



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

JUN 3 1985

Pocket No. 50-352

FACILITY: Limerick Generating Station, Unit 1

LICENSEE: Philadelphia Electric Company

SUBJECT: SUMMARY OF MEETING ON STATUS OF UNIT 1

On May 24, 1985 representatives of the Philadelphia Electric Company (PECO) met with the NRC staff to discuss the status of Unit 1 of the Limerick Generating Station with respect to readiness for full power licensing. A list of attendees is provided in Enclosure 1.

The presentation was made by PECO (licensee) generally following the agenda in Enclosure 2. A summary of each of these areas follows.

NRR Items

The licensee indicated that there are no outstanding NRR items of review of which they are aware. The NRC Project Manager generally concurred in that assessment noting that there are several items identified in recent weeks by PECO that are under current review and are expected to be reported as resolved in SER Supplement No. 5.

The response to Generic Letter 83-28 was discussed with the Plant Manager noting that the post scram recovery procedures are already in place. The Plant Manager also noted that actions currently underway at the plant pending further licensing actions include training in (a) technical specifications (b) cleanliness maintenance and (c) attainment of excellence in operations. The Plant Manager emphasized that the housekeeping effort has been significantly upgraded in recent months.

Region I Items

The licensee stated that they recently met with the NRC Resident Inspector and reached mutual agreement that there were no issues identified from that discussion that would impact full power licensing activities.

Emergency Planning

The licensee's Director for Emergency Planning noted that the full scale exercise for 1985 had been successfully completed on April 3, 1985, and that the traffic control issue as required by a condition in the ASLB's Third Partial Initial Decision of May 2, 1985, in the King of Prussia area had recently been addressed by the Pennsylvania Emergency Management Agency.

During the meeting it was learned that the ASLB had issued an order regarding the emergency planning evacuation issues for the State Correctional Institute at Graterford.

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The NRC staff also brought to the licensee's attention an NRC statement as recently included in the Federal Register on medical services for emergency planning.

#### LER Reduction Program

The licensee summarized their program aimed at improving operations to reduce the frequency of events at Limerick. The licensee's presentation, as summarized in enclosure 3, paralleled their letter of April 2, 1985 to the NRC on this subject.

The NRC staff (R. Wessman) stated that the staff's comparison of event frequency for the last several months with the prior period showed that the recent rate of LERs is very comparable to the rate for a number of other boiling water reactors at a similar stage of operations.

#### Security Improvement

The licensee's Assistant Director for Security summarized recent corrective actions taken on the security program as outlined in enclosure 4.

The licensee stated that the Limerick security program including hardware and training is generally based on the Peach Bottom plant program with some enhancements.

#### Water Supply

The licensee summarized recent efforts to gain approval for an alternate supply of supplemental cooling water for the summer of 1985. The licensee noted that the next significant event would be the meeting of the Delaware River Basin Commission on May 29 to consider the PECO application for (a) substitution of dissolved oxygen limits for temperature limits as the controlling parameter for Schuylkill River withdrawal and (b) allocation of alternate interim water supplies.

#### Continuing Use of PRA

The licensee's presentation followed the outline in enclosure 5 and provided a summary and update of the licensee's continuing use of probabilistic risk assessment as discussed in their July 23, 1984 letter.

#### Low Level Radwaste

The licensee's presentation followed the outline in enclosure 6. The licensee is evaluating various aspects of the issue including measures for controlling the rate of generation of low level wastes.

The staff noted that it is in the process of completing its interim review of the Process Control Program and will report the results of the review in Supplement No. 5 to the SEP.

JUN 3 1985

- 3 -

Training and Staffing

The Limerick Plant Manager's presentation followed the outline in enclosure 7. The current organization, the provisions for development of the plant staff, recent Unit 1 milestones and the startup test program were discussed.

Summary

The licensee summarized by stating that portions of the Test Condition 1 startup test program have been completed, that sufficient water supplies are stored on site to complete the Test Condition 1 program and that upon receipt of a full power license they are prepared to proceed with the Startup Testing Program.

