

February 15, 1996

Tennessee Valley Authority  
ATTN: Mr. Oliver D. Kingsley, Jr.  
President, TVA Nuclear and  
Chief Nuclear Officer  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

SUBJECT: BROWNS FERRY UNIT 3 STATUS MEETING - MANAGEMENT MEETING SUMMARY

Dear Mr. Kingsley:

On February 12, 1996, the NRC staff met at the NRC Region II Office with representatives of the Tennessee Valley Authority (TVA) management staff to discuss the status of Browns Ferry Unit 3 since the return of the unit to power operations.

Enclosure 1 is a list of the individuals who attended the meeting and Enclosure 2 is the handout material supplied by TVA.

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 letter, please contact us.

Sincerely,

Mark S. Lesser, Chief  
Reactor Project Branch 6  
Division of Reactor Projects

Docket Nos. 50-259, 50-260, 50-296  
License Nos. DPR-33, DPR-52, DPR-68

Enclosures: 1. List of Attendees  
2. Presentation Notes

cc w/encs: (See page 2)

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PDR ADOCK 05000259  
P PDR

210116

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JE45

cc w/encls:

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Dr. Mark O. Medford, Vice Pres.  
Engineering & Technical Services  
Tennessee Valley Authority  
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1101 Market Street  
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Mr. D. E. Nunn, Vice Pres.  
New Plant Completion  
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Mr. R. D. Machon, Site Vice Pres.  
Browns Ferry Nuclear Plant  
Tennessee Valley Authority  
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General Counsel  
Tennessee Valley Authority  
ET 11H  
400 West Summit Hill Drive  
  
Knoxville, TN 37902

Mr. P. P. Carrier, Manager  
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4G Blue Ridge  
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Mr. T. D. Shriver, Manager  
Nuclear Assurance & Licensing  
Browns Ferry Nuclear Plant  
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Mr. Pedro Salas  
Site Licensing Manager  
Browns Ferry Nuclear Plant  
Tennessee Valley Authority  
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TVA Representative  
Tennessee Valley Authority  
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Chairman  
Limestone County Commission  
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State Health Officer  
Alabama Dept., of Public Health  
434 Monroe Street  
Montgomery, AL 36130-1701

Distribution w/encls: (See page 3)

Distribution w/encls:

- E. W. Merschhoff, RII
  - M. S. Lesser, RII
  - F. J. Hebdon, NRR
  - J. F. Williams, NRR
  - S. M. Shaeffer, RII
  - G. T. MacDonald, RII
  - C. F. Smith, RII
  - G. B. Kuzo, RII
  - D. H. Thompson, RII
  - J. H. Moorman, RII
- PUBLIC

NRC Senior Resident Inspector  
 U.S. Nuclear Regulatory Commission  
 10833 Shaw Road  
 Athens, AL 35611

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LIST OF ATTENDEES

NRC

S. D. Ebnetter, Regional Administrator, Region II (RII)  
J. R. Johnson, Deputy Director, Division of Reactor Projects (DRP), RII  
A. F. Gibson, Director, Division of Reactor Safety (DRS), RII  
M. S. Lesser, Chief, DRP, Branch 6, RII  
L. D. Wert, Senior Resident Inspector, DRP, Branch 6, RII  
C. A. Casto, Chief, Engineering Branch, DRS, RII  
S. M. Shaeffer, Project Engineer, DRP, Branch 6, RII  
F. J. Hebdon, Director, Project Directorate (PD) II-3, Office of Nuclear  
Reactor Regulation (NRR)  
J. F. Williams, Project Manager, PD II-3, NRR

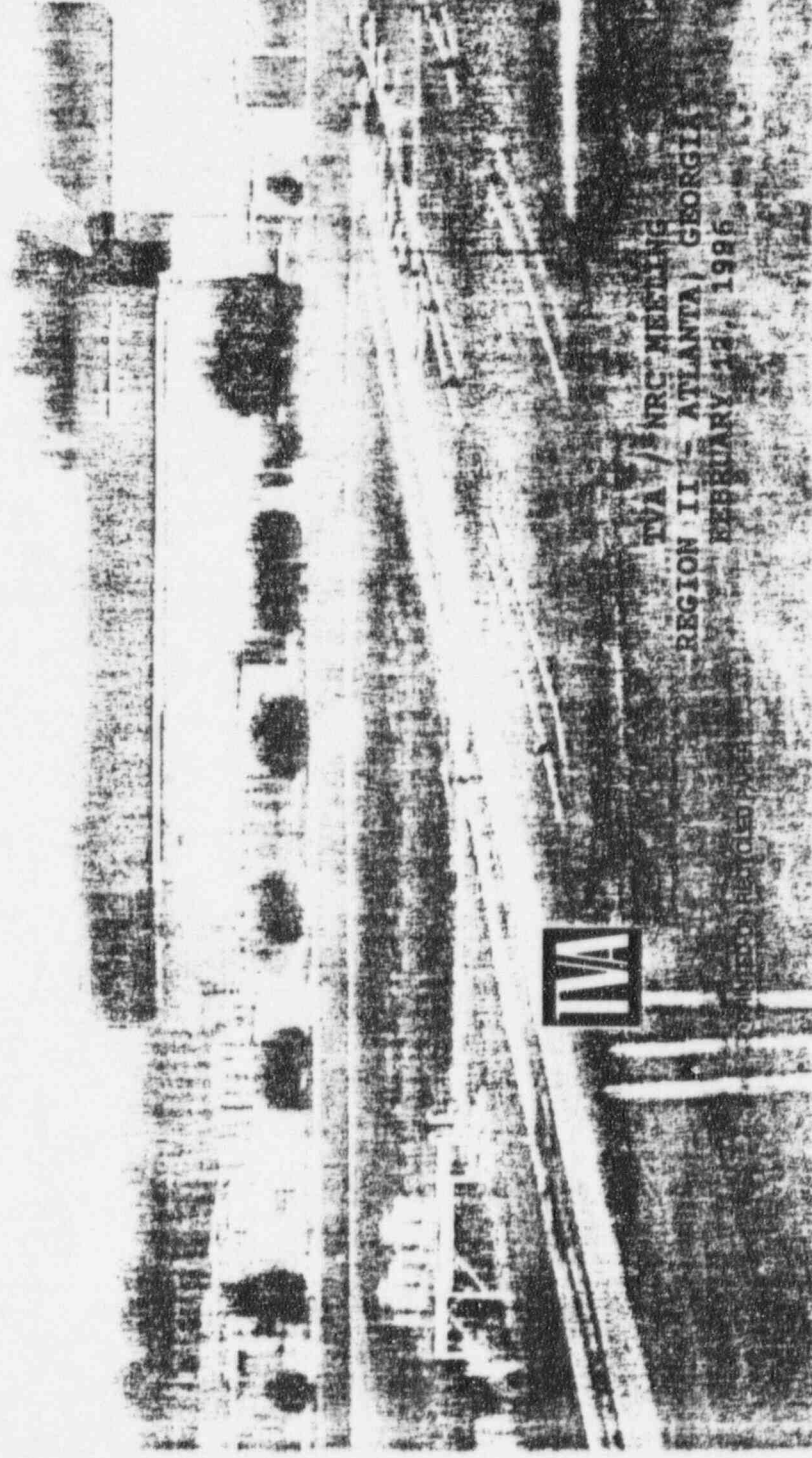
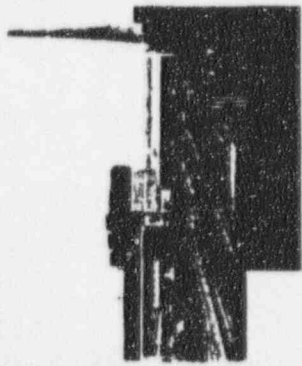
TVA

