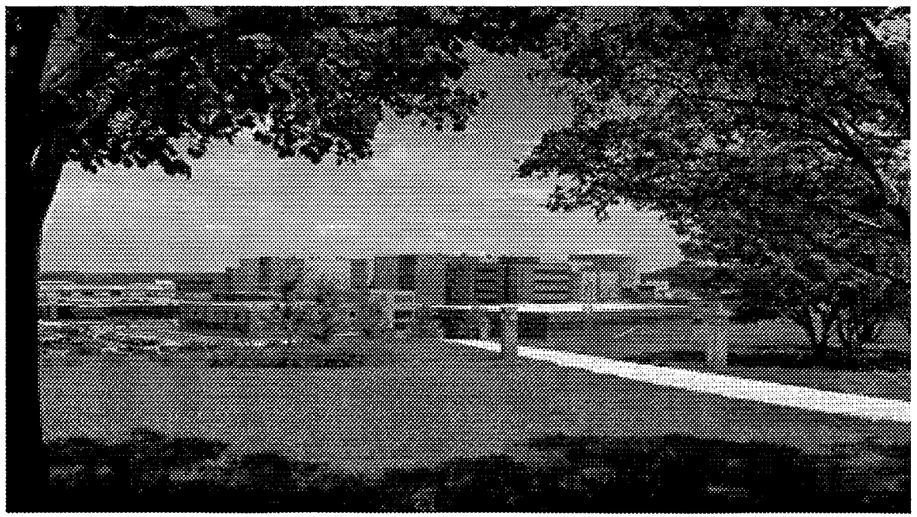
Catawba Nuclear Station
Plant Performance / Self-Assessment Meeting
May 15, 2000



Enclosure 2

Agenda

Introduction	Gary Peterson
Plant Performance	Ron Jones
Power History	
Outage Performance	
Engineering Performance	Pete Herran
Configuration Management/ Protect the Design Basis	
System/ Equipment Reliability	
Safety Assurance	Dick Sweigart
Summary	Gary Peterson

