESS DOCUMENTS RECEIVED A TOTAL REVIEW
  - BASED ON THE TYPE OR NUMBER OF FINDINGS, THE REVIEW OF 3 CONTRACTORS DOCUMENTS WAS EXPANDED
- NO FINDINGS TO DATE HAVE RESULTED IN MODIFICATIONS
- TWO CONTRACTORS ARE STILL BEING EVALUATED, OF WHICH ONE CONTRACTOR WILL REQUIRE ADDITIONAL PHYSICAL INSPECTIONS

LP&L ACTION TO PREVENT RECURRENCE

- RETRAINING OF INDIVIDUALS INVOLVED WITH INFORMATION REQUESTS WITH EMPHASIS ON APPROPRIATE DOCUMENTATION OF DESIGN CHANGES

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT  
ISSUE #15  
WELDING OF "D" LEVEL MATERIAL INSIDE CONTAINMENT

NRC DESCRIPTION OF CONCERN

- "D" LEVEL MATERIAL WELDING FOR CONTAINMENT ATTACHMENTS, SPECIFICALLY CONTAINMENT SPRAY PIPING SUPPORTS, LACKS WELD ROD TRACEABILITY AND WELDER IDENTIFICATION AND CERTIFICATION.

LP&L ACTION REQUIRED

- LOCATE THE DOCUMENTATION AND VERIFY THE ADEQUACY OF THE INFORMATION, OR
- PERFORM A MATERIAL ANALYSIS AND NDE WORK, OR
- REWORK THE WELDS

ISSUE #15  
(CONT'D.)

LP&L PLAN

- REVIEW SPECIFIC SUPPORTS IDENTIFIED
- SCOPE "D" MATERIAL WELDS
- CONDUCT DOCUMENT SEARCH WITH CONTRACTOR
- PERFORM APPROPRIATE SAMPLE RE-INSPECTION ON WELDS WITHOUT DOCUMENTATION

PROGRESS TO-DATE

- THE SPECIFIC SUPPORTS IDENTIFIED ARE TEMPORARY AND HAVE BEEN ABANDONED
- SCOPING COMPLETE
- DOCUMENT SEARCH COMPLETE. SINCE CB&I QA MANUAL REQUIREMENTS FOR DOCUMENTATION DO NOT APPLY TO "D" MATERIAL WELDS, NOT ALL DOCUMENTATION IS AVAILABLE.
- THE SEISMIC CATEGORY I STRUCTURES OF "D" MATERIAL WERE IDENTIFIED AND A 10% SAMPLE REPRESENTING MAJOR STRUCTURES SELECTED FOR REINSPECTION. INSPECTION COMPLETE. NO STRUCTURALLY SIGNIFICANT DEFICIENCIES IDENTIFIED.

ISSUE #15  
(CONT'D.)

PROGRESS TO-DATE (CONT'D)

- UNIQUE HEAT NUMBER TRACEABILITY NOT OBTAINABLE, BUT ALL WELD ROD ACCEPTABLE.
- ALL WELDERS WERE CERTIFIED.

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT

ISSUE #16

SURVEYS AND EXIT INTERVIEWS OF QA PERSONNEL

NRC DESCRIPTION OF CONCERN

- SURVEY AND EXIT INTERVIEWS NOT VIGOROUSLY PURSUED FOR ROOT CAUSE, SAFETY SIGNIFICANCE, GENERIC IMPLICATIONS
- INVESTIGATIONS NOT TIMELY
- LP&L PROGRAM NOT INDEPENDENT OR FORMAL
- LP&L SENIOR MANAGEMENT NOT WELL INFORMED