O. Kingsley, President, TVA Nuclear  
J. Maciejewski, General Manager Nuclear Assurance and Licensing  
R. Machon, Senior Vice President, Browns Ferry Nuclear Plant (BFN)  
G. Preston, Plant Manager, BFN  
R. Jones, Operations Manager, BFN  
T. Shriver, Nuclear Assurance and Licensing Manager, BFN  
P. Salas, Licensing Manager, BFN

Tennessee Valley Authority (TVA)

Browns Ferry Nuclear Plant (BFN)

Unit 3 Status Briefing



TVA / NRC MEETING  
REGION II - ATLANTA, GEORGIA  
FEBRUARY 12, 1996

enclosure 2

## AGENDA

- |      |                                     |             |
|------|-------------------------------------|-------------|
| 1.0  | Introductions                       | R. Machon   |
| 2.0  | Schedules                           |             |
| 2.1  | Integrated Schedule                 | R. Machon   |
| 3.0  | Organization                        | R. Machon   |
| 4.0  | Unit 3 Operational Self Assessments |             |
| 4.1  | Departmental Assessments            | G. Preston  |
| 4.2  | System Windows                      | G. Preston  |
| 5.0  | Unit 3 Operations                   |             |
| 5.1  | Power Ascension Test Program        | R. G. Jones |
| 5.2  | Operational Issues                  | R. G. Jones |
| 6.0  | Quality Assurance Activities        | T. Shriver  |
| 7.0  | Employee Concerns                   | R. Machon   |
| 8.0  | Licensing Project Plan              | P. Salas    |
| 9.0  | Emerging Issues                     | G. Preston  |
| 10.0 | Backlog Summaries                   | G. Preston  |
| 11.0 | Summary / Action Items              | R. Machon   |



## **1.0 INTRODUCTIONS AND MEETING OBJECTIVES**

- **Update NRC Region II on the Status of Unit 3 Activities Since Restart**
- **Unit 3 Specific Meetings Will Continue Until Unit 3 Removed From the Watch List**
- **TVA Will Continue to Have Open Communications with NRC after Removal from the Watch List**

# INTEGRATED SITE SCHEDULE

2/96      3/96      4/96      5/96      6/96      7/96      8/96      9/96      10/96

Unit 2 Cycle 8  
Refueling Outage  
March 22 - April 19

Mtg. with Region II  
Unit 3 Activities  
February 12, 1996

Mtg. with Region II  
Unit 3 Activities  
Mid-April

Mtg. with Region II  
Mng. / Tech. Spt.  
End of Feb.

Mtg. with Region II  
Operator Performance  
Early March

SALP Presentation  
Reg. II / NRR Mgmt.  
Early May

NRC Senior Mgmt.  
Meeting  
Early June

Commission  
Meeting  
Early July

End of BFN SALP  
Period  
September 21

**UNIT 2  
ACTIVITIES**

**UNIT 3  
ACTIVITIES**

**BFN SITE  
ACTIVITIES**

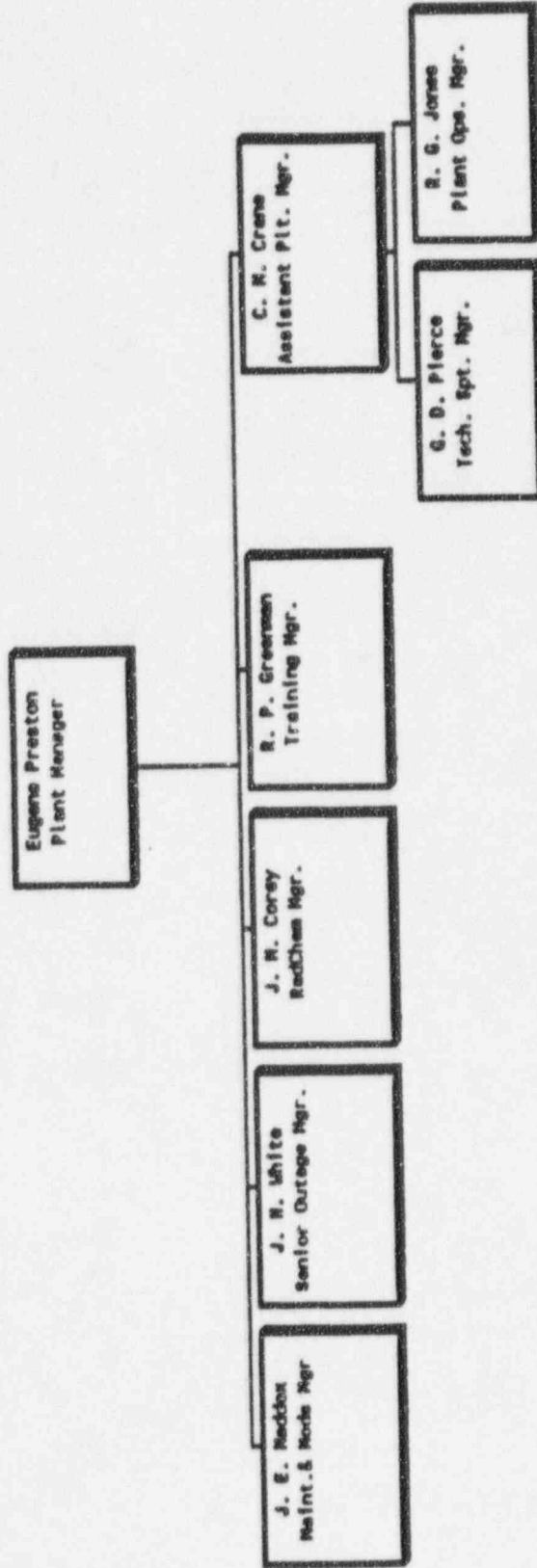
**NRC  
ACTIVITIES**



### **3.0 ORGANIZATION**

- **BFN Has Been Realigned Into a Two Operating Unit Organization**
  - **Chris Crane, Assistant Plant Manager, Assumed Direct Responsibility For Operations and Technical Support Departments**
  - **R. G. Jones, Former Operations Superintendent, Assumed Position of Operations Manager**
  - **Robert Greenman Is Manager, Nuclear Training**
  - **Robert Moll, Former Operations Manager, Is Responsible for Operator Training and Implementation of the Improved Standardized Technical Specifications**
  - **Other Changes**

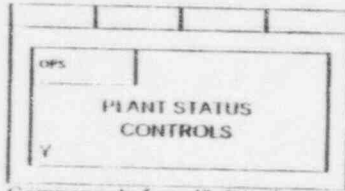
### 3.0 ORGANIZATION (CONT.)