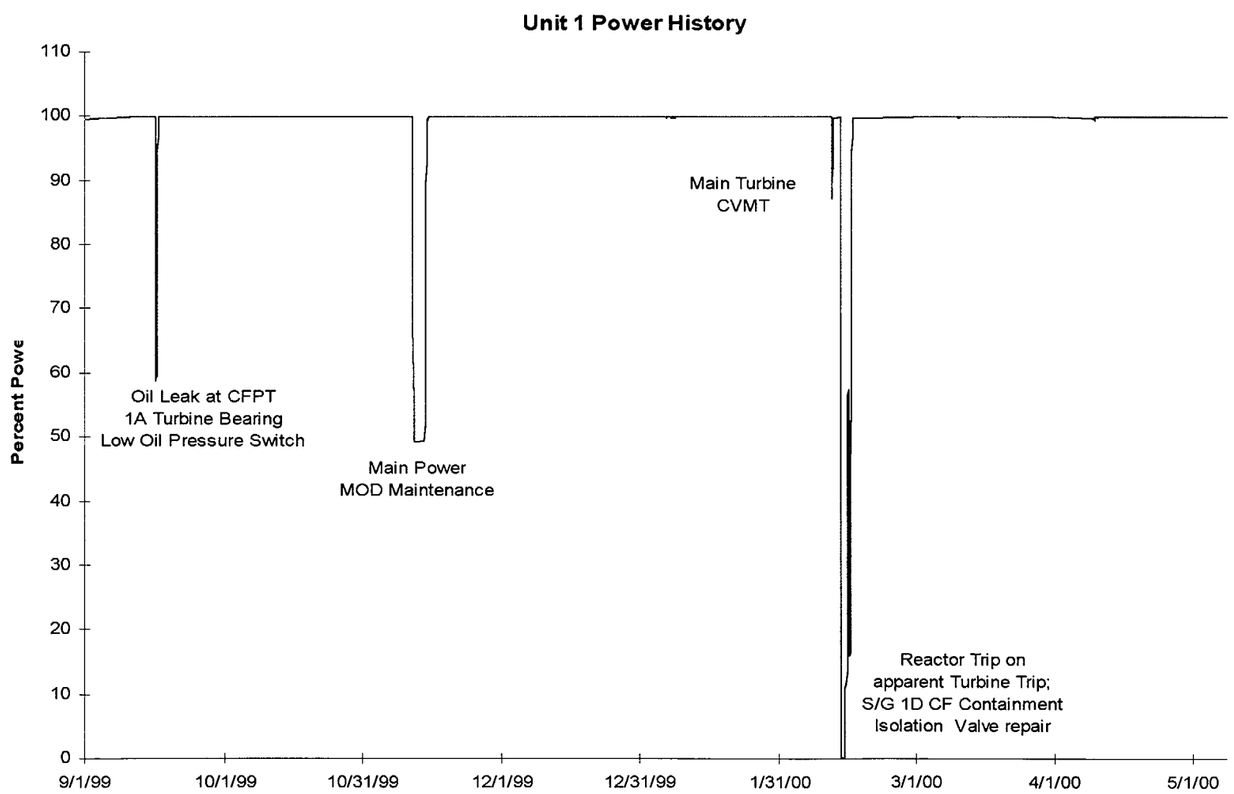
Plant Performance

Power History

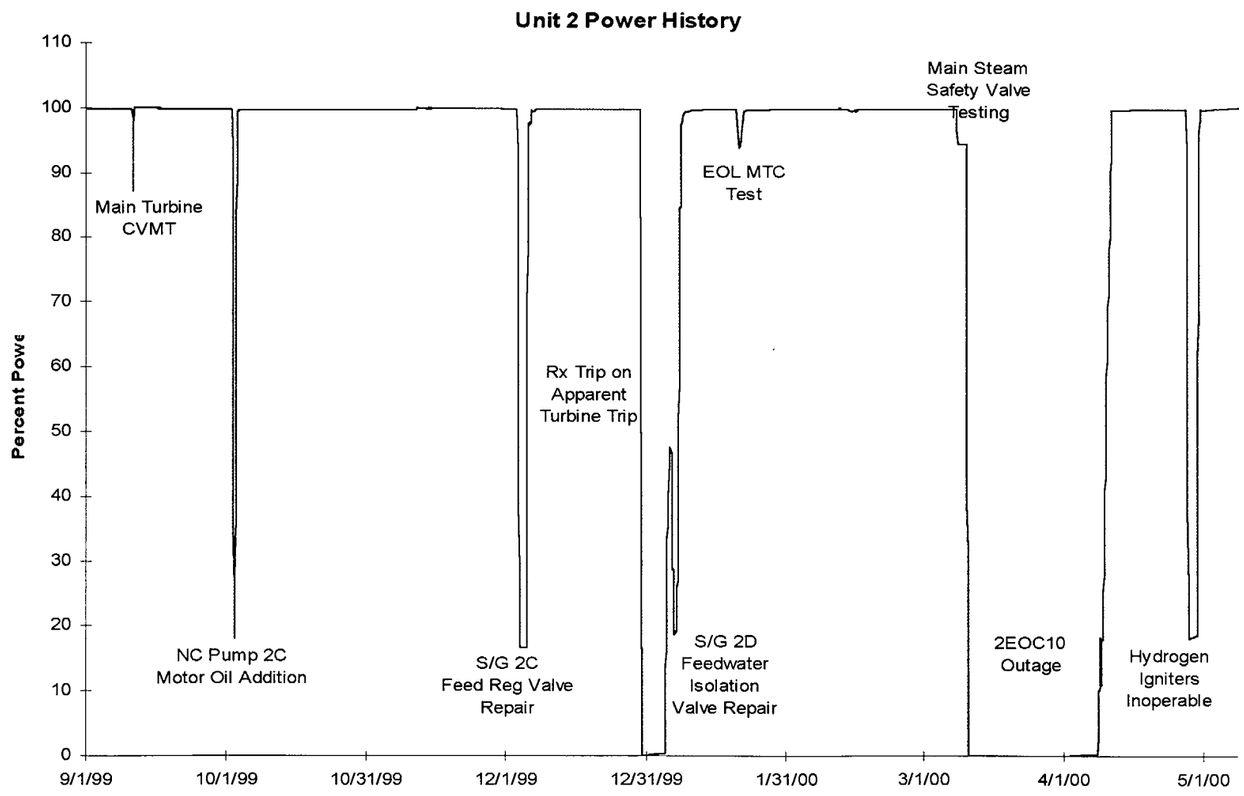
Outage Performance

Ron Jones

Plant Performance



Plant Performance



Plant Performance

★ *Record Dual Unit Runs in 1999*

- ◆ *199 day run ending Dec 30, 1999 due to Unit 2 reactor trip*
- ◆ *180 day run ending earlier in 1999 due to shutdown for Unit 1 refueling outage*

★ *Record Capacity Factor*

- ◆ *90.64% the highest in Catawba History*

Plant Performance - Outage Goals 2EOC10

- ★ *Goals Exceeding Expectations*
  - ✦ *Radiation Dose*
  - ✦ *Solid Radwaste*
  - ✦ *Liquid Radwaste*
  - ✦ *Duration*
  - ✦ *Outage LERs*
- ★ *Goals Not Meeting Expectations*
  - ✦ *Personnel Safety*

Plant Performance - Outage Mods 2EOC10

★ *Modifications*

- **NSM NV Pump Backup Cooling**
- **NSM CA Overfill During S/G Tube Rupture Event**
- NSM NI/NV/NS Susceptible to Thermal Binding
- NSM Addition of CFIV Pressure Transmitter
- NSM Add C Heater Drain Pump Trip on Turbine Trip
- NSM ND/NS Pump Control Interlock With SSPS
- EMM YV Chiller 2 Refrigerant Conversion
- EMM NCP Lower Bearing Thermocouple Removal
- EMM Replace RL Piping to Generator H2 Coolers
- EMM Modify Safety Injection Reset
- EMM Floor Drain Cover for NV Regen Hx Shell Flush
- EMM Lower Internal Storage Stand Plate Removal
- EMM Rescale NC Flow Transmitters
- EMM CFPT Pressure Switch Tubing Changeout

Plant Performance - Outage 2EOC10

★ *SIGNIFICANT JOBS*

- ◆ Ice Condenser Work
- ◆ S/G Eddy Current Testing
- ◆ NC Motor 2B Replacement
- ◆ CF Piping Replacement in Doghouse
- ◆ SSF Panel Test

