

Official

JUL 2 1992

Docket Nos. 50-327, 50-328
License Nos. DPR-77, DPR-79

Tennessee Valley Authority
ATTN: Dr. Mark O. Medford, Vice President
Nuclear Assurance, Licensing and Fuels
3B Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Gentlemen:

SUBJECT: MEETING SUMMARY - SEQUOYAH NUCLEAR PLANT SELF ASSESSMENT

This refers to the meeting conducted at your request in the Region II office on July 1, 1992. The purpose of the meeting was for you to present your self assessment of activities at your Sequoyah Nuclear Plant.

It is our opinion that this meeting was beneficial to us in aiding our understanding of your ongoing programs and areas for future improvement.

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
BRUCE A. WILSON

Bruce A. Wilson, Chief
Reactor Projects Branch 4
Division of Reactor Projects

Enclosures:

- 1. Meeting Summary
- 2. List of Attendees
- 3. License Handout

cc w/encl 1 and 2
w o/encl 3: (See page 2)

9207220052 920702
PDR ADOCK 05000327
P PDR

JE45

JUL 2 1992

Tennessee Valley Authority

2

cc. w/encl 1 and 2

w o/encl 3:

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General Counsel
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Ms. Marci Cooper, Site
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Tennessee Valley Authority
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Mr. Jack Wilson, Vice President,
Sequoyah Nuclear Plant
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Mr. M. J. Burzynski, Manager
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Mr. Michael H. Mobley, Director
Division of Radiological Health
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Nashville, TN 37219-5404

County Judge
Hamilton County Courthouse
Chattanooga, TN 37402

State of Tennessee

bcc w/encl 1 and 2
w o/encl 3: (See page 3)

JUL 2 1992

Tennessee Valley Authority

3

bcc w/encl 1 and 2

w o/encl 3:

L. A. Keyes, RII

J. R. Johnson, RII

G. C. Lainas, NRR

F. J. Heddon, NRR

P. J. Kellogg, RII

D. E. Labarge, NRR

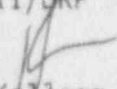
NRC Document Control Desk

NRC Senior Resident Inspector
U.S. Nuclear Regulatory Commission
2600 Igou Ferry
Soddy-Daisy, TN 37379

bcc w/encls:

NRC Document Control Desk

RII/DRP


PKellogg

7/1/92

ENCLOSURE 3

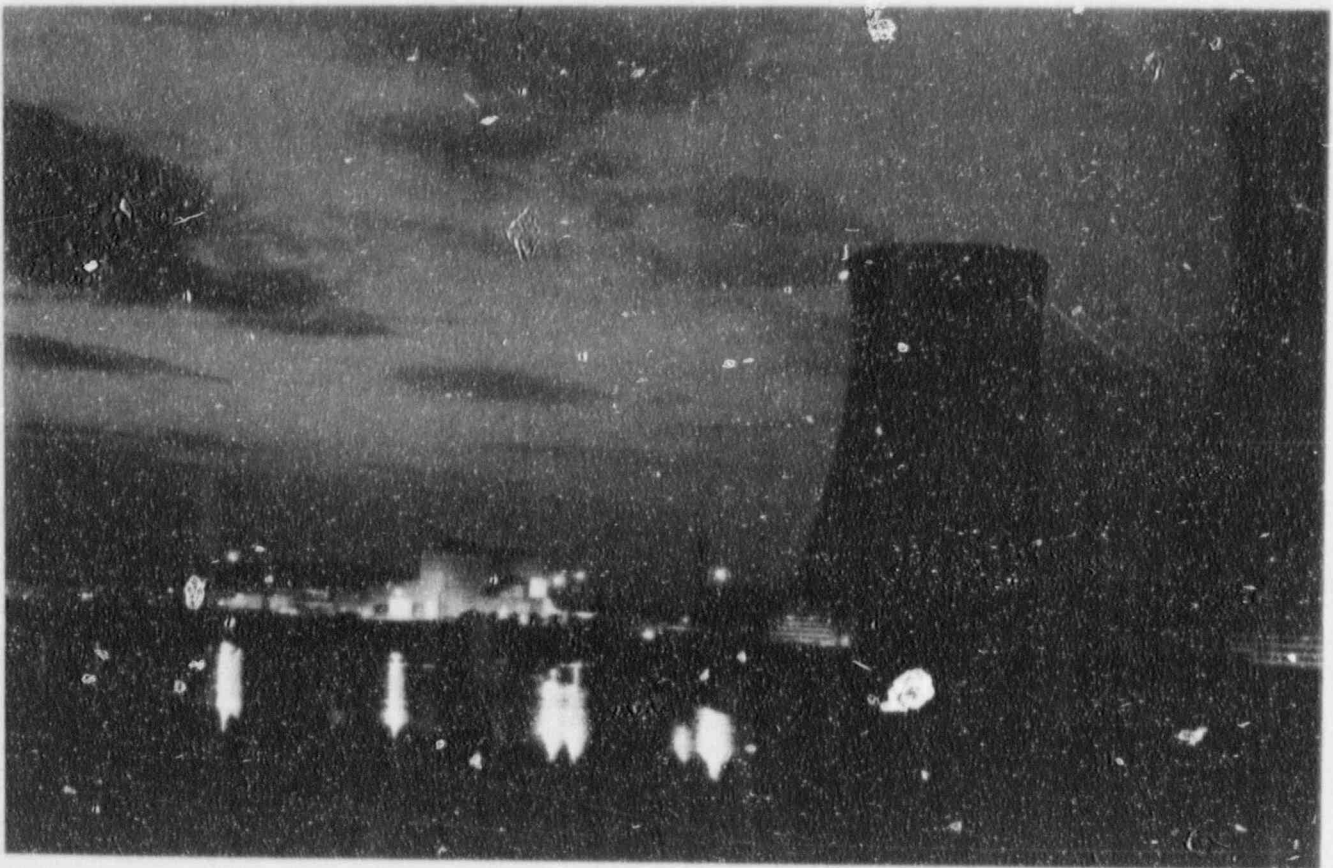
SEQUOYAH NUCLEAR PLANT
TENNESSEE VALLEY AUTHORITY
SELF ASSESSMENT



JULY 1, 1992
NRC PRESENTATION

ENCLOSURE 3

SEQUOYAH NUCLEAR PLANT
TENNESSEE VALLEY AUTHORITY
SELF ASSESSMENT



JULY 1, 1992
NRC PRESENTATION

AGENDA

OVERVIEW

J. L. WILSON

DISCUSSION OF FUNCTIONAL AREAS

- | | |
|---|-------------------------------|
| I. PLANT OPERATIONS | R. J. BEECKEN |
| II. RADIOLOGICAL CONTROL | R. J. BEECKEN |
| III. MAINTENANCE/
SURVEILLANCE | R. J. BEECKEN |
| IV. ENGINEERING/
TECHNICAL SUPPORT | P. G. TRUDEL
R. J. BEECKEN |
| V. EMERGENCY PREPAREDNESS | M. A. COOPER |
| VI. SECURITY | M. A. COOPER |
| VII. SAFETY ASSESSMENT/
QUALITY VERIFICATION | M. A. COOPER
T. A. FLIPPO |