Original signed by:

Robert E. Martin, Project Manager  
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Division of Licensing

Enclosures:  
As stated

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The licensee summarized by stating that portions of the Test Condition 1 startup test program have been completed, that sufficient water supplies are stored on site to complete the Test Condition 1 program and that upon receipt of a full power license they are prepared to proceed with the Startup Testing Program.

*Robert E. Martin*

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ENCLOSURE 1

ATTENDEES

PECO

V. Boyer  
M. Cooney  
G. Leitch  
J. Robb  
R. Kankus  
R. Weindorfer  
A. Diederich  
G. Hunger  
R. Scholtz  
D. Honan  
W. Alden  
G. Lauderback  
J. Spirelli  
M. Wetterhahn (Conner & Wetterhahn)

Others

B. McCormick  
M. Dardis  
B. Rosenberg, LEA

NRC\*

H. Thompson  
T. Novak  
R. Bernero  
J. P. Knight  
T. Speis  
D. Matthews  
J. Rutberg  
R. Martin  
A. Bournia  
R. Wessman  
S. Black

\*Some were in attendance for portions of the meeting



# ENCLOSURE 2

## AGENDA FOR LIMERICK FULL POWER LICENSING AND OPERATIONAL READINESS MEETING

BETHESDA, MARYLAND

2:00 PM - FRIDAY, MAY 24, 1985

### Presentation by Philadelphia Electric

- |    |                                      |                    |
|----|--------------------------------------|--------------------|
| A. | Introduction and Overview            | V. S. Boyer        |
| B. | Status of Major Licensing Components |                    |
| 1. | NRR Items                            | J. T. Robb         |
| 2. | Region I Items                       | G. Lauderback, Jr. |
| 3. | Emergency Planning                   | R. A. Kankus       |
| C. | Areas of Special Attention           |                    |
| 1. | LER Reduction Program                | G. A. Hunger       |
| 2. | Security Improvement                 | R. J. Weindorfer   |
| 3. | Water Supply                         | V. S. Boyer        |
| 4. | Continuing Use of PRA                | A. R. Diederich    |
| 5. | Low Level Radwaste                   | R. J. Scholz       |
| 6. | Training and Staffing                | G. M. Leitch       |
| D. | Conclusions on Readiness             | G. M. Leitch       |



## LER REDUCTION PROGRAM

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- Adverse trend reported by Station Manager to senior management and Nuclear Review Board in December 1984
- Events investigated for root causes by both plant staff and Independent Safety Engineering Group (ISEG)
- Recommendations for addressing root causes made to Plant Operations Review Committee and Nuclear Review Board by ISEG in mid-January 1985
- Corrective Action Programs developed in three areas:
  - Personnel
  - Modifications
  - Programmatic