LP&L INITIAL PROGRAM

- VOLUNTARILY INITIATED IN JANUARY 1984 - 407 INTERVIEWS CONDUCTED
- LIMITED TO QA/QC PERSONNEL
- CONDUCTED BY LP&L QA STAFF
- EXIT INTERVIEW FOLLOW-UP NOT TIMELY
- PROGRAM NOT AUDITABLE, SYSTEMATIC RECORDS NOT MAINTAINED ON FOLLOW-UP
- 72 CONCERNS IDENTIFIED FROM INITIAL INTERVIEWS, 13 OF WHICH REQUIRED CORRECTIVE ACTION:
  - 4 PROCEDURE REVISIONS
  - 5 NCR IMPACT
  - 3 RECORDS REVIEW
  - 1 LIMITED INSPECTION
- AS OF JULY 1, 174 EXIT INTERVIEWS CONDUCTED
  - SEVERAL ADDITIONAL CONCERNS IDENTIFIED, ONE REQUIRED CORRECTIVE ACTION
- REVIEW BY ISEG IN JUNE - DEVELOPED ONE ADDITIONAL SAFETY CONCERN

PROGRAM BENEFITS

- MAJORITY HAD NO CONCERNS
- MANY CONCERNS IDENTIFIED
- FOLLOW-UP AND CORRECTIVE ACTION RESULTED

PROGRAM SHORTCOMINGS

- NOT AUDITABLE
- NO FORMAL PROCEDURES
- NOT INDEPENDENT, UNTRAINED INTERVIEWERS

LP&L PLAN

- QUALITY TEAM ESTABLISHED
  - Q.T.C. INDEPENDENT CONSULTANT
  - TRAINED PERSONNEL
- QUALITY TEAM LEADER REPORTS TO LP&L SENIOR VICE PRESIDENT
  - LP&L QA WILL AUDIT
  - REGULAR REPORTING - WRITTEN AND VERBAL
  - AUDITABLE PROGRAM - FORMAL PROCEDURES
  - CONFIDENTIALITY
  - AGGRESSIVE FOLLOW-UP
  - ALL PERSONNEL - EXIT INTERVIEWS
  - RETROSPECTIVE AND PROSPECTIVE PROGRAM

ITEM #16 (CONT'D)

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PROGRESS TO DATE

- EXCELLENT RESULTS ON PROGRAM TO DATE
  - NEW PROGRAM IN PLACE
  - OLD CONCERNS PRIORITIZED AND ADDRESSED
  - NEW CONCERNS BEING ADDRESSED

SAFETY SIGNIFICANCE

- SAFETY CONCERNS RESOLVED PRIOR TO EXCEEDING 5% POWER

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT  
ISSUE #17  
MERCURY INSTALLATION ANCHOR INSTALLATION

NRC DESCRIPTION OF CONCERN

- A REVIEW OF MERCURY PROCEDURE SP-666 REVISION 8, "DRILLED IN EXPANSION ANCHORS . . .", REVEALED THAT IT DOES NOT REQUIRE QC VERIFICATION OF MANY CHARACTERISTICS NECESSARY TO ENSURE PROPER INSTALLATION.

LP&L ACTION REQUIRED

- REVISE MERCURY PROCEDURE SP-666
- INITIATE A REINSPECTION PROGRAM OF SUFFICIENT SIZE AND SCOPE TO INDICATE WHETHER THESE ANCHORS ARE ABLE TO PERFORM THEIR INTENDED FUNCTION.

LP&L PLAN

- REVIEW SP-666 TO DETERMINE ADEQUACY
- REVIEW OF MERCURY DOCUMENTATION AND FIELD VERIFICATIONS DURING TRANSFER REVIEW
- PERFORM SAMPLE RE-INSPECTION TO ENSURE ADEQUACY
- ANALYZE CRITICAL ANCHOR TO EMBEDDED PLATE INSTALLATIONS

ISSUE #17 (CONT'D)

