

*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

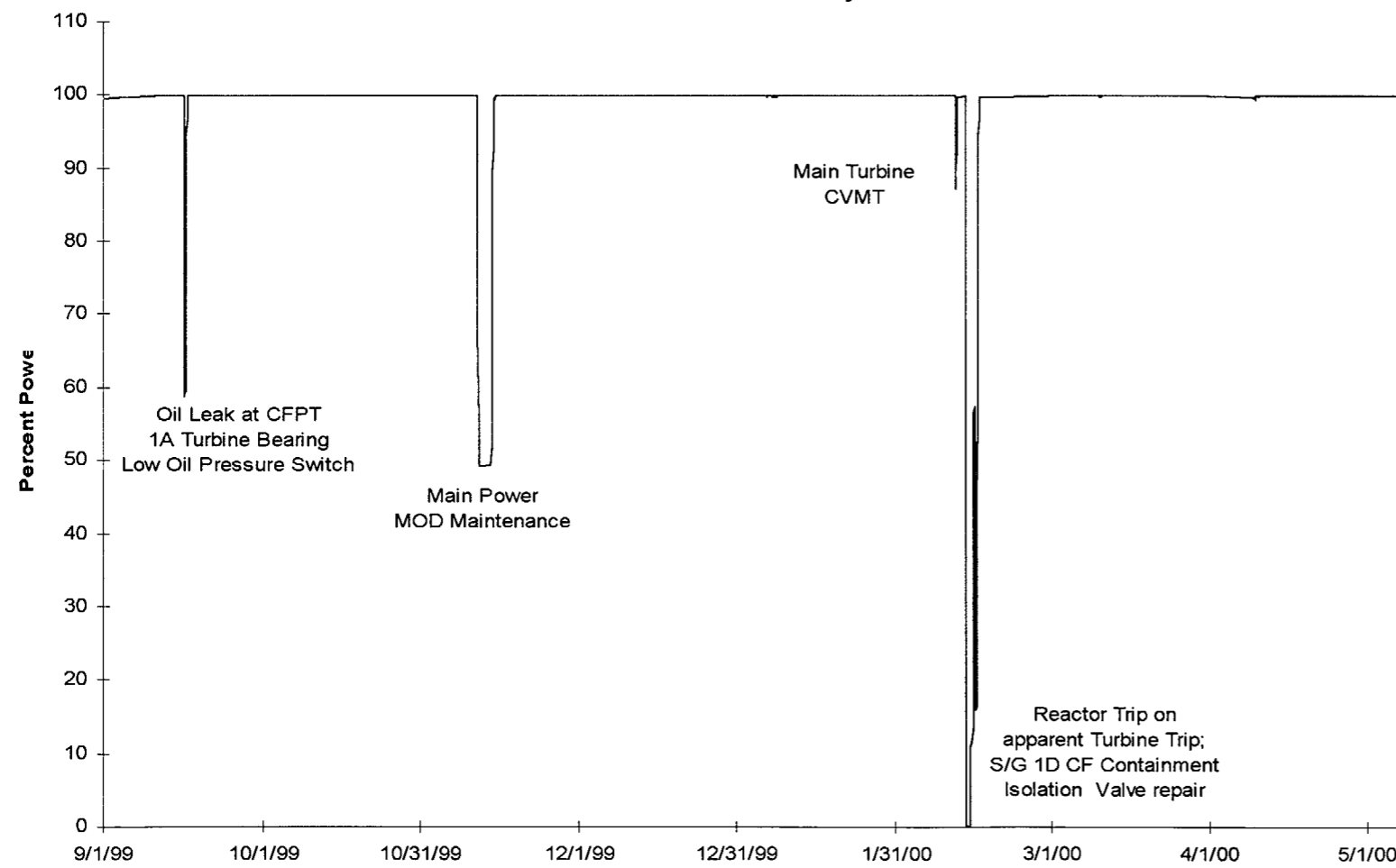
Power History

Outage Performance