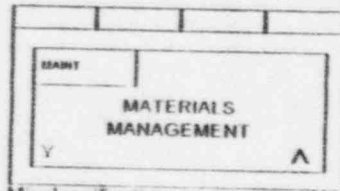
## **4.0 UNIT 3 OPERATIONAL READINESS REVIEWS**

### **4.1 SELF ASSESSMENTS**

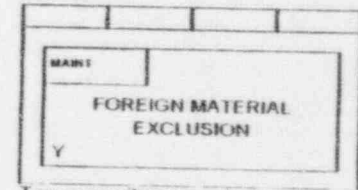
- **Quarterly Trend Report**
  - **Identified Strengths**
    - **Reactor Engineering**
    - **Radiological Protection's Low Internal Exposures**
    - **Radiological Emergency Planning**
    - **Security**
    - **Maintenance Facilities and Equipment**
    - **Outage Management Experience Utilization**



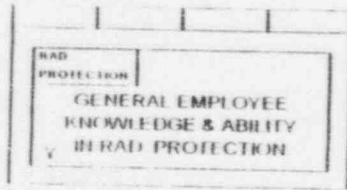
Components found/left in the wrong position such as SDIV vents, scram bypass switch, etc



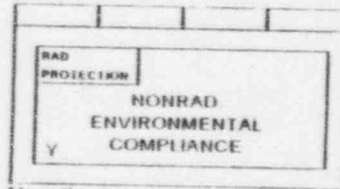
Misclassification, parts unavailability reduce ability to plan work



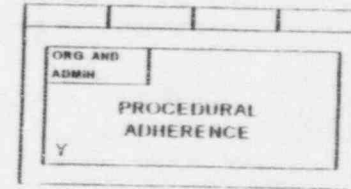
Too many items are being dropped/lost in exclusion spaces



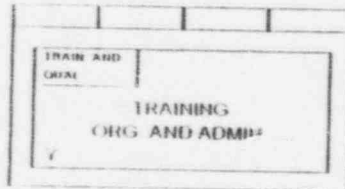
Basic work proficiency remains a problem



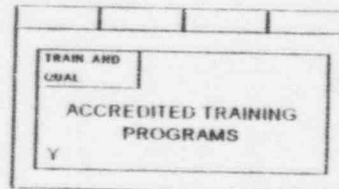
Negative trend of violations have generated a management alert



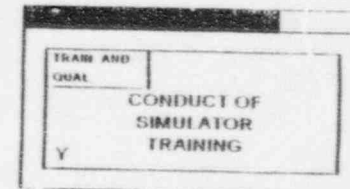
Too many cases where procedures were not followed



Accreditation renewal objectives sometimes not met Number and quality of OJT/task performance evaluations not met Low site management involvement in training



Poor operations knowledge of on-line maintenance matrix No OJT for FME monitors, lack of task qualifications for surveillance instructions



Decline in performance in areas of crew interaction and communications

SIGNIFICANT WEAKNESS  
  IMPROVEMENT NEEDED  
  SATISFACTORY  
  SIGNIFICANT STRENGTH  
  INSUFFICIENT DATA

## BFN FIRST QUARTER 1996 - TREND WINDOWS REPORT AREAS NEEDING IMPROVEMENT

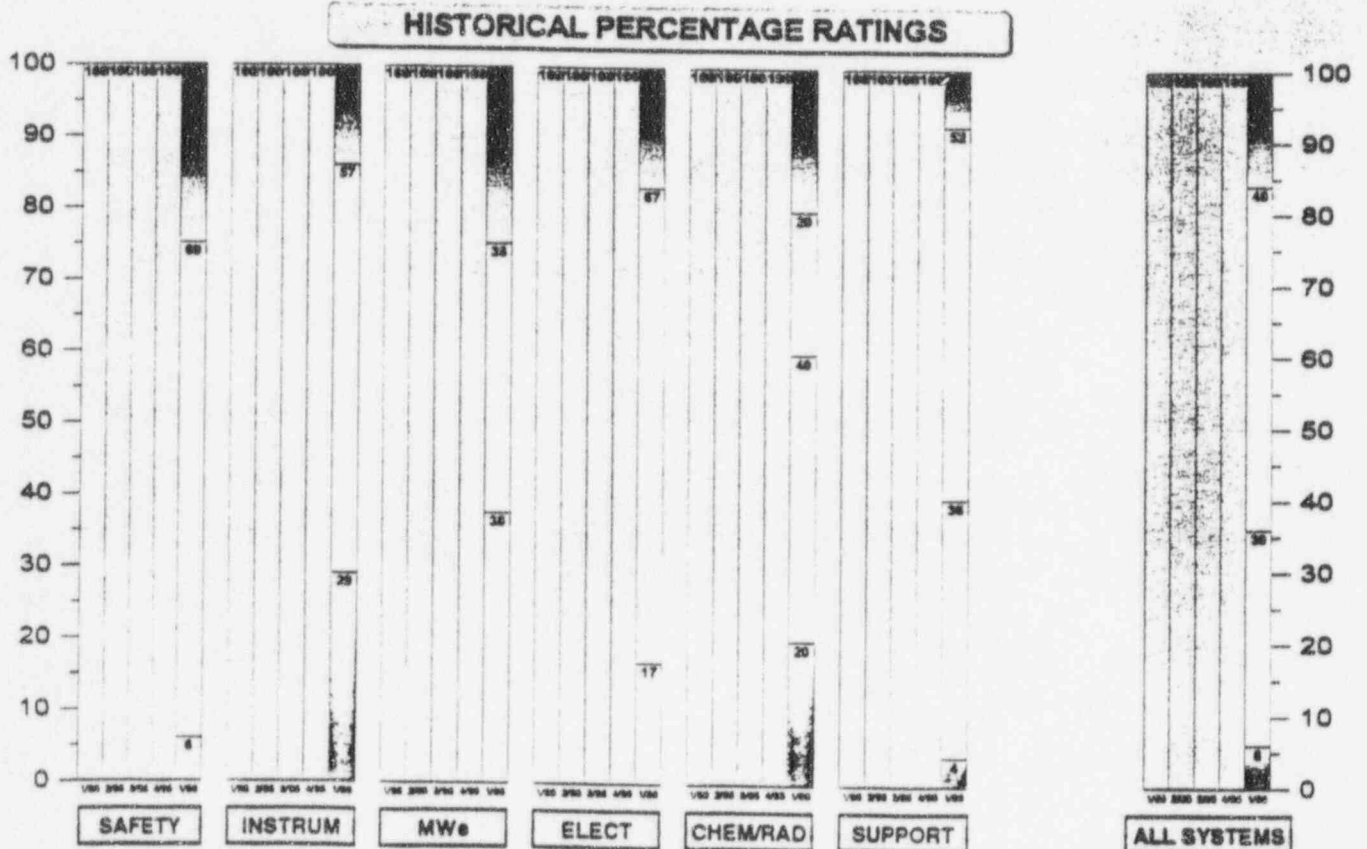
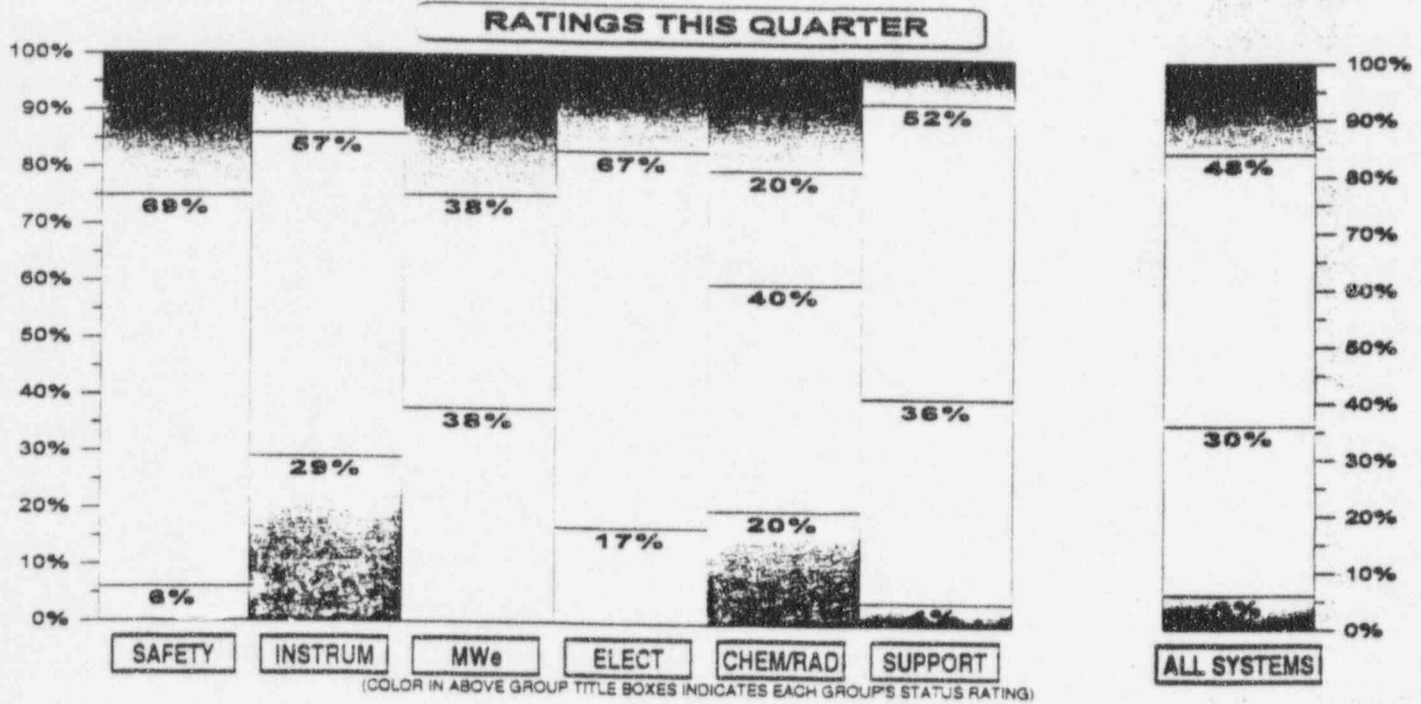




