



## Harris Nuclear Plant Safety Focus

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Harris Nuclear Plant

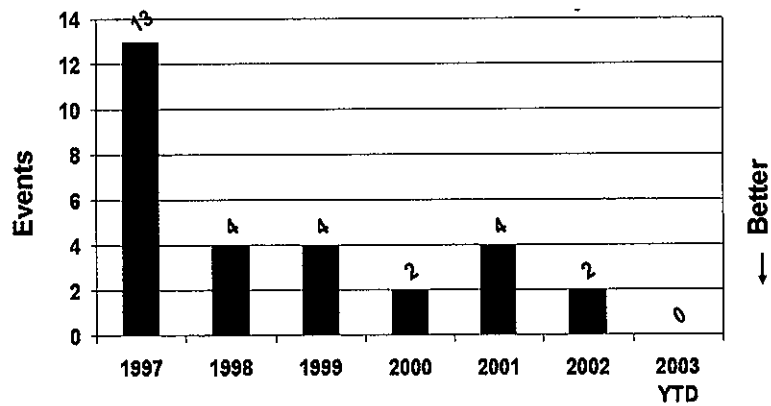



## Agenda

- Key Safety Indicators
- Plant Performance Indicators
- Risk Reduction Activities
- Refueling Outage Risk Reduction Activities

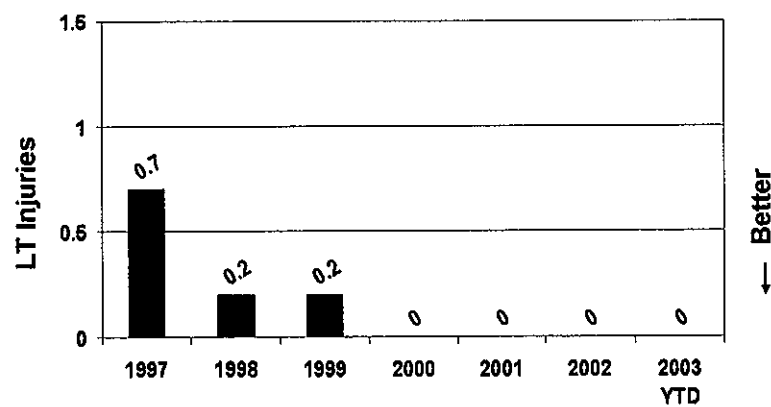


## Nuclear Safety Site Human Performance Events



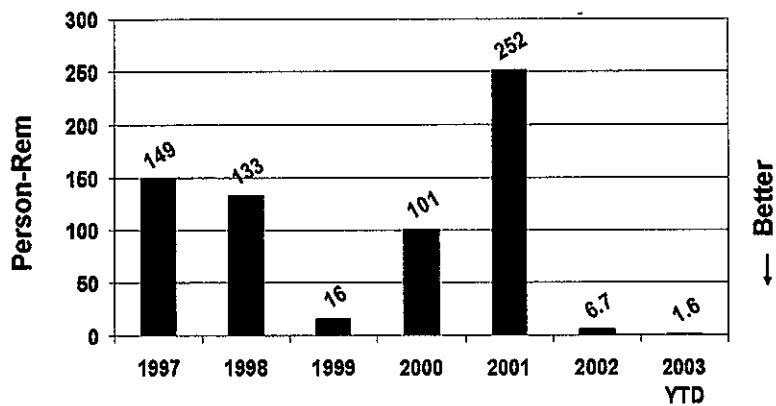
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## Occupational Safety Industrial Safety: Lost Time Injuries Per 200,000 Hours Worked



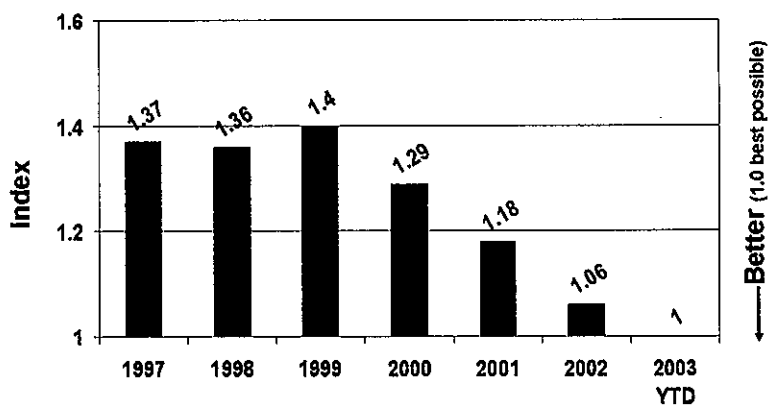
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## Nuclear Safety Radiation Exposure (Person-Rem)



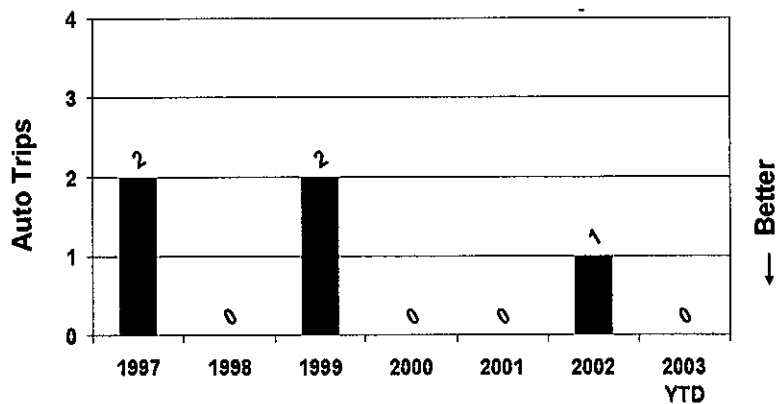
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## Nuclear Safety Steam Generator Chemistry