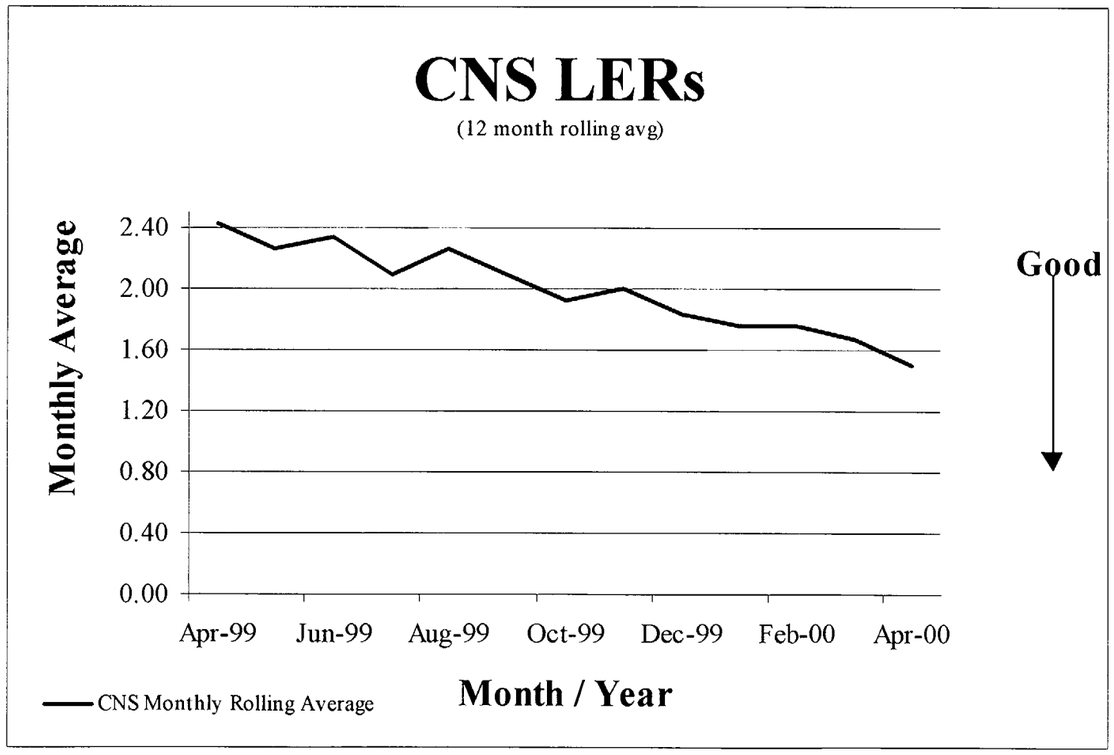
★ *NUCLEAR SAFETY*

- ◆ A Comprehensive Risk Assessment was performed prior to the outage
- ◆ The Outage was Executed as Planned

Plant Performance - NRC Issues

★ *Previous Issues (Technical Specification Surveillances, Ventilation) are being properly addressed by focus initiatives.*

Plant Performance - NRC Issues



Plant Performance

★ *Significant Issues*

- *2B Diesel Generator Breaker Issue*
- *Unit 2 Hydrogen Igniters*

Plant Performance - Initiatives

- ★ *All 1999 Human Performance Initiatives Completed*
- ★ *Human Performance (2000)*

Plant Performance - Initiatives

★ *Procedures*

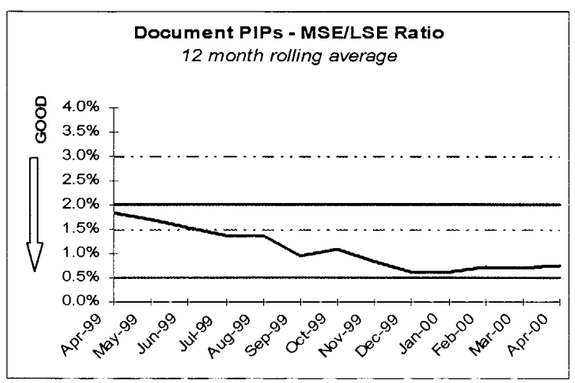
- Interim Measures to Prevent Events (On-going)
- Implement Improved Validation Process (Complete)
- Validate Existing Procedures (12/31/00)
- Clarify/Improve Surveillance Acceptance Criteria (12/31/00)

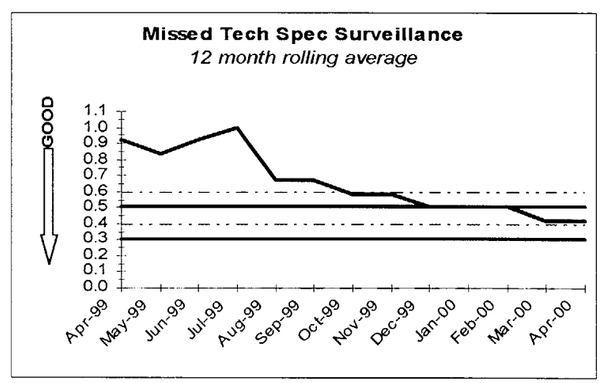
Engineering

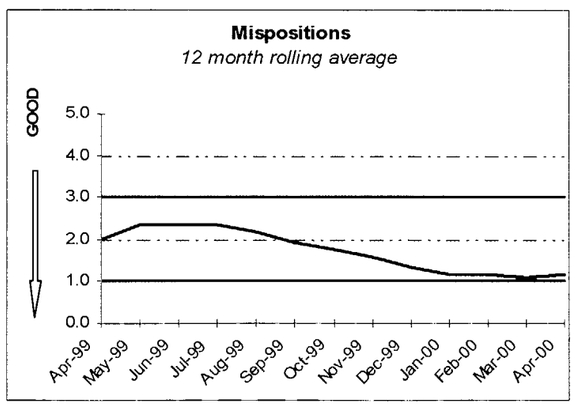
Configuration Management /
Protect the Design Basis
System/ Equipment Reliability