# SYSTEM STATUS BFN UNIT 3

1ST QTR  
FY96

## PERCENTAGE OF SYSTEMS RATED EACH COLOR





## **5.0 UNIT 3 OPERATIONS**

### **5.1 POWER ASCENSION TEST PROGRAM**

- **Power Ascension Test Program Completed in 32 Days**
  
- **19 Test Procedures Performed. 30 Test Deficiencies Identified. Each Deficiency Satisfactorily Dispositioned. Examples Provided Below.**
  - **Test Plateau I (Open Vessel Testing): Insulation clearances of less than one-eighth inch noted in 41 locations. Nine locations notched and remaining locations determined to be acceptable as-is.**
  
  - **Test Plateau II (0 to 55% Power): LPRM Readings at Panel Did Not Agree With Integrated Computer System. LPRMs Were Repaired.**
  
  - **Test Plateau III (55 to 100% Power):**
    - **Three Pairs of TIP Channels Reversed. Software Change Made to Re-assign Points.**
  
    - **Feedwater System Tuning Problems Resolved By Repairing "C" Reactor Feed Pump Turbine Control Linkage. Feedwater Drain Line Thermocouples Replaced To Correct Erroneous Indications. Feedwater Heater Low Level Alarm Setpoint Adjusted To Prevent Spurious Alarms.**



## **5.0 OPERATIONS (CONT.)**

### **5.2 OPERATIONAL ISSUES**

- **Operator Workarounds**
  - **Feedwater Heaters Frequently Isolate on Turbine Trip. Will Be Corrected During the Next Refueling Outage.**
  - **Reactor Feed Pump 3A Discharge Check Valve Does Not Close When RFPT Removed From Service**
  - **Feedwater Master Level Control Does Not Prevent High Water Level Trip of Feed Pumps Following a Scram. Will Be Corrected During the Next Refueling Outage.**
  
- **Maintaining a Low Number of Lit Annunciators**
  
- **Currently Less Than Two GPM Combined Identified and Unidentified Containment Leakage**
  
- **Offgas Flow Less Than 20 SCFM**
  
- **Plant On-line for 69 Days**

## 6.0 QUALITY ASSURANCE ACTIVITIES

- **Five Plant Assessments Completed Since Unit 3 Restarted**
  - **Unit 3 Power Ascension Program**
    - **One Level C PER Identified for Inadequate Work Order Planning**
  - **System and Equipment Status Assessment**
    - **One Level C PER Identified for Weakness in System Status Control That Does Not Preclude Misaligned Valve Event**
    - **One Level D PER Issued for Valve Incorrectly Labeled**
  - **Fitness For Duty**
    - **Effective Management Monitoring and Oversight**
    - **No Findings or Weaknesses Identified**

## 6.0 QUALITY ASSURANCE ACTIVITIES (CONT.)

- **Plant Assessments Completed Since Unit 3 Restarted (Cont.)**
  - **Engineering, Modification, and Installation Audit**
    - **Seven Level C PERs Identified**
      - **T-DCN Closure**
      - **Use of Non-Design Output Documents**
      - **Classification of Computer Software**
      - **Conflicts Between Fuse Tabulation and EMS Database**
      - **Use of Assumption Regarding Environmental Qualification of a Cable**
      - **Omitted References in Implementing Procedures**
      - **Minor Design Documentation Error**
    - **Three Level D PERs Corrected During Audit**
  - **Operations Audit**
    - **One Level B PER Issued Due to Adverse Trend Associated With Plant Status and Configuration Control Issues**
    - **Two Level C PERs issued for a Form Indicating Incorrect Status of Equipment and Conflicting Instructions Concerning TACF Documentation**

## 6.0 QUALITY ASSURANCE ACTIVITIES (CONT.)

- Nuclear Assurance and Licensing Focus Areas
  - Procedural Adherence
    - Primary Focus on Each Assessment Conducted
    - Particular Emphasis on Quality of Procedures and Work Order / Procedure Interface
    - Improving Overall Trend, Particularly In Maintenance and Operations
  - Control Room Activities
    - Particular Emphasis on Command and Control, Communications, and Status Control
    - Use of SRO Certified / Licensed Personnel and NA&L Management
    - Extensive Coverage, Including Back Shift
    - Overall Improving Trend, Continued Emphasis Required in the Area of Communications

