March 1, 1996

Duke Power Company
ATTN: Mr. W. R. McCollum
Site Vice President
Catawba Site
4800 Concord Road
York, SC 29745-9635

SUBJECT: MEETING SUMMARY - CATAWBA NUCLEAR STATION

Dear Mr. McCollum:

This refers to the open Management meeting that was conducted in the NRC Region II office on February 27, 1996, to discuss the status and results of performance initiatives at Catawba. A list of attendees and a copy of your presentation handout are enclosed.

It is our opinion that this meeting was beneficial in that it provided the NRC staff with an overview of the positive results your performance improvement initiatives have had to date, as well as those areas you plan to focus additional attention. As indicated during the meeting, arrangements for the next performance improvement related meeting will be made in the near future.

In accordance with 10 CFR 2.790(a) of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosures will be placed in the NRC Public Document Room.

Should you have any questions concerning this letter, please contact us.

Sincerely,

Original signed by
Richard J. Freudenberger (for)

R. V. Crlenjak, Chief
Reactor Projects Branch 1
Division of Reactor Projects

Docket Nos. 50-413, 50-414
License Nos. NPF-35, NPF-52

Enclosures: 1. List of Attendees
2. Licensee Presentation Handouts

cc w/encls: (See page 2)

120029

IE45

cc w/encls:
Mr. Z. L. Taylor
Compliance
Duke Power Company
4800 Concord Road
York, SC 29745-9635

Mr. Paul R. Newton
Legal Department (PB05E)
Duke Power Company
422 South Church Street
Charlotte, NC 28242-0001

Mr. Robert P. Gruber
Executive Director
Public Staff - NCUC
P. O. Box 29520
Raleigh, NC 27626-0520

Mr. J. Michael McGarry, III, Esq.
Winston and Strawn
1400 L Street, NW
Washington, D. C. 20005

North Carolina MPA-1
Suite 600
P. O. Box 29513
Raleigh, NC 27626-0513

Mr. Max Batavia, Chief
Bureau of Radiological Health
S. C. Department of Health
and Environmental Control
2600 Bull Street
Columbia, SC 29201

Mr. Richard P. Wilson, Esq.
Assistant Attorney General
S. C. Attorney General's Office
P. O. Box 11549
Columbia, SC 29211

Mr. Michael Hirsch
Federal Emergency Management Agency
500 C Street, Sw, Room 840
Washington, D. C. 20472

cc w/encls cont'd: (See page 3)

cc w/encls cont'd:
North Carolina Electric
Membership Corporation
P. O. Box 27306
Raleigh, NC 27611

Karen E. Long
Assistant Attorney General
N. C. Department of Justice
P. O. Box 629
Raleigh, NC 27602

Saluda River Electric
Cooperative, Inc.
P. O. Box 929
Laurens, SC 29360

Peter R. Harden IV
Account Sales Manager
Power Systems Field Sales
Westinghouse Electric Corporation
P. O. Box 7288
Charlotte, NC 28241

County Manager of York County
York County Courthouse
York, SC 29745

Piedmont Municipal Power Agency
121 Village Drive
Greer, SC 29651

Mr. G. A. Copp
Licensing - EC050
Duke Power Company
P. O. Box 1006
Charlotte, NC 28201-1006

Mr. Paul Pappas
Director, Nuclear Operations
North Carolina Electric
Membership Corporation
4800 Concord Road
York, SC 29745

Distribution w/encls:
R. E.Martin, NRR
R. E. Carroll, RII
R. V. Crlenjak, RII
G. A. Hallstrom, RII
PUBLIC

NRC Resident Inspector
Nuclear Regulatory Commission
4830 Concord Road
York, SC 29745

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COPY?	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO

