

JAN 23 1990

In Reply Refer To:  
Docket: 50-285

Omaha Public Power District  
ATTN: Kenneth J. Morris, Division Manager  
Nuclear Operations  
444 South 16th Street Mall  
Omaha, Nebraska 68102-2247

Gentlemen:

This refers to the meeting conducted at Omaha Public Power District's (OPPD) request in the Region IV office on January 16, 1990. This meeting included a discussion of the status of the Fort Calhoun Station (FCS) safety enhancement program (SEP) and a discussion of the licensee conducted FCS pre-SALP assessment. The meeting was attended by those on the attached Attendance List.

The subjects discussed at this meeting are described in the enclosed meeting slide presentation and pre-SALP assessment provided by OPPD.

It is our opinion that this meeting was beneficial and has provided a better understanding of the progress OPPD has made in implementing the FCS SEP. In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter will be placed in the NRC's Public Document Room.

In addition, it was mutually agreed upon to have the licensee submit quarterly, instead of monthly, SEP status reports. Also, the next SEP status meeting was tentatively scheduled for either June or July 1990.

Should you have any questions concerning this matter, we will be pleased to discuss them with you.

Sincerely,

Original Signed By:  
Samuel J. Collins

Samuel J. Collins, Director  
Division of Reactor Projects

Enclosures:

1. Attendance List
2. Meeting Slides (NRC distribution)
3. Pre-SALP Assessment (NRC distribution)

cc w/enclosures: (see next page)

RIV:DRP/B *df*  
RPMu111kin;df  
1/23/90

C:DRP/B *df*  
TFWesterman  
1/23/90

D:DRP  
SJC611ins  
1/23/90

*Dark Colored  
Graphs  
Attached*  
*IEO1*  
*1/1*

cc: w/enclosures:

LeBoeuf, Lamb, Leiby & MacRae  
ATTN: Harry H. Voigt, Esq.  
1333 New Hampshire Avenue, NW  
Washington, D.C. 20036

Washington County Board  
of Supervisors  
ATTN: Jack Jensen, Chairman  
Blair, Nebraska 68008

Combustion Engineering, Inc.  
ATTN: Charles B. Brinkman, Manager  
Washington Nuclear Operations  
12300 Twinbrook Parkway, Suite 330  
Rockville, MD 20852

Department of Health  
ATTN: Harold Borchert, Director  
Division of Radiological Health  
301 Centennial Mall, South  
P.O. Box 95007  
Lincoln, Nebraska 68509

Fort Calhoun Station  
ATTN: G. R. Peterson, Manager  
P.O. Box 399  
Fort Calhoun, Nebraska 68023

U.S. Nuclear Regulatory Commission  
ATTN: Resident Inspector  
P.O. Box 309  
Fort Calhoun, Nebraska 68023

U.S. Nuclear Regulatory Commission  
ATTN: Regional Administrator, Region IV  
611 Ryan Plaza Drive, Suite 1000  
Arlington, Texas 76011

bcc to DMB (IE01)

bcc distrib. by RIV:  
R. D. Martin  
DRSS-FRPS  
RIV File  
Project Engineer (DRP/B)  
A. Bournia, NRR Project Manager (MS: 13-D-18)

Resident Inspector  
Section Chief (DRP/B)  
DRP  
Lisa Shea, RM/ALF  
DRS

CHIEF BUDGETING

WITH

THE REGION IV

OMAHA PUBLIC POWER DISTRICT

# FLOWER DISTRICT

W.C. Jones Senior Vice President

W.G. Gates Executive Assistant

To the President

S.K. Gambhir Division Manager

Production Engineering

R.L. Andrews Division Manager, Quality &

Environmental Affairs

J.W. Chase Manager, Nuclear Licenses

& Industry Affairs

## END A

- Opening Remarks W.C. Jones
- Safety Enhancement Program Status W.C. Jones
- V&V of the SEP Items W.C. Jones
- Performance Measurements W.C. Jones

• Safety Enhancement  
Program Overview

-Training

W.G. Gates

-Security

W.G. Gates

-Operations

W.G. Gates

-Management/Human

W.G. Gates

Relations

-Engineering

S.K. Gambhir

-Quality Assurance

R.L. Andrews

• Closing Remarks

W.C. Jones

# OPENING REMARKS

- Meeting objective
- Accomplishments since last quarterly briefing

# ACCOUNTABILITY SINCE LAS

Mid-SALP

Mid-SALP

Nuclear Performance Meeting

Préduralization of V & V

Radiation Protection Assessment

Completion of classroom training

for system engineers

Independent assessment of INPO status

Facility improvement



# ENVIRONMENTAL FINANCIAL STATEMENT

## ENVIRONMENTAL FINANCIAL STATEMENT

Definition of Terms

Overall Status of Closed. Complete.

On-Schedule and Behind Schedule

Schedule SEP Items

Priority I Items Closed/Completed

Priority II Items Closed/Completed

Priority III Items Closed/Completed

... is complete and all

... issues have been resolved  
... in the  
... from  
... complete

validation is in progress

Accomplishment of action items  
indicates that the planned  
completion date will be met

Accomplishment of action items  
is not proceeding in  
accordance with the established  
schedule for completion

On-Schedule

Behind Schedule

# SEP ACTION ITEM STATUS

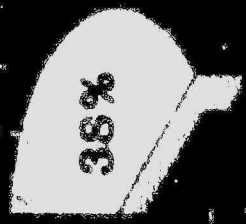
..... Schedule .....