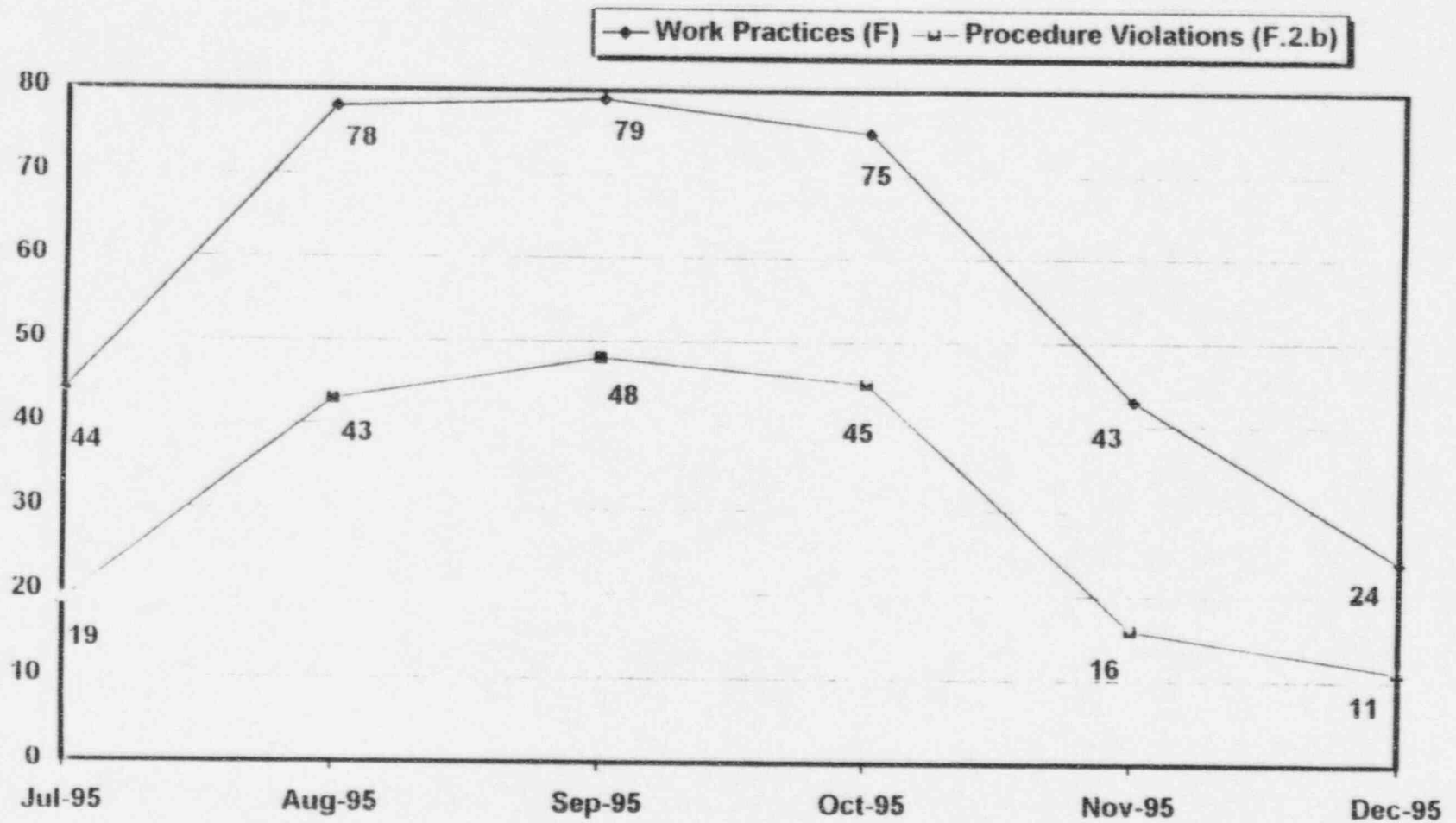
## **6.0 QUALITY ASSURANCE ACTIVITIES (CONT.)**

- **Nuclear Assurance and Licensing Focus Areas (Cont.)**
  - **Maintenance Activities**
    - **In-field Observations**
    - **Particular Emphasis Placed on Impact of Schedule Pressure, Knowledge of Procedural Requirements, and Supervisory Role in the Field**
    - **Overall Improving Trend, Particularly in the Area of Procedural Adherence / Work Practices**

## 6.0 QUALITY ASSURANCE ACTIVITIES (CONT.)

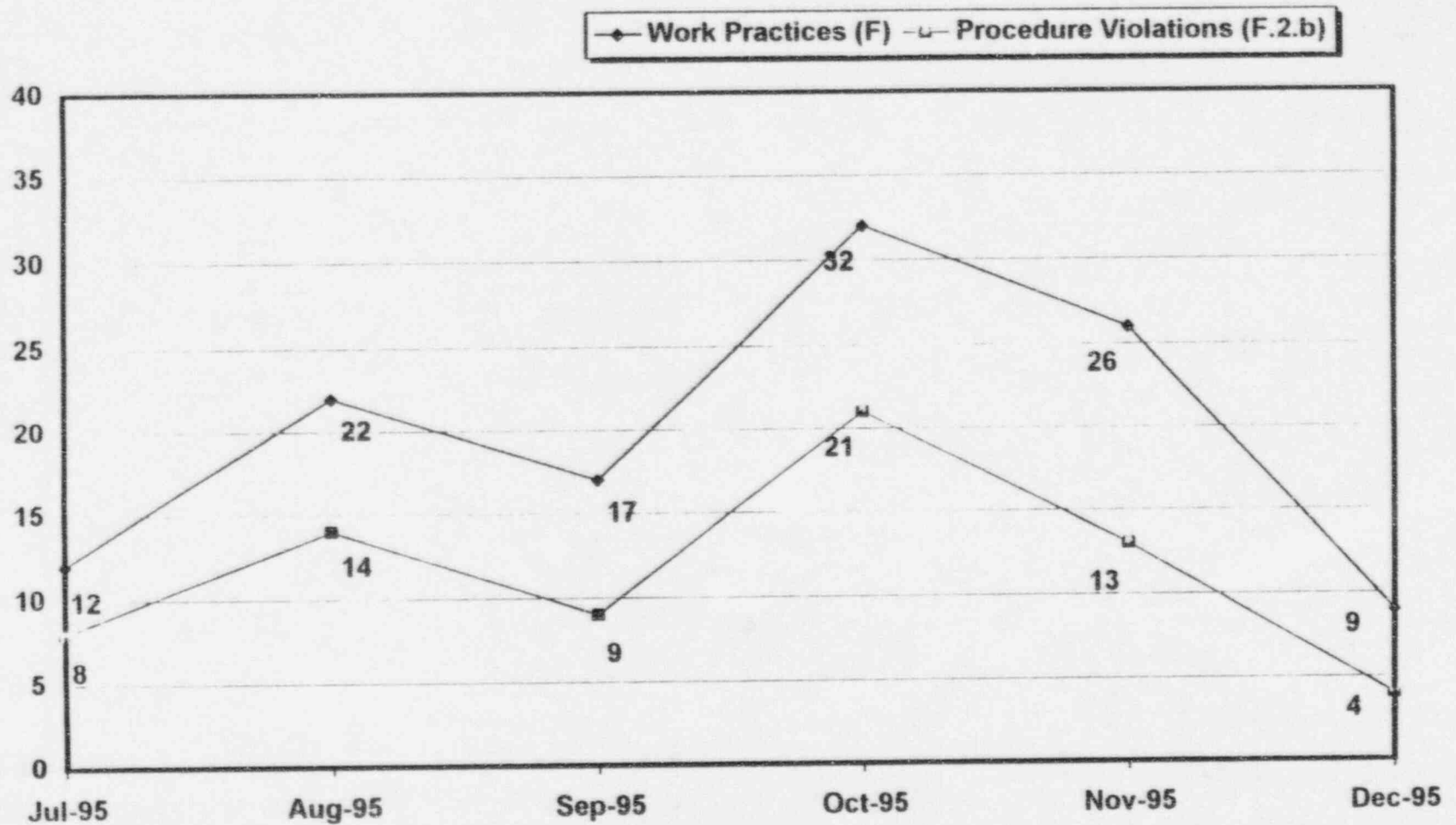
- **Planned Major Activities**
  - **Implementation of the Outage Assessment Plan**
  - **Vertical Slice Audit**
  - **Implementation of an Integrated Performance Assessment Process**