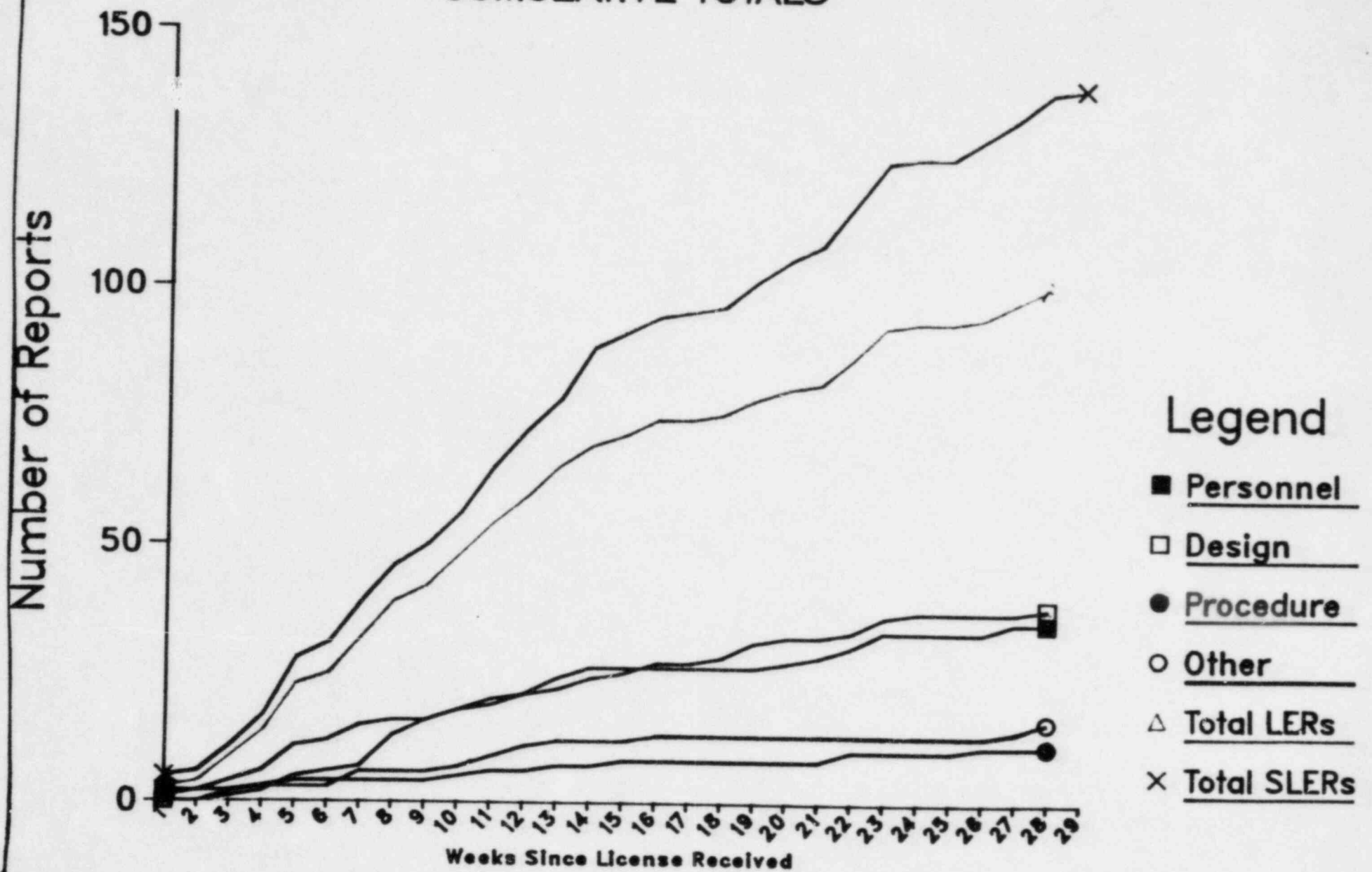
ENCLOSURE 3

## CORRECTIVE ACTIONS

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- PERSONNEL
  - Letters and Group Meetings
  - Simulator Training Enhancement
  - Requalification Training on Actual Tech. Specs. and LERs
  - Discipline
  - Operator Excellence Program
- MODIFICATIONS
  - Riley Temperature Switches
  - Reactor Building Pressure Sensors
  - RPS Inverters
  - Special Outage
- PROGRAMMATIC
  - Prompt Investigation
  - Prompt Review
  - Special Daily Review of Control Panels
  - Control of People in Control Room
  - Special Frequent Review of Control Room Logs