I	4	14	4	1
II	12	20	6	2
III	2	7	0	0

Total 59 out of 72 action items complete (82%)  
Data as of December 31, 1989

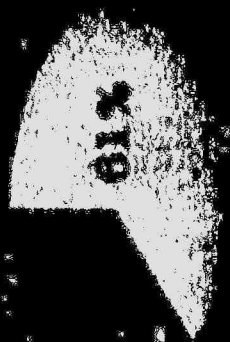
# PRIORITY ITEMS

1st Quarter 1989



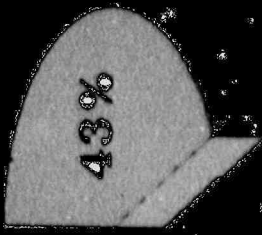
21 Items Total  
8 Items Complete

3rd Quarter 1989



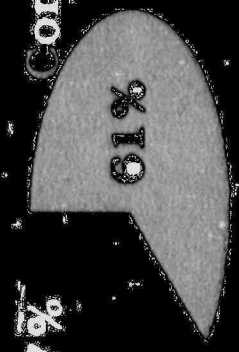
23 Items Total  
14 Items Complete

2nd Quarter 1989



21 Items Total  
9 Items Complete

4th Quarter 1989



Closed 17% Complete  
Open 22%  
23 Items Total  
14 Items Complete  
4 Items Closed

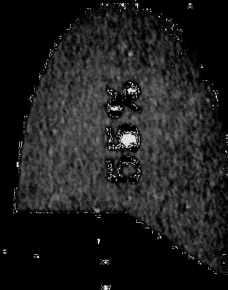
# PRIORITY II ITEMS

1st Quarter 1989



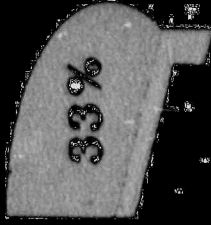
40 Items Total  
9 Items Complete

3rd Quarter 1989



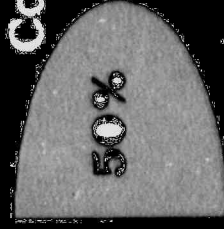
40 Items Total  
22 Items Complete

2nd Quarter 1989



40 Items Total  
14 Items Complete

4th Quarter 1989



Closed 30%  
Open 20%

40 Items Total  
20 Items Complete

12 Items Closed

# VERIFICATION & VALIDATION OF SEP ITEMS

- Prompt action on the SEP V & V inspection open items
- Corrective actions
  - Six (6) significant weaknesses identified
    - MOV diagnostic equipment not included in station M&TE Program
    - No formal method identified or in place to implement post outage critique

- Two operators signed functional position descriptions for positions for which they are no longer qualified
- Procedure used to review and package vendor manuals should become plant procedures
- Means of tracking and correcting items which are returned to service without passing their post maintenance testing
- Effectiveness of the new temporary modification program

- Program enhancements include checking previous V & V actions conducted prior to procedure improvements
- Review of reports to ensure weaknesses are captured
- Review to ensure that V & V was conducted on revision 1 of SFP, not revision 0



## GENERAL PERFORMANCE MEASUREMENTS

- Organization climate survey to determine management effectiveness
- SSFI (OPPD)
- Monthly performance indicators
- PRE SALP (OPPD)
- Quality Assurance audits

Get...

Case... quarterly corrective

active status report

... individual reports

...

=

... individuals

performance measurements if any

e

# PERSONNEL RADIATION EXPOSURE

Personnel Radiation Exposure  
Fort Calhoun Goal  
— Industry Upper 10 Percentile