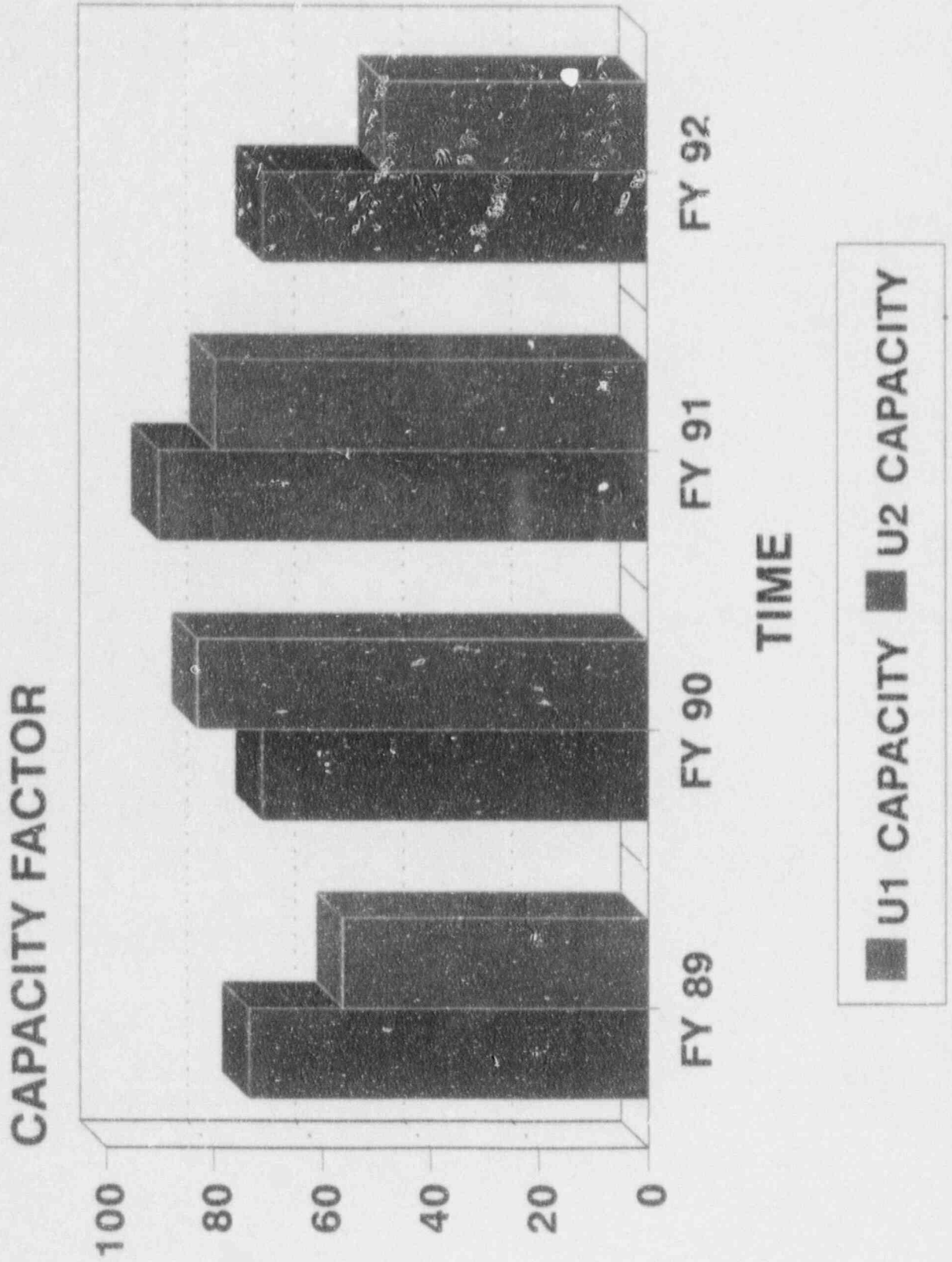
CLOSING REMARKS

J. L. WILSON

OVERVIEW

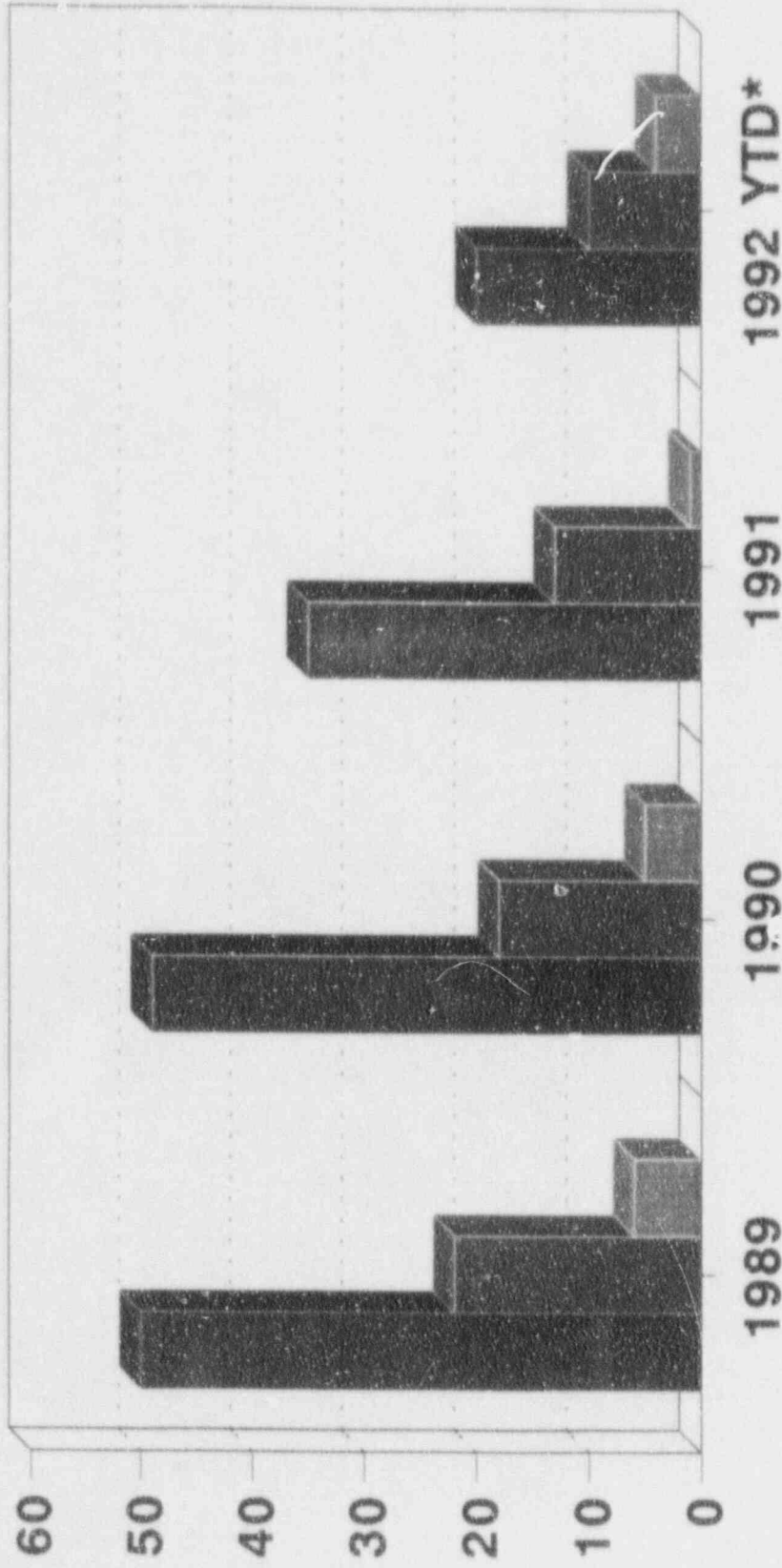
- SEQUOYAH HAS MADE SIGNIFICANT PROGRESS SINCE RESTART AND IS COMMITTED TO LONG-TERM CONTINUING PERFORMANCE IMPROVEMENT
- CONTINUED OVERALL SEQUOYAH PROGRESS AND IMPROVEMENT IS OBSERVABLE - THROUGH UPGRADES, ACCOMPLISHMENTS, AND INDUSTRY PERFORMANCE INDICATORS
- PERFORMANCE AND INITIATIVES IN MANY AREAS AMONG INDUSTRY BEST
- MULTIPLE CRITICAL SELF ASSESSMENTS BEING COMPLETED TO FOCUS FUTURE OVERALL SITE INITIATIVES
- PERSONNEL PERFORMANCE AND DEVELOPMENT INITIATIVES KEY TO LONG-TERM IMPROVEMENT
- PROUD OF ACCOMPLISHMENTS AND COMMITTED TO AGGRESSIVELY PURSUE LONG-TERM IMPROVEMENT

CAPACITY FACTOR



REGULATORY PERFORMANCE

PERFORMANCE

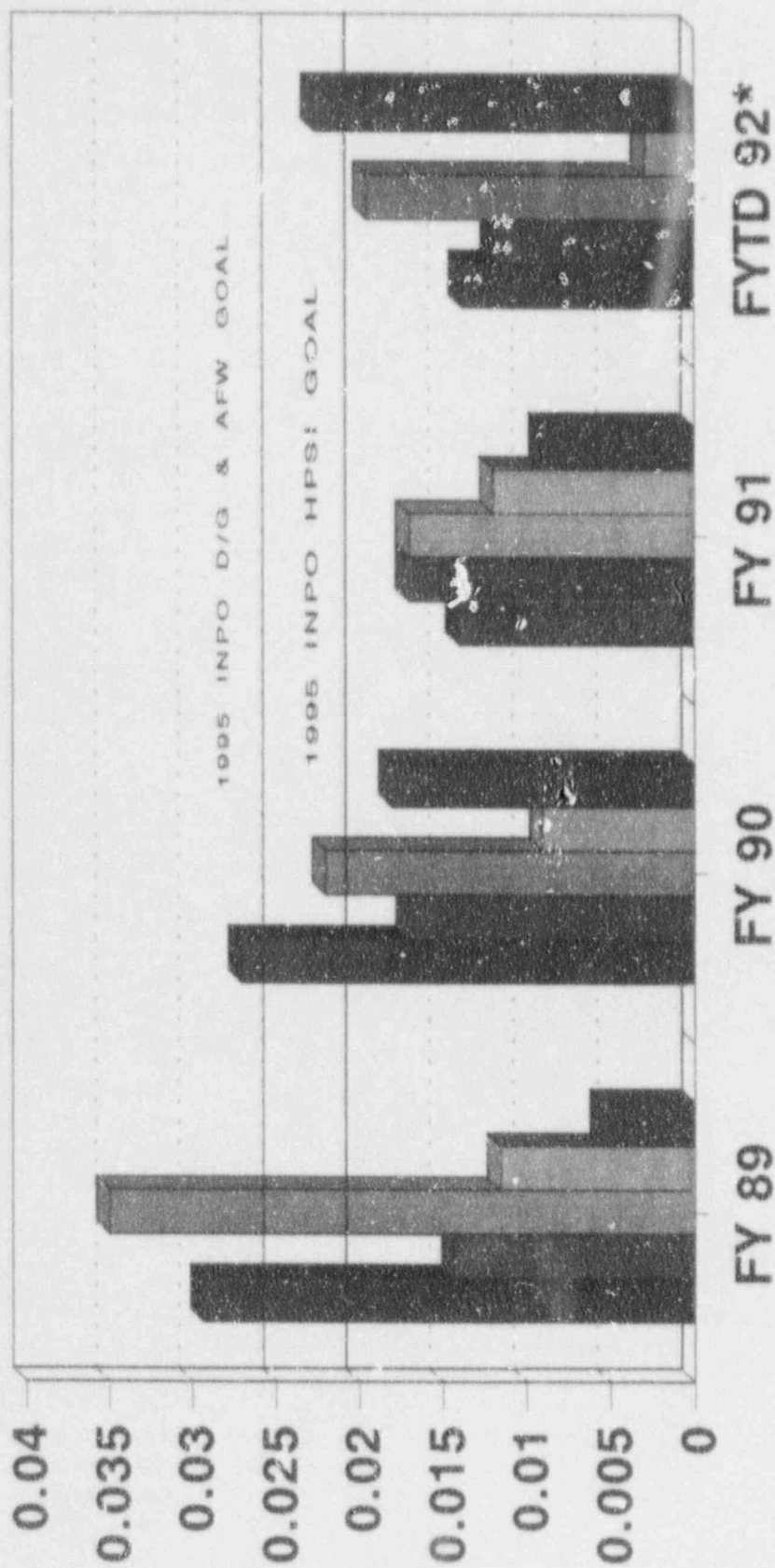


TIME



SAFETY SYSTEM UNAVAILABILITY

UNAVAILABILITY PERCENTAGE



TIME



*DATA THROUGH 6/28/92

OVERVIEW

1991-92 Major Accomplishments

- POWER OPERATIONS
 - Improved Capacity Factor
 - Safety System Availability Improvement
 - Schedule Performance
 - Successful Plant Transient Response
- OUTAGE MANAGEMENT AND WORK CONTROL
 - Outage Scheduling/Control/Risk Management
 - Reactivity Management
 - Operations Outage And Startup Control
- ORGANIZATION UPGRADES AND OPERATIONS SUPPORT
 - Systems Engineering Development
 - Reactor Engineering Upgrade
 - Fire Protection Improvement
 - Successful OSTI
- HARDWARE UPGRADES
 - PRZ Safety Valves
 - CRDR And Annunciator Upgrade
 - AFW System Improvement
 - FW Heater Change-Out
 - S/G Shotpeening
 - Annunciator Blackboard
 - Generator Rewind

OVERVIEW

1991-92 Major Accomplishments (cont.)

- PERSONNEL PERFORMANCE/DEVELOPMENT
 - No Reactor Trips Due To Personnel Error
 - Employee And Supervisory Development
 - Team Training Initiatives
 - Effective Entry Level Training Program

- SAFETY CULTURE
 - No Hot Midloops
 - Strong Problem Identification
 - Prudent Operational Decisions
 - Indepth IIs

- REGULATORY PERFORMANCE
 - Reduction In LERs
 - Postrestart Commitment Completion
 - Generic Issue Closures

- ASSESSMENT AND SELF ASSESSMENT
 - INPO Site Evaluation
 - INPO Outage Assessment
 - INPO Assist Visits
 - Successful NRC Inspections
 - OSTI
 - 10CFR50.59
 - EDSFI Followup
 - Engineering/Tech Support
 - RCA/II/PTR Improvements
 - SQN Self Assessment

OVERVIEW

Areas For Future Focus

- PERSONNEL PERFORMANCE
 - Standards, Expectations, And Accountability
 - Management/Supervisory Effectiveness
 - Approach To Problem Resolution
 - Teamwork/Attitude/Ownership
 - Sustained Employee Development

- SELF ASSESSMENT
 - Early Identification Of Problems
 - Industry-Best Benchmarking
 - Management Assessment

- PROCESS
 - Ownership
 - Simplification
 - Effectiveness And Efficiency

- OVERALL SITE PLANNING
 - Long-Term Business Plan
 - Review And Prioritization Of Issues
 - Backlog Elimination

I. PLANT OPERATIONS

PLANT OPERATIONS

Major Accomplishments

- PLANT PERFORMANCE

- Improved Availability

- Unit 2 Completed 306 Days Of Continuous Operation

- Both Units Ran Together For Over 200 Days

- Unplanned Scrams From Power

- Unit 1 - 2 - Completed 584 Days Without Automatic Scram

- Unit 2 - 3

- No Scrams Caused By Operator Actions

- Conducted Startups, Shutdowns, Plant Transients Effectively

- IMPROVED OUTAGE PERFORMANCE

- Shutdown Risk Management

- Independent Risk Management Review Of Schedule

- Established Barrier Concept Toward Safety

- Strengthened Switchyard Controls

- Containment Integrity Drill And Controls

- Strengthened Schedule Change Control

- Strengthened Management Oversight Of Midloop

- Operations

- Off-Loaded Core Prior To Reduced Inventory

- Enhanced Level Instrumentation

- Improved Operations Overtime Performance

- Assigned Additional SRO Each Shift For Outage Management

- Improved Coordinated Shutdown Chemistry Controls

- Implemented Forced Outage Recovery Team

- Maintained Pre-Approved Forced Outage Schedules

- Established Pre-Designated, Trained, Post-Outage Review Team

- Strengthened Post-Trip Review Process

PLANT OPERATIONS

Major Accomplishments (cont.)

- CONTROL ROOM PERFORMANCE
 - CIPTE - Complex Infrequently Performed Tests Or Evolutions Process Implemented
 - Completed New Control Room Annunciator Modification
 - Improved Operator Response To Alarm Procedures
 - New Daily Tracking And Reporting Of Annunciators Out Of Service
 - Strengthened Shift Turnover
 - Implemented Weekly Look Ahead
 - Implemented Trending Of Critical Parameters In Turnover
 - Implemented More Rigorous Walkdown Of Control Room Panels
- INCREASED COMMUNICATIONS AT MANAGEMENT LEVEL
 - OPS Manager/Superintendent Meetings With SOSs/ASOSs
 - Use Of QA Assessments To Improve Performance
- CONTROL ROOM ENHANCEMENTS
 - Annunciator Black Board
 - Implemented Rev 1A - Emergency Operating Procedures
 - Implemented HEDs
- TRAINING
 - Implemented SOS Training (Qualification) Program Accredited By INPO
 - Senior ASOS Assigned To Non-Licensed Operator Performance Improvement
 - All Operations Training Programs Reaccredited

PLANT OPERATIONS

Major Accomplishments (cont.)