PROGRESS TO DATE

- o SP-666 HAS BEEN REVIEWED FOR ADEQUACY
  - REFERENCES ARE DRAWN TO OTHER DOCUMENTS IN THE PROCEDURE WHICH DELINEATE INSTALLATION/INSPECTION CRITERIA
- o REVIEW OF MERCURY EXPANSION ANCHOR INSTALLATION RECORDS - FROM TRANSFER REVIEW
  - 896 INSPECTION REQUESTS
  - 196 DISCREPANCY NOTICES WRITTEN
  - 15 D.N.'S REQUIRED REWORK
- o EACH INSPECTION BY EBASCO QC CONSISTED OF:
  - WITNESSING TORQUE VERIFICATION
  - CHECK I.D. MARK ON BOLT AND DETERMINE PROPER EMBEDMENT
  - Q.C. PROVIDED A SKETCH OF EXPANSION PLATE AND LOCATION OF THE BOLTS ON THE PLATE
- o REINSPECTION PROGRAM BEGUN 8-15-84 AND INCLUDES:
  - SPACING BETWEEN ADJACENT ANCHORS
  - SPACING BETWEEN AN ANCHOR AND THE EDGE OF A CONCRETE SURFACE
  - MINIMUM ANCHOR EMBEDMENT DEPTH
- o ANALYSIS OF CRITICAL ANCHOR TO EMBEDDED PLATE INSTALLATIONS COMPLETE

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT  
ISSUE #18  
DOCUMENTATION OF WALKDOWNS  
OF NON-SAFETY RELATED EQUIPMENT

NRC DESCRIPTION OF CONCERN

- FOLLOW-UP DOCUMENTATION OF FINAL WALKDOWNS DID NOT LIST EQUIPMENT IN DETAIL. THEREFORE IT COULD NOT BE CONCLUDED THAT INSTRUMENT AIR PIPING, TUBING AND SUPPORTS HAD BEEN ADEQUATELY ADDRESSED REGARDING POTENTIAL DAMAGE TO SAFETY EQUIPMENT.

LP&L ACTION REQUIRED

- DOCUMENTATION SHOULD BE PROVIDED THAT CLEARLY SHOWS WHAT EQUIPMENT WAS REVIEWED DURING THE WALKDOWNS AND ON WHAT BASIS IT WAS CONCLUDED THAT THE INSTALLATION WAS ACCEPTABLE.

LP&L PLAN

- DESCRIBE DESIGN ACTIONS TAKEN TO PREVENT NON-SEISMIC FAILURES FROM ADVERSELY AFFECTING SAFETY-RELATED COMPONENTS
- PROVIDE DOCUMENTATION ON WALKDOWNS INCLUDING BASES FOR ACCEPTANCE
- REINSPECT NON-SEISMIC PORTIONS OF INSTRUMENT AIR SYSTEM



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PAGE 2 OF 2

ISSUE #18 (CONT'D)

PROGRESS TO DATE

- DOCUMENTATION ON WALKDOWNS AND DESCRIPTION OF DESIGN ACTIONS TO BE INCLUDED IN RESPONSE
- REINSPECTION OF INSTRUMENT AIR TO BE COMPLETE 8/31.

PRE-LICENSING ASSESSMENT  
ISSUE #19  
WATER IN THE BASEMAT INSTRUMENTATION CONDUIT

NRC DESCRIPTION OF CONCERN

- WATER WAS NOTED IN AN ELECTRICAL CONDUIT THAT PENETRATED THE BASEMAT. IF THE SEALS SHOULD FAIL THERE IS A POTENTIAL DIRECT PATH FOR GROUND WATER TO FLOOD THE AUXILIARY BUILDING BASEMAT.

LP&L ACTION REQUIRED

- LP&L SHOULD ASSURE THAT POTENTIAL DIRECT ACCESS PATHS OF WATER ARE PROPERLY SEALED TO PREVENT FLOODING.

LP&L PLAN

- IDENTIFY EACH CONDUIT STUB-UP WHICH SHOWS EVIDENCE OF PAST OR PRESENT LEAKING. LEAKS REVIEW BY ENGINEERING TO DETERMINE WHETHER A SAFETY HAZARD.