400

300

REM

200

100

0

Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec  
1988 1989

# STATION

145 153

127

112

107

102

59

79

67

51

33

25

9

13

4

2

1

12

7

10

6

3

1

8

9

2

1

7

Jan Feb Mar Apr May Jun Jul Aug Sept Oct Nov Dec

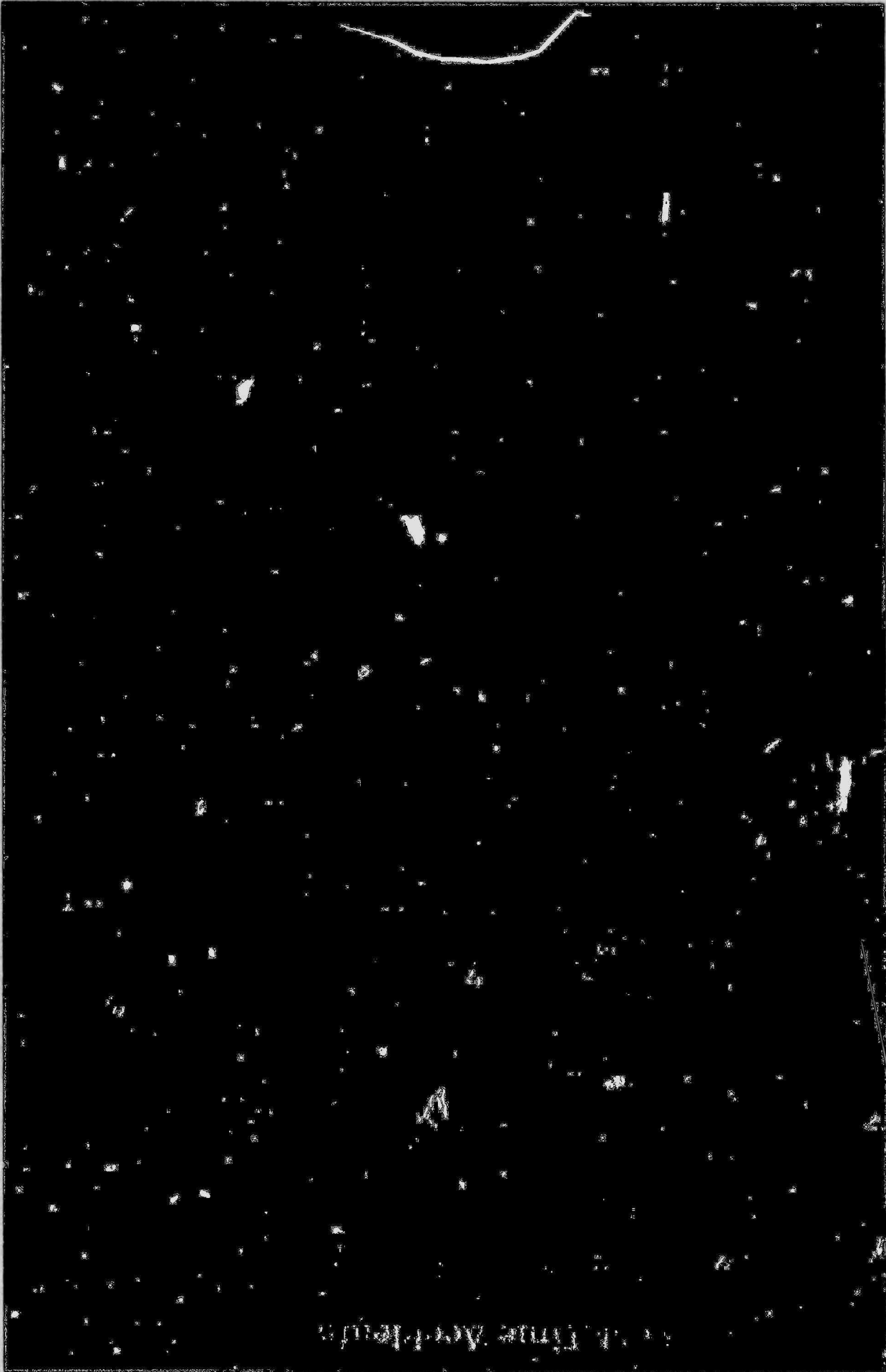
Industry Mean Average = 205 Yr

Events

Skin

Clothing

Total Events



RECORDED WITHIN

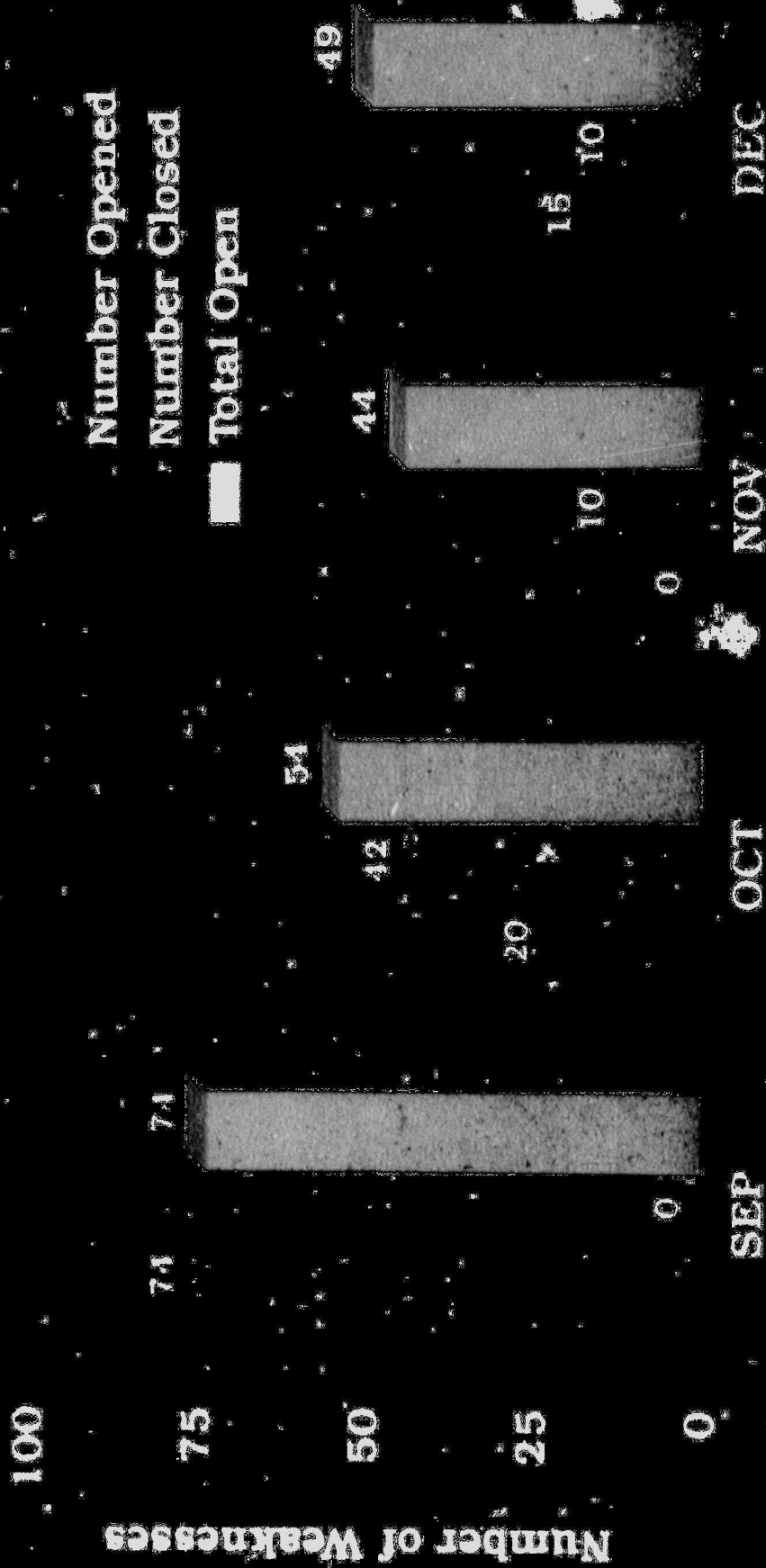
100-100000

S.F.

J F M A M J J A S O N D J F M A M J J

1988

# V & V WEAKNESSES SUMMARY



EXPERIMENT PROGRAM

Training Area	W.G. Gates
Security Area,	W.G. Gates
Operations Area	W.G. Gates
Management/Human	W.G. Gates
Relations Area	
Engineering Area	S.K. Gambhir
Quality Assurance	R.F. Anderson
Area	



## TRAINING AREA

- Training Overview
  - Items on schedule - two (2)
  - Items not on schedule - none (0)
  - Completed items - five (5)
  - Closed items - two (2)
  - Potential problems - one (1)
  - Mid-SALP weaknesses

Simulator Status

### **Simulator status**

- Hardware is essentially complete except for radiation monitoring system panel**
- Forty-one of forty-two models have been integrated into the 100% power snapshot**
- Integrated system testing commenced**
- Malfunction testing commenced**
- Power down at Pittsburgh, PA is scheduled for February 23, 1990**

# SECURITY AREA

- Security overview
  - Items on schedule - one (1)
  - Items not on schedule - none (0)
  - Completed items - one (1)
  - Closed items - one (1)
  - Potential problems - none (0)
  - Mid-SALP weaknesses

# 1980 SECURITY INCIDENTS

Number of Related Incidents

40

30

20

10

0

1st Qtr 89

2nd Qtr 89

3rd Qtr 89

4th Qtr 89



3 3 2

1 0 1 0

LDA HADDER'S ESCORT INATTENTIVE KEYS ACCESS

MILITARY WAREHOUSE

Day to day implementation of security plan

- Corrective actions
- Revised security administrative procedure
  - Retrained security training personnel
  - Retrained security force personnel
- Instituted task performance appraisal
- Conducted security awareness briefings
- Improved safeguards controls
- Advisory signs posted on containers
- Began using cover sheets
- Published article in District newsletter
- Increased number of coordinators

-Schedule for completion of security system upgrade

-Corrective actions

-New security computer was declared operational and conversion to new system was begun

-Remaining work has been prioritized