- FIRE PROTECTION
 - Phase I Of The Fire Protection Improvement Plan Implemented
 - Suppression System Performance/Testing Evaluation: Complete
 - Upgraded Training
 - Procedures Reviewed; Procedures With Deficiencies Removed From Use Or Compensatory Measures Established Until Revisions Are Complete
 - Coordinated Walkdown Procedure Complete
 - Strengthened Administrative Control For Transient Fire Loads, Fire Watch Management, Surveillance Performance/Review
 - Significant Reduction In Number Of Fire Protection LERs And Special Reports Due To Personnel Error
 - Increased Management Oversight
 - Fire Protection Foreman Responsibilities Clarified To Ensure Compliance With Surveillance Procedural And Administrative Controls

PLANT OPERATIONS

Areas For Future Focus

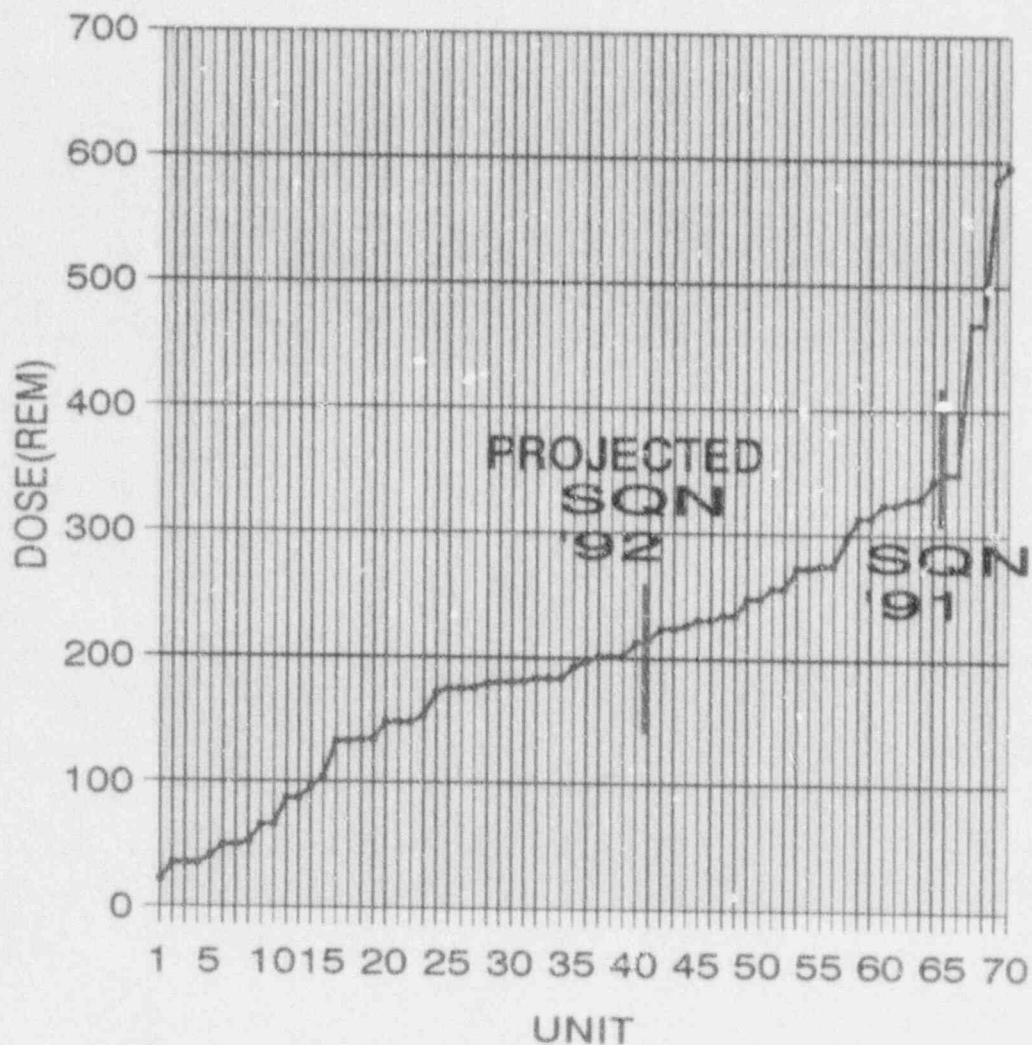
- CONTINUE TO EXPAND SRO OPERATIONS PERFORMANCE IMPROVEMENT EFFORTS
 - Continue Improved Communications With SOS/ASOS Teams
 - Continue Improvements In Turnover Communications
 - Continue To Expose SROs To Top Industry Performers
 - Strengthen Operator Practices Such As Communications, Professionalism, And Procedure Compliance
- CONTINUE TO IMPROVE AUO PERFORMANCE
 - Strengthen Non-Licensed Operator Training
 - Improve Non-Licensed Operator Routines
 - Improve Oversight Of Non-Licensed Operators
- CONTINUE FIRE PROTECTION IMPROVEMENT PLAN
 - Finalize Fire Protection Organization
 - Complete Phased Approach Toward Improvement
- CONTINUE TO IMPROVE CONTROL ROOM ACCESS
 - Move Work Administration Outside The Control Room
 - Automate Clearance Process
- IMPLEMENT MORE RIGOROUS CONFIGURATION CONTROL
 - Simplify The Process
 - Model After Industry Best

II. RADIOLOGICAL CONTROL

RADIOLOGICAL CONTROL Program

- Performance Trends

SEQUOYAH ALARA PERFORMANCE 1991 AVERAGE DOSE PER UNIT



— UNIT DOSE

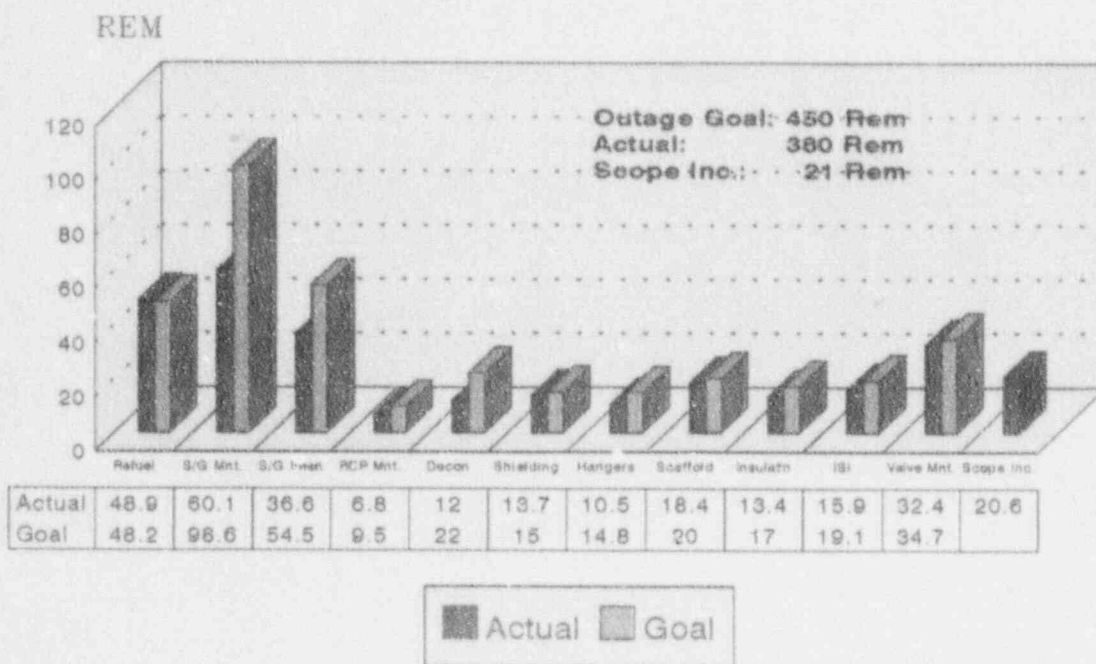
RADIOLOGICAL CONTROL

Major Accomplishments

- ALARA PROGRAM
 - ALARA Design And Work Planning Reviews
 - ALARA/RWP Data Base
 - Automated Access Control
 - Electronic Dosimeter/Remote Monitoring
 - Surrogate Tour Implementation
 - Job Specific Goals
 - Daily Tracking And Reporting
 - Daily Employee Information Bulletin
 - ALARA Phone "Hotline" Provides Daily Status
 - Incentive For Outage Goals
 - ALARA Team Approach To Westinghouse Projects

U2C5 ALARA PERFORMANCE

Major Activity

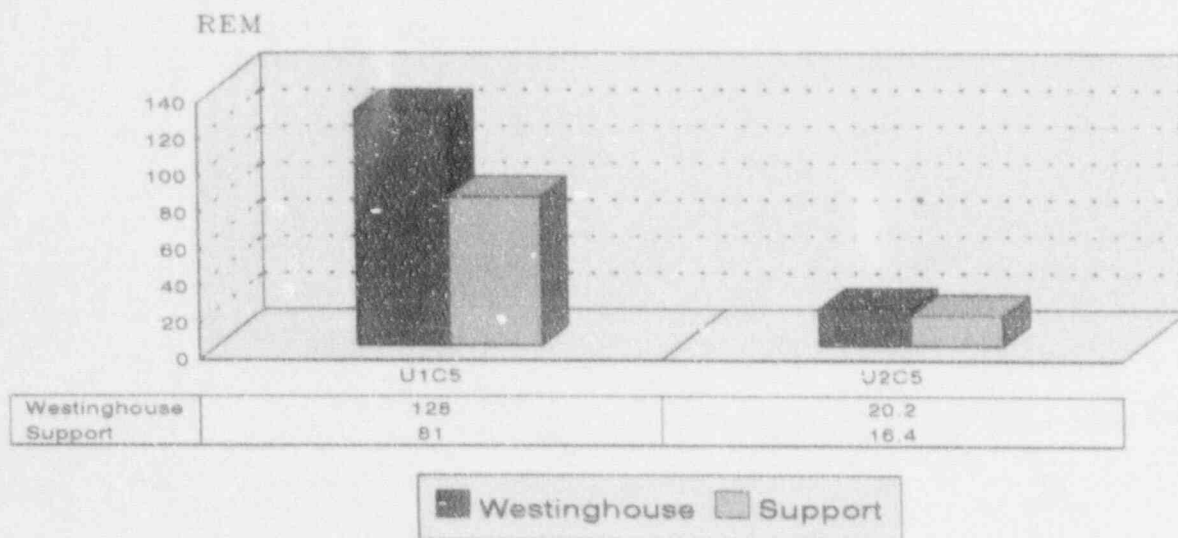


RADIOLOGICAL CONTROL

Major Accomplishments (cont.)

U2C5 ALARA PERFORMANCE

Steam Generator Shotpeen Dose

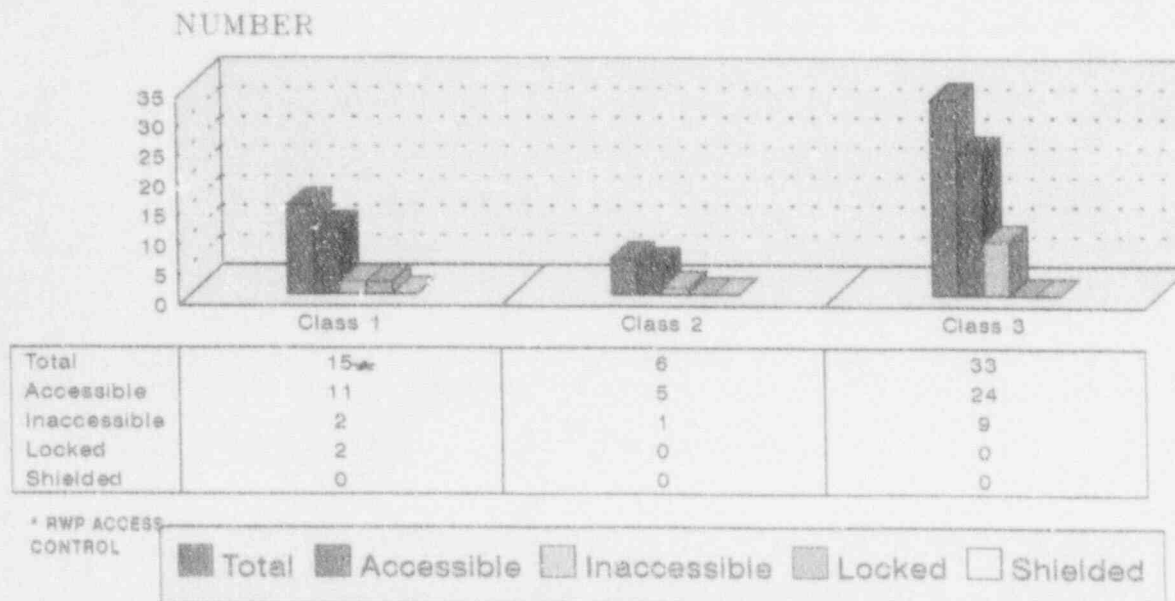


SPDOE

ALARA PERFORMANCE

Hot Spot Data

Class 1(>1000mR/hr), Class 2(>500mR/hr), Class 3(>100mR/hr)