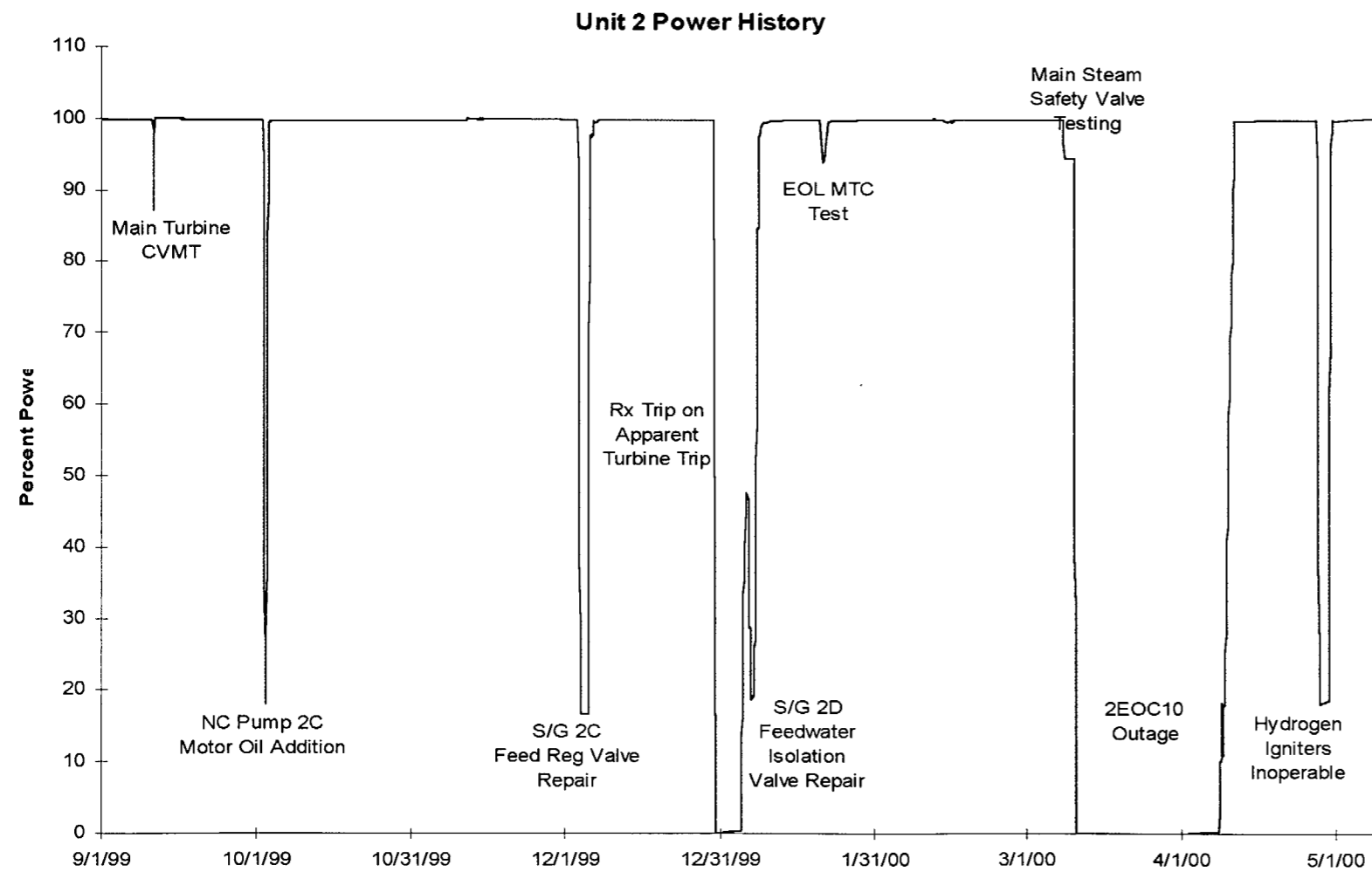
Ron Jones

Plant Performance

Unit 1 Power History



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