--Perimeter intrusion detection and CCTV coverage

--Access control functions

-Completion date February 28, 1990

# OPERATIONS AREA

- Operations Overview
  - Items on schedule - one (1)
  - Items not on schedule - none (0)
  - Completed items - sixteen (16)
  - Closed items - seven (7)
  - Potential problems - none (0)
  - Mid-SALP weaknesses
    - Operations
    - Radiological controls
    - Maintenance/Surveillance

- Mid-SALP weaknesses

- Operations area

- Management determinations of operability

- Corrective actions

- Revising standing order on conduct of operations to clarify operability determination



**-Prompt action in EOP and AOP  
upgrade weaknesses**

**-Corrective actions**

**-Corrected EOP problems identified**

**-Completed validation walkdown of AOP  
actions outside of the control room**

**-Completed validation walkdown of EOP-7**

- Standing order approved and issued for revision and generation of EOPs and AOPs
- Validated EOPs and AOPs in accordance with the new standing order
- Simulator validation of new EOPs and AOPs to be performed on simulator in May 1990.
- Conducting a systematic evaluation of the EOPs to ensure validation of EOP actions outside of control room. To be completed by February 28, 1990.

- Request rescheduling NRC EOP inspection until later this year
- INPO evaluation scheduled for June
- Outage scheduled for completion mid May
- Operator familiarity with new simulator and EOPs

Actions required when entering an LCO

- LCO 2.0.1. UE/Reportability

- No voluntary entry into LCO 2.0.1

- Corrective actions

- Issued memorandum on proper actions  
to be taken upon entry into TS 2.0.1

- Revising standing order on conduct of  
operations to include detailed guidance

**RADIOLOGICAL CONTROL AREA**

**-No significant problems**

# MAINTENANCE/SURVEILLANCE AREA

- I & C Maintenance staffing
- Corrective actions
- I & C is fully staffed with two exceptions
  - One offer extended and accepted
  - One new vacancy 1/9/90
- Hiring 25 contract technicians for outage - about 5 will remain after outage for craft support
- Full time staffing will be reviewed

- Post maintenance testing and tagging controls (RW Heat Exchanger)
- Corrective actions
- Revised standing order
- Revising operator training and qualification program
- Determined root cause to be tagging, not post maintenance testing.