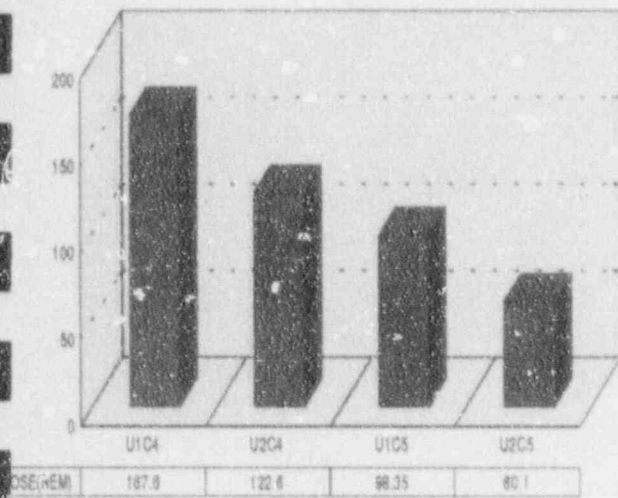


Hotspot

RADIOLOGICAL CONTROL Program

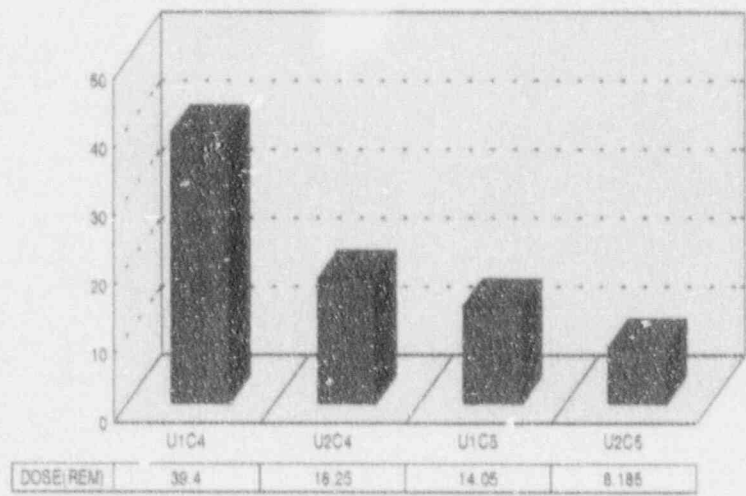
• PERFORMANCE TRENDS

ALARA PERFORMANCE Steam Generator Maintenance Dose



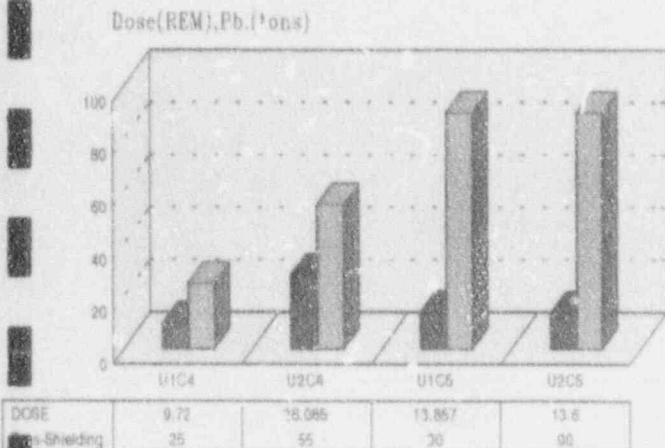
DOSE (REM)

ALARA PERFORMANCE Steam Generator Nozzle Dam Dose



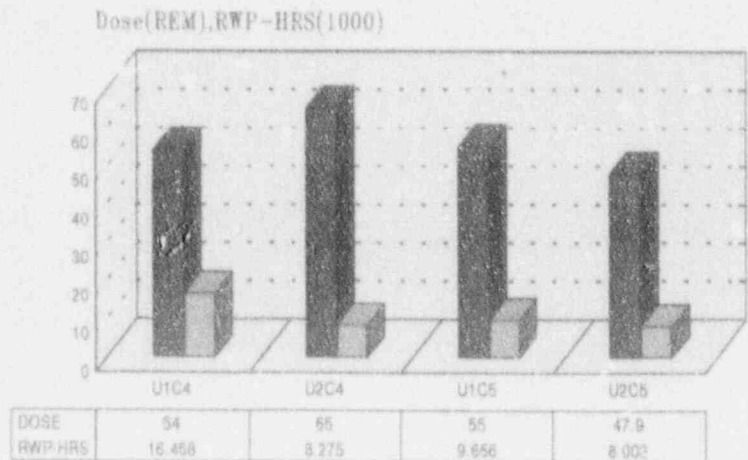
DOSE (REM)

ALARA PERFORMANCE Shielding Dose Trends



DOSE Tons-Shielding

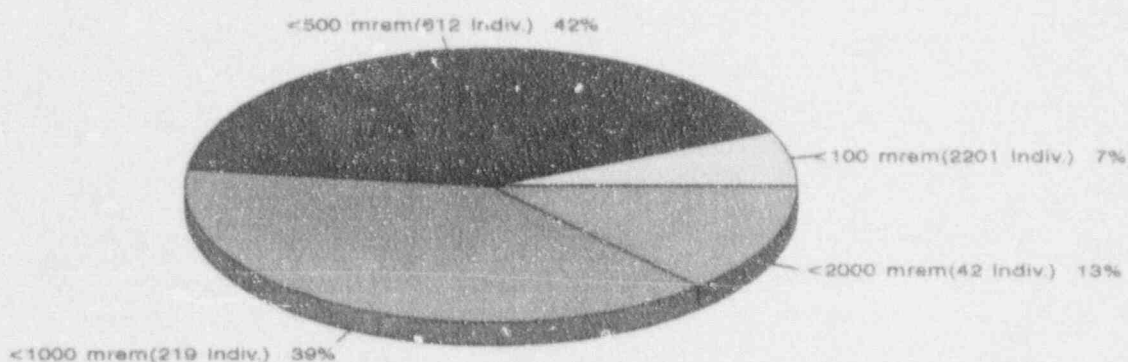
ALARA PERFORMANCE Refueling Dose Trends



DOSE RWP-HRS

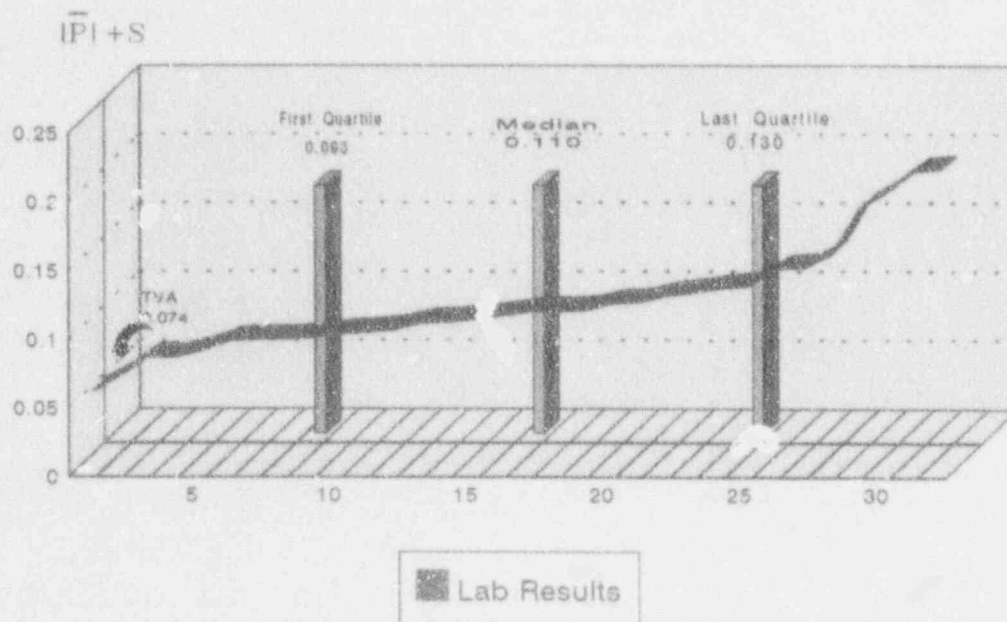
RADIOLOGICAL CONTROL Program

• Performance Trends
SQN DOSE SUMMARY
1992



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DOSIMETRY PERFORMANCE NVLAP Performance Data



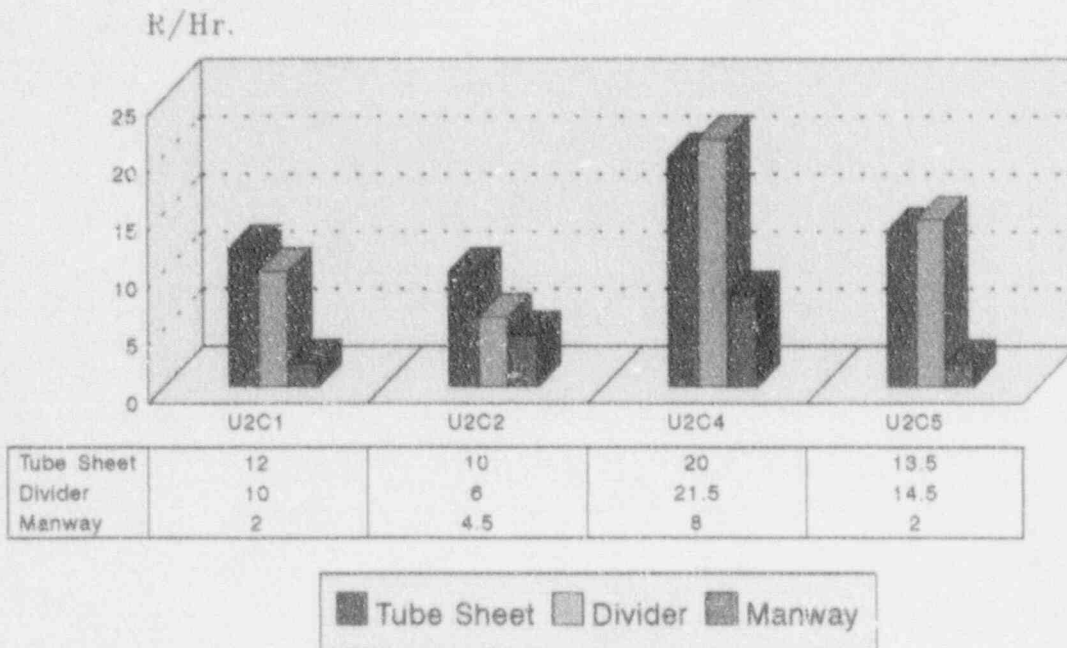
RADIOLOGICAL CONTROL

Major Accomplishments (cont.)

- SOURCE TERM REDUCTION
 - Engineering Design Criteria Change
 - Establish "No Stellite" Policy
 - RADCON ALARA Review Of All Design Changes
 - Effective Implementation Of Elevated pH
 - Effective Implementation Of Shutdown Boration
 - Improved Cleanliness Criteria For Valve Maintenance
 - Cobalt Valve "Hit List"
 - Procurement Of Low Cobalt Valves And Components
 - Installed Low Cobalt Check Valves In RHR
 - Gamma Spectroscopy Characterization Of Both Units
 - Installed Sub-micron Filters In RCS
 - Fuel Inspection To Eliminate Fuel Leaks

ALARA PERFORMANCE

Steam Generator Dose Trends



RADIOLOGICAL CONTROL

Major Accomplishments (cont.)

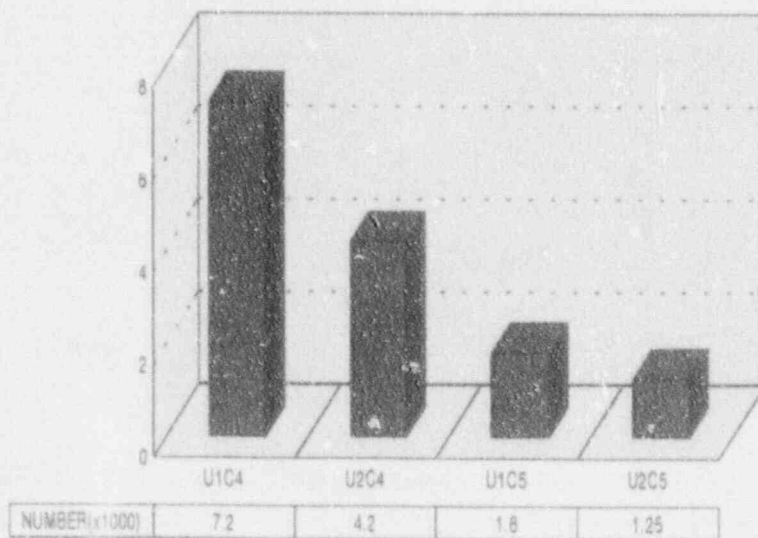
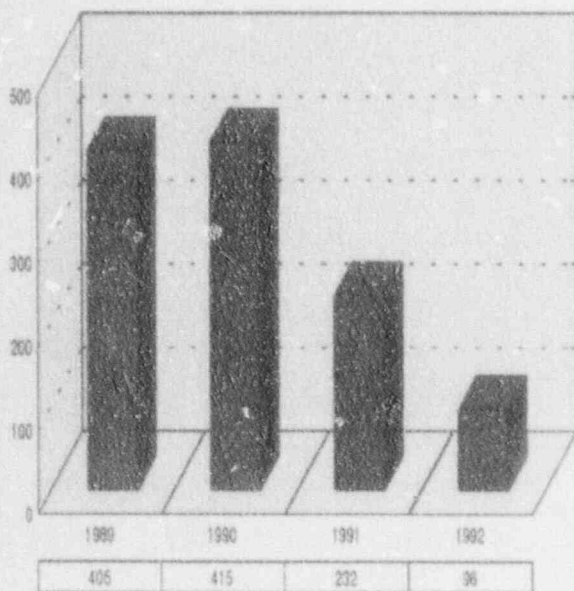
- CONTAMINATION CONTROL.
 - Implemented Scheduled Decon
 - Improved Strippable Coating Process
 - Improved C-Zone Exit
 - Implementation Of Cloth Bags, Absorbent Mats
 - Effective Hot Particle Controls
 - Contaminated Area Reduction - Less Than 5% Of RCA
 - Improved Use Of Containments
 - Produced Worker Information Handbook
 - Reduced Respirator Use

ALARA PERFORMANCE
Personnel Contaminations

ALARA PERFORMANCE
Respirator Usage

Number

NUMBER (Thousands)



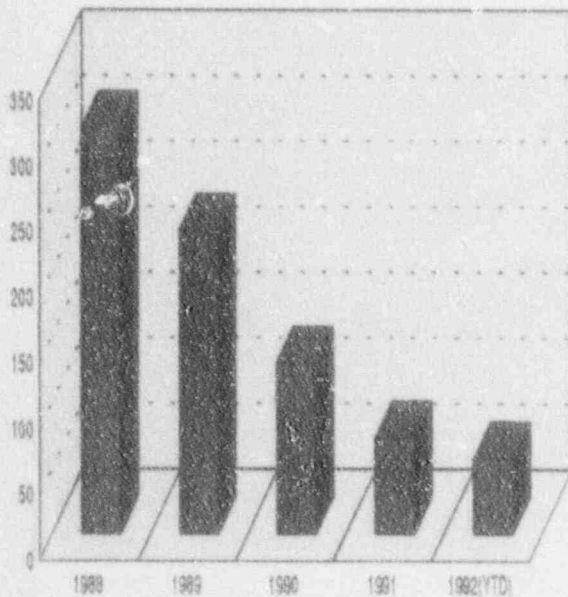
NUMBER(x1000)

RADIOLOGICAL CONTROL

Major Accomplishments (cont.)