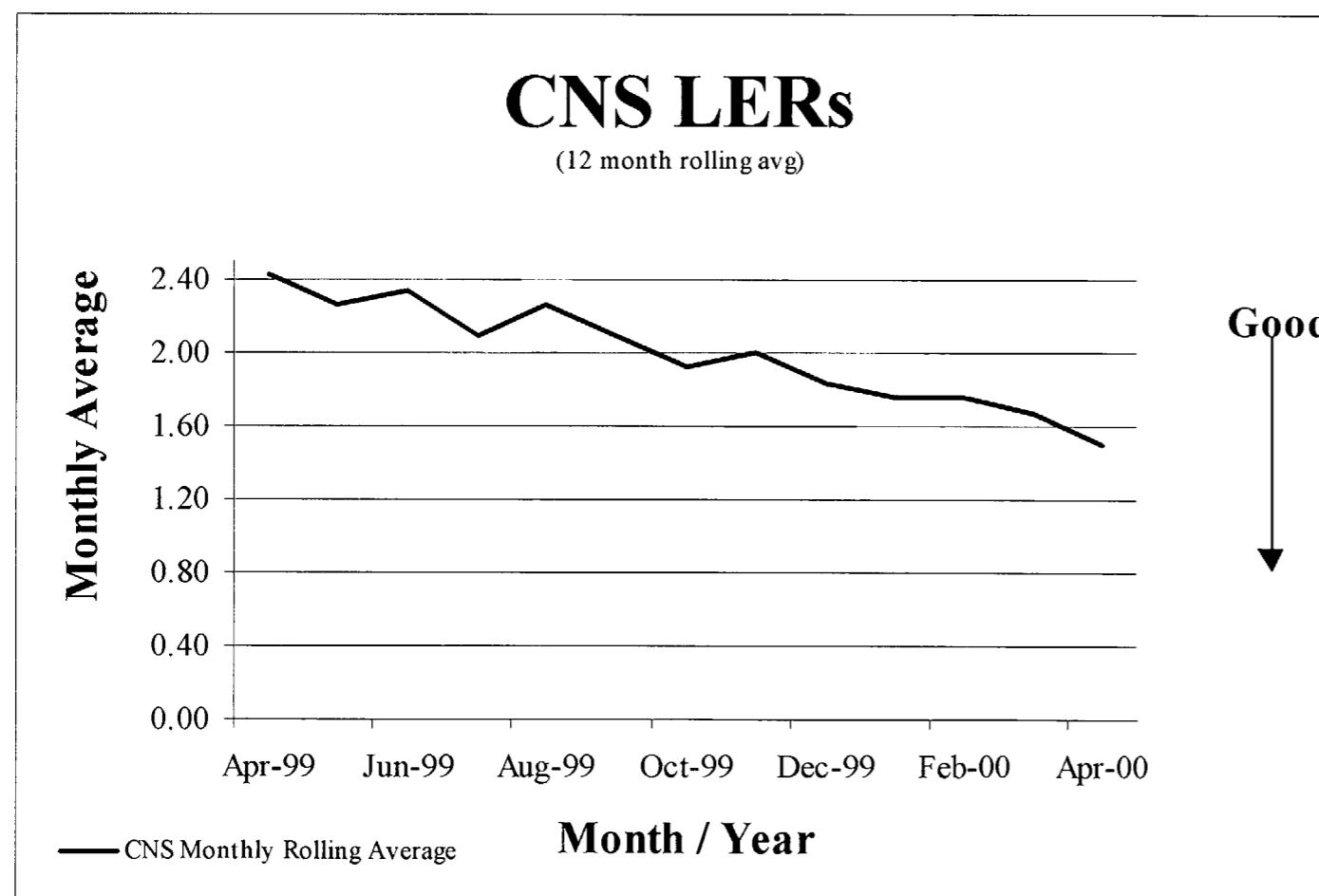
★ NUCLEAR SAFETY

- ◆ 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

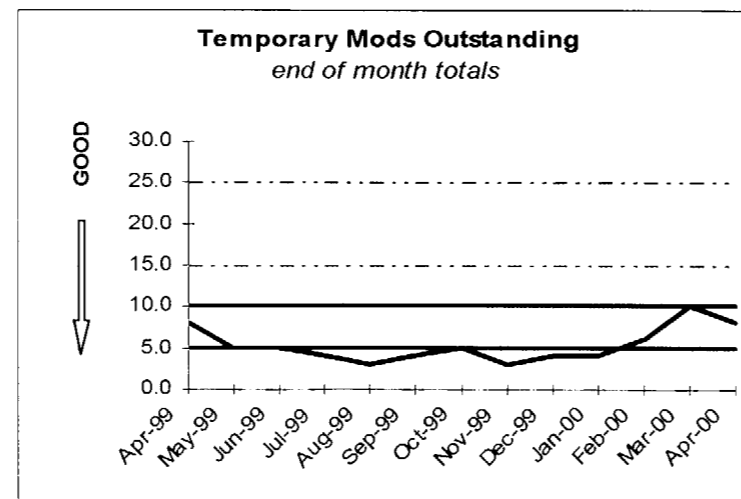
