June 16, 1992

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Docket No. 50-400 License No. NPF-63

Carolina Power and Light Company ATTN: Mr. R. A. Watson Senior Vice President Nuclear Generation P. O. Box 1551 Raleigh, NC 27602

Gentlemen:

SUBJECT: MEETING SUMMARY - SHEARON HARRIS

This refers to the meeting conducted at your request in the Region II Office on June 9, 1992. The purpose of the meeting was for you to present a self-assessment of the Shearon Harris facility. A list of attendees and a copy of your handout are enclosed.

It is our opinion that this meeting was beneficial in that it provided a better 1understanding of your established goals, as well as the actions you have taken with respect to improving plant performance.

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 and its enclosures will be placed in the NRC Public Document Room.

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

Sincerely,

Original signed by: Luis A. Reyes

Luis A. Reyes, Director Division of Reactor Projects

Enclosures:

1. List of Attendees

2. Licensee Handout

cc w/encls: (See page 2)

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Carolina Power and Light Company

cc w/encls: G. E. Vaughn Vice President Harris Nuclear Project P. O. Box 165 New Hill, NC 27562

C. S. Hinnant Plant General Manager Harris Nuclear Plant P. O. Box 165 New Hill, NC 27562

C. S. Olexik, Jr., Manager Regulatory Compliance Harris Nuclear Project P. O. Box 165 New Hill, NC 27562

H. Ray Starling Manager - Legal Department Carolina Power and Light Co. P. O. Box 1551 Raleigh, NC 27602

Dayne H. Brown, Director Division of Radiation Protection N. C. Department of Environment, Health & Natural Resources P. O. Box 27687 Raleigh, NC 27611-7687 June 16, 1992.

bcc w/encls: H. Christensen, Rll N. Le, NRR Document Control Desk

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NRC Resident Inspector U.S. Nuclear Regulatory Commission Route 1, Box 315B New Hill, NC 27562





RII:DRP DVerrelli 06/1/92

ENCLOSURE 1

LIST OF ATTENDEES

Carolina Power and Light

G. E. Vaughn, Vice President, Harris Nuclear Project

C. S. Hinnant, Plant General Manager, Harris Nuclear Project

T. Morton, Manager, Maintenance

C. S. Olexik, Manager, Regulatory Compliance

R. W. Prunty, Jr., Manager, Harris Licensing

J. W. Moyer, Manager, Project Assessment

Nuclear Regulatory Commission

S. D. Ebneter, Regional Administrator, RII

L. A. Reyes, Director, Division of Reactor Projects (DRP), RII

A. F. Gibson, Director, Division of Reactor Safety (DRS), RII

B. S. Mallett, Deputy Director, Division of Radiation Safety and Safeguards, (DRSS), RII

J. R. Johnson, Deputy Director, DRP, RII

D. M. Verrelli, Chief, DRP, Branch 1, RII

H. O. Christensen, Chief, DRP, Section 1A, RII

N. Le, Project Manager, Office of Nuclear Reactor Regulation (NRR)

M. Shannon, Resident Inspector, DRP, RII

G. R. Wiseman, Reactor Inspector, DRS, RII

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ENCLOSURE 2

HARRIS NUCLEAR PROJECT



CAROLINA POWER & LIGHT

JUNE 9, 1992



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HARRIS NUCLEAR PROJECT

SELF ASSESSMENT MEETING

JUNE 9, 1992

AGENDA

INTRODUCTION/OVERVIEW

G. E. VAUGHN

PLANT OPERATIONS MAINTENANCE/SURVEILLANCE RADIOLOGICAL CONTROLS EMERGENCY PREPAREDNESS SECURITY ENGINEERING/TECHNICAL SUPPORT SAFETY ASSESSMENT/QUALITY VERIFICATION

CONCLUDING REMARKS

SCOTTY HINNANT

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G. E. VAUGHN

HARRIS PLANT OVERALL PERFORMANCE DURING THIS SALP PERIOD IS OUR BEST TO DATE.