# 6.0 QUALITY ASSURANCE ACTIVITIES (CONT.) SITE TOTALS - WORK PRACTICE AND PROCEDURE VIOLATIONS

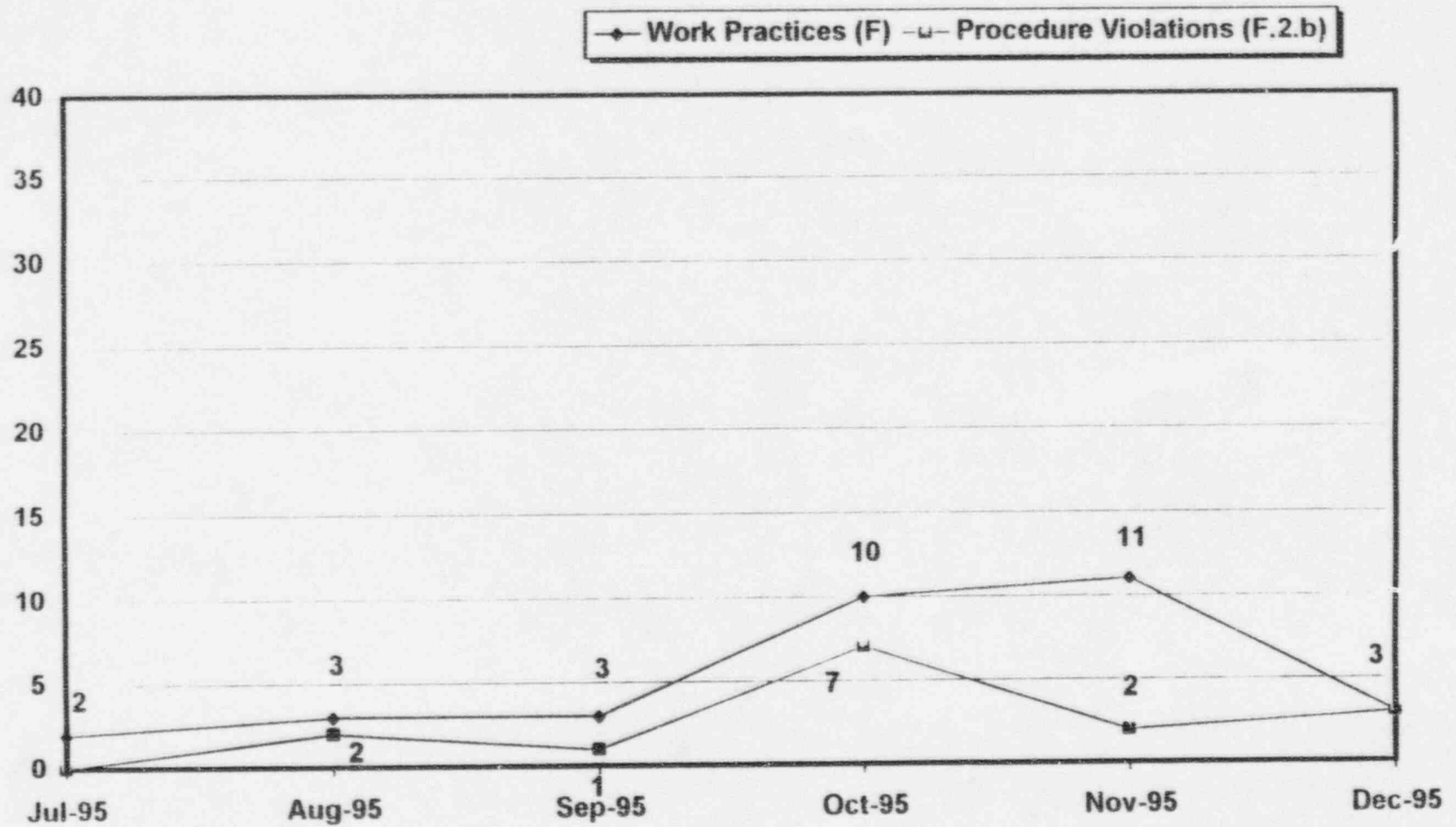




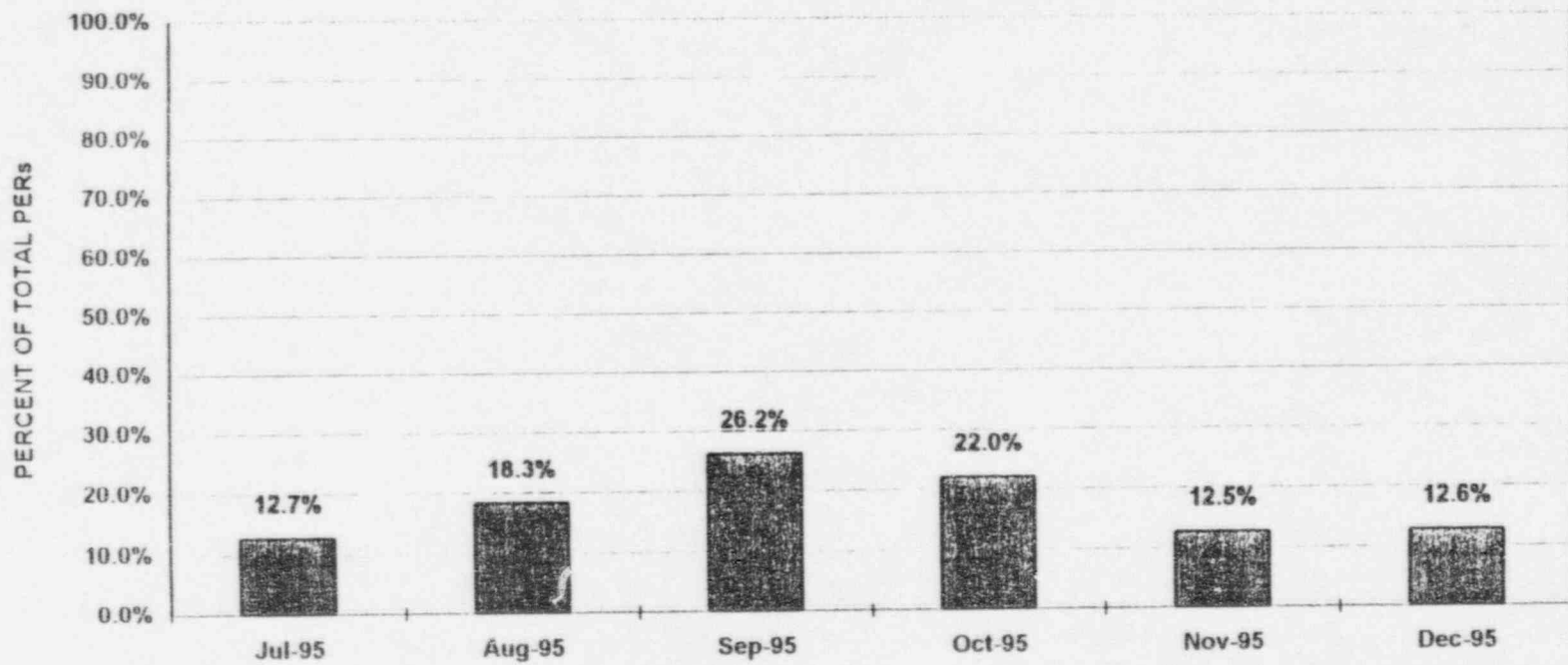
# 6.0 QUALITY ASSURANCE ACTIVITIES (CONT.) MAINTENANCE AND MODIFICATIONS WORK PRACTICE AND PROCEDURE VIOLATIONS