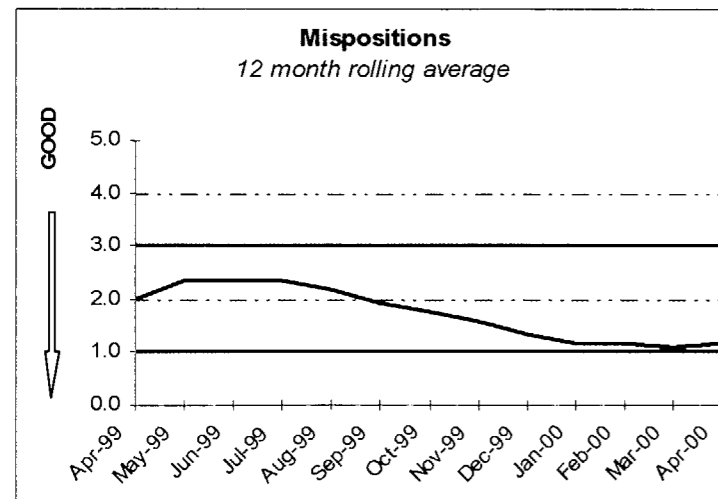
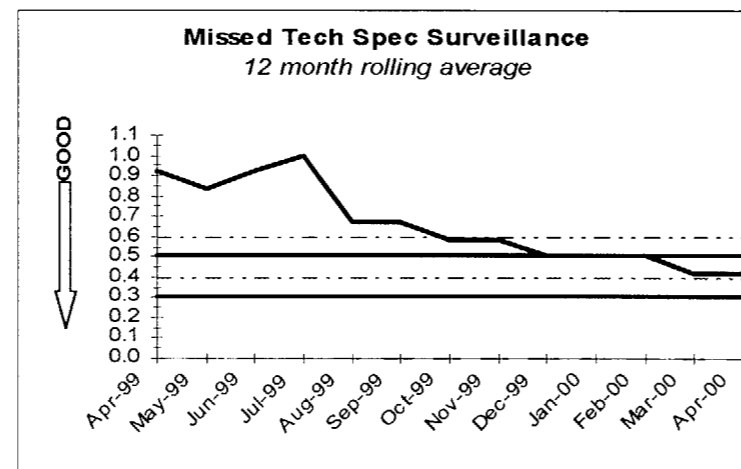
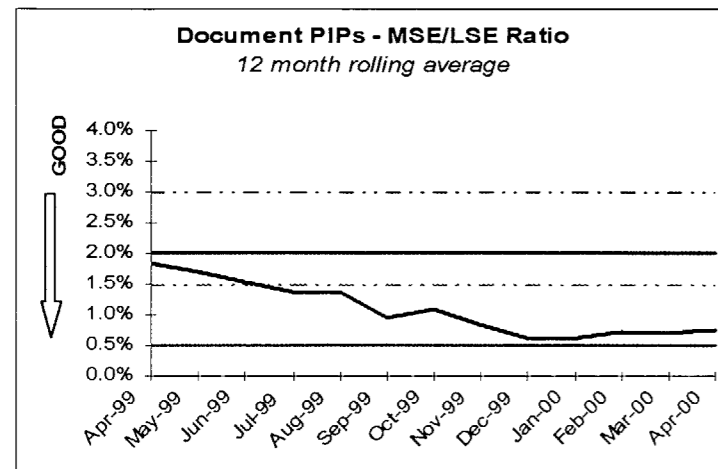
Configuration Management /