ISSUE #19  
(CONT'D)

PROGRESS TO-DATE

- o WALKDOWN OF CONDUITS COMPLETE
- o EVALUATION COMPLETE, FINDINGS:
  - PERMANENT CONDUITS ENTIRELY WITHIN BUILDING PRESENT NO DIRECT LEAKAGE PATH FOR GROUNDWATER AND ARE NOT A SAFETY HAZARD.
  - CONDUITS ENTERING THE BASEMAT FROM OUTSIDE HAVE BEEN GROUTED AND THEIR BLOCKOUT PITS FILLED WITH CONCRETE, SO THAT THEY NO LONGER SERVE AS LEAKAGE PATHS FOR GROUND WATER.
- o THE PIEZOMETER RISER WILL BE SEALED.
- o THE PIEZOMETER STANDPIPE WILL BE PRESSURE GROUTED
- o THE SILICONE ELASTOMER SEAL MATERIAL WILL BE USED TO REPLACE THE EXISTING SEAL MATERIAL FOR CONDUIT STUB-UP WHICH BECOMES AN INCONVENIENCE TO PLANT MAINTENANCE ON ACCOUNT OF LEAKAGE OF WATER.

ISSUE #19  
(CONT'D.)

LP&L ACTION TO PREVENT RECURRENCE

- THE REPLACEMENT OF INDIVIDUAL CONDUIT SEALS WILL BE UNDERTAKEN BASED ON OPERATING AND MAINTENANCE CONSIDERATIONS.

SAFETY IMPLICATIONS

- THERE IS NO RECOGNIZED REASON THAT THIS ISSUE SHOULD CONSTRAIN FUEL LOAD OR POWER GENERATION.

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PRE-LICENSING ASSESSMENT

ITEM #21

LP&L QA CONSTRUCTION SYSTEM STATUS AND TRANSFER REVIEWS

NRC DESCRIPTION OF CONCERN

- THE FINDINGS GENERATED BY LP&L CONSTRUCTION QA AS A RESULT OF DOCUMENTATION REVIEWS AND PHYSICAL WALKDOWNS ON 15 SYSTEMS MAY NOT HAVE BEEN ADEQUATELY DISPOSITIONED.
- OPEN FINDINGS NOT PROPERLY IDENTIFIED TO LP&L OPERATIONS MAY HAVE ADVERSELY AFFECTED THE TESTING CONDUCTED ON THE 15 SYSTEMS.

LP&L ACTION REQUIRED

- COMPLETE THE REVIEW OF ALL SIGNIFICANT LP&L STATUS AND TRANSFER REVIEW FINDINGS TO ENSURE CLOSURE OR PROPER TRACKING.
- FOR ANY LP&L OPEN FINDINGS NOT PROPERLY IDENTIFIED DETERMINE WHETHER THIS CONDITION ADVERSELY AFFECTED THE TESTING CONDUCTED FOR THESE SYSTEMS.

ITEM #21  
(CONT'D.)

LP&L PLAN

- LP&L AND EBASCO PERFORM REVIEW TO IDENTIFY CORRESPONDENCE ASSOCIATED WITH THE 15 SYSTEMS LISTED BY THE NRC AS HAVING QUESTIONABLE DISPOSITIONS.
- EBASCO TO PERFORM REVIEW TO DETERMINE IF ALL LP&L COMMENTS HAD BEEN RESPONDED TO AND ACCEPTED BY LP&L. THIS REVIEW WILL APPLY TO SAFETY-RELATED SYSTEMS.
- LP&L WILL PERFORM REVIEW TO DETERMINE GENERIC IMPLICATIONS OR SIGNIFICANT TRENDS OF COMMENTS GENERATED ON SYSTEMS REVIEWED. THIS WILL BE DONE ON A CONTRACTOR BASIS.
- LP&L PERFORM REVIEW TO DETERMINE WHETHER OR NOT THERE WAS IMPACT ON SYSTEM TESTING OR OPERATION BY THE COMMENTS NOT RESPONDED TO BY EBASCO.

ITEM #21  
(CONT'D.)