OFFICIAL RECORD COPY DOCUMENT NAME: G:\MTGSUM21.CAT

LIST OF ATTENDEES

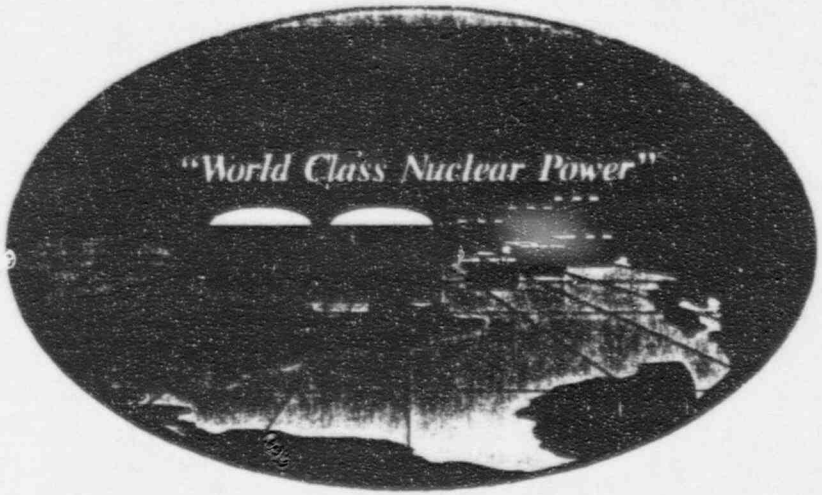
NUCLEAR REGULATORY COMMISSION ATTENDEES:

S. Ebneter, Regional Administrator, Region II (RII)
L. Reyes, Deputy Regional Administrator, RII
J. Johnson, Deputy Director, Division of Reactor Projects (DRP), RII
A. Gibson, Director, Division of Reactor Safety, RII
S. Shankman, Acting Director, Project Directorate II-2, Nuclear Reactor Regulation
R. Freudenberger, Acting Chief, Branch 1, DRP, RII
R. Carroll, Project Engineer, Branch 1, DRP, RII

DUKE POWER COMPANY ATTENDEES:

W. McCollum, Site Vice President, Catawba Nuclear Station (CNS)
G. Peterson,, Station Manager, CNS
J. Forbes, Engineering Manager, CNS
M. Patrick, Safety Assurance Manager, CNS
J. Troutman, Associate Engineer, North Carolina Municipal Power Agency Number 1
J. Brown, Director of Construction, North Carolina Electric Membership Corporation

ENCLOSURE 1



CATAWBA NUCLEAR STATION

PERFORMANCE UPDATE

FEBRUARY 27, 1996

ENCLOSURE 2

CATAWBA NUCLEAR STATION
PERFORMANCE UPDATE
FEBRUARY 27, 1996

I. Outage Performance	Gary Peterson
II. Systematic Assessment of Licensee Performance (SALP)	Gary Peterson Jeff Forbes
III. Operational Performance - Site Report	Bill McCollum
IV. Operational & Management Focus - Human Performance	Bill McCollum

I. OUTAGE PERFORMANCE
2EOC7 OUTAGE UPDATE

	ACTUAL	GOAL
PERSONNEL SAFETY	**3**	**3**
PERSONNEL ERRORS (LERs)	**0**	**1**
RADIATION CONTROL		
· RADIATION DOSE (REM)	**139**	**162**
· CONTAMINATION EVENTS	**94**	**60**
ENVIRONMENTAL		
· SOLID RADWASTE (FT3)	**3820**	**7425**
· ENVIRONMENTAL SPILLS	**8**	**2**
· LIQUID RADWASTE	**3770**	**3385**
OUTAGE DURATION	**54.45**	**40**
REWORK (CP, Hrs.)	**242**	**8**

I. OUTAGE PERFORMANCE
2EOC7 OUTAGE SUCCESSES

	ACTUAL	GOAL
Personnel Errors (LERs)	0	1
Radiation Control		
· Radiation Dose(REM)	139*	162**
Environmental		
· Solid Radwaste (FT^3)	3820	7425

* Previous Best Ice Condenser Plant Outage Dose - CNS 2EOC5 = 141 P-REM
D.C. Cook = 150 P-REM
MNS Best = 128 P-REM