- SOLID RADWASTE VOLUME REDUCTION
 - Improved Volume Reduction Techniques
 - Improved Control Of Materials Into RCA
 - Implementation Of Reusable Materials
 - Implementation Of Incinerable Materials
 - Effective Use Of Containments
 - Improved Worksite Ownership
 - Established Aggressive Goals And Communication Plan

ALARA PERFORMANCE
Radwaste Volume Disposal

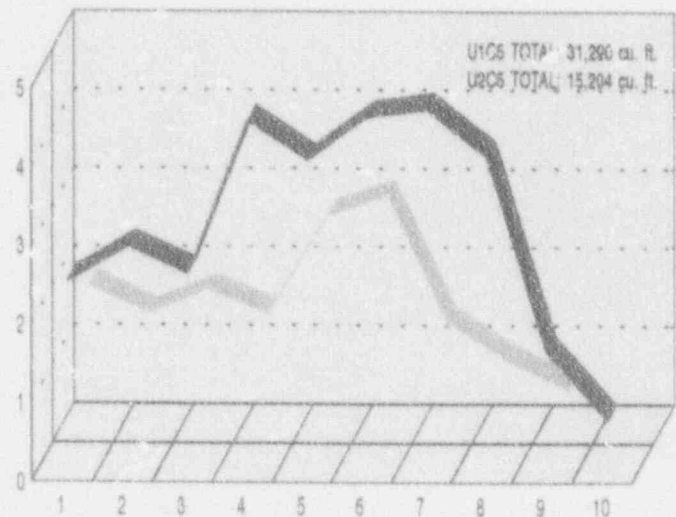


Year	Volume (Cu. M.)
1988	308.79
1989	230.71
1990	129.49
1991	72.6
1992(YTD)	57

Volume (Cu. M.)

U2C5 ALARA PERFORMANCE
Radwaste Volume Generation

Cubic Feet (Thousands)



U1C5(x1000)	2.4	2.85	2.5	4.45	3.95	4.5	4.8	4	1.5	0.85
U2C5(x1000)	1.85	1.5	1.8	1.5	2.75	3	1.4	0.9	0.5368	

U1C5(x1000) U2C5(x1000)

RADIOLOGICAL CONTROL

Areas For Future Focus

- **GENERAL AREA HOUSEKEEPING**
 - Improve Individual Ownership Of Work Area
 - Restore Protective Coatings
 - Improve Control Of Transient Materials
 - Establish Dedicated Area Crews

- **IMPROVE RADWORKER TRAINING**
 - Continue Team Training
 - Develop Advanced Radworker Qualification Plan

- **DOSE REDUCTION**
 - Maintain Fuel Integrity
 - Improve Control Of Outage Tools And Materials
 - Minimize Plant Contaminated Area
 - Target Outage Goal Of 250 REM
 - System Decon
 - Stellite Reduction

- **IMPROVE CHEMISTRY PROCESS INSTRUMENTATION**

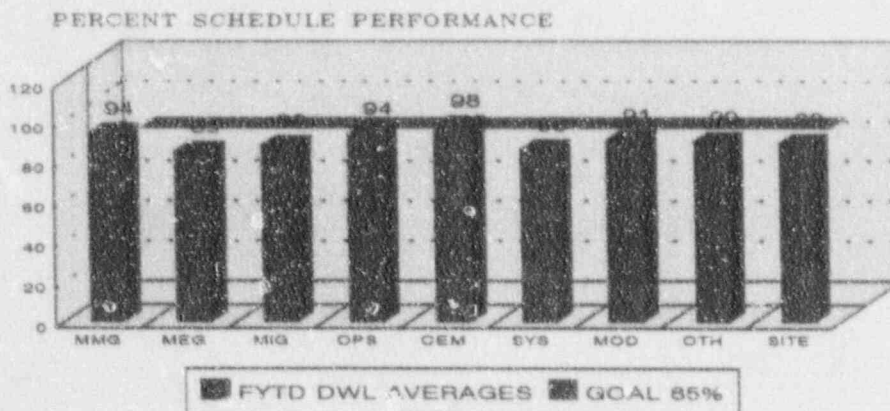
III. MAINTENANCE/SURVEILLANCE

MAINTENANCE/SURVEILLANCE

Major Accomplishments

- DAILY SCHEDULE PERFORMANCE
 - Major Turnaround For Site
 - Effective Use Of Resources, Limits LCO Time
 - Supported By Senior Management

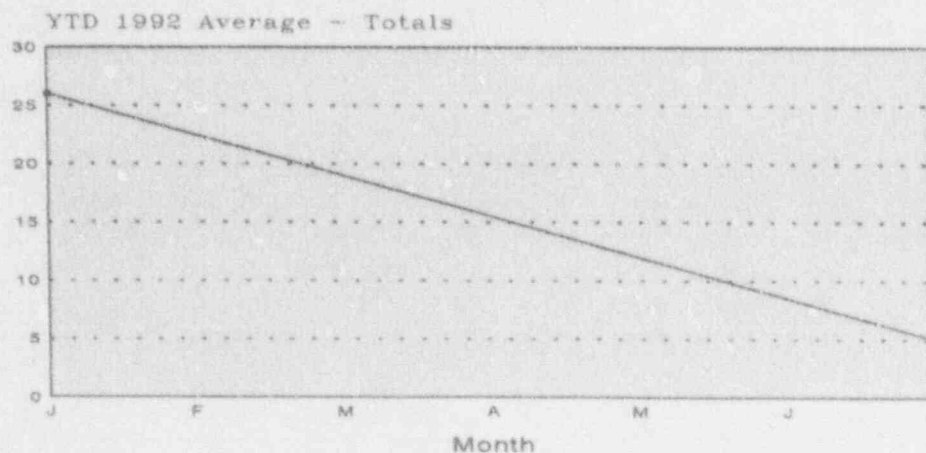
SCHEDULE PERFORMANCE



SCHED

- CONTROL ROOM BLACKBOARD EFFORTS
 - Dedicated Site Wide Effort
 - Included Maintenance, Engineering, Tech Support, Modifications And Project Management
 - High Visibility Item To Maintain Focus

CONTROL ROOM LIT ANNUNCIATORS

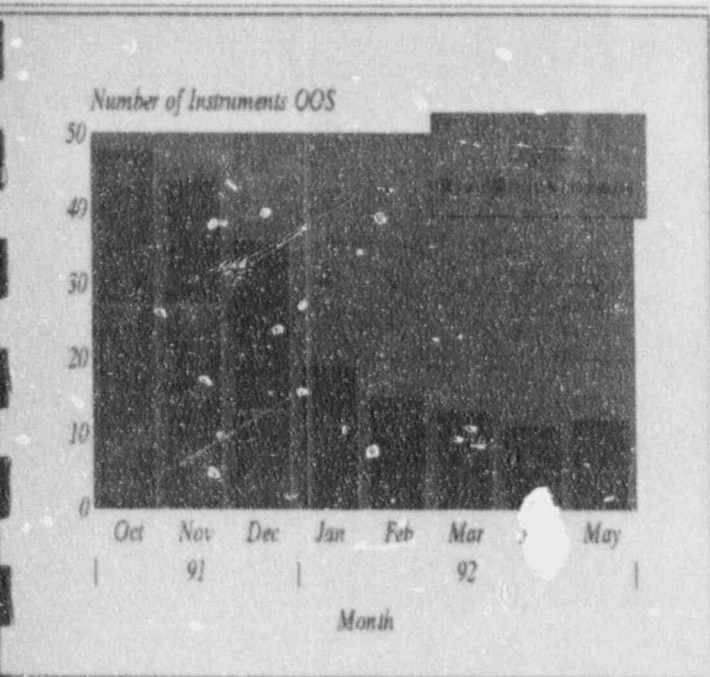


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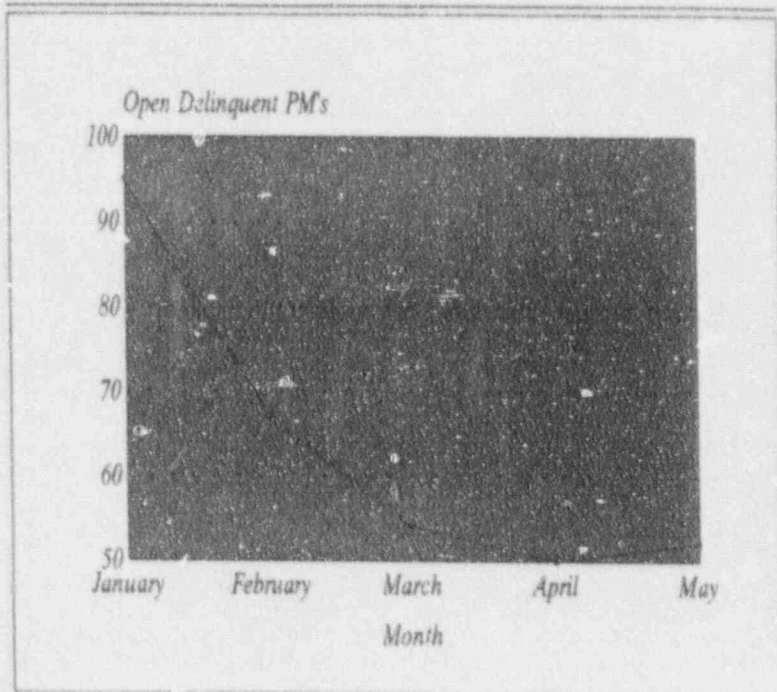
Published 06/12/92

MAINTENANCE/SURVEILLANCE Performance Indicators

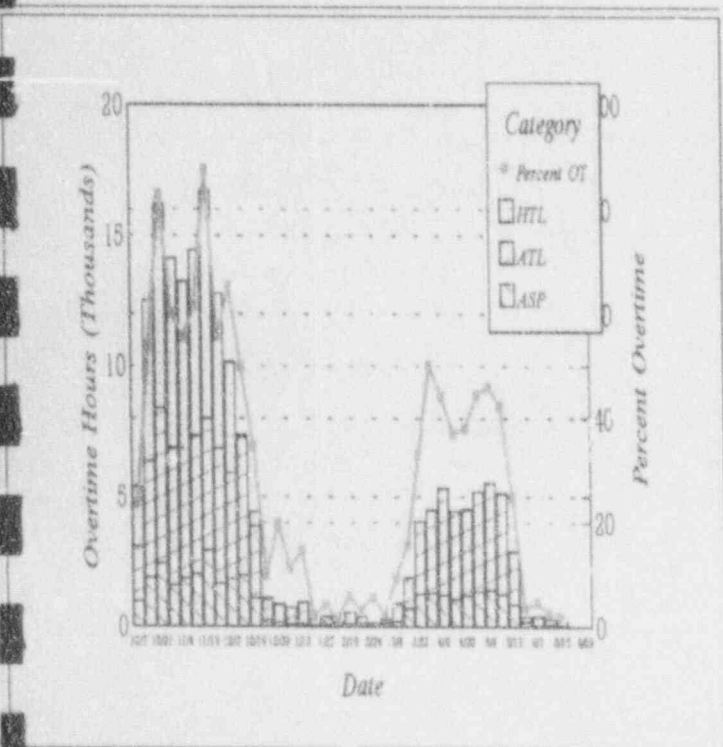
Control Room Instruments Out Of Service
Sequoyah Nuclear Plant