LP&L PROGRESS TO-DATE

- REVIEW COMPLETE ON 15 SYSTEMS IDENTIFIED BY NRC. LP&L COMMENTS HAVE BEEN RESOLVED.
- REVIEW COMPLETED BY EBASCO ON LP&L COMMENTS GENERATED DURING STATUS AND TRANSFER REVIEWS. LP&L COMMENTS HAVE BEEN RESOLVED.
- REVIEW FOR GENERIC IMPLICATIONS OR SIGNIFICANT TRENDS CONTAINED IN COMMENTS GENERATED FROM LP&L QA'S DOCUMENTATION REVIEWS AND WALKDOWNS WAS COMPLETED ON MAY 14, 1984. NONE WERE IDENTIFIED.
- LP&L START-UP PERFORMED A REVIEW OF THE COMMENTS ISSUED BY LP&L QA ON THE 15 SYSTEMS. THIS REVIEW DETERMINED THAT NONE WERE SIGNIFICANT OR WOULD HAVE IMPACTED SYSTEM TESTING OR OPERATION.



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PRE-LICENSING ASSESSMENT  
ISSUE #22

- A) WELDER QUALIFICATION (MERCURY)
- B) FILLER MATERIAL CONTROL (SITE WIDE)

ISSUE 22A  
WELDER QUALIFICATION (MERCURY)

NRC DESCRIPTION OF CONCERN

- MERCURY WELDERS NOT QUALIFIED TO THE CORRECT WELDING PROCEDURE,
- MERCURY WELDERS QUALIFIED FOR A SPECIFIC PROCESS, EVEN THOUGH THEY WERE NOT TESTED FOR THAT PROCESS,
- ACTUAL DATES ON MERCURY QUALIFICATION RECORDS APPEAR QUESTIONABLE, AND
- ONE MERCURY WELDER MAY HAVE WELDED PRIOR TO BEING TESTED.

LP&L REQUIRED ACTION

- ATTEMPT TO LOCATE THE MISSING DOCUMENTATION AND DETERMINE IF THE WELDERS WERE PROPERLY QUALIFIED.
- IF THIS DOCUMENTATION CANNOT BE LOCATED, LP&L SHALL PROPOSE A PROGRAM TO ASSURE THE QUALITY OF WELDS PERFORMED BY QUESTIONABLY QUALIFIED WELDERS.

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ISSUE 22A (CONT'D)  
WELDER QUALIFICATION (MERCURY)

LP&L PLAN

- REVIEW THE SPECIFIC MERCURY WELDER QUALIFICATIONS QUESTIONED BY THE NRC STAFF TO DETERMINE ACCEPTABILITY.
- TAKE CORRECTIVE ACTION AS REQUIRED BY THE REVIEW.

PROGRESS TO DATE

- SPECIFIC MERCURY WELDER QUALIFICATIONS QUESTIONED BY NRC STAFF HAVE BEEN REVIEWED. REVIEW DETERMINED THAT QUALIFICATIONS ARE IN ORDER.
- NCR W3-7724 WAS GENERATED TO ADDRESS THREE DOCUMENTATION DISCREPANCIES NOTED BY NRC. A 100% REVIEW OF MERCURY WELDER QUALIFICATIONS FOR SIMILAR PROBLEMS WAS PERFORMED AND NO SIMILAR PROBLEMS WERE FOUND. NCR W3-7724 CORRECTIVE ACTION IS COMPLETE AND THE NCR HAS BEEN CLOSED.
- NCR W3-7218, OPENED TO ADDRESS MERCURY WELDER QUALIFICATION CONCERNS, GIVEN ADDITIONAL REVIEW. THIS REVIEW SHOWED THAT MERCURY WELDERS PERFORMING SAFETY/ SEISMIC WELDMENTS WERE PROPERLY QUALIFIED AND NO ADDITIONAL CORRECTIVE ACTION WAS REQUIRED.