# LIMERICK SUSPECTED LICENSEE EVENT REPORTS CUMULATIVE TOTALS



## ENCLOSURE 4

### PROGRAMMATIC IMPROVEMENTS OF SECURITY FORCE PERFORMANCE AT LGS

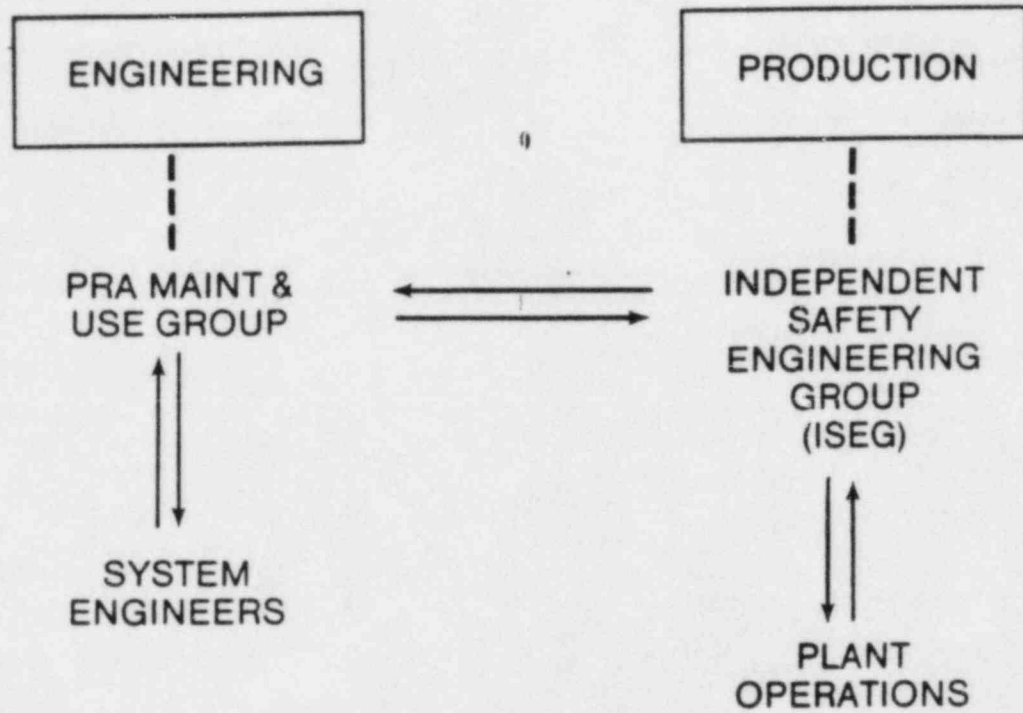
- o Increase the YOH Manpower and  
Reduce Turnover of Personnel
  
- o Increase Security Awareness Level  
Through Training and Instruction
  
- o Increase Security Awareness Level  
Through Continued Performance  
Analysis

## SECURITY IMPROVEMENTS

- o Increased the Number of YOH Personnel
- o Improved Working Conditions
- o Improved Training Program
- o Added PECO Supervision
- o Additional Performance Analysis
- o Added YOH Supervision

# ENCLOSURE 5

## ORGANIZATION



## **PRA MAINTENANCE & USE GROUP**

- DOCUMENT ORIGINAL BASES <sup>1</sup>
- UPDATE PRA
  - BASELINE
  - PERIODIC
- EVALUATE MODIFICATIONS
- EVALUATE TECH SPECS
- MAINTAIN/USE CODES
- DATA ANALYSIS
- PRA TRAINING
- STUDIES/ANALYSES



## **ISEG**

- EVALUATE OPERATING EXPERIENCE
  - LIMERICK
  - OTHERS
- IDENTIFY/REQUEST PRA STUDY
- ASSURE PRA RESULTS REFLECTED IN
  - PROCEDURES
  - MAINTENANCE
  - TRAINING

## **TECHNICAL BASES**

9

- SCOPE
- MEASURE
- DETAIL

## **RESULT**

- PRA INTEGRATED WITH ORGANIZATION
- RESULTS REFLECTED IN
  - MODIFICATIONS
  - OPERATIONS
  - MAINTENANCE
  - TRAINING
- PRA MAINTAINED UP-TO-DATE
- PERIODIC RE-EVALUATION OF BENEFITS