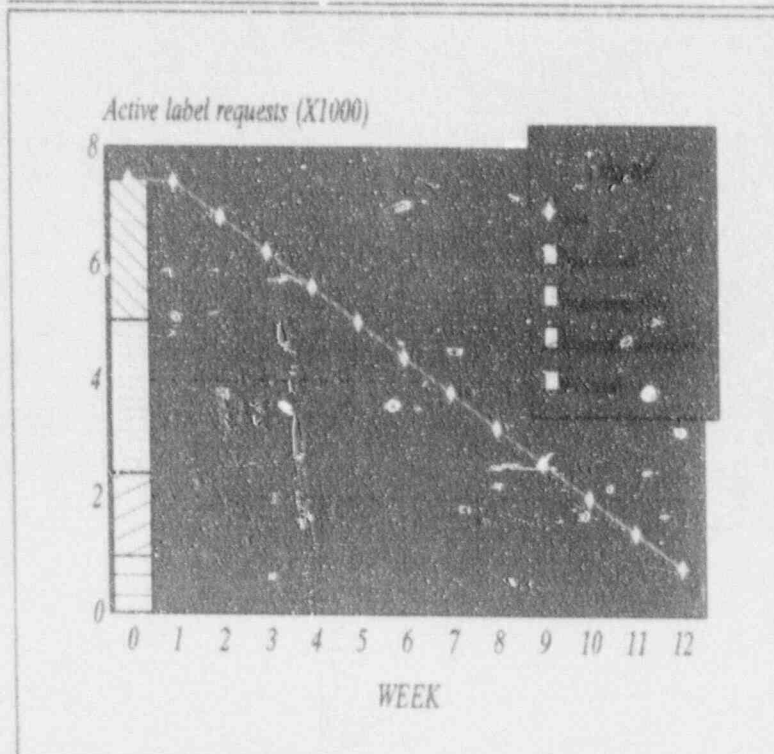
Delinquent PM Report
Sequoyah Nuclear Plant



Maintenance Overtime
Sequoyah Nuclear Plant



Labeling Request Report
Sequoyah Nuclear Plant



MAINTENANCE/SURVEILLANCE

Major Accomplishments (cont.)

- **RELIABILITY CENTERED MAINTENANCE PROGRAM**
 - Initial Implementation In January 1991
 - Objective - Identify Actions Required To Establish Maintenance Programs That Safely Maintain Plant Equipment
 - Encompasses 84 Systems
 - Proven Effective - Several Success Stories
- **IMPROVEMENTS IN WORK PLANNING PROCESS**
 - Planner Training And Qualification Cards
 - Implemented MPAC Software To Streamline Planning Process
 - Improved Maintenance History Search Capability
 - Eliminated Separate Work Orders For Support
- **CONTROL OF NON-PERMANENT WORKFORCE**
 - Culture Of Non-Permanent Workforce
 - Maintenance-Specific Training For All Non-Permanent Craft
 - Site Maintenance Manager Directive Established Controls
 - Single Point Contact For All Maintenance Contractors
 - Annual Craft Perform Verification Activities
- **MAINTENANCE TRAINEE PROGRAM**
 - Includes 26 Trainees
 - Multi-Phase Program Training Electrical, I&C, And Mechanical Crafts
 - Instructed By 'Best' Craftsmen Certified As Instructors
 - Formal Classroom, Laboratory, And OJT Training
- **MAINTENANCE PROFESSIONAL RECOGNITION PROGRAM**
 - Nuclear Power Wide Program
 - Quarterly Award To Recognize Electrical, I&C, Mechanical And Planning Professional
 - Supports Maintenance Professional Code
 - Annual Awards Ceremony To Select And Recognize Maintenance Professional Of Year From Each Site

MAINTENANCE/SURVEILLANCE

Major Accomplishments (cont.)

- **FORCED OUTAGE SCHEDULE**
 - Reduces Outage Time
 - Ensures Outage-Related Work Is Performed Efficiently And Safely
 - Enhanced In March 1992 Through Implementation Of NUMARC Guidelines To Reduce Shutdown Risks
 - Revised Weekly To Reflect New Maintenance Items

- **PREDICTIVE MAINTENANCE PROGRAM**
 - State Of The Art Monitoring Equipment To Improve Detection/Prevention Capability
 - Cross Training Maintenance Personnel To Provide Additional Flexibility
 - Includes MOVATS, Thermography, Lube Oil Analysis, Vibration Monitoring

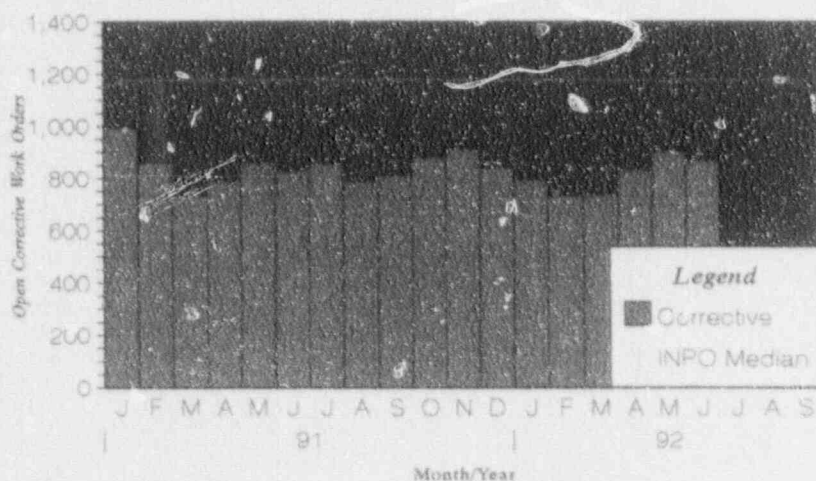
- **OTHER ACCOMPLISHMENTS**
 - U2C5 Refueling Outage Performance
 - No Maintenance Personnel Error Induced Reactor Trips
 - Control Room Instruments In Service
 - Corporate Maintenance Support
 - Goals And Performance Indicators
 - Incident Investigation Support
 - Coordination Of D/G Outages
 - PM Deferral Controls
 - Application Of EPRI Packing

MAINTENANCE/SURVEILLANCE

Major Accomplishments (cont.)

- REDUCTION OF MAINTENANCE BACKLOG
 - Non-Outage Corrective Maintenance Backlog Maintained Below INPO Median
 - Material Restrained WOs Reduced From 14% To 9%
 - Formal Quarterly Review Of All Work Orders >90 Days Old
 - Weekly Backlog Review In POD
 - Aggressive Backlog Goal Established
 - Corrective Backlog Represents Approximately Five Weeks Work

*Site Work Order Backlog
Sequoyah Nuclear Plant*



- MAINTENANCE "TEAM" TRAINING
 - Implemented In December 1991
 - Part Of Continuing Training Program
 - Integrates Soft Skills Such As Documentation Of Work, Procedure Usage, Pre-Job Briefings And Work Authorization Into 'How-To' Technical Training
 - Integrates Advanced Radworker Practices

MAINTENANCE/SURVEILLANCE

Areas For Future Focus

- CONFIGURATION CONTROL
 - Site-Wide Training Conducted
 - Videotape Developed By Training Center
 - Tailgate Sessions To Discuss Specifics
 - Reinforced In TEAM Training
 - Policy To Only Allow Annual Craft To Perform Verifications
- FOREIGN MATERIAL EXCLUSION PROGRAM
 - Inflatable Pipe Plug Investigation Revealed Deficiencies
 - Reviewing Other Industry Efforts
 - Revising Program To Address Deficiencies
 - Videotape To Ensure Consistent Training Under Development
- PLANT MATERIAL CONDITION/COATINGS
 - Material Condition Suffered During Outage
 - Four Areas Of Major Focus
 - Coatings / Insulation Replacement /
 - Secondary Plant Leaks / General Housekeeping
 - Major Recoating Effort Started In Early June 1992
 - Dedicated Effort To Reinsulate Secondary Plant Underway
 - Trending For Secondary Plant Repeat Leakers Underway
 - Focus On Management Housekeeping Inspection Program
 - Repeated Use Of 'Field Day' Planned
- EQUIPMENT LABELING BACKLOG REDUCTION
 - Original Plant Design Did Not Label All Equipment
 - Over 12,000 Labels Made To Date With 7,500 To Go
(55% Never Labeled / 45% Relabels)
 - Operations Input To Address Priorities
 - Additional Resources Planned To Reduce Backlog This FY

MAINTENANCE/SURVEILLANCE

Areas For Future Focus (cont.)

- REDUCTION OF SI DOCUMENTATION ERRORS
 - Administrative Error Rate Unacceptable
 - Performance Improvement Noted
 - Performance Monitoring At Crew Level Effective
 - Quality Action Team Formed

- MAINTENANCE SUPERVISORY DEVELOPMENT PROGRAM
 - Program Based Upon Successful BFN And PECO Programs
 - Extensive Six Week Training Program With Four Offsite Weeks
 - Includes Professional Assessment Prior To Training
 - Includes Maintenance Supervisors, Selected Planners, Engineers And Training Department Employees
 - Piloted In Maintenance With Possible Application In Other Departments

- PERSONNEL PERFORMANCE
 - Control And Development Of Subordinates
 - Accountability At Crew Level
 - Team Training
 - OJT Observation And Peer Program Improvements Planned

- MAINTENANCE BENCHMARKING EFFORT
 - Target Is 'Best-Of-Best' Performers
 - Six Utilities Selected
 - Team Trained In IBM Benchmarking Techniques
 - Team Comprised Of The Four TVA Maintenance Managers Corporate Maintenance, And Two Craft Representatives
 - Effort Will Conclude In Fall
 - Quality Action Teams Will Be Formed To Address Implementation Of Improved Processes

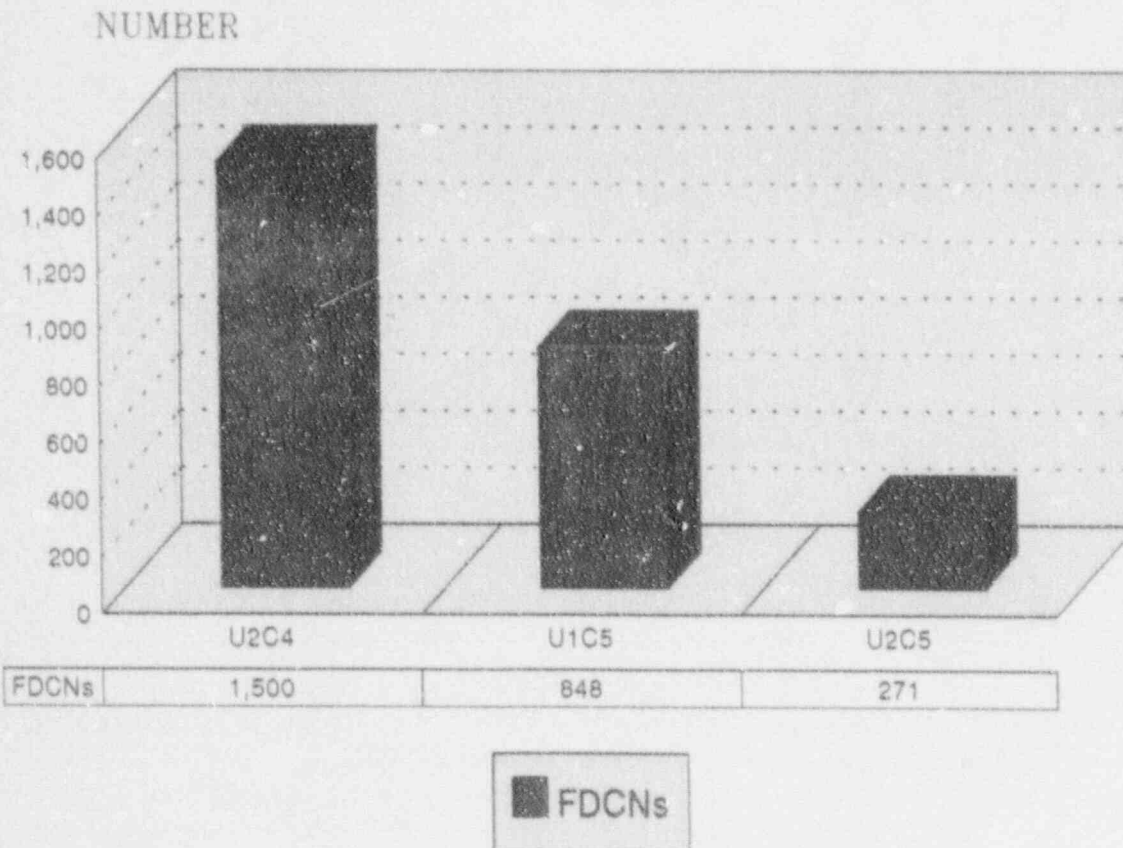
**IV. ENGINEERING/TECHNICAL
SUPPORT**

ENGINEERING/TECHNICAL SUPPORT

Major Accomplishments

- IMPROVED OUTAGE SUPPORT
 - Outage Material Support
 - Engineer And Contractor System Training
 - Field DCNs (FDCNs)

OUTAGE FDCNs



FDCN

ENGINEERING/TECHNICAL SUPPORT

Major Accomplishments (cont.)