ISSUE #22B  
FILLER MATERIAL CONTROL

NRC DESCRIPTION OF CONCERN

- BASED ON NRC STAFF REVIEW, "REBAKING" OF LOW HYDROGEN ELECTRODES DID NOT MEET ASME AND AWS CODE REQUIREMENTS.

LP&L REQUIRED ACTION

- LP&L SHALL PROVIDE ENGINEERING JUSTIFICATION FOR ALLOWANCE OF "REBAKE" TEMPERATURES AND HOLDING TIMES THAT DIFFER FROM REQUIREMENTS OF ASME AND AWS CODES.

LP&L PLAN

- TO CLARIFY THE WELDING MATERIAL STORAGE REQUIREMENTS.
- TO ASSURE THAT TECHNICAL DEVIATION FROM THE CODE WAS PROPERLY EVALUATED AND IMPLEMENTED.

ISSUE #22B (CONT'D)

PROGRESS TO DATE

- SITE PROCEDURES WERE IMPLEMENTED THROUGHOUT THE CONSTRUCTION PHASE TO PRECLUDE THE NEED FOR REBAKING.
- REVIEWS OF ASME REQUIREMENTS FOR HOLDING TEMPERATURE INDICATES THAT SITE PROCEDURES ARE IN COMPLIANCE.
- SITE PROCEDURES DIFFER WITH RESPECT TO AWS D1.1 HOLDING TEMPERATURE REQUIREMENTS, BUT ARE CONSISTENT WITH AWS A5.1 WELDING MATERIAL SPECIFICATIONS. THESE CODE INCONSISTENCIES POSE NO DETRIMENTAL EFFECTS TO THE WELD ROD.

ISSUE #23

QA PROGRAM BREAKDOWN BETWEEN EBASCO & MERCURY

NRC DESCRIPTION OF CONCERN

- o FOLLOWUP ON CORRECTIVE ACTIONS COMMITMENTS TO NRC
- o AUDITING OF MERCURY QA PROGRAMS
- o COMPLETION OF CORRECTIVE ACTIONS FROM AUDITS
- o ROOT CAUSE DETERMINATION/CORRECTIVE ACTION ALLOWED PROBLEM TO PERSIST
- o MANAGEMENT AUDIT CORRECTIVE ACTION

LP&L ACTION REQUIRED

- o DETERMINE CAUSE OF BREAKDOWN
- o ASSESS CORRECTIVE ACTION TO PREVENT RECURRENCE
- o OVERALL QA PROGRAM ASSESSMENT

LP&L PLAN

- o REVIEW CORRECTIVE ACTIONS FROM NRC ENFORCEMENT ACTION
- o REVIEW EFFECTIVENESS OF QA AUDIT PROGRAM
- o IDENTIFY LESSONS LEARNED FOR INCORPORATION INTO "COLLECTIVE SIGNIFICANCE"
- o ASSESS RESPONSE TO MANAGEMENT AUDITS
- o ASSESSMENT OF OVERALL QA PROGRAM - COLLECTIVE SIGNIFICANCE

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## COLLECTIVE SIGNIFICANCE

### CATEGORIZATION OF 23 ISSUES AND SUBISSUES

- o TRAINING AND QUALIFICATION
- o RECORDS
- o PROCESS CONTROL
- o TECHNICAL

### REVIEW OF OTHER PERTINENT ISSUES

### ASSESSMENT OF COLLECTIVE SIGNIFICANCE OF PLANT CONFIGURATION AND HARDWARE

### IDENTIFY LESSONS LEARNED

### CORRELATE LESSONS LEARNED/CORRECTIVE ACTIONS IMPLEMENTED AND DEVELOP RECOMMENDED FUTURE ACTIONS FOR THE OPERATION QA PROGRAM



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ISSUE #23 (CONT'D)