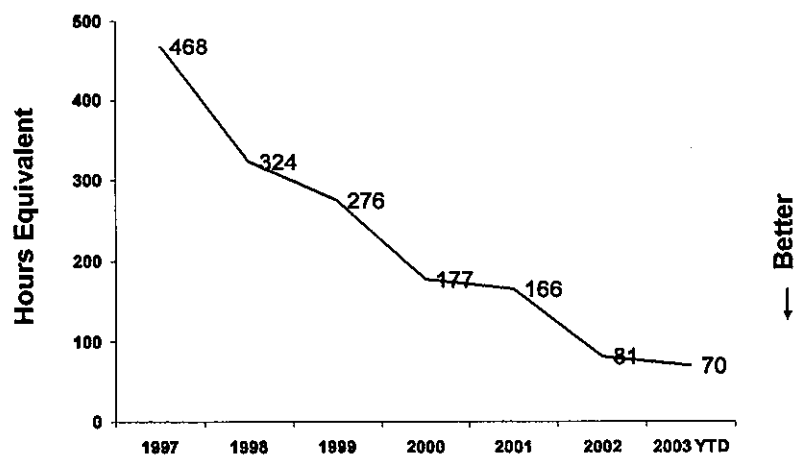
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## Nuclear Safety Unplanned Automatic Shutdowns



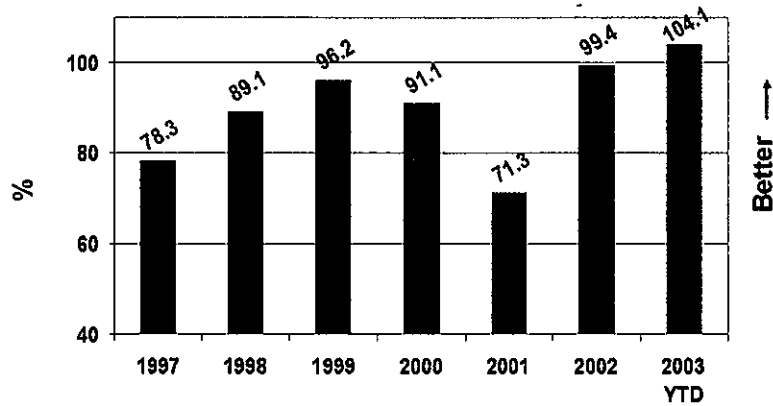
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## Plant Performance Forced Outage Hours



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## Plant Performance Capacity Factor (MDC Net)



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## 2002 Reactor Shutdowns

### Manual:

- Jan. 2, 2002 – Feedwater System Valve Failure
- July 13, 2002 – Turbine Control Malfunction

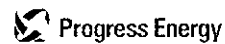
### Automatic:

- Aug. 15, 2002 – Due To Momentary Grid Voltage Drop

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## **Risk Reduction Activities**

- Plant Security
- Emergency Planning
- Fire Protection
- Self Evaluation
  - Foreign Material Discovery
  - Charging System Venting
- Zero Tolerance For Equipment Failure
- Secondary Chemistry Improvements
- Employee Radiation Dose Reduction



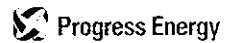
## **Harris Plant Security**

- Key Focus Area In 2002
- NRC "Interim Compensatory Measures Order"  
(Feb. 25, 2002)
  - Facility modifications
  - Plant equipment upgrade
  - Process/Procedure changes
  - Security staffing & training
  - Plant access controls
- Coordination & Liaison With Federal, State & Local Agencies
- Security-specific Drills And Program Evaluations



## Emergency Preparedness

- Successful NRC/FEMA Graded Exercise March 4, 2003
- Continued Communications And Coordination With State And Counties
  - Siren replacements
  - Evacuation time estimates updated
- Regular Communications To Residents Within The Plant Vicinity
- Continued Outreach And Community Information
  - Harris Plant Media Day
  - School/civic group presentations
  - Visitors Center – 7000+ students



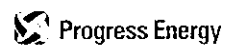
## Fire Protection

- Significant Plant Modifications To Improve Safety
  - Additional suppression and qualified fire barrier
  - Additional fire barrier between rooms
  - Additional barriers will be added in 2003



## Fire Protection

- 2003 Fire Protection Project
  - ▶ Validate Safe Shutdown Analysis
  - ▶ Implement modifications to enhance safety
  - ▶ Reduce reliance on manual operator actions



## Foreign Material

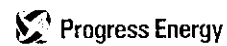
- Rubber Material In Residual Heat Removal Piping
- Immediately Took Measures To Ensure Safety
- Low To Moderate Safety Significance
- Cause: Improper Work Practice In 1991
- Corrective Actions
  - ▶ Removed material
  - ▶ Comprehensive search for additional material
  - ▶ Improved procedures





## **Refueling Outage 11 Risk Reduction Activities**

- Reactor Vessel Head Bare Metal Inspection
  - Boric Acid Walkdowns
- Steam Generator Eddy Current Testing
- Ongoing Testing of Plant Equipment
- Instrumentation Pressure Boundary Design Improvement



## **Conclusion**

- Harris Plant Performing In A Safe Reliable Manner Producing Affordable Electricity For Our Customers
- Safety Continues To Be The Top Priority
- Ongoing Effort To Focus On Risk Reduction
- Self Evaluation Cornerstone Of Continuous Improvement

