End of Cycle Assessment Results
Monticello Nuclear Power Plant

United States

Nuclear Regulatory Commission

AGENDA

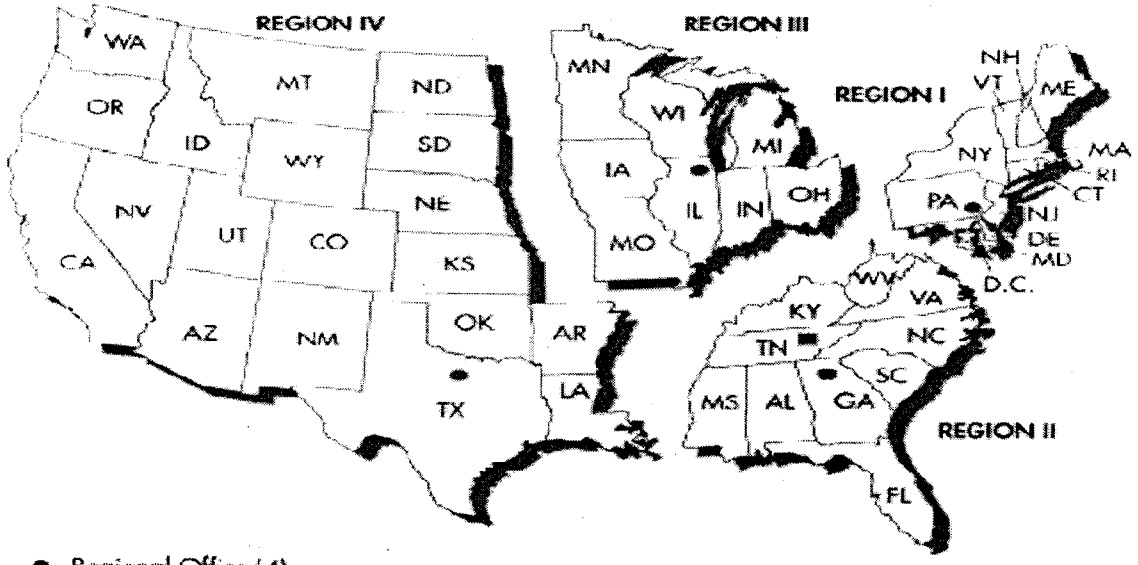
- **Introduction**
  - NRC
  - Reactor Oversight Process
- **Current End of Cycle Assessment Results**
  - Performance Indicators
  - Inspection Results
- Discussion of Current Plant Performance
- Concluding Remarks

NRC Staff will be available after the meeting to answer any questions

NRC Activities

- Ensure nuclear plants are designed, constructed, and operated safely
- Issue licenses for the peaceful use of nuclear materials in the U. S.
- Ensure licensees use nuclear materials and operate plants safely, and are prepared to respond to emergencies

NRC REGIONAL OFFICES

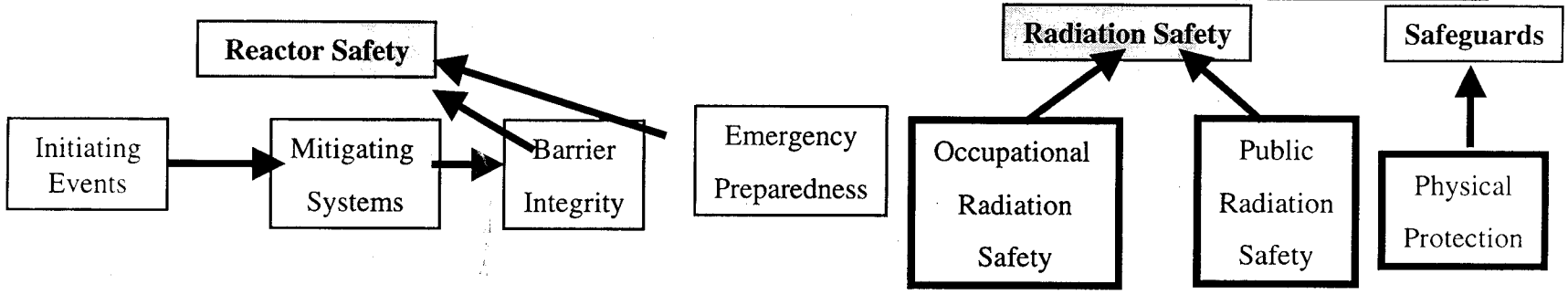


Note. Alaska and Hawaii are included in Region IV.
Source: Nuclear Regulatory Commission