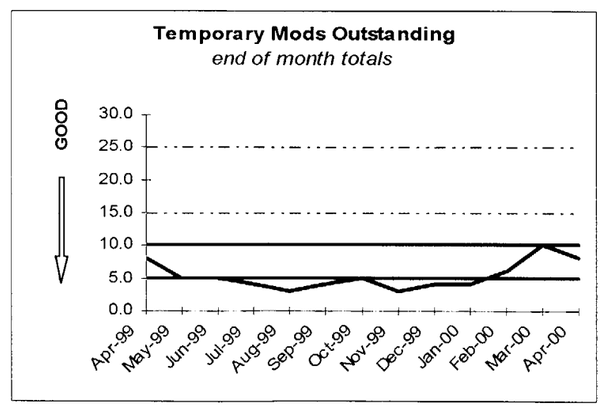
Pete Herran

Engineering - Configuration Management/Protect the Design Basis









NOTE: _ _ _ _ 1999 Performance Standards _____ 2000 Performance Standards

Engineering - Configuration Management/Protect the Design Basis

- ★ *Operable But Degraded (OBDs) -*
  - ◆ *Reduction in OBDs*
  - ◆ *Current Status of OBDs*
- ★ *Site Initiatives - Recent Accomplishments*
  - ◆ *Critical and Complex Maintenance Process for Outage Work*
  - ◆ *Long Range Configuration Improvements*

Engineering - System Equipment Reliability

✦ *Actions to Improve System Equipment Reliability*

★ *Lost Generation due to System and Equipment Issues*

- *Main Feedwater Control Tubing leak*
- *Reactor Coolant Pump 2C Motor Oil Leak*
- *Main Feedwater Reg Valve Diaphragm Failure*
- *Trip Solenoid Valve Connector Failures*
- *Main Feedwater Isolation Valve Solenoid Valve Nitrogen Leaks*
- *Hydrogen Igniters*

★ *Maintenance Rule*

- MR A1 Cleared- 5
- MR A1 Added - 0

★ *System / Component / Program Health*

- Station Superintendents and Engineering Managers Review Action Plans for All YELLOW and RED System / Component / Program Areas Quarterly

Engineering - System Equipment Reliability

- *Site Initiative - Processes Focused on Improvements*
  - ★ *Top Equipment Problem Resolution (TEPR)*
  - ★ *HVAC Improvement Initiative*
    - ◆ INPO HVAC Assist Visit - Completed 02/00
    - ◆ Auxiliary Building and Annulus Ventilation Tech Spec Change Packages
    - ◆ Control Room Ventilation Reliability
  - ★ *Auxiliary Feedwater System*
    - ◆ Modification Implementation began in recent Unit 2 outage
    - ◆ Additional modifications planned in 2000 and 2001 outages
  - ★ *Nuclear Service Water Cleaning Project*
  - ★ *Engineering Work Management*
  - ★ *Root Cause and Engineering Corrective Action Review Board*
    - ◆ Improved Quality and Timeliness

Safety Assurance

Dick Sweigart

Safety Assurance - NRC Assessment Process Measures

CNS NRC Performance Indicators

- *U1 Safety System Unavailability – Residual Heat Removal – WHITE (will be GREEN 6/00)*