VIOLATIONS BY LEVEL							
				IV	V		
1988				15	2		
1989			2	20	1		
1991	an Anna an A		1	22	1		
1992				12			





SALP PERIOD (MONTHS)	TOTAL LER's		
1988 (12)	43		
1989 (17) —	36		
1991 (18)	45		
1992 (12)	13		

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REACTOR TRIPS



** AUTOMATIC TRIP NOT AT POWER

SAFETY SYSTEMS AVAILABILITY





OUTAGE PERFORMANCE QUALITY RUNS > 100 DAYS





OUTAGE PERFORMANCE

/	RFO #1 CYCLE #2	RFO #2 CYCLE #3	RFO #3 CYCLE#4
REFUELING OUTAGE (DAYS)	77	73	67
CYCLE CAPACITY FACTOR (%)	91.3	85.6	95.4

PREVIOUS SALP COMMENTS

IMPROVE RADIATION MONITOR PERFORMANCE

- **C** KEEP PERSONNEL CONTAMINATION EVENTS DOWN
- **C** ENHANCE POST MAINTENANCE TESTING
- **© STRENGTHEN SELF ASSESSMENT**

FUTURE IMPROVEMENTS

• PEOPLE

MANAGEMENT

C PLANT

<u>PLANT</u> <u>OPERATIONS</u>

OPERATIONS OVERVIEW

PERFORMANCE

• OPERATIONS PHILOSOPHY

FIRE PROTECTION

FUTURE IMPROVEMENTS

PERFORMANCE

• ONE REACTOR TRIP WHILE CRITICAL

271 DAY QUALITY RUN

DISCRETIONARY SHUTDOWN FOR SMALL RCS LEAK

• NO OPERATOR PERSONNEL ERROR LER's

C ALL 8, SRO CANDIDATES SUCCESSFUL

CONTINUED GOOD RESULTS IN REQUAL EXAMS





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<u>ENGINEERING/TECHNICAL SUPPORT</u> <u>OVERVIEW</u>

• **RFO-4 RELIABILITY INITIATIVES**

- PERSONNEL
- PERFORMANCE
- PROGRAMS
- **(** TRAINING
- **FUTURE IMPROVEMENTS**

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PEOPLE

ADVANCED TACTICAL TRAINING COURSE DEVELOPMENT

CONTINUED REDUCTION IN GUARD FORCE ATTRITION RATE

MANAGEMENT

- **EXAMPLASIS ON COACHING BY SECURITY MANAGEMENT/SUPERVISION**
- **(** INCREASED SUPERVISORY TRAINING

PLANT

C SECURITY FORCE EQUIPMENT UPGRADE

(IMPLEMENTATION OF INTRUSION DETECTION SYSTEM ENHANCEMENTS **RFO-4 RELIABILITY INITIATIVES**

• 20% EDDY CURRENT TEST OF STEAM GENERATOR TUBES

TEMPORARY MOD CONTROL

 ENHANCED SECONDARY PERFORMANCE MONITORING PROGRAM

C EMERGENCY SERVICE WATER PUMP INSPECTIONS

• NEW H₂ DRYER MOD TO REDUCE FIRE POTENTIAL •

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SECURITY FORCE ATTRITION



* YEAR TO DATE



• 241 SECURITY/CONTINGENCY DRILLS/EXERCISES CONDUCTED

TWO 40 HOUR TACTICAL TRAINING COURSES

626 PERIODS OF TRAINING BY SHIFT COMMANDERS

C 38 SAFETY RELATED DRILLS/EXERCISES (EMERGENCY PREPAREDNESS AND FIRE)