## 6.0 QUALITY ASSURANCE ACTIVITIES (CONT.) OPERATIONS - WORK PRACTICE AND PROCEDURE VIOLATIONS



## 6.0 QUALITY ASSURANCE ACTIVITIES (CONT.) PROCEDURES VIOLATED (PERCENTAGE OF ALL PERs INITIATED)

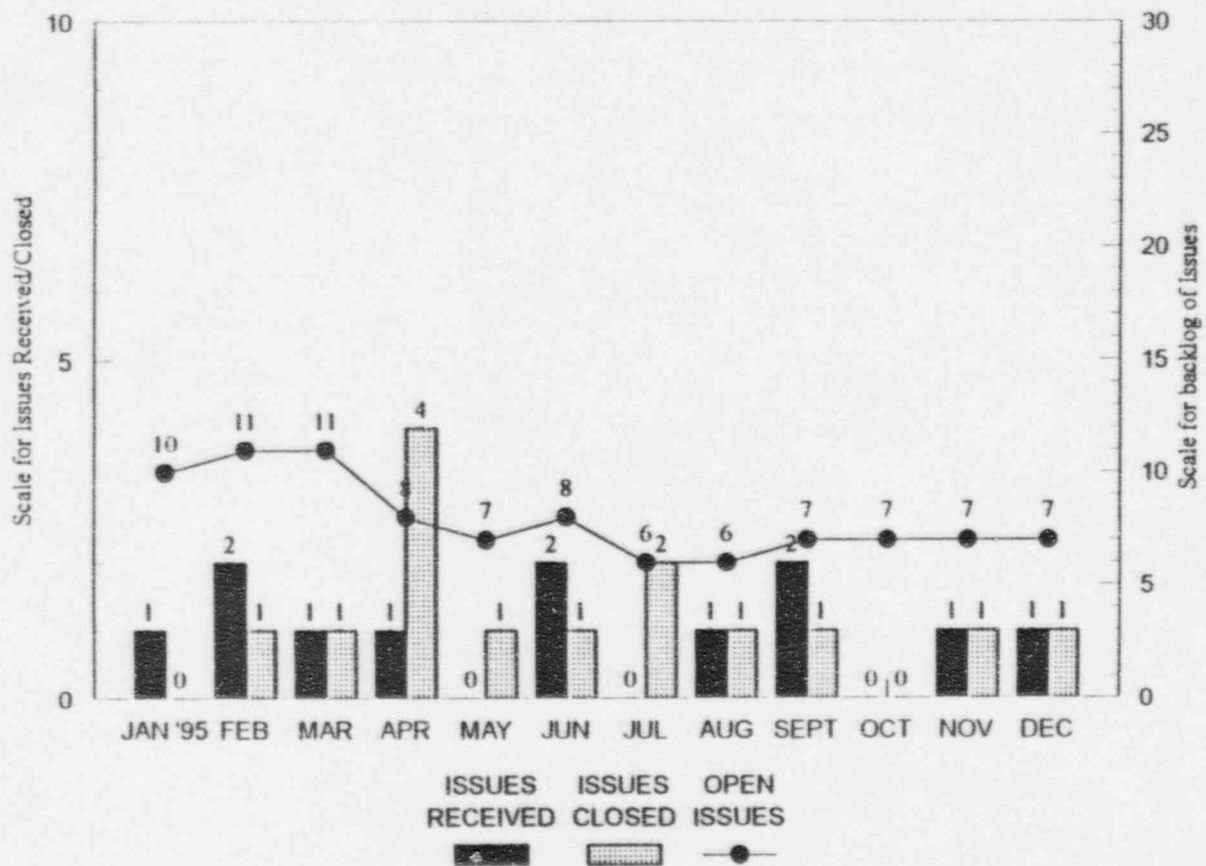


## **7.0 EMPLOYEE CONCERNS**

- **TVA Staffing Has Decreased From 1,662 In October 1995 to 1,604 In January 1996. Contractor Staffing Has Decreased From 1,607 In October 1995 to 795 In January 1996.**
  
- **Unit 3 Restart and Destaffing Has Not Resulted in a Significant Increase In Employee Concerns. For Example:**
  - **During December, 162 TVA Exit Interviews Conducted With Only One Issue Identified**
  
  - **During December, 381 Contacts With Contractor Employee Concerns Organizations TVA Exit Interviews Conducted With No New Issues Identified**

## 7.0 EMPLOYEE CONCERNS (CONT.)

- Issues Received/Closed



## 8.0 LICENSING PROJECT PLAN

- **Proposed Technical Specification No. 356 Was Submitted on December 22, 1995. Utilizes the New Source Term (NUREG-1465) to Increase Allowable MSIV Leakage Rate. Lead Application for the Unit 3 Cycle 7 Refueling Outage.**
  
- **Generic Letter 94-02, Long-Term Solutions for Thermal-Hydraulic Instabilities, Will Be Resolved By Implementation of Proposed Technical Specification No. 353, Power Range Neutron Monitor Upgrade. Installation Scheduled for the Unit 3 Cycle 7 Refueling Outage and Made Operational the Following Outage.**
  
- **Post-Restart Related Commitments Closed by Letter Dated February 8, 1996**
  
- **Bulletin 95-02, Unexpected Clogging of a RHR Pump Strainer**
  - **Suppression Pool and Suction Strainers Cleaned Prior to Restart**
  - **Tests Performed to Verify Unacceptable Debris Buildup Would Not Occur**
  - **Program for Suppression Pool Cleaning Will be Developed Prior to Unit 2 Cycle 9 Operation**
  
- **USI A-46, Seismic Ruggedness of Equipment, and Related Commitments (E.G., Flexible Conduits, Seismic Portion of IPEEE, and Seismic Class II/I) Will be Completed By March 19, 1996**
  