- PLANT IMPROVEMENTS
 - Early Implementation Of Annunciator System And Removal Of Nuisance Alarms
 - Improved Auxiliary Feedwater System In Recirculation Mode
 - Feedwater Heater Copper Removal For Steam Generator Preservation
 - Pressurizer Safety Valve Trim Modification Leading Edge Of Technology
 - Simulator Upgrades
 - 89-10 MOV Program

NRC Generic Letter 89-10

Total Number of Valves = 278

Unit 1 = 128; Unit 2 = 128; Common = 22

	DP TESTS	MODS	STATIC TESTS
U1C5	17	12	31
U2C5	19	10	47
U1C6	*14	20	49
U2C6	*10	17	55
U1C7	*20	**	48
U2C7	*20	**	48

* Projected

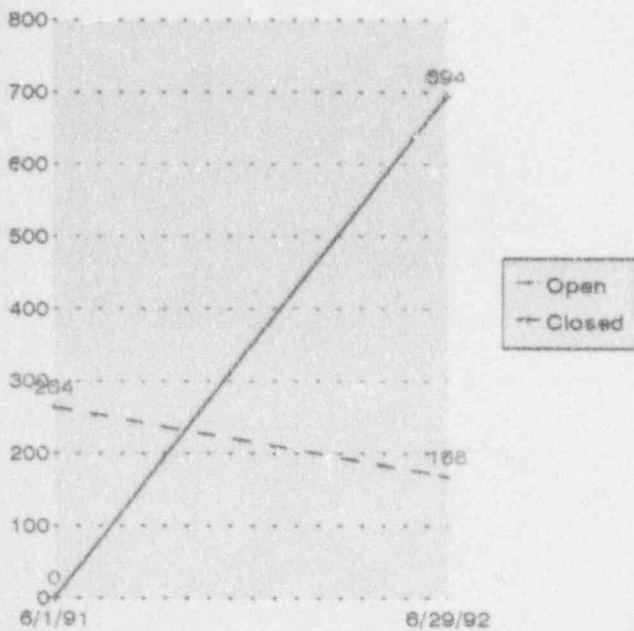
** None Expected

ENGINEERING/TECHNICAL SUPPORT

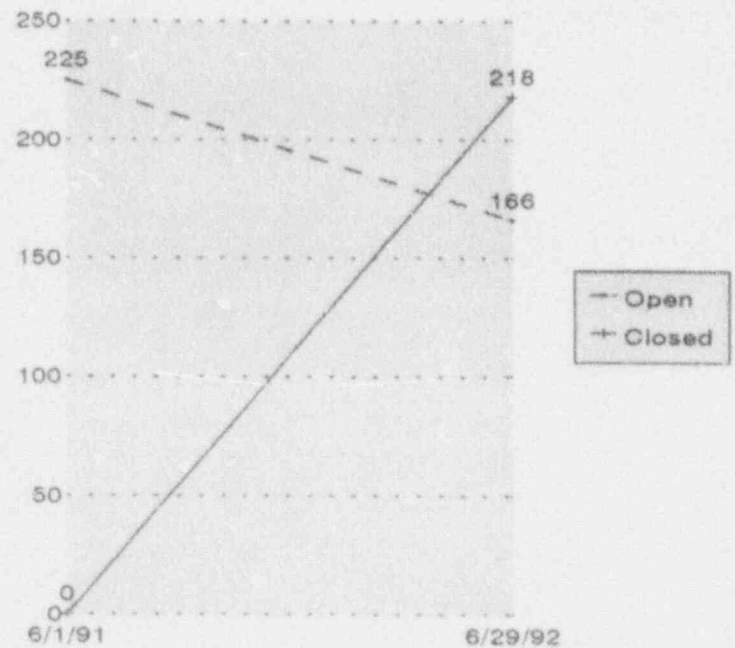
Major Accomplishments

- REDUCTION OF BACKLOGS
 - ECN/DCN Closures
 - Conditions Adverse to Quality (CAQs)
 - Setpoint and Scaling Documents (SSD)

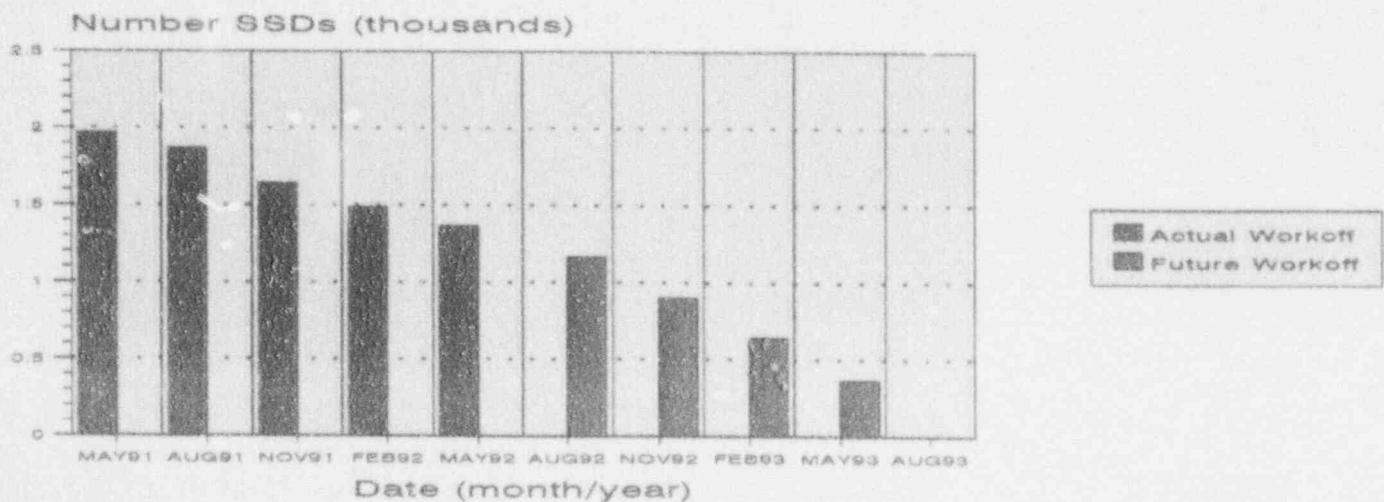
ECN/DCN Closures



Conditions Adverse to Quality (CAQs)



Setpoint and Scaling Document Workoff Graph



ENGINEERING/TECHNICAL SUPPORT

Major Accomplishments (cont.)

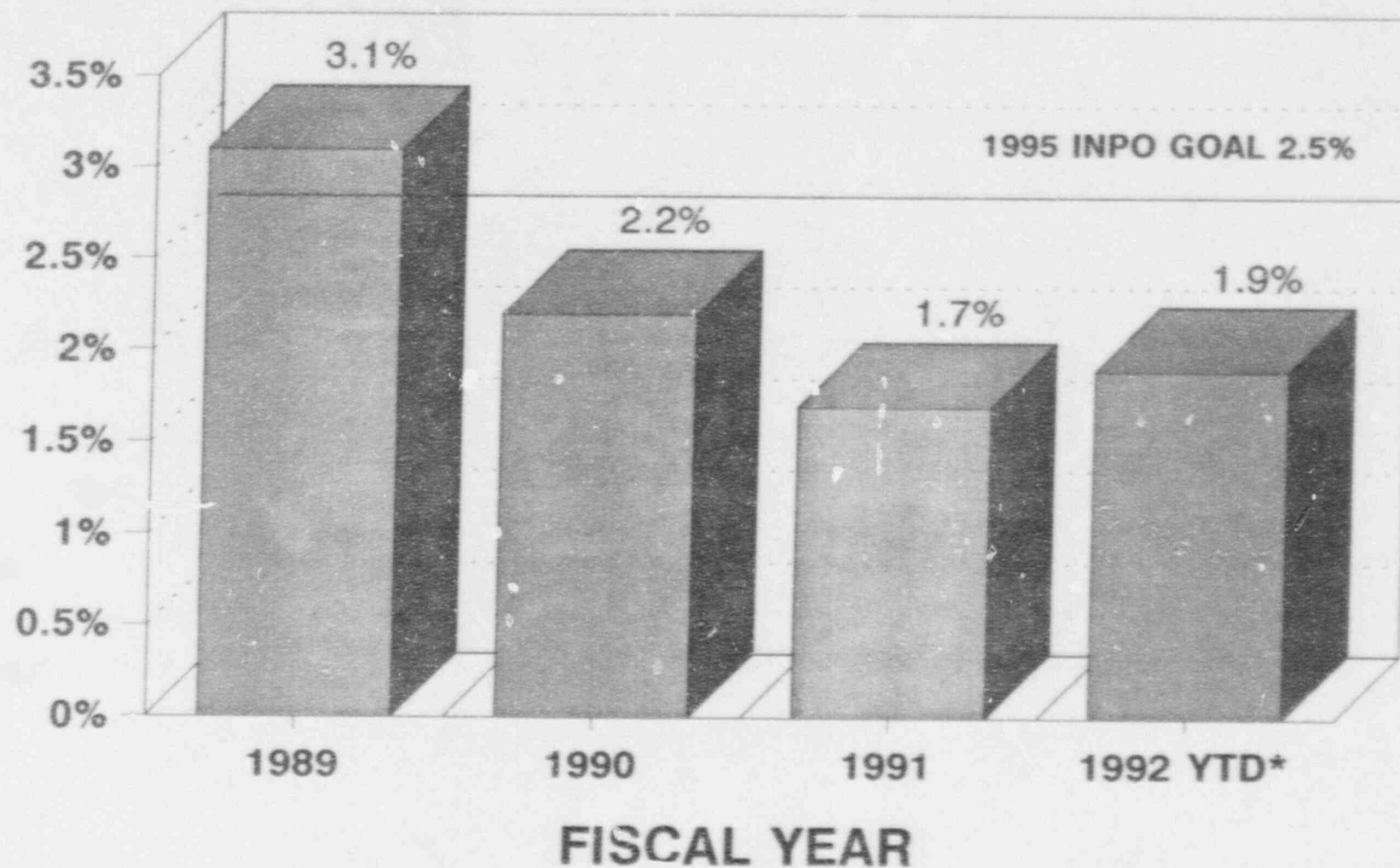
- GOOD NRC SPECIAL INSPECTIONS - NO VIOLATIONS
 - Regulatory Guide 1.97
 - EDSFI Followup
 - Generic Letter 89-10 (MOV Program)
 - Operational Safety Team Inspection
 - Electrical
 - Engineering/Technical Support
- NRC RESIDENT INSPECTIONS
 - Only One Current Performance Violation - Annunciator Upgrade

ENGINEERING/TECHNICAL SUPPORT

Major Accomplishments (cont.)

- SYSTEMS ENGINEERING ACCOMPLISHMENTS
 - Ownership Of System Outages
 - Implemented Prior To U2C5
 - Enhanced Performance During Unit Outage
 - Allowed For Detailed, Advance Preplanning
 - Safety System Unavailability
 - Tracked And Evaluated By System Engineers
 - Fully Supported By Operations And Maintenance
 - Action Plans Initiated On Adverse Trends
 - Trending Program Implemented
 - Stronger Management Emphasis On Trending Use
 - Provides For Proactive Approach To Issues
 - Plant Engineering Database (PEDS)
 - Uses Data Acquisition From Plant Process Computer
 - Provides Real Time Monitoring For Plant Processes
 - Supplements System Troubleshooting
 - Supports Reactor Trip Investigation
 - System Engineering Certification Program
 - Program Established In 1991
 - Eight-Week Classroom/Simulator
 - Written And Oral Exams
 - Practical Factors Including System Walkdown
 - Use Of Simulator For Problem Resolution

DIESEL GENERATOR UNAVAILABILITY



■ PERCENTAGE

*DATA THROUGH 6/28/92

ENGINEERING/TECHNICAL SUPPORT

Major Accomplishments (cont.)