Inspection Results

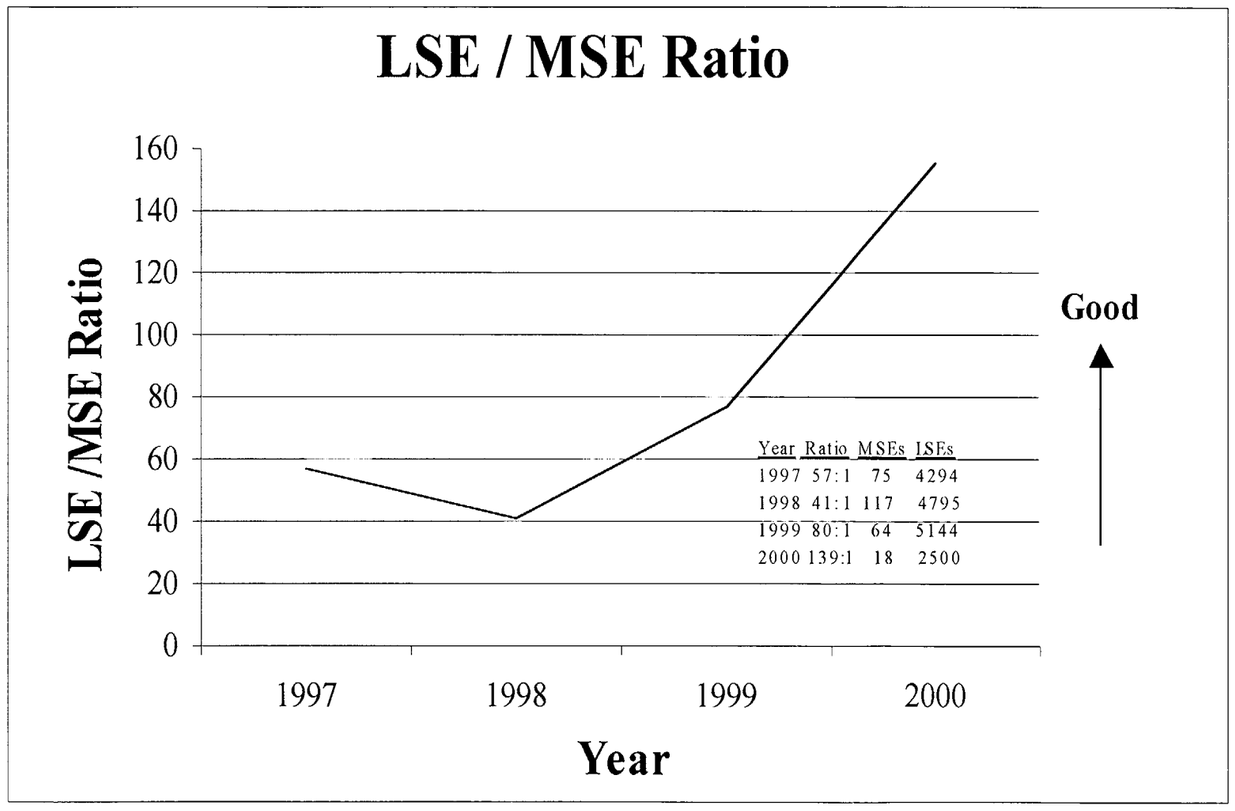
- *Security inspection completed 4/00: No findings*