C 129 VITAL AREA DOOR RESPONSE DRILLS



EQUIPMENT UPGRADES

- CCTV IMPROVEMENTS
- VIDEO CAPTURE SYSTEM
- **C** LIGHTING IMPROVEMENTS
- **©** SECURITY RADIO SYSTEM UPGRADE
- € UTILITY VEHICLES FOR PROTECTED AREA PATROL
- **C REACTIVE TARGETS TO IMPROVE TACTICAL TRAINING**

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• WELL MAINTAINED SECURITY FACILITIES AND EQUIPMENT

- **WELL TRAINED AND KNOWLEDGEABLE SECURITY FORCE**
- STRONG MANAGEMENT & MANAGEMENT SUPPORT
- **(** PROFESSIONALISM OF SECURITY ORGANIZATION
- **C** ON-SITE WEAPONS TRAINING FACILITY

SECURITY OVERVIEW



EQUIPMENT UPGRADES

G TRAINING

• SECURITY FORCE ATTRITION

C FUTURE IMPROVEMENTS

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<u>SECURITY</u>

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EMERGENCY PREPAREDNESS INVESTMENTS FOR FUTURE IMPROVEMENTS

PEOPLE

- APPROXIMATELY 700 CP&L PERSONNEL TRAINED TO SUPPORT HNP EMERGENCY PLAN
- EMPHASIS ON TRAINING/DRILLS FOR ALTERNATES
- MANAGEMENT

PRIMARY POSITION ACCOUNTABILITY

PLANT

- **C** STREAMLINING EAL FLOW PATH TO SHORTEN EVALUATION TIME
- **C** ENHANCE BACKUP POWER TO ERFIS EQUIPMENT AT EOF
- INVESTIGATING MODIFICATIONS REQUIRED TO CONDUCT EXERCISES FROM SIMULATOR





OSC IS BEING SIGNIFICANTLY UPGRADED AND RELOCATED TO HARDENED BUILDING

DRILL CONTROL ROOM MAXIMIZES OPERATIONS PARTICIPATION WITH MINIMUM DISTRACTIONS TO ACTUAL PLANT OPERATIONS

C RESOURCES ARE PROVIDED BY CP&L FOR IMPROVED OFF-SITE FACILITIES AND SUPPORT

C ADDITIONAL SUPPORT HOSPITAL OUTFITTED AND TRAINED TO HANDLE CONTAMINATED PERSONNEL

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DRILLS AND EXERCISES

SUCCESSFUL ANNUAL EXERCISE WITH FULL NRC PARTICIPATION

- **TIMELY NOTIFICATIONS**

- INGESTION PATHWAY (50 MILE EPZ)

- FEMA EVALUATED (7 SUPERIOR ITEMS)

DIALOGIC IMPLEMENTED

- 12 PHONE DRILLS

- CONDUCTED SUCCESSFUL AFTER HOURS CALL-IN DRILL

CONDUCTED



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PREPAREDNESS OVERVIEW

B DRILLS AND EXERCISES

G FACILITY UPGRADES

FUTURE IMPROVEMENTS

EMERGENCY PREPAREDNESS

RADIOLOGICAL CONTROLS INVESTMENTS FOR FUTURE IMPROVEMENTS

PEOPLE

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- SUPPORT HP CERTIFICATION
- TOOK DIRECT RESPONSIBILITY FOR HP COVERAGE BY CP&L TECHS BETWEEN OUTAGES
- PERSONNEL ASSIGNMENT ROTATIONS TO STRENGTHEN KNOWLEDGE AND PROGRAM
 MOCKUPS
- MOCKUPS