**During CNS 2EOC7, Target goal was revised to 124 P-REM.

I. OUTAGE PERFORMANCE
2EOC7 OUTAGE CHALLENGES

	ACTUAL	GOAL
Radiation Control		
· Contamination Events	94	60
Environmental		
· Environmental Spills	8	2
Rework CP, Hrs	242	8
Outage Duration (Days)	54.45	40

I. OUTAGE PERFORMANCE
1EOC8 OUTAGE RESULTS

	ACTUAL	GOAL
PERSONNEL SAFETY	**12**	**3**
PERSONNEL ERRORS (LERs)	**0**	**1**
RADIATION CONTROL		
· RADIATION DOSE (REM)	**262**	**199**
· CONTAMINATION EVENTS	**145**	**48**
ENVIRONMENTAL		
· SOLID RADWASTE (FT3)	**4492**	**9,400**
· ENVIRONMENTAL SPILLS	**1**	**2**
· LIQUID RADWASTE	**5675**	**4076**
OUTAGE DURATION	**41.6**	**46**
REWORK (CP, Hrs.)	**15**	**8**

I. OUTAGE PERFORMANCE
2EOC7 SUMMARY

DISAPPOINTMENTS

- Unplanned Reactor Coolant System Inventory Loss
- Use of Unspecified Lubricant During Reactor Coolant Pump Seal Maintenance
- Entry Into A Radiation Control Area Without Dosimetry
- Amount of Rework
- Contamination Events
- Outage Extension

SUCCESSES

- No Major Significant Events
- Loss of Reactor Coolant System Inventory SEIT
- No Significant Events Following PORC Review of Plans & Briefing Packages
- Radiation Dose
- Solid Radwaste

II. SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE (SALP)

Systematic Assessment of Licensee Performance
(SALP)

Rated Area	Previous	Current
Plant Operations	2	2
Maintenance	2	2
Engineering	2	2
Plant Support	1	2

II. SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE (SALP)

PLANT OPERATIONS

CHALLENGES:

- Continue Improvements in Human Performance
- Continued Management Oversight and Involvement with In-Plant Activities
- Self-Assessment and PORC Reviews

II. SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE (SALP)

PLANT OPERATIONS

INITIATIVES:

- Meetings with Site Managers & Supervisors To Clarify Expectations
- Flawless Performance During Recent Events
  - Unit 2 LOOP Operator Performance
  - Unit 1 Shutdown - January
  - Heater Drain Pump Trip
  - Control Rod Drive Switch
- Operations Self Assessments (14 Currently Planned For 1996)
- PORC Review of 22 Evolutions During Last Outage..Evolutions Completed Without Error
- Quality of Recent SEIT Investigations
- Control Room Improvement Team

II. SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE (SALP)

MAINTENANCE & SURVEILLANCE

CHALLENGES:

- Human Performance
- Outage Maintenance Quality
- Rework
- Continued Emphasis on Maintenance and Surveillance Programs
- Trending Individual Problems to Identify Programmatic Deficiencies

II. SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE (SALP)

MAINTENANCE & SURVEILLANCE

INITIATIVES:

- Pre-Job Briefings, Field Observations
- Quality Issues Encountered During Previous Unit 1 Outage, Improvement Demonstrated During Recent Unit 2 Outage
- Reinforce The Six Tools For Flawless Human Performance
- Personnel Realignments To Strengthen Operations / Work Control Interface
- Critical Maintenance Process & LCO Philosophy
- Maintenance Self Assessments (19 Currently Planned For 1996)
- Performing Assessment Of Maintenance Against INPO Criteria

II. SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE (SALP)

PLANT SUPPORT

CHALLENGES:

- Minimize Radiation Exposure
- Contamination Control
- Self-Assessment of Radiological Controls
- Continued Emphasis on the Control of Safeguards Information and Vital Area Doors
- Access Controls (Recent Violation)