NRC Open Items

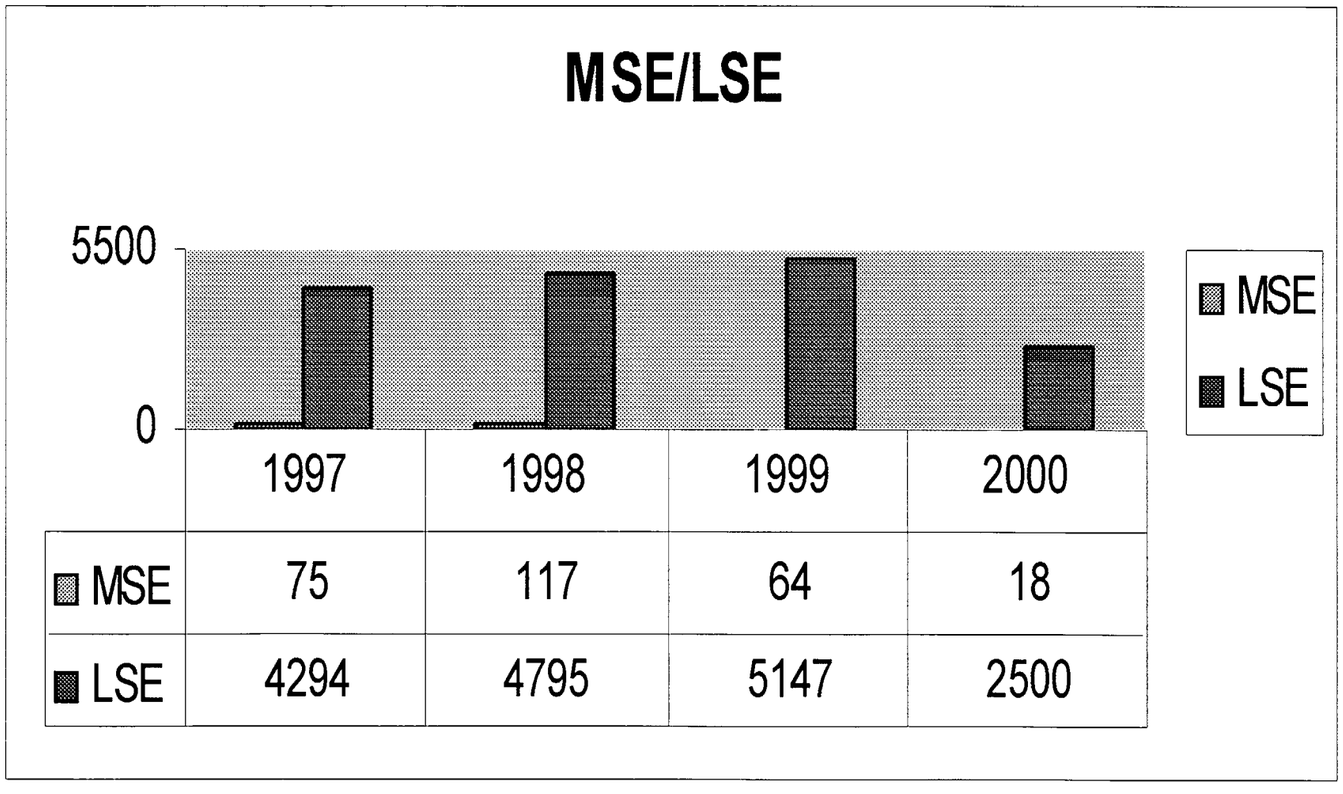
- *3 open items- all current*

Site Initiative - Corrective Action Program

Safety Assurance - Corrective Action Program (PIP) Indicators

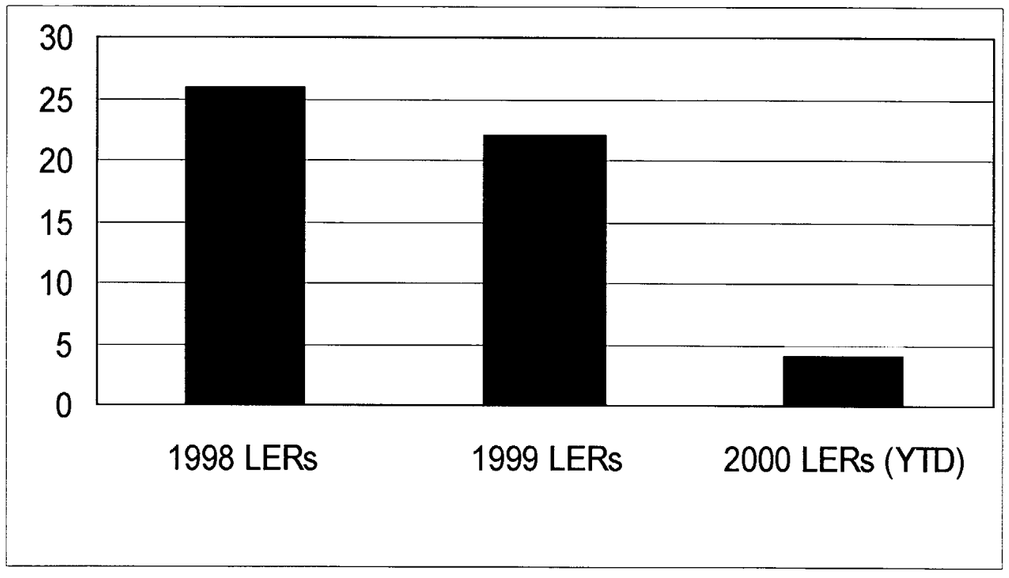


Safety Assurance - Corrective Action Program (PIP) Indicators



	1997	1998	1999	2000