**-Trend of missed fire watches continues**

**-Corrective actions**

**-Revised SECOP-14, security patrols,  
firewatch patrols and fire door  
alarms**

**--Revised FC-1006, hourly firewatch  
patrol log**

**--Hourly firewatch patrol log  
controlled by fire protection  
system engineer**



6  
--Copy of hourly firewatch log is

made available to the nuclear  
security officer

-Informed shift security supervisors and  
sergeants of hourly fire door  
patrol requirements

--Information to be included in yearly  
requalification training program

--Issued security communication notice  
on fire watch duties

# MANAGEMENTS/ HUMAN RELATIONS AREA

- Management/Human Relations Overview
  - Items on schedule - none (0)
  - Items not on schedule - none (0)
  - Completed items - six (6)
  - Closed items - three (3)
  - Potential problems - none (0)
  - Mid-SALP weaknesses - none (0)

514

517 540

784

Authorized 645

600

197 199 518 512 550 571

Actual

191

100

200

Accepted Offers

38 36 32 24 17 10 36 15 12 17 11 15 16

0

Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

1988

1989

-Procedures upgrade project

-Milestone schedule

-Safety related chemistry

2/15/90\*

-Safety related operations

5/15/90

(Allow 90 days for training)

-Safety related I & C

12/31/90

-Remaining safety related

2/15/90\*

\*Beginning of the 1990 refueling outage

- **Potential schedule problems**
- **Safety related procedure upgrade project - reference 48**
- **Emergency preparedness procedure upgrade - reference 13**
- **Design basis verification - reference 6**

## ENGINEERING SUPPORT

- Engineering overview
  - Items on schedule - six (6)
  - Items not on schedule - three (3)
  - Completed items - nine (9)
  - Closed items - four (4)
  - Potential problems
  - Mid-SALP weaknesses
  - Engineering/Technical support
  - Emergency preparedness
- Design basis reconstitution

**Potential schedule problems**

- Safety related procedure upgrade project - reference 48**
- Emergency preparedness procedure upgrade - reference 13**
- Design basis verification - reference 6**
- Long term corrective action on instrument air system - reference 30**

- **Mid-SALP weaknesses**

  - **Engineering/Technical support**

  - **Emergency preparedness**



- **Mid-SALP weaknesses**
- **Missing surveillance test packages**
- **Corrective actions**
- **Missing packages reviewed**
- **Updated tracking methods**
- **Increased management attention**

-Documented basis for waiver of test requirements

-Corrective actions

-Revised procedure

**-Part 50.59 evaluations**

**-Corrective actions**

**-Revising 50.59 safety evaluation  
training program**

**-Fuse control (self identified weakness)**

**-Corrective actions**

**-Interim controls in place**

**-Implemented pilot program**

**-Breaker coordination (Identified by design basis project)**

**-Corrective actions**

**-Completed coordination study for selected breakers**

**-Formalizing plans for re-creating coordination study**

**Technical adequacy of procedures (SEP Item)**

-Corrective actions

-Procedure upgrade in progress

**-NRR submittals**

**-Corrective actions**

**-Accountability defined**

**-Better up-front planning**

**-Improved communications**

**-Improved licensing interface**

**-Increased management attention**

**-Emphasis on DBR verification of surveillance tests (AUX feed pump)**

**Maintenance deficiency identified through special test**

**-Corrective actions**

**-Surveillance test program upgrade**

**-System engineering involvement**

**-Performance monitoring program**

**-Design basis verification**



## Emergency Preparedness Area

- Weaknesses identified during last annual exercise
- Corrective actions
- Control room control point to be promptly established
- Implementing internal action plan to improve OSC/TSC/CR coordination

- Revising site director responsibilities to focus on command functions
- Upgraded radiological contaminated injured person drills
- Tested revised accountability procedure in drills
- Develop formal training for exercise controller

## DESIGN SUBSTITUTION PROJECT

- Discussion on problems uncovered through other programs
- Steam driven aux feed water pump
- Use of containment spray pumps for shutdown cooling
- DG-1 air inlet dampers

Findings from SSFI

# QUALITY ASSURANCE AREA

- Quality assurance overview
- Completed items/performance measurements
- Items on schedule - none (0)
- Items not on schedule - none (0)
- Completed items - two (2)
- Closed items - two (2)
- Potential problems - none (0)
- Mid-SALP weaknesses
- OPPD Pre-SALP results

**Mid-SALP weaknesses**

**Safety Assessment Quality Verification**

- Commercial grade (CG) procurement
- Corrective actions
  - Specific vendor problems being addressed
  - Possibility of other dedicated procurements from vendor being reviewed
- Incorporate CG critical characteristics into appropriate design & mod procedures
- Random sampling of additional items completed under CG procedure in progress

# OPPD PRE-SALP RESULTS

- General remarks
- Security
- Emergency preparedness
- Maintenance and surveillance
- Engineering and technical support
- Safety assessment/Quality verification
- Plant operations
- Radiological controls