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

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

Inspection Results

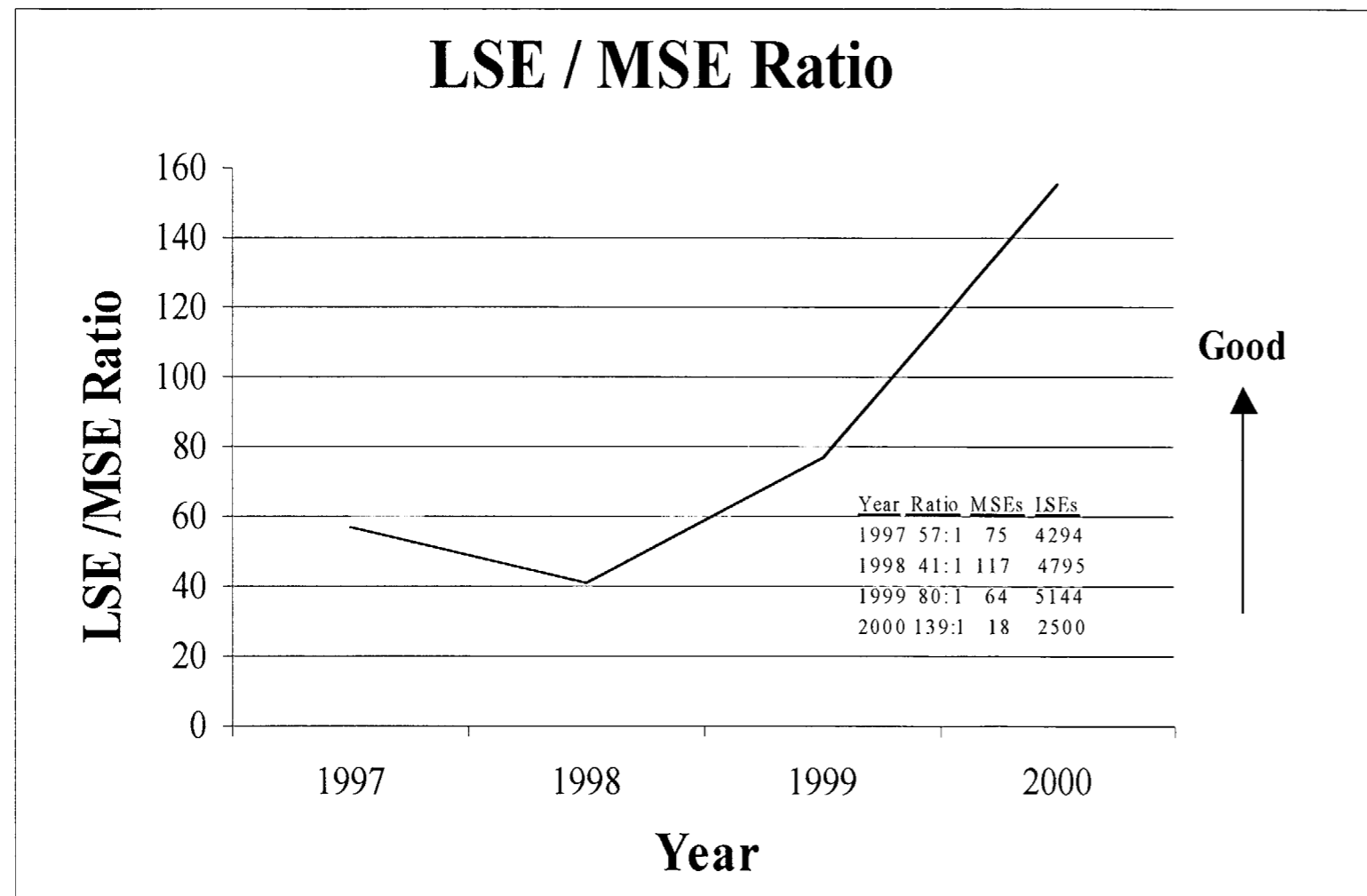
- ◆ *Security inspection completed 4/00: No findings*