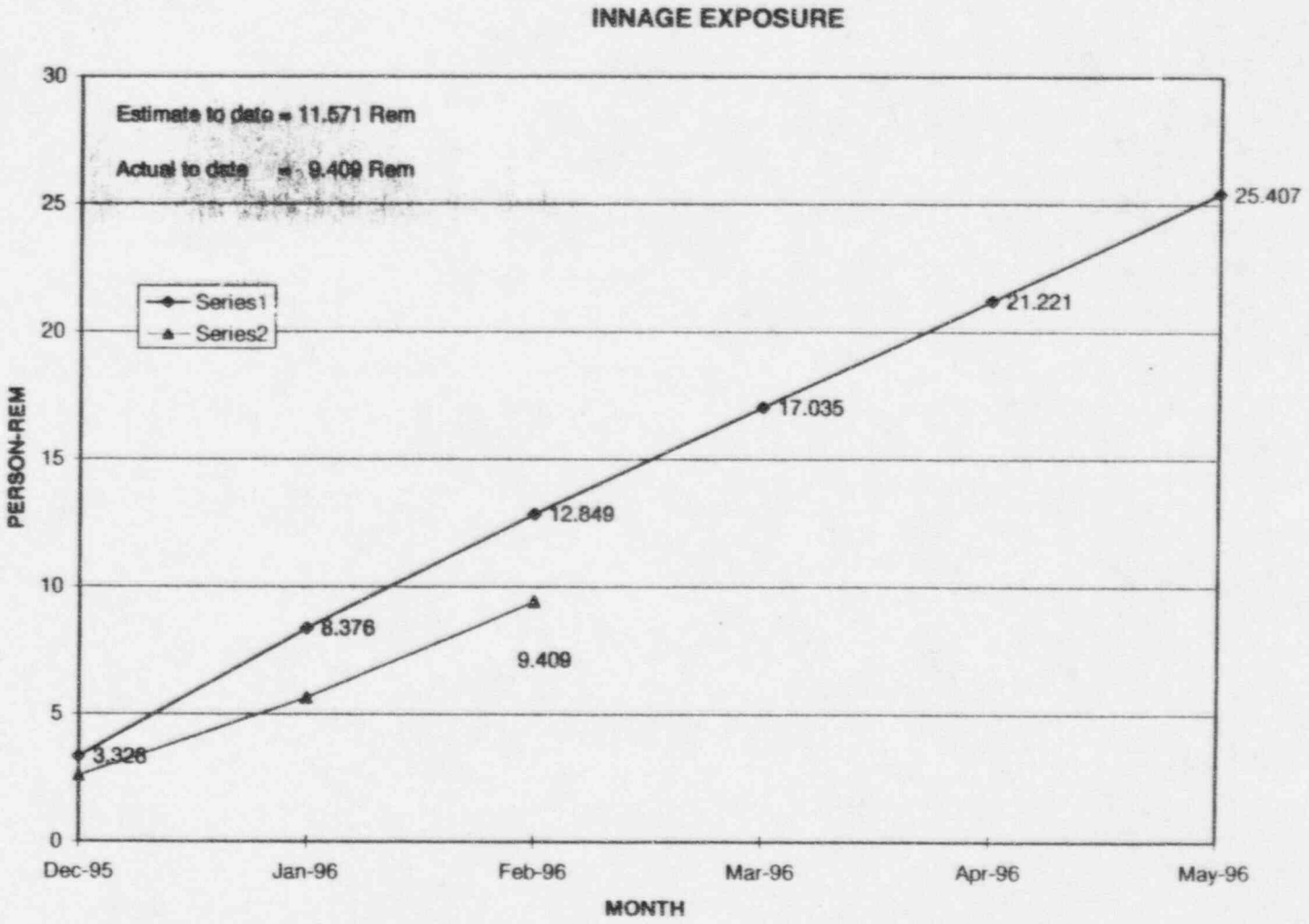
II. SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE (SALP)

PLANT SUPPORT - Radiological Controls

INITIATIVES:

- Recent Unit 2 Outage Dose Reduced 47% From Previous Unit 1 Outage
- Recent Unit 2 Contamination Events Reduced 35% From Previous Unit 1 Outage.....Continuing Challenge
- Enhanced Radiological Controls Self-Assessment Program For 1996 (25 RP/Chemistry Self Assessments Currently Planned For 1996)
- Innage Dose Goal Vs. Actual Performance To Date

II. SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE (SALP)



II. SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE (SALP)

PLANT SUPPORT - Security

INITIATIVES:

- Safeguards Information Now Located In Single Area, Double Barrier
- Work Orders For Vital Area Doors Assigned Higher Priority - Door Accountability
- Access Controls Audit Process Formalized & Program Revised

II. SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE (SALP)

ENGINEERING

CHALLENGES:

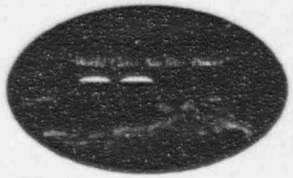
- Timely Resolution of Equipment Problems
- Human Performance - Expectations & Accountability
- Support To Operations

II. SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE (SALP)

ENGINEERING

INITIATIVES:

- Equipment Problem Resolution
  - Top Equipment Problem Resolution Report (TEPRR)
  - Containment Integrity Review
- Role Of Supervision
- Structured Management Oversight
- Engineering Work Request Program
- Engineering Self Assessments (33 Currently Planned For 1996)



III. OPERATIONAL PERFORMANCE SITE REPORT

Catawba Performance Measures

January 1996

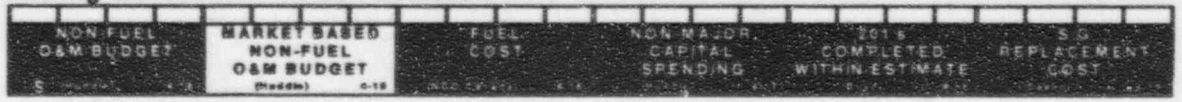
Vision - "To Be World Class"

- **Production Cost In Top Ten**
- **Capacity Factor In Top Quartile**
- **INPO Rating In Top Quartile**
- **NRC SALP Score In Top Quartile**
- **Zero Recordable Injuries**
- **Zero Reportable Environmental Incidents**

Team Effectiveness

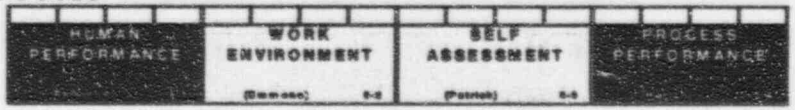
Operating Excellence - Nuclear System

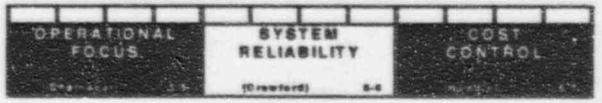
Operating Excellence - Cost Control

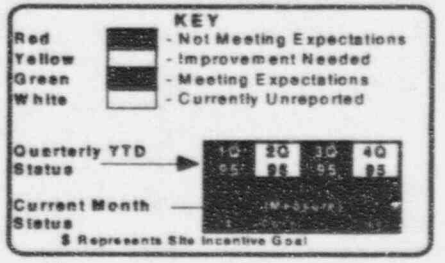


Stewardship

Site Focus







IV. OPERATIONAL & MANAGEMENT FOCUS - HUMAN PERFORMANCE

PROGRESS

- Procedure Compliance
- STAR (Stop, Think, Act, & Review)
- Control Board Attentiveness
- Questioning Attitude
- Reduction Of Significant Human Errors
- Communications With Operations
- Response To Plant Challenges

IV. OPERATIONAL & MANAGEMENT FOCUS - HUMAN PERFORMANCE

CHALLENGES

- Quality Of Maintenance
- PIP/ Work Order Inventory
- Self Assessment
- Reinforcement Of Supervisor Observations & Pre-Job Briefings
- Communication Of Sense Of Urgency To Worker Level
- Eliminate Human Performance Impacts On Equipment Reliability
- Foreign Material Exclusion (FME)

IV. OPERATIONAL & MANAGEMENT FOCUS - HUMAN PERFORMANCE

MANAGEMENT ACTIONS

- Leadership Meetings With Site Supervision
- Station Division Management Meeting On Human Performance
- Engineering Division Management Meeting On Human Performance
- Comprehensive Self Assessment Program
- Operations Shift Managers Meeting With Station Manager