R

# CLOSING REMARKS

OMAHA PUBLIC POWER DISTRICT  
FORT CALHOUN STATION  
PRE-SALP ASSESSMENT  
CONDUCTED DECEMBER 6 - 8, 1989

PRE-SALP TEAM

DICK ANDREWS  
JOHN COLLINS  
FRED FRANCO  
JACK HIND  
KEVIN HOLTHAUS  
JIM KEPPLER (ADVISOR)  
BILL ORR  
CARL SIMMONS



## RECOMMENDATIONS

### GENERAL

- ASSURE THAT NRC'S REVIEW AND INSPECTION OF THE SEP COMMITMENTS RESULT IN TOTAL COMPLIANCE. THIS ASSURANCE SHOULD INCLUDE:
  - V&V PROCESS THAT HAS EARNED THE CONFIDENCE OF NRC
  - RESOLUTION OF WEAKNESSES IDENTIFIED BY V&V
  - INDEPENDENT AUDIT IN ADVANCE OF NRC INSPECTION
  
- DEVELOP HIGH LEVEL PRESENTATION FOR THE NRC WHICH PROVIDES IMPORTANT INFORMATION ON THIS SELF-ASSESSMENT AND INDICATES THAT ACTIONS HAVE BEEN TAKEN TO BRING ABOUT IMPROVED PERFORMANCE IN ALL FUNCTIONAL AREAS INCLUDING THOSE AIMED AT ACHIEVING SALP 1 PERFORMANCE.
  
- UPDATE PRE-SALP ASSESSMENT MONTHLY UNTIL END OF SALP PERIOD.

### RADIOLOGICAL CONTROLS

- ASSURE NRC CONCERNS REGARDING OPERABILITY OF HIGH RANGE STACK MONITOR ARE RESOLVED PROMPTLY.

### OPERATIONS

- AGGRESSIVELY PURSUE AND CORRECT WEAKNESSES IN AOP'S AND EOP'S.
- ENSURE NO DECISIONS AFFECTING REACTOR SAFETY AND TECH. SPEC. OPERABILITY ARE MADE WITHOUT THE DIRECT INVOLVEMENT OF THE SHIFT SUPERVISOR.

### SAFETY ASSESSMENT/QUALITY VERIFICATION

- ASSURE THAT ALL PROGRAMMATIC CONCERNS RELATIVE TO THE V&V PROCESS FOR THE SEP PROGRAM HAVE BEEN RESOLVED.
  
- CONDUCT AN INDEPENDENT REVIEW OF OPPD'S PROCESS OF DEVELOPING AND SUBMITTING WRITTEN TECHNICAL INFORMATION TO THE NRC, WITH THE OBJECTIVE OF INITIATING ACTIONS TO ENSURE QUALITY AND ACCURATE SUBMITTALS.
  
- FOR THE NEAR TERM, GREATLY REDUCE AND EVENTUALLY ELIMINATE GRANTING EXTENSIONS OF COMMITMENTS MADE TO THE NRC.

### ENGINEERING/TECHNICAL SUPPORT

- ESTABLISH A POSITION, REPORTING TO THE PLANT MANAGER, WITH TOTAL RESPONSIBILITY AND AUTHORITY FOR IMPLEMENTING THE FIRE PROTECTION PROGRAM.

### MAINTENANCE/SURVEILLANCE

- AUGMENT I&C STAFFING FROM COMBUSTION ENGINEERING, OTHER REACTOR UTILITIES OR CONTRACTORS, PRIOR TO START OF OUTAGE, UNTIL OPPD STAFF ADDITIONS CAN BE ACHIEVED.

### EMERGENCY PREPAREDNESS

- AGGRESSIVELY SEEK TO UNDERSTAND AND RESOLVE NRC CONCERNS IDENTIFIED DURING 1989 EXERCISE.
- ELEVATE EP WITHIN THE OPPD ORGANIZATION TO ASSURE INCREASED MANAGEMENT ATTENTION.
- DEMONSTRATE TO NRC OPPD'S DESIRE AND INTENT TO BE A CONSISTENT SALP 1 PERFORMER IN EP.

SECURITY

- RENEW PRIORITY MANAGEMENT ATTENTION TO MAKE UPGRADED SECURITY SYSTEM OPERATIONAL AT THE EARLIEST TIME.

## RADIOLOGICAL CONTROLS

### STRENGTHS

- STRONG MANAGEMENT ATTENTION DEVOTED TO IMPROVEMENT OF RADIOLOGICAL CONTROLS
  - COMPLETION OF SEP 51
  - SIGNIFICANT REDUCTION OF PROBLEMS ASSOCIATED WITH ENTRIES INTO HIGH RADIATION AREAS
  - REDUCTION IN SKIN AND CLOTHING CONTAMINATION EVENTS
  - NEW OFFICE FACILITIES AND EQUIPMENT
  - COMPREHENSIVE AUDIT OF RP PROGRAM
  - STRENGTHENING OF STAFF
  - DEVELOPMENT OF AND TRAINING ON NEW RP PROCEDURES
  
- STATION DOSE BELOW OPPD GOAL AND WITHIN TOP INDUSTRY QUARTILE
  
- RADIOACTIVE EFFLUENTS WELL BELOW OPPD GOALS
  
- IMPROVED ENFORCEMENT HISTORY
  - ONE SL IV VIOLATION IN CURRENT SALP (5 IN PREVIOUS SALP)
  