LGS - Radwaste Processing and Storage

Meets the requirements of

- Reg Guides
- SRP
- Industry Code and Standards

By design storage in excess of 30 days  
for two unit operation is provided

## Storage Capabilities

### One unit operation

#### HSA-dewatered resin and sludges

- 1 - 60 ft<sup>3</sup> container/month
- Storage for 6 months is provided

#### LSA-dewatered resin and sludges

- 1 - 120 ft<sup>3</sup> container/~~month~~ week
- Storage for 11 weeks is provided

#### DAW

- Storage for 5 months provided
- Decreasing to 2 months

## Additional Storage Capability

### Contingency Storage Plan

- Resin/sludge - on-site storage containers
- DAW - warehouse

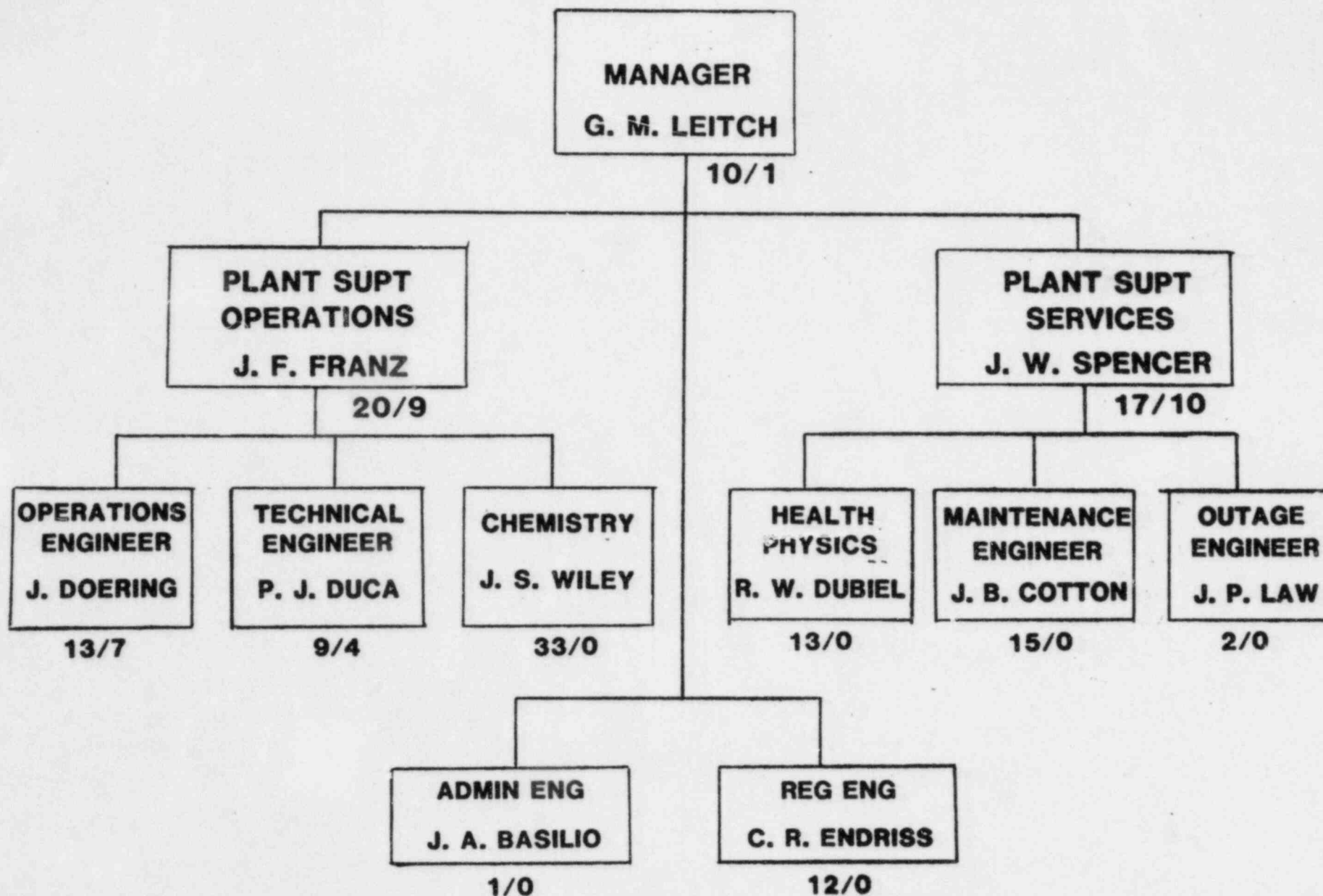
### Long term on-site storage options

- Use Peach Bottom storage facility
- Construct storage facility at LGS

## VR Options

- Improved R/W management
- Babcock & Wilcox VR facility
- Shredder /box compactor or supercompactor
- Incineration
- Advanced VR technology





LEGEND : YEARS OF -

NUCLEAR EXPERIENCE / OPERATING BWR EXPERIENCE