NRC Open Items

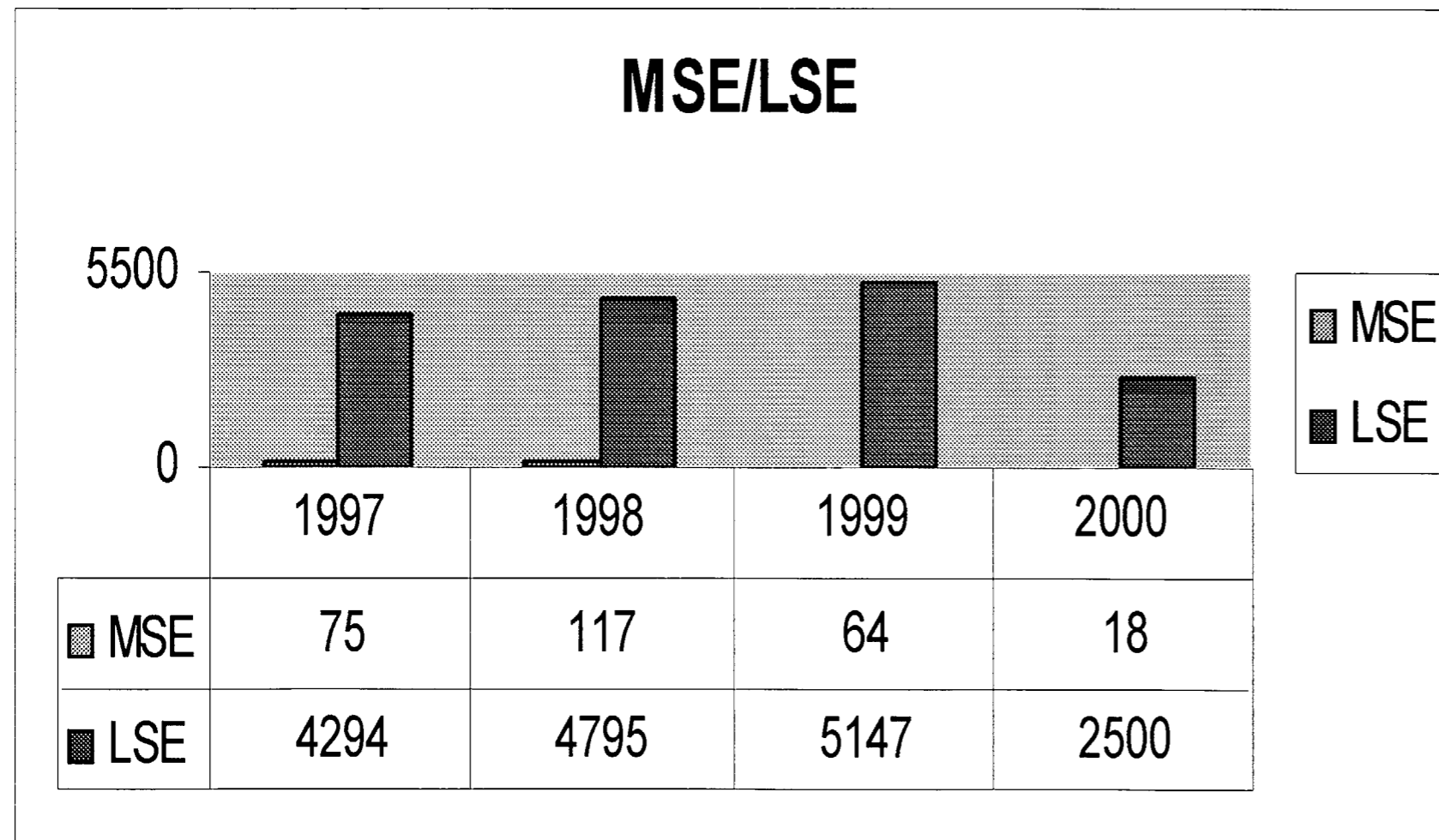
- ◆ *3 open items- all current*

Site Initiative - Corrective Action Program