- RP PROGRAM WELL INTEGRATED INTO MAINTENANCE ACTIVITIES
  - EFFECTIVE ALARA

RADIOLOGICAL CONTROLS (CONTINUED)

STRENGTHS (CONTINUED)

- SEVERAL OTHER NOTEWORTHY IMPROVEMENTS
  - DOSIMETRY PROGRAM
  - CONFIRMATORY MEASUREMENTS PROGRAM
  - REDUCTION IN AUXILIARY BUILDING CONTAMINATED AREAS

RADIOLOGICAL CONTROLS (CONTINUED)

WEAKNESSES

- CONTINUED INOPERABILITY OF HIGH RANGE STACK MONITOR (RM-063)
- OPERABILITY OF IN-LINE CHEMISTRY MONITORS, ESPECIALLY PASS
- SIGNIFICANT SKIN CONTAMINATION EVENT
- CONTAMINATED MATERIAL FOUND OUTSIDE PROTECTED AREA



## OPERATIONS

### STRENGTHS

- EXCELLENT PLANT OPERATING RECORD AS EVIDENCED BY FOLLOWING PERFORMANCE INDICATORS
  - NO AUTOMATIC SCRAMS
  - NO ESF ACTUATIONS
  - NO SIGNIFICANT OPERATING EVENTS
  - ONLY ONE OPERATOR ERROR LER
  
- NOTICEABLE IMPROVEMENT IN PROCEDURE COMPLIANCE
  
- EXAMPLES WHERE ALERTNESS OF SHIFT SUPERVISORS PREVENTED PROBLEMS.
  - MAINTENANCE WORK ORDER FOR SIRWT LEVEL CONTROL VALVES
  - PROCEDURE FOR REMOVING DIESEL GENERATORS FROM SERVICE
  
- CONTINUED IMPROVEMENTS IN PLANT UPGRADING AND HOUSEKEEPING
  
- SEVERAL EXAMPLES OF GOOD PERFORMANCE ACKNOWLEDGED BY NRC
  - HANDLING OF PLANT SHUTDOWN FOLLOWING INDICATED MAIN COOLANT PUMP HIGH TEMPERATURE
  - OUTAGE FOR REMOVAL AND RESTORATION OF OFFSITE POWER LINE
  - IMPROVEMENTS IN CONTROL ROOM ACCESS CONTROL

OPERATIONS (CONTINUED)

STRENGTHS (CONTINUED)

- 100% PASS RATE ON NRC LICENSING EXAMS
  
- OPERATIONS STAFF DIRECTLY INVOLVED IN CHECKOUT OF SIMULATOR

OPERATIONS (CONTINUED)

WEAKNESSES

- SEVERAL INSTANCES OF INEFFECTIVE COMMUNICATIONS
  - DELTA T POWER ANOMALY EVENT
  - DELEGATION OF AUTHORITY
  - MISSED FIRE PATROLS
  
- MANAGEMENT DID NOT INVOLVE SHIFT SUPERVISOR IN KEY OPERATIONAL DECISIONS DURING DELTA T POWER ANOMALY EVENT
  
- FAILURE TO PROPERLY RETURN CCW HEAT EXCHANGER TO SERVICE FOLLOWING MAINTENANCE
  
- WEAKNESSES IDENTIFIED IN ABNORMAL AND EMERGENCY OPERATING PROCEDURES
  
- NUMBER OF LICENSED PERSONNEL ON SHIFT REMAINS LOW
  
- NRC CONCERNS FOR THE ADEQUACY OF PROCEDURES STILL EXIST

SAFETY ASSESSMENT/QUALITY VERIFICATION (SA/QV)

STRENGTHS

■ SIGNIFICANT IMPROVEMENT IN PERFORMANCE INDICATORS

	<u>PREVIOUS SALP</u>	<u>CURRENT SALP</u>
VIOLATIONS	4.8/MO.	2.6/MO.
LER'S	4.3/MO.	2.6/MO.

■ IMPLEMENTATION OF SEP

--VERIFICATION AND VALIDATION PROGRAM

--GOOD ADHERENCE TO SCHEDULE

--QUARTERLY MEETINGS WITH NRC

■ ACTIVE INVOLVEMENT BY FPC AND SARC IN ASSURING SAFETY OF OPERATIONS

■ QUALITY ASSURANCE AUDITS CHANGED FROM COMPLIANCE-BASED TO PERFORMANCE-BASED

■ OTHER AREAS OF GOOD PERFORMANCE ACKNOWLEDGED BY NRC

--QUALITY OF LER'S

--PART 21 REVIEWS

--OPPD INTERNAL AUDITS

SAFETY ASSESSMENT/QUALITY VERIFICATION (SA/QV)  
(CONTINUED)

WEAKNESSES

- QUALITY AND ACCURACY OF SUBMITTALS TO NRC
- NUMBER OF COMMITMENT DATE EXTENSION REQUESTS CONTINUES HIGH
- INADEQUATE 50.59 EVALUATION (COULD HAVE DISABLED BOTH DIESEL GENERATORS)
- SOME PROGRAMMATIC CONCERNS WITH SEP V&V PROCESS IDENTIFIED BY NRC

ENGINEERING/TECHNICAL SUPPORT (E/TS)

STRENGTHS

- SIGNIFICANT IMPROVEMENTS IN KEY PERFORMANCE INDICATORS ASSOCIATED WITH E/TS

	<u>PREVIOUS SALP</u>	<u>CURRENT SALP</u>
VIOLATIONS	23 (1.9/MO.)	3 (0.4/MO.)
SL III VIOLATIONS	2	0
LER'S	16 (1.3/MO.)	4 (0.6/MO.)