ENCLOSURE 7

# **LIMERICK GENERATING STATION**

## **PLANT OPERATIONS STAFFING**

- o **OPERATIONS ENGINEER - SRO LICENSED AT PAPS & LGS**
- o **ALL 5 SHIFT SUPERINTENDENTS LICENSED & 4 WITH PBAPS LICENSED EXPERIENCE**  
**A 6th LICENSED SHIFT SUPERINTENDENT IS GAINING EXPERIENCE**
- o **ONE WITHOUT PBAPS EXPERIENCE BACKED UP WITH PECo SHIFT ADVISOR (PREVIOUSLY SRO'S AT PBAPS)**
- o **9 SHIFT SUPERVISORS LICENSED WITH 4 MORE TO BE TESTED IN NOV 1985**
- o **50 LICENSES' 12 SRO ENGINEERS 15 SRO OPERATORS 23 RO OPERATORS**
- o **7 STA'S QUALIFIED**
- o **TOTAL LICENSED OPERATOR EXPERIENCE: 76 YEARS OF HOT OPERATING BWR EXPERIENCE**

7

# **LIMERICK GENERATING STATION**

## **OPERATOR QUALIFICATION STATUS**

- o **LICENSED OPERATORS**
  - o **27 SRO LICENSED OPERATORS & ENGINEER**
  - o **23 RO LICENSED**
- o **NON-LICENSE OPERATORS**
  - o **12 PLANT OPERATORS (MOST ARE RO'S)**
  - o **6 ASSISTANT PLANT OPERATORS**
  - o **18 AUXILIARY OPERATORS**
  - o **6 HELPERS**
- o **SHIFT TECHNICAL ADVISERS**
  - o **7 QUALIFIED**

(4)