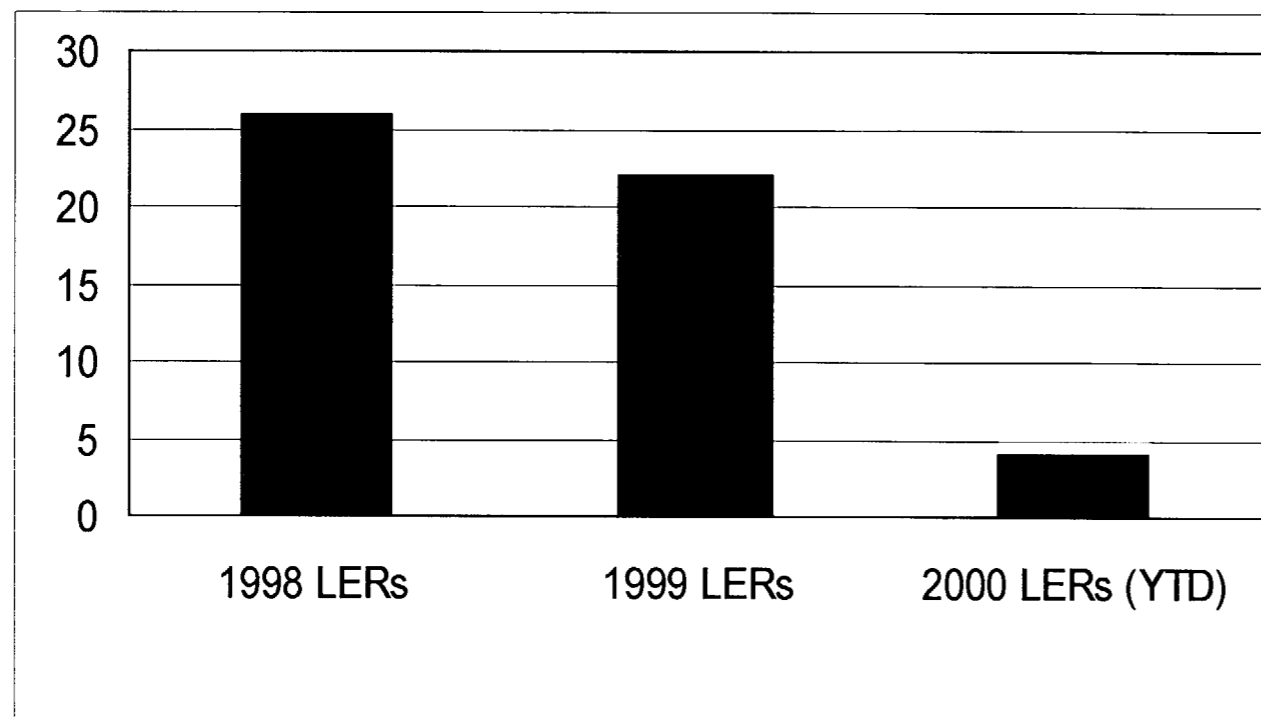
Safety Assurance - Corrective Action Program (PIP) Indicators