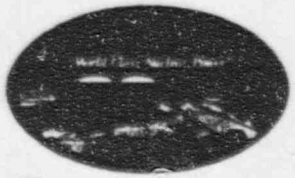
IV. OPERATIONAL & MANAGEMENT FOCUS - HUMAN PERFORMANCE

SELF ASSESSMENT LEVELS

- Level 1 — Management Field / Simulator Observations
  Supervisor Job Observations
  (Performed Daily)

- Level 2 — Site Work Group Assessments
  Site Work Group Observations includes use of Industry peers.
  (160 Currently Planned For 1996)

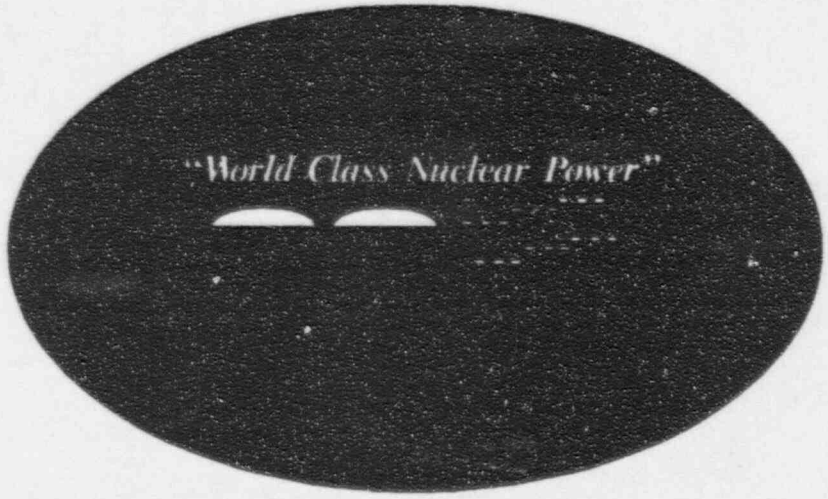
- Level 3 — Company Internal Oversight (Regulatory Audits, Performance Assessment, Safety Review Group & Nuclear Safety Review Board Audits)
  Company Internal Oversight includes use of Industry peers.
  (31 Currently Scheduled, Expect Approximately 30 Additional As New Issues Arise During 1996)