MANAGEMENT

- € ASSESSMENT CENTER
- **C** SUPERVISOR TRAINING ACADEMY
- **C** CHEMISTRY MANAGER POSITION

PLANT

- **C** TV CAMERAS AND MONITORS
- **C** REPLACE RTD SYSTEM
- **ELECTRONIC DOSIMETRY**
- **(PASS SYSTEM ASSESSMENT**

CHEMISTRY

NEW SECONDARY SAMPLE SYSTEM

IMPROVED PASS PERFORMANCE

C IMPROVING CHEMISTRY INDEX

© NEW CHEMISTRY MANAGER POSITION

€ NO NRC VIOLATIONS



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COLLECTIVE DOSE

HARRIS 3 YEAR AVERAGE 156 PERSON REM

INDUSTRY 3 YEAR AVERAGE

272 PERSON REM

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PERSONNEL CONTAMINATIONS



NON RFO YEAR

RADIATION PROTECTION

• REDUCED CONTAMINATED SQUARE FOOTAGE

NO NRC VIOLATIONS

CP&L SUPPORT FOR NRRPT CERTIFICATION OF TECHNICIANS

ERROR FREE SHIPPING RECORD
 > 600 SHIPMENTS TOTAL

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RADIATION MONITORING SYSTEM

PERFORMANCE

NO SEVEN OR THIRTY DAY REPORTS

© IMPROVED STACK SAMPLING

(IMPROVED OVERALL RELIABILITY

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RADIOLOGICAL CONTROLS

OVERVIEW

RADIATION MONITORING SYSTEM PERFORMANCE

© RADIATION PROTECTION

CHEMISTRY

(FUTURE IMPROVEMENTS

<u>RADIOLOGICAL</u> <u>CONTROLS</u>

POST MAINTENANCE TESTING

INCREASED MANAGEMENT REVIEW AND INVOLVEMENT

EXTENSIVE PLANNER TRAINING AND COACHING

EXPANDED PMT MATRIX

- **C** SYSTEM ENGINEER INVOLVEMENT
- **(** TEAM PROCESS/SELF ASSESSMENT

<u>MAINTENANCE/SURVEILLANCE</u> <u>INVESTMENTS FOR</u> <u>FUTURE IMPROVEMENTS</u>

PEOPLE

- 121 PEOPLE SENT TO SPECIAL VENDOR TRAINING PROGRAMS
- ENCOURAGE CRITICAL SELF ASSESSMENT
- MORE HANDS ON TRAINING
- ADDITIONAL I/C CREW

MANAGEMENT

- TASK FORCE WORKING TO IMPROVE WORK CONTROL PROCESS AND REDUCE MAINTENANCE BACKLOG
- ASSESSMENT CENTER
- **SUPERVISOR TRAINING ACADEMY**
- **©** MANAGEMENT ROTATIONS

PLANT

- **C REFUELING BRIDGE CRANE CONTROL MODS**
- **C** TRANSMITTER CHANGE OUT
- **G** FW PUMP SUCTION VALVE REPLACEMENT
- **C** ERFIS UPGRADES
- **©** INTEGRATED PLANNING AND SCHEDULING

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• SAFETY FIRST

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- PROTECT THE CORE (OPERATION AND SHUTDOWN)
- OPERATIONS CLEARLY IN CHARGE OF PLANT
- STAFF SHIFTS WITH EXTRA LICENSED PERSONNEL
- **C** STRONG COMMITMENT TO TRAINING
- ROTATION/TRANSFER OF LICENSED PERSONNEL TO OTHER WORK GROUPS

(STRONG EMPHASIS ON SHIFT TURNOVER AND FORMAL PRE-EVOLUTION BRIEFS



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FIRE PROTECTION

- FIRE BRIGADE ASSIGNED TO RW OPS WITH LICENSED ADVISOR
 - FOCUSES TRAINING RESOURCES ON SMALLER GROUPS
 - REDUCES IMPACT ON MAIN CONTROL, ROOM
 - PROVIDES BETTER QUALIFIED AND PROFESSIONAL FIRE BRIGADE
 - ENHANCES PLANT SAFETY
- JOINT COUNTY AND CP&L FIRE TRAINING FACILITY ON HARRIS PROPERTY PROVIDES 1ST CLASS TRAINING
- **COVER 20 RW OPERATORS TRAINED AS FIRST RESPONDERS OR EMT**
- **(** NO CONTRACT FIRE WATCHES