- **ISTS Scheduled for Submittal in July 1996**

## **9.0 EMERGING ISSUES**

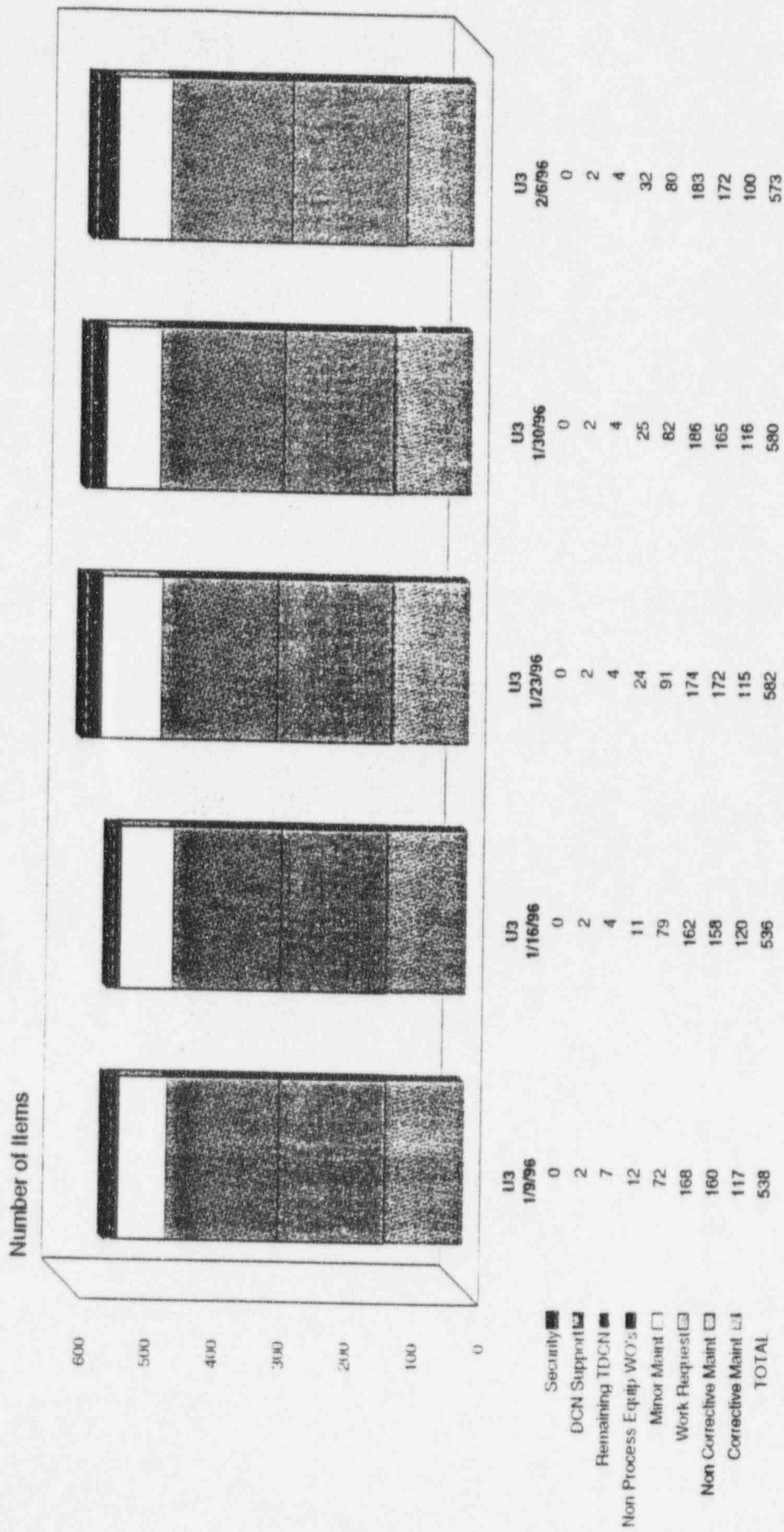
- **Slow Scram Insertion Times Caused By Viton Diaphragms in Scram Solenoid Pilot Valves**
  - **Issue First Identified as a Regulatory Concern When NRC Issued Information Notice 96-07 on January 26, 1996**
  - **TVA Is Actively Supporting BWROG Regulatory Response Group**
  - **BFN Has Two CRD'S with Viton Installed on Unit 2 and All Unit 3 CRD Have Viton Valves**
  - **TVA Is Evaluating the Alternatives for Expediting the Resolution of this Issue in Parallel with the BWROG Activities**



## **9.0 EMERGING ISSUES (CONT.)**

- **Sticking ASCO Solenoid Valves in Secondary Containment System**
  - **Several Cases of ASCO Solenoid Valves in the Secondary Containment Ventilation System Have Failed Due to Sticking. Residue From Lubricant May Have Been Responsible.**
  - **None of the Valves Which Failed Had Been In Service for Less Than One Year**
  - **Valves Are Being Replaced With Like Valves That Both Had Been, and Have Not Been, Assembled With Lubricant (Whatever Was Available In Stock)**
  - **Long-term Resolution Is to Replace the Secondary Containment System Solenoid Valves With a New Model That Has Not Exhibited a Sticking Problem**

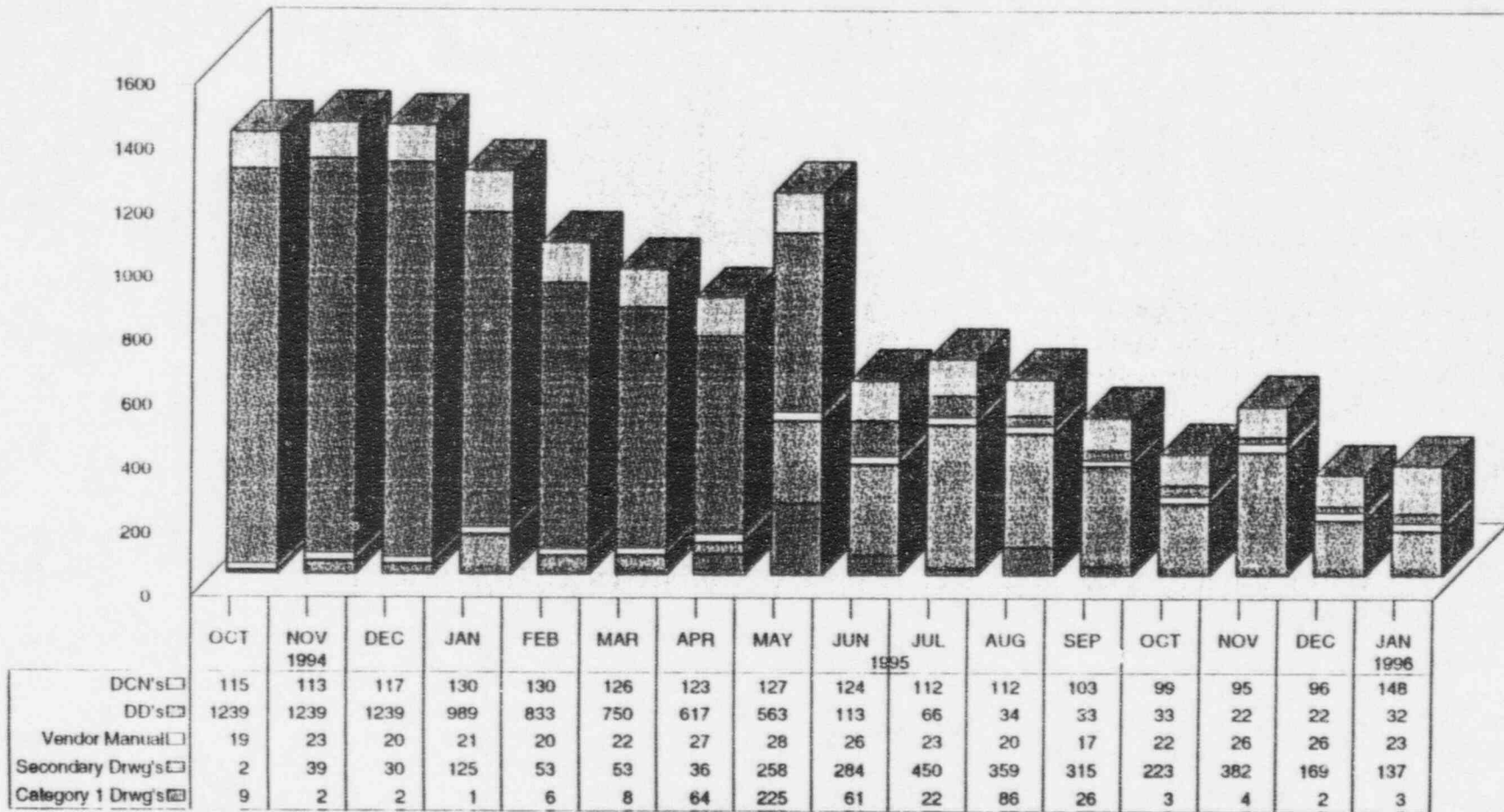
# 10.0 BACKLOG SUMMARIES MAINTENANCE OPEN WORK ORDERS / WORK REQUESTS



# 10.0 BACKLOG SUMMARIES (CONT.)

## SITE ENGINEERING ~~UNIT 3~~ BACKLOG

PLANT



\* There are 2375 secondary drawings backlogged from Unit 3 recovery.

## 11.0 SUMMARY / ACTION ITEMS