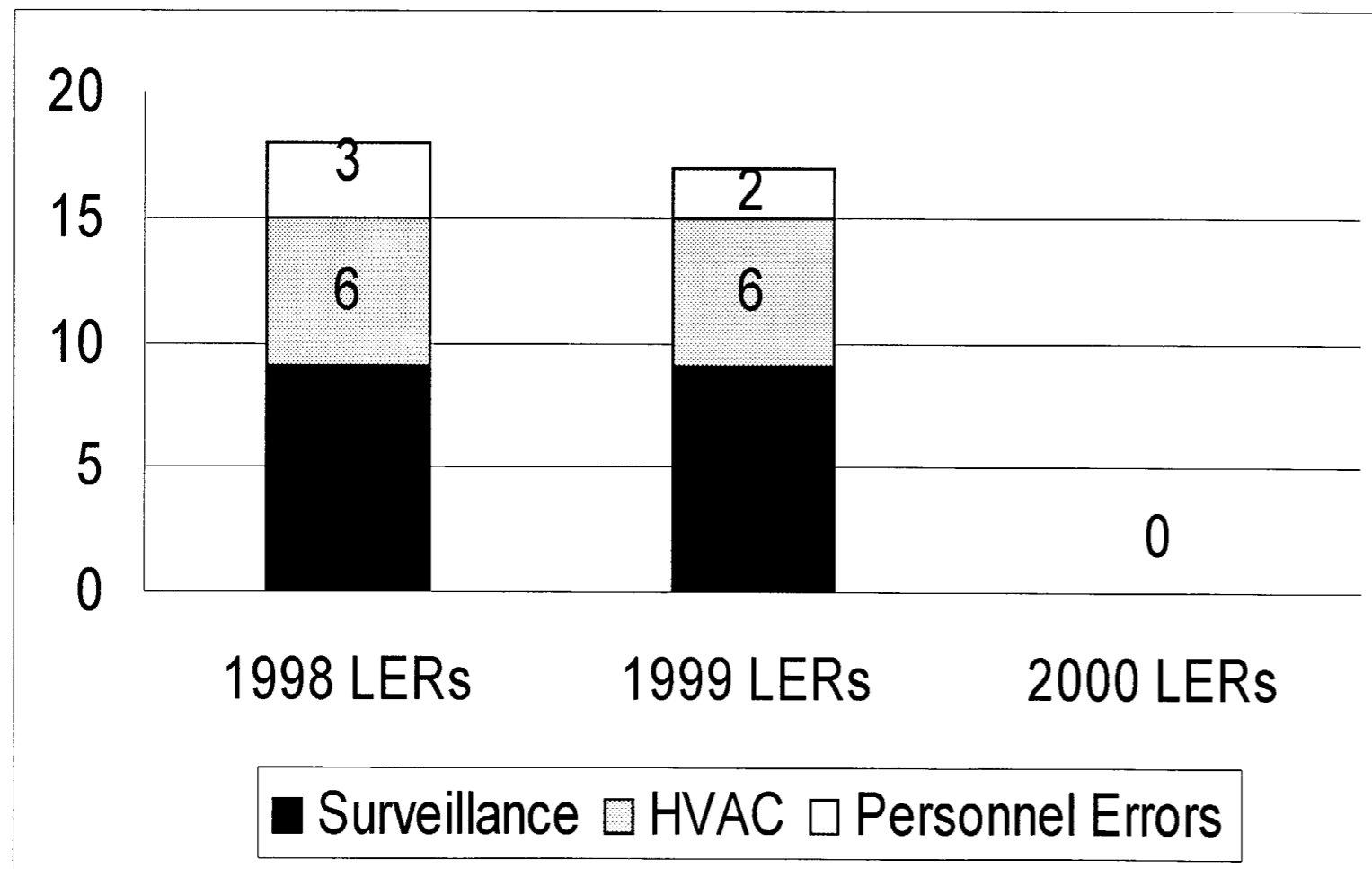
Safety Assurance - Corrective Action Program (PIP) Indicators



Licensee Event Reports



Licensee Event Reports



Summary

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