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<u>OPERATIONS</u> <u>INVESTMENTS FOR</u> <u>FUTURE IMPROVEMENTS</u>

PEOPLE

- HIRED 5 EXTRA OPERATORS FOR THE TRAINING PIPELINE
 - HUMAN FACTOR REVIEW/UPGRADE OF OPERATIONS PROCEDURES
- SELF ASSESSMENT OF EACH SHIFT LED BY SHIFT SUPERVISORS
 - 17 LICENSED PERSONNEL IN THE UNIVERSITY OF MARYLAND DEGREE PROGRAM

"PLEASE LISTEN" TRAINING

MANAGEMENT

- **C** ASSESSMENT CENTER
- **©** SUPERVISOR TRAINING ACADEMY

PLANT

- **C** LABELING PROGRAM
- HVAC SYSTEM RELIABILITY
 IMPROVEMENTS

MAINTENANCE/ SURVEILLANCE

MAINTENANCE/SURVEILLANCE

OVERVIEW



C RESOURCES

E BACKLOG

C POST MAINTENANCE TESTING

G FUTURE IMPROVEMENTS

FUTURE IMPROVEMENTS

- WORK CONTROL PROCESS
 - INTEGRATED PLANNING AND SCHEDULING
- **PLANT MATERIAL CONDITION**
 - PAINTING AND LABELING
 - MAINTENANCE BACKLOG
 - PLANT MODIFICATIONS
- C PERSONNEL
 - TRAINING
 - QUALITY OF LIFE
- **C** ASSESSMENT
 - SHUTDOWN RISK
 - SELF ASSESSMENT CULTURE

SUMMARY OF IMPROVEMENTS

PLANT PERFORMANCE

- UNIT RELIABILITY
- CONTAMINATED SPACE
- FEEDWATER CHEMISTRY
- TESTING

© PERSONNEL

- ADDITIONS/ROTATIONS
- TRAINING
- FACILITIES
- ERRORS

C REGULATORY

- PERFORMANCE INDICATORS
- REPORTABLE EVENTS
- VIOLATIONS

C ASSESSMENT

- SHUTDOWN RISK
- INFREQUENTLY PERFORMED TESTS
- SELF ASSESSMENT

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<u>CONCLUDING</u> <u>REMARKS</u>

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SAFETY ASSESSMENT/QUALITY VERIFICATION INVESTMENTS FOR FUTURE IMPROVEMENTS

• SELF ASSESSMENT

- REFINE SUBPROGRAMS

- SELF ASSESSMENT TRAINING

NUCLEAR SERVICES DEPARTMENT

- ENHANCED CRITICAL SUCCESS FACTORS
- PERFORMANCE STANDARDS
- **€** NUCLEAR ASSESSMENT DEPARTMENT
 - PERSONNEL ROTATION
 - BROADER INDUSTRY EXPOSURE