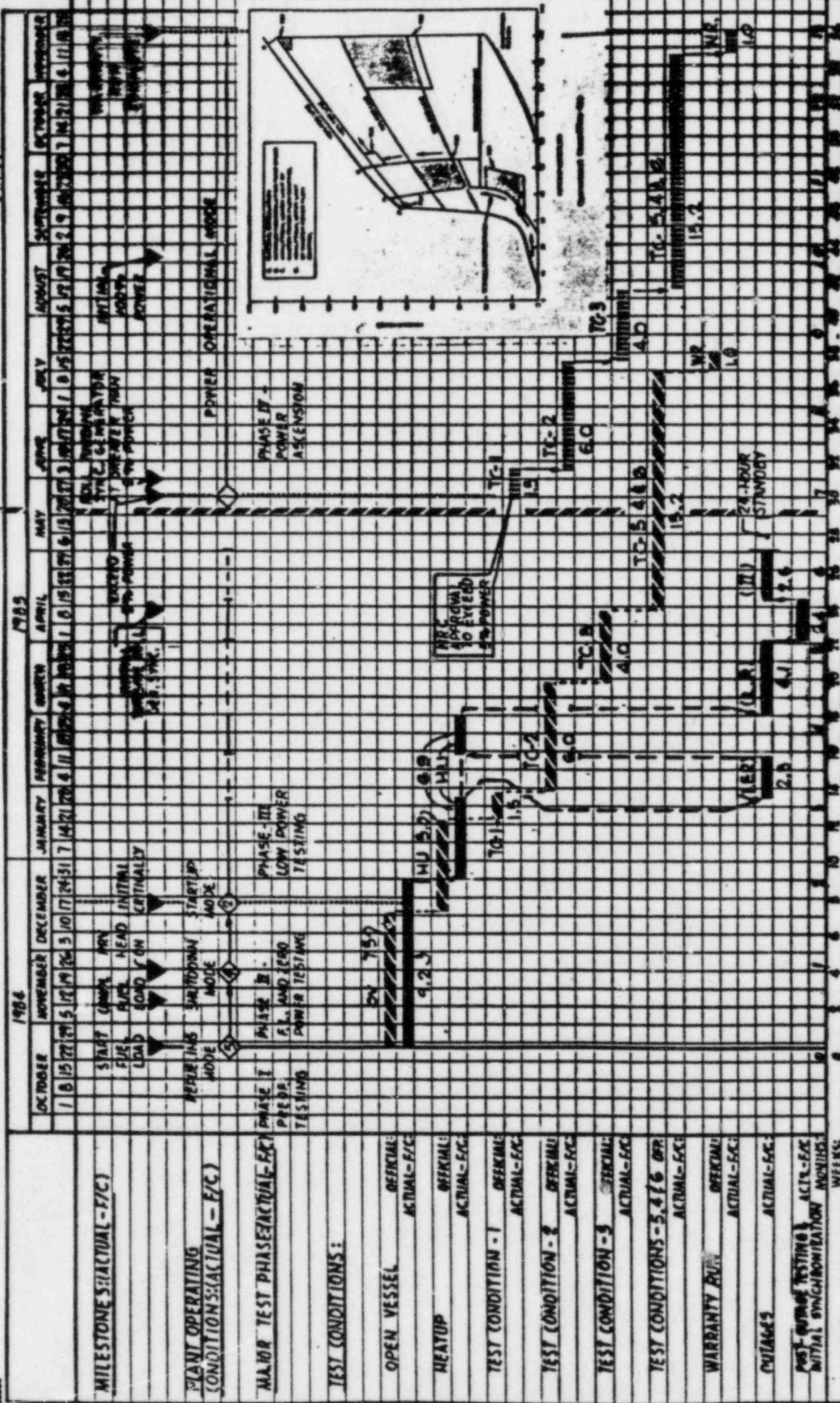
## LIMERICK GENERATING STATION

### UNIT 1 MILESTONES

DESCRIPTION	ACTUAL
RECEIVED 5% LICENSE & START F/L	OCT 26, 1984
COMPLETE FUEL LOAD	NOV 13 1984
INITIAL CRITICALITY	DEC 22, 1984
COMMENCE TEST CONDITION HEATUP TESTING	DEC 30, 1984
ESTABLISH INITIAL RATED PRESSURE & TEMPERATURE	JAN 14, 1985
BEGIN L.E.R. OUTAGE	JAN 31, 1985
COMPLETE L.E.R. OUTAGE, CONTINUE HEATUP TESTING	FEB 16, 1985
COMPLETE L.P. TESTING & BEGIN L.P. OUTAGE	MAR 04, 1985
COMPLETE L.P. OUTAGE & START TESTING	MAR 29 1985
INITIAL GENERATOR SYNCHRONIZATION	APR 13, 1985
COMPLETE POST-LOW POWER OUTAGE TESTING	APR 17, 1985



STATUS AS OF 9-21-85



DATE	DESCRIPTION	STATUS	REMARKS
10/1/84	STARTUP TEST PROGRAM	OFFICIAL	STARTUP TEST PROGRAM
10/1/84	OFFICIAL SCHEDULE VS FORECAST	ACTUAL	OFFICIAL SCHEDULE VS FORECAST
10/1/84	FORECAST	FORECAST	FORECAST