MSE	75	117	64	18
LSE	4294	4795	5147	2500

Licensee Event Reports



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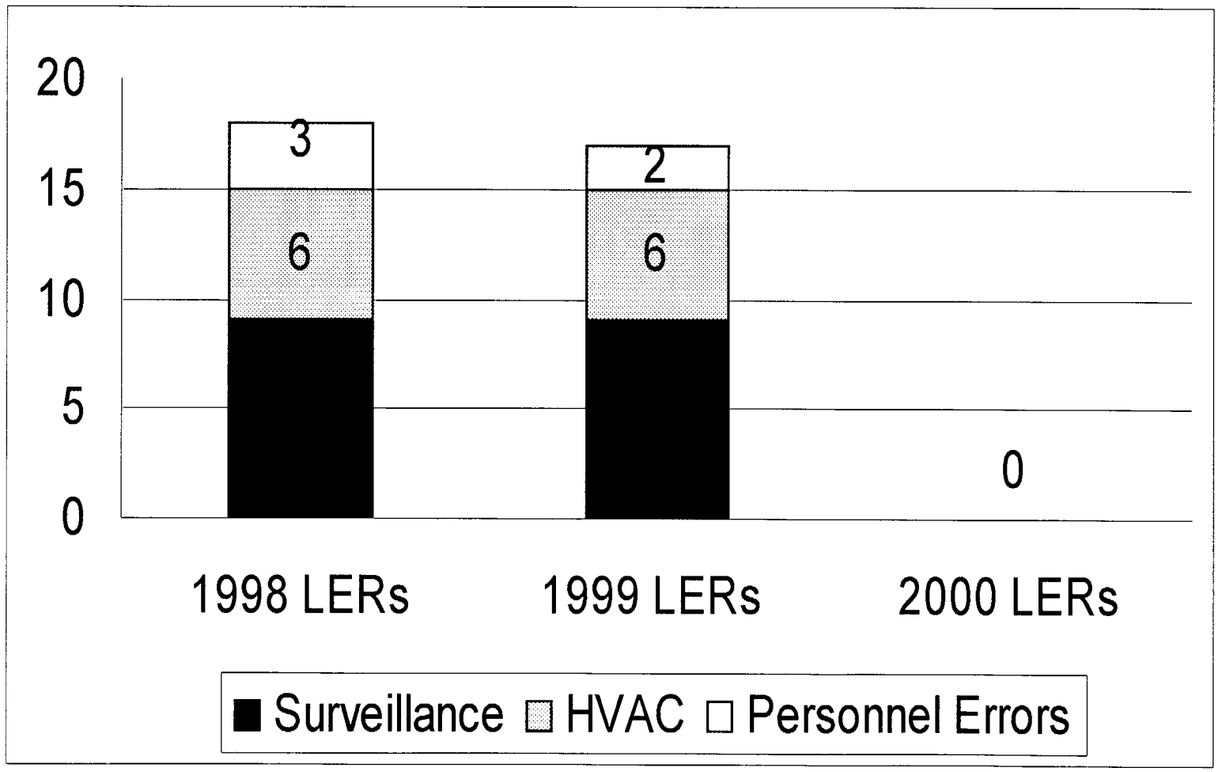

Summary

- Concerns
  - Equipment Performance
  - Procedure Quality
  - Human Performance
- Catawba is Continuing to Improve
  - The five focus initiatives are showing results