<u>NUCLEAR ASSESSMENT</u> DEPARTMENT ACTIVITIES

20 FUNCTIONAL AREA ASSESSMENTS

- MAINTENANCE
- OPERATIONS
- SECURITY
- EMERGENCY PREPAREDNESS
- PLANT MODIFICATIONS

NAD INITIATED ASSESSMENTS

- SELF-ASSESSMENT
- SAFETY SYSTEM UNAVAILABILITY
- COMPONENT COOLING WATER

C PLANT REQUESTED ASSESSMENTS

- SPENT FUEL
- POST MAINTENANCE TESTING
- MOTOR OPERATED VALVES



<u>NUCLEAR SERVICES DEPARTMENT</u> <u>ACTIVITIES</u>

QUALITY VERIFICATION SECTION

CRITICAL SUCCESS FACTORS

C PEER REVIEWS

OPERATING EXPERIENCE REVIEWS



** PROJECTED FOR 1992

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REDUCED THRESHOLD IMPACT SOOR'S,NCR'S,FR'S TO ACR'S



** YEAR TO DATE

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- INCREASED EMPHASIS ON SELF ASSESSMENT
- COACHING PROGRAM
- OUTAGE SCHEDULE RISK ASSESSMENT
 NO MID LOOP
 - TEAM REVIEWS AND PNSC APPROVES
 - CHANGES EVALUATED FOR RISK
 - **POST OUTAGE REVIEWS**
 - MANAGEMENT TOURS
- **©** OPERATING EXPERIENCE
 - EXTERNAL (INFO. NOTICES, INPO DOCUMENTS, DAILY REPORTS)
 - INTERNAL (SACR's, CP&L EVENTS)
 - COMMUNICATIONS (MEETINGS, WRITTEN, VIDEO)
- CAP
 - LOWER THRESHOLD
 - AGGREGATE TRENDING
 - RESOURCES

SAFETY ASSESSMENT/QUALITY

VERIFICATION OVERVIEW

SELF ASSESSMENT

 NUCLEAR SERVICES DEPARTMENT ACTIVITIES

• NUCLEAR ASSESSMENT DEPARTMENT ACTIVITIES

• FUTURE IMPROVEMENTS

<u>SAFETY ASSESSMENT/</u> <u>QUALITY VERIFICATION</u>



PEOPLE

- CERTIFICATION OF SYSTEM ENGINEERS
 CERTIFICATION OF REACTOR ENGINEERS
 ENGINEERING SUPPORT PERSONNEL TRAINING PROGRAM
- MANAGEMENT
- C ASSESSMENT CENTER
- **G** SUPERVISOR TRAINING ACADEMY
- **C** MANAGEMENT ROTATION

PLANT

- € EFFECTIVE INCREASE IN DISSEMINATION OF PLANT DATA (TRENDING)
- **(** IMPROVED CORE PARAMETER PREDICTOR —
- **C** IMPROVED TRAINING FACILITIES/EQUIPMENT



TRAINING ROTATION OF OPERATORS TO TRAINING 12 HOURS TRAINING PROVIDED QUARTERLY TO TECHNICAL STAFF CONTINUED SUCCESS WITH NEW AND e **REQUAL. LICENSE EXAMS IMPROVED TRAINING** E FACILITIES/EQUIPMENT "PLEASE LISTEN" TRAINING • **REACTOR ENGINEERING CROSS** E TRAINING WITH H. B. ROBINSON

PROGRAMS

• PREDICTIVE MAINTENANCE

COMPREHENSIVE VENDOR MANUAL PROGRAM

CGI COORDINATION WITH ENGINEERING DEPARTMENT

 IMPROVEMENTS IN SYSTEM ASSESSMENTS

C SAFETY SYSTEM AVAILABILITY SCHEDULING

C MOV TESTING PROGRAM



PREDICTIVE REACTIVITY MANAGEMENT

SECONDARY PLANT RELIABILITY

- CONDENSER
- MAIN FEED PUMPS
- HEATER DRAIN PUMPS

IMPROVEMENTS IN EQUIPMENT MONITORING AND SYSTEM PERFORMANCE TRENDING



PLP-100 " CONDUCT OF INFREQUENTLY PERFORMED TESTS OR EVOLUTIONS "

- MMM-027 "TROUBLE SHOOTING GUIDE"
- **G** FEWER SURVEILLANCE ERRORS
- **C** FIELD COACHING ACTIVITIES
- **C PREVENTIVE/CORRECTIVE MAINTENANCE RATIO**

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PERSONNEL

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 11 ENGINEERS CERTIFIED BY FORMAL CERTIFICATION PROGRAM FOR SYSTEM ENGINEERS

TECHNICAL PROGRESSION PATH FOR ENGINEERS

C ROTATION OF PERSONNEL BETWEEN SITE AND CORPORATE ENGINEERING GROUPS

C DAILY INVOLVEMENT WITH OPERATIONS/MAINTENANCE