PROGRESS TO DATE

MERCURY CORRECTIVE ACTIONS BEING CONFIRMED  
AS TO IMPLEMENTATION AND ADEQUACY

LP&L/EBASCO/MERCURY AUDITS OF MERCURY HAVE  
BEEN REVIEWED, CORRECTIVE ACTIONS HAVE BEEN  
CONFIRMED

MANAGEMENT ASSESSMENT FINDINGS HAVE BEEN  
REVIEWED FOR CORRECTIVE ACTION IMPLEMENTATION

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ISSUE #23 (CONT'D)

CORRECTIVE ACTIONS FROM NRC ENFORCEMENT ACTION

- o MERCURY RETRAINING PROGRAM \*
- o REINSPECTION OF ALL SAFETY CLASS INSTALLATIONS \*
- o MERCURY ORGANIZATIONAL CHANGES
- o INCREASE IN MERCURY QA/QC STAFF \*
- o EBASCO QA MANAGEMENT TEAM TO OVERSEE MERCURY
- o INCREASE IN LP&L/EBASCO QA STAFF \*
- o ESTABLISHMENT OF EBASCO QA SURVEILLANCE \* AND QUALITY ANALYSIS GROUPS
- o ENLARGEMENT OF EBASCO QA RECORDS REVIEW GROUP \*
- o REDUCTION IN MERCURY WORK SCOPE
- o PROCEDURAL CHANGES IMPLEMENTED
- o RECORDS REVIEW ASSUMED BY EBASCO
- o SCD/INSPECTION REPORT RESPONSIBILITIES SHIFTED TO LICENSING

\* COMMITMENT TO NRC

ISSUE #23 (CONT'D)  
CORRECTIVE ACTION REVIEW

SYSTEM BY SYSTEM REINSPECTION BY LP&L/EBASCO/MERCURY

- o APPROXIMATELY 90% OF INSTALLATIONS COMPLETED PRIOR TO STOPPING WORK
- o FOUR SYSTEMS INITIALLY - EXPANDED TO ALL SYSTEMS
- o PROJECT DECISION TO STRUCTURE PROGRAM CONSISTENT WITH SEQUENCING OF SYSTEM TURNS UNDER STARTUP PROGRAM
- o SCOPE OF REINSPECTION CENTERED ON TUBING, TUBE TRACK, SUPPORTS AND CONFIGURATION
- o CORRELATION OF OBSERVED DEFICIENCIES TO TIME PERIOD OF INSTALLATION

RECORDS REVIEW PROGRAM

- o REVIEW EFFORT EXPANDED
- o PRIORITY ON TUBING TO SUPPORT SEQUENCED TURNOVER PROGRAM
- o EBASCO INITIATED 100% REVIEW/RE-REVIEW

ADDITIONAL RE-INSPECTIONS

- o RE-INSPECTIONS PERFORMED AS A RESULT OF RECORD DEFICIENCIES
- o CURRENT REINSPECTION PROGRAM AS DISCUSSED IN ISSUE #1

AUDITS OF MERCURY QA PROGRAM

AUDIT SCHEDULE

- o MERCURY CONDUCTED 75 INTERNAL AUDITS
- o EBASCO CONDUCTED 100 AUDITS OF MERCURY
- o LP&L CONDUCTED 85% OF SCHEDULED AUDITS (24) AND PERFORMED 13 SURVEILLANCES

CORRELATION OF AUDITS TO PROGRAM REQUIREMENTS

COMPLETION OF AUDIT CORRECTIVE ACTIONS

- o MERCURY AUDIT FILES NOT ORGANIZED FOR EASE OF FOLLOWUP
- o CORRECTIVE ACTIONS FOUND TO HAVE BEEN IMPLEMENTED

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ISSUE #23 (CONT'D)

## MANAGEMENT AUDITS

### MANAGEMENT ASSESSMENTS DURING 1977 - 1980 TIME PERIOD

- o IDENTIFIED ORGANIZATION AND STAFFING CONCERNS
- o LP&L SLOW TO RESPOND

### AUDIT OF PLANT TRAINING PROGRAM

- o FINDINGS ADDRESSED IN TIMELY MANNER
- o PLANT TRAINING STAFF AND PROGRAM REORGANIZED