IV. OPERATIONAL & MANAGEMENT FOCUS - HUMAN PERFORMANCE

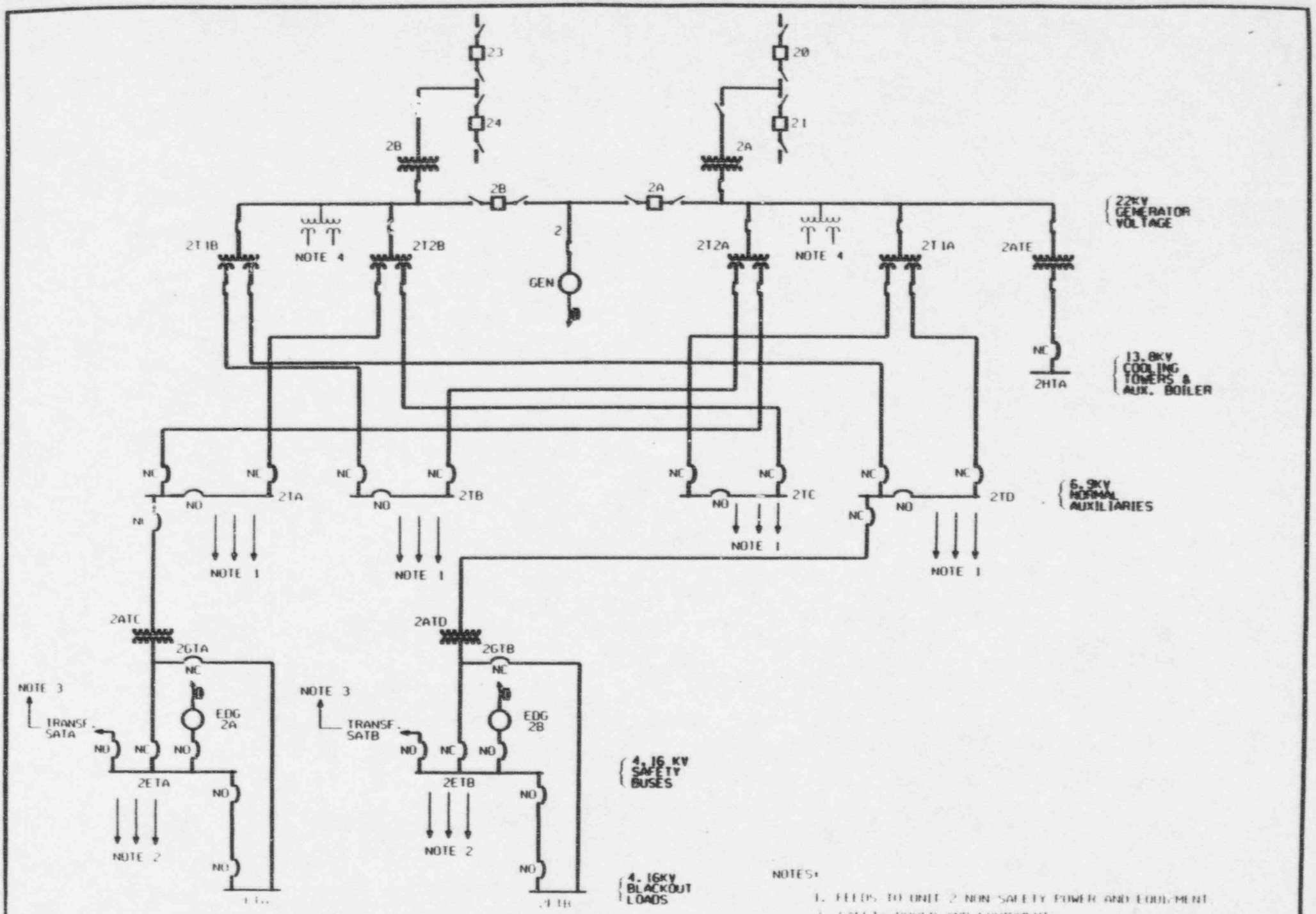
SUMMARY

- CLEAR FOCUS FOR 1996
- MANAGEMENT INVOLVEMENT
- SELF CRITICAL ASSESSMENT
- STANDARDS REINFORCEMENT



CATAWBA NUCLEAR STATION

FEBRUARY 6, 1996 UNIT 2
LOSS OF OFFSITE POWER EVENT



NOTES:

1. FEEDS TO UNIT 2 NON-SAFETY POWER AND EQUIPMENT.
2. SAFETY POWER AND EQUIPMENT.
3. [illegible] FEED FROM UNIT 1 OR UNIT 2 NORMAL [illegible]
4. FEEDS A MULTI POTENTIAL TRANSFORMER [illegible] OF BUSSING FAILURE.

CATAWBA NUCLEAR STATION
UNIT 2 LOSS OF OFF-SITE POWER EVENT
AGENDA

- **SEQUENCE OF EVENTS**
- **HIGHLIGHTS**
- **LESSONS LEARNED**
- **RECOGNITION**

CATAWBA NUCLEAR STATION
UNIT 2 LOSS OF OFF-SITE POWER EVENT
SEQUENCE OF EVENTS

INITIAL CONDITIONS:

- **DG 2B OUT OF SERVICE FOR BATTERY CHARGER CORRECTIVE MAINTENANCE**

- **RN PUMP 2B OUT OF SERVICE FOR SIGHTGLASS REPAIR**

CATAWBA NUCLEAR STATION
UNIT 2 LOSS OF OFF-SITE POWER EVENT
SEQUENCE OF EVENTS

FAILURE:

- **FAILURE OF UNIT 2A MAIN POWER RESISTOR BUSHING**
- **SIMILAR FAILURE OF UNIT 2B MAIN POWER RESISTOR BUSHING**
- **COMPLETE LOSS OF OFF-SITE POWER TO UNIT 2**