- REACTOR ENGINEERING IMPROVEMENTS
 - Completed Staffing of Reactor Engineers
 - Moved NIS System Engineer To Reactor Engineering
 - Implemented Site Fuel Integrity Assessment Program
 - Implemented Program For Reactivity Management
 - Completed Sequoyah Specific Training By Westinghouse
 - Scheduled System Engineering Training For Fall Of 1992
 - Planned And Completed Visits To Other Sites
 - Performed Low Power Physics Testing/Training On Simulator
 - Implemented Core-Related Parameter Trending Program

- GOOD NRC INSPECTIONS - NO VIOLATIONS - STRENGTHS AND IMPROVEMENTS NOTED
 - OSTI
 - Reactor Engineering
 - Engineering And Technical Support
 - Resident Inspections

ENGINEERING/TECHNICAL SUPPORT

Areas For Future Focus

- CONTINUED BACKLOG REDUCTION
 - CAQs
 - Drawing Deviations
- OBSOLETE EQUIPMENT
 - Foxboro H-Line
 - GEMAC Controller
 - Arrowhart MCCs
- SYSTEM ENGINEER CERTIFICATION PROGRAM
 - Completion Schedule Established
- REDUCTION OF TEMPORARY ALTERATIONS
 - Closed 61 In 1991
 - Closed 56 To Date In 1992
 - Plans Established To Be Down To Eight In October
- SECONDARY PLANT IMPROVEMENTS
 - Replace Number Three Heater Drain Tank Valves

V. EMERGENCY PREPAREDNESS

EMERGENCY PREPAREDNESS

Major Accomplishments

- TWO SUCCESSFUL ANNUAL GRADED EXERCISES
 - No NRC Exercise Weaknesses Or Violations
 - Strengths
 - Site Emergency Director Leadership Command And Control
 - Simulator Crew Command And Control
 - Realism Provided By Simulator And Mockups
 - Realistic And Innovative Play By Personnel
 - Personnel Accountability
 - OSC Team Conference Bridge

- OPERATIONS SUPPORT CENTER UPGRADE
 - Larger Facility With Increased Communication Lines
 - Installed REX Terminal And Surrogate Tour System
 - Installed TSC To OSC PA System

- IMPROVED DATA TRANSFER AND COMMUNICATIONS CAPABILITIES
 - CECC VAX Computer Upgraded
 - Ringdown Line Between ODS And SOS
 - Fax Machine Installed In MCR And Simulator

- EMERGENCY RESPONSE ORGANIZATION TRAINING UPGRADE
 - Lesson Plans Reviewed And Updated
 - Upgraded Training Tracking Database
 - Supported Development And Conduct Of Containment Equipment Hatch Closure Drill

- CORPORATE INVOLVEMENT AND SUPPORT
 - Maintained 10-Mile EPZ PNS Reliability Of 98%
 - Developed And Implemented Challenging Exercise Scenarios
 - Implemented Onsite Rad Con And Chemistry Drill Data Program

EMERGENCY PREPAREDNESS

Major Accomplishments (cont.)

- INCREASED ATTENTION ON EMERGENCY RESPONSE ORGANIZATION PERFORMANCE
 - Continuing With Unannounced Off-Hours Augmentation Drills
 - Pager Test Results Reviewed By Site VP And Plant Manager
- EMERGENCY PROCEDURE UPGRADE
 - Included Testing For ERF Electronic Equipment
 - Activation And Notification Procedures Upgraded
 - Emergency Classification Logic Reviewed
- RADIOLOGICAL ACCIDENT CODE ACCESS
 - Used By TSC Rad Con Until CECC Staffed
 - TSC Rad Con Trained To Project Offsite Dose

EMERGENCY PREPAREDNESS

Areas For Future Focus

- INSTALLATION AND IMPLEMENTATION OF EMERGENCY RESPONSE DATA SYSTEM (ERDS)
- IMPLEMENTATION OF NUMARC EMERGENCY ACTION LEVEL METHODOLOGY
 - Clarifies And Streamlines NUREG 0654
 - Expect Fewer Nonsignificant Emergency Declarations

VI. SECURITY

SECURITY

Major Accomplishments

- SECURITY SYSTEM HARDWARE RELIABILITY
 - Continued Good Security/Maintenance Interface
 - Timely Hardware Repairs
 - Compensatory Post Duration Minimized

- PERFORMANCE INDICATORS AND OUTAGE SUPPORT
 - Two Major Outages
 - Temporary Employees
 - Quality Assurance And Compliance
 - No Reportable Events
 - No Significant Findings
 - No Violations

- SECURITY SYSTEM UPGRADE
 - Status
 - Design And Procurement Complete
 - Interface Planning Meetings
 - Construction Contract Awarded - RUST
 - Construction Starts This Month (July 1992)
 - Scope
 - Dual Redundant CPUs
 - Upgraded Alarm Stc
 - New Field Sensors, Closed-Circuit TV, Fence
 - New Access Portal
 - Training Simulator
 - New Interfacing Badging Equipment

SECURITY

Major Accomplishments (cont.)

- TRAINING AND INFORMATION EXCHANGE
 - Response Exercises
 - Tactical Response Team Training
 - Hostage Negotiations and Terrorism
 - Physical Protection Systems (BE, Inc.)
 - Site Visits
 - LLEA Interface Drills
 - SENSEA Involvement

- CONTINUED WEAPONS UPGRADE
 - Sig-Saur 226
 - Benelli Super 90 Shotgun
 - MP-5 Submachine Gun
 - Improved Response Capability

- IMPROVEMENTS IN PERFORMANCE
 - Tracking And Trending
 - Reports To Site VP
 - Performance Based Drill Scenarios
 - REP Support
 - INPO HPES Committee
 - Marginal Shooters Improvement Program

SECURITY

Major Accomplishments (cont.)

- CONTINUED ORGANIZATIONAL STABILITY
 - Reporting Channels
 - Succession Planning
 - Decreased Employee Concerns/Complaints
 - Attrition Rate Below 5%

- MORALE HIGH AND IMPROVING
 - Personnel Development Opportunities
 - New Equipment
 - PSUP Progress
 - Work Schedule Change
 - Awards And Recognition

- STREAMLINE SAFEGUARDS INFORMATION
 - Reduced Container Volume By 20%
 - Audit Program
 - Controls
 - Classifiers
 - Minimum Classification
 - Limited Access And Access Approval

SECURITY

Areas For Future Focus

- EFFECTIVE SECURITY SYSTEM UPGRADE TRANSITION
 - Revised Plans And Procedures
 - Strong NRC Interface
 - Use Of Experienced Consultant
 - Training Program Revisions
 - Self Assessment Of Program Changes

VII. SAFETY ASSESSMENT/
QUALITY VERIFICATION

SAFETY ASSESSMENT/ QUALITY VERIFICATION

Major Accomplishments

- DEMONSTRATED STRONG SAFETY CULTURE
 - Prudent Operational Decisions
 - Strong Problem Identification
 - Indepth Incident Investigations
 - Enhanced Utilization Of Risk Management
 - No "Hot" Midloops
 - Augmented Controls For Complex Or Infrequently Performed Tasks
- CONTINUED IMPROVEMENT IN EVENT INVESTIGATION AND ROOT CAUSE DETERMINATIONS
 - Indepth Review Through IIs And Plant Event Review Panels (PERPs) Noted As Continuing Strength (IR 92-03)
 - Thorough And Effective Post-Trip Reviews Noted As Strength (IR 92-11)
- CONTINUING ASSESSMENTS
 - INPO Assessments And Assist Visits
 - Organizational Benchmarking
 - Line Self Assessments
 - SQN Self Assessment
- PERFORMANCE ENHANCEMENT AND MANAGEMENT EFFECTIVENESS INITIATIVES
 - Unit 2 Outage Ownership And Performance
 - Effective Overtime Administration And Controls
 - Outage Incentive Plan
 - Personnel Development Assignments
 - Reduction In Employee Concerns
 - Organizational Training And Personnel Development

SAFETY ASSESSMENT/ QUALITY VERIFICATION

Major Accomplishments (cont.)

- CONTINUED OVERSIGHT OF SAFETY REVIEW GROUPS
 - ISE Involvement In Electrical And Outage Reviews
 - ISE Noted As A Strength By OSTI (IR 91-21)
 - NSRB Subcommittee Reviews
 - Participation On SQN Self Assessment
- CORRECTIVE ACTION PROGRAM IMPROVEMENT INITIATIVES
 - Continued Backlog Reduction
 - Improvements In Corrective Action Timeliness
 - Improved Trending And Analysis
 - Site Task Force And QAT For Implementation Improvements
- CONTINUED EXPERIENCE EXCHANGE WITH INPO
 - Selected To Host Senior Manager's Training Class
 - Unit 1 Outage Assessment
 - Participated On Assists As Peer Reviewers
 - Requested Assist Visits In Chemistry And HPES

SAFETY ASSESSMENT/ QUALITY VERIFICATION

Major Accomplishments (cont.)

- REGULATORY PERFORMANCE IMPROVEMENTS AND RESPONSIVENESS
 - Continued Reduction In LERs
 - Reduction In NRC Identified Violations
 - Postrestart Commitment Completion
 - Generic Issue Closures
 - Tech Spec Line Item Improvements
 - Bulletin And GL Action Completions
 - Responsive Inspection Support
- EFFECTIVE 10 CFR 50.59 IMPLEMENTATION
 - Successful NRC Inspection (IR 92-02) - No Open Items
 - Upgraded Refresher Training For Preparers/Reviewers
 - Integration With New JCO Procedure (GL 91-18)
- SUCCESSFUL NRC INSPECTIONS
 - Team/Special - OSTI, 10 CFR 50.59, GL 89-10, RG 1.97, Engineering Issues, EDSFI Followup, Engineering/Tech Support
 - Functional - ALARA/Rad Con, Security, Emergency Preparedness, Reactor Engineering, Chemistry, ISI/Snubber, Environmental Monitoring/Radiological Effluents
- IMPROVED FORMAT OF LERs
 - Joint Corporate/SQN/BFN Effort
 - Utilized AEOD And Industry Best Inputs
 - Noted As Strength By NRC (IR 92-06)

SAFETY ASSESSMENT/ QUALITY VERIFICATION

Major Accomplishments (cont.)

- IMPROVED ASSESSMENT CAPABILITIES OF THE SITE QUALITY ORGANIZATION
 - Utilization Of Industry Expertise And Perspectives For Specific Audits And Assessment
 - Initiation Of Audit Oversight Board To Ensure Management Standards Are Met
 - "Inspector Of The Day" Program
- ENHANCED PERFORMANCE TRENDING BY QA
 - Trend Report Using SALP Functional Area Format And Standardized Evaluation Criteria Developed
 - Inputs Include Data From QA, NRC, And ISE Reports, LERs, Corrective Action Documents, And NER Data
 - Performance Against Each Criteria, And Overall Performance In Each Functional Area, Is Evaluated As A Significant Weakness, Needing Improvement, Satisfactory, Or A Significant Strength
- IMPROVED QA COMMUNICATION OF FINDINGS
 - Standardized Quarterly Assessment Format
 - Monthly QA/Site VP Meetings
 - Monthly QA/Site Licensing Meetings
 - Presentation Of Audit Report Results To NSRB
 - Weekly Meetings With Line Organizations To Discuss QC Rejects And Reject Rates
- IMPROVED QA/NRC EXCHANGE OF INFORMATION
 - Monthly QA/NRC Residents Meetings
 - QA Interface Meetings With NRC Inspection Teams To Communicate Oversight In Inspection Area

SAFETY ASSESSMENT/ QUALITY VERIFICATION

Major Accomplishments (cont.)

- QA PERFORMANCE OF PLANT REQUESTED EVALUATIONS
 - Independent Valve Lineup Check (Sample) Before Last Unit 1 Startup
 - Independent Review Of Jumper Usage Control
 - independent Review Of Fuse Control
 - Independent Verification Of Transient Loads - Compliance With Housekeeping Procedure
 - Chemistry Assessment
 - Minor Maintenance Review During Maintenance Audit
 - Radwaste Management During SNM Audit
- PROACTIVE QA ASSESSMENT INITIATIVES
 - Verification Of Operator Rounds
 - Control Of Onsite Contractors
 - Overview Of Fire Protection Improvement Plan
 - Operator Complacency (Zion Issue)
 - Switchyard Work Activities

SAFETY ASSESSMENT/ QUALITY VERIFICATION

Areas For Future Focus

- PERSONNEL PERFORMANCE AND MANAGEMENT EFFECTIVENESS
 - Management Assessment
 - Supervisory Development
 - Definition Of Standards, Expectations, And Accountability At All Levels
 - Team Training
 - Process Improvement Initiatives
 - Total Quality Initiatives - Customer Focus, Tools And Techniques, And QATs/QITs
 - Continuing Self Assessment
- CORRECTIVE ACTION PROGRAM IMPROVEMENTS
 - Incident Investigation Process Enhancements
 - Backlog Review, Prioritization, And Elimination
- QA INITIATION OF PERFORMANCE EVALUATION PROGRAM
 - Evaluation Methodologies Based On NRC Inspection Criteria And INPO Guidelines/Good Practices
 - Identifies Precursors, Continually Tracks Weaknesses, And Measures Sequoyah With Current Industry Standards
 - Monthly Briefing Of Plant Management On Observation Activities
- ASSESSMENT OF QA OVERSIGHT FUNCTIONS
 - Establish Task Team
 - Determine What QA Should Or Should Not Be Doing From QA And Customer Perspectives
 - Enhance QA's Ability To Identify Significant Problems And Achieve Action On Items