- STRONG SYSTEM ENGINEERING PERFORMANCE
  - PRO-ACTIVE EFFORTS IN MAINTENANCE
  - RAW WATER SYSTEM PERFORMANCE EVALUATION
  - EMERGENCY DIESEL GENERATOR OPERABILITY DETERMINATIONS
  - EXTENSIVE TRAINING COMPLETED
- SEP ACTIONS BEING COMPLETED AS SCHEDULED
  - OUTAGE MODIFICATIONS CONTROLS COMPLETED
- DESIGN BASIS RECONSTITUTION PROGRAM SUCCESSFUL IN IDENTIFICATION AND CORRECTION OF PROBLEMS

ENGINEERING/TECHNICAL SUPPORT (E/TS)  
(CONTINUED)

STRENGTHS (CONTINUED)

- SEVERAL OTHER AREAS VIEWED POSITIVELY BY NRC
  - PRA PROGRAM
  - RIVER LEVEL ACTION PLAN
  - CABLE SPLICING PROGRAM
  - ANNUAL SSFI INSPECTIONS

ENGINEERING/TECHNICAL SUPPORT (E/TS)  
(CONTINUED)

WEAKNESSES

- ENGINEERING NOT ALWAYS RESPONSIVE TO NRC IDENTIFIED CONCERNS
  - ANALYSIS ON FIRE DOORS
  - LACK OF OPERABILITY ANALYSES FOR DEAERATING WATER PUMP BREAKERS
  - VALVE SEISMIC CALCULATION SUBMITTAL TO NRR
  
- TECHNICAL CONTENT OF PROCEDURES, WHILE BEING ADDRESSED, REMAINS A CONCERN
  
- INCREASE IN NUMBER OF TEMPORARY MODIFICATIONS
  
- OTHER SPECIFIC NOTEWORTHY WEAKNESSES
  - LACK OF DOCUMENTATION FOR FULT BREAKER COORDINATION STUDY
  - CONTINUED PROBLEMS WITH FIRE PROTECTION



## MAINTENANCE/SURVEILLANCE (M/S)

### STRENGTHS

- SEP PROGRAMS AFFECTING M/S ACTIVITIES ON SCHEDULE
- SIGNIFICANT REDUCTION IN M/S RELATED LER'S (19 TO 4)
- SIGNIFICANT REDUCTION IN MISSED SURVEILLANCES
- FORCED OUTAGE RATE REMAINS LOW AND PLANT MATERIAL CONDITION CONTINUES TO BE GOOD
- AGGRESSIVE RESOLUTION OF TECHNICAL ISSUES
  - EDG TEMPERATURE PROBLEM
  - AFW PUMP INOPERABILITY
- GOOD PREVENTIVE TO CORRECTIVE MAINTENANCE RATIO

MAINTENANCE/SURVEILLANCE (M/S)  
(CONTINUED)

WEAKNESSES

- CONTINUING PROBLEMS WITH PROCEDURES
  
- EXAMPLES OF INEFFECTIVENESS OF M/S PROGRAMS
  - RAW WATER CHECK VALVES
  - INOPERABILITY OF AFW PUMP
  - INOPERABLE FW VALVE
  
- LEVEL OF EXPERIENCE OF I&C PERSONNEL
  
- LESS THAN DESIRABLE ENFORCEMENT RECORD
  
- LACK OF ADEQUATE SPARE PARTS
  
- BACKLOG OF OLD MAINTENANCE WORK REQUESTS ABOVE GOAL

## EMERGENCY PREPAREDNESS (EP)

### STRENGTHS

- SOME IMPROVEMENT IN EMERGENCY EXERCISE RESULTS (1988 TO 1989)
  
- CRITICAL SELF ASSESSMENT OF 1989 DRILL

### WEAKNESSES

- FAILURE OF OPPD TO ACHIEVE SIGNIFICANT IMPROVEMENTS IN 1989 EMERGENCY EXERCISE DESPITE MAJOR EFFORT
  - LARGE NUMBER OF WEAKNESSES
  - RECURRING PROBLEMS
  - INEFFECTIVE COORDINATION BETWEEN KEY GROUPS

## SECURITY

### STRENGTHS

- SEVERAL STEPS TAKEN TO UPGRADE SECURITY PROGRAM
  - ADDITIONAL OPPD MANAGERS ADDED TO SECURITY ORGANIZATION
  - STAFF BRIEFING ON NEW SECURITY SYSTEM
  - TRAINING
  
- COMPREHENSIVE FITNESS FOR DUTY PROGRAM IMPLEMENTED IN ADVANCE OF NRC RULE

## SECURITY (CONTINUED)

### WEAKNESSES

- DELAYS IN COMPLETING SECURITY SYSTEM UPGRADE
  
- ENFORCEMENT RECORD CONTINUES TO BE HIGH  
--6 VIOLATIONS (2 SL III) DURING CURRENT SALP PERIOD
  
- RECURRING PROBLEMS WITH COMPENSATORY MEASURES
  
- EXAMPLES OF INADEQUATE SEARCHES
  
- HIGH NUMBER OF SECURITY EVENTS