CATAWBA NUCLEAR STATION
UNIT 2 LOSS OF OFF-SITE POWER EVENT
SEQUENCE OF EVENTS

PLANT RESPONSE:

- **REACTOR TRIP DUE TO REACTOR COOLANT PUMP UNDER FREQUENCY**

- **ELECTRICAL:**
  - **DG 2A STARTS AND SUPPLIES POWER TO 2A 4160v SAFETY BUS**

  - **DG 2B OUT OF SERVICE; 2B 4160v SAFETY BUS DE-ENERGIZES**

CATAWBA NUCLEAR STATION
UNIT 2 LOSS OF OFF-SITE POWER EVENT
SEQUENCE OF EVENTS

- **UNIT 2 SI DUE TO LOW MAIN STEAM LINE PRESSURE**
- **PRESSURIZER PORV LIFTS INTERMITTENTLY RELIEVING TO PRESSURIZER RELIEF TANK**
- **SI TERMINATED**

CATAWBA NUCLEAR STATION
UNIT 2 LOSS OF OFF-SITE POWER EVENT
SEQUENCE OF EVENTS

- **UNUSUAL EVENT DECLARED**
- **ACTIVATED TECHNICAL SUPPORT CENTER AND OPERATIONS SUPORT CENTER**
- **DECAY HEAT REMOVAL BY NATURAL CIRCULATION**

CATAWBA NUCLEAR STATION
UNIT 2 LOSS OF OFF-SITE POWER EVENT
SEQUENCE OF EVENTS

- **DG 2B RETURNED TO SERVICE**
- **2B SAFETY LOADS SEQUENCED ON TO 2B SAFETY BUS**
- **PRESSURIZER BUBBLE ESTABLISHED TO CONTROL NC SYSTEM PRESSURE**

CATAWBA NUCLEAR STATION
UNIT 2 LOSS OF OFF-SITE POWER EVENT
SEQUENCE OF EVENTS

- **UNIT 1 POWER CROSS CONNECTED TO UNIT 2 SAFETY BUSES**
- **DGs 2A AND 2B SECURED**
- **2B OFF-SITE POWER RESTORED**

CATAWBA NUCLEAR STATION
UNIT 2 LOSS OF OFF-SITE POWER EVENT
SEQUENCE OF EVENTS

EVENT CLOSEOUT:

- **UNUSUAL EVENT TERMINATED**
- **TSC AND OSC TRANSITION TO OUTAGE ORGANIZATION**
- **REDUCED POWER ON UNIT 1 AND SPLIT MAIN POWER TRAINS**
- **REPLACED MAIN POWER BUSHINGS**
- **RETURNED UNIT 2 TO SERVICE AND RESTORED UNIT 1 TO FULL POWER**

CATAWBA NUCLEAR STATION
UNIT 2 LOSS OF OFF-SITE POWER EVENT
HIGHLIGHTS

- **OPERATORS DEMONSTRATED EXCEPTIONAL DISCIPLINE IN PROCEDURE USE AND ADHERENCE**
- **ALL MAJOR EQUIPMENT FUNCTIONED AS DESIGNED**
- **OVERALL FIP AND SEIT PROCESSES WERE THOROUGH AND EFFECTIVE IN GETTING TO ROOT CAUSE**
- **EMERGENCY RESPONSE ORGANIZATION PERFORMED WELL IN MITIGATION AND RECOVERY EFFORTS**

CATAWBA NUCLEAR STATION
UNIT 2 LOSS OF OFF-SITE POWER EVENT
LESSONS LEARNED

- **MAINTENANCE STANDARDS FOR TRANSFORMER YARD EQUIPMENT NEED IMPROVEMENT**

- **EVENTS RECORDER NEEDS TO BE MORE EFFECTIVELY USED AS A MONITORING TOOL**

- **EMERGENCY PLAN PROCEDURES FOR TRANSITIONING FROM ERO TO OUTAGE MANAGEMENT ORGANIZATION NEED IMPROVEMENT**