FOUR KEY NRC OUTCOME MEASURES

- ***Maintain safety and protect the environment***
- ***Enhance public confidence***
- ***Improve effectiveness, efficiency, and realism of processes and decision making***
- ***Reduce unnecessary regulatory burden***

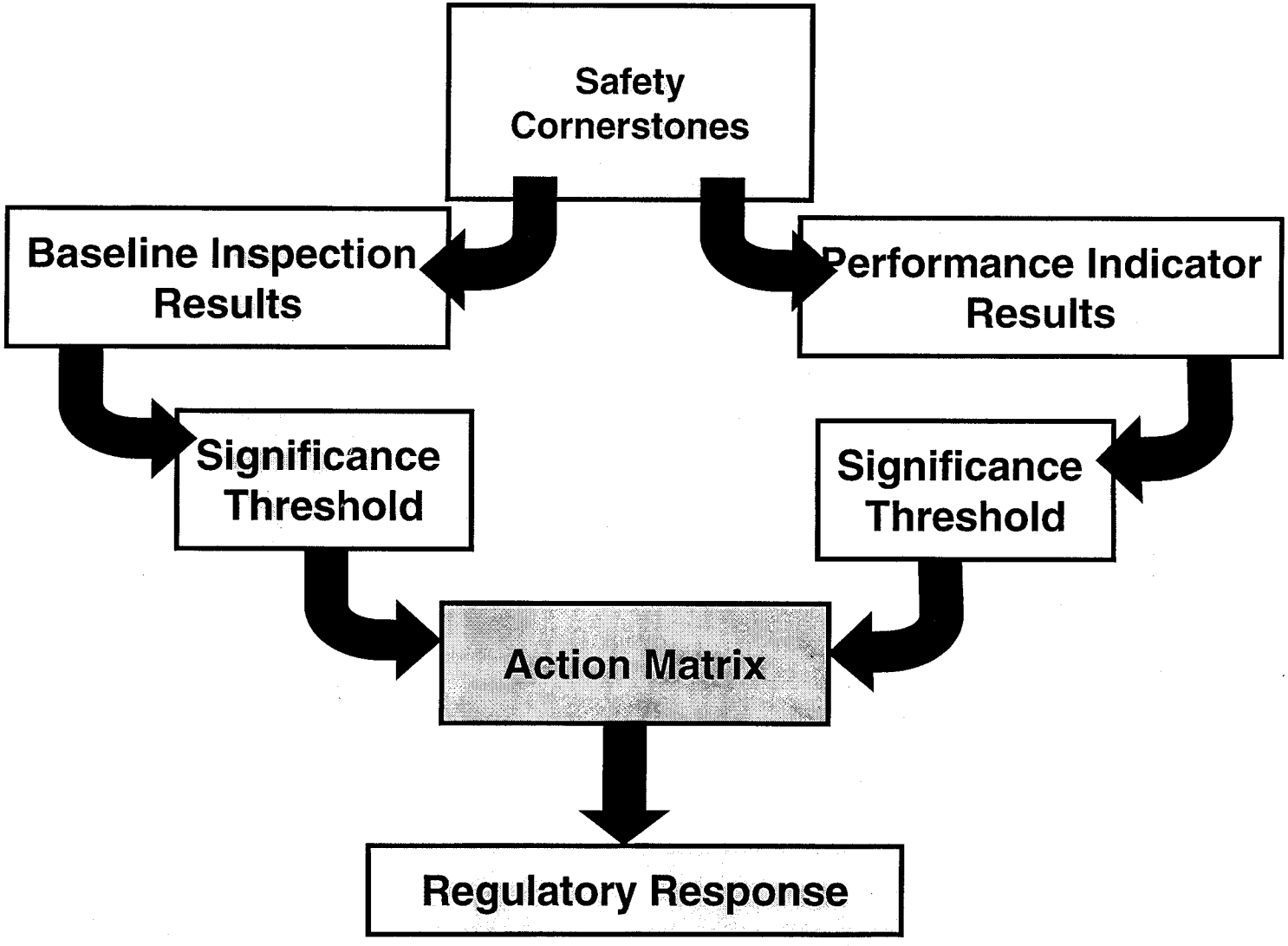
The three Strategic Performance Areas are subdivided into seven Cornerstones which are subdivided into 18 Performance Indicators



Performance Indicators
Based on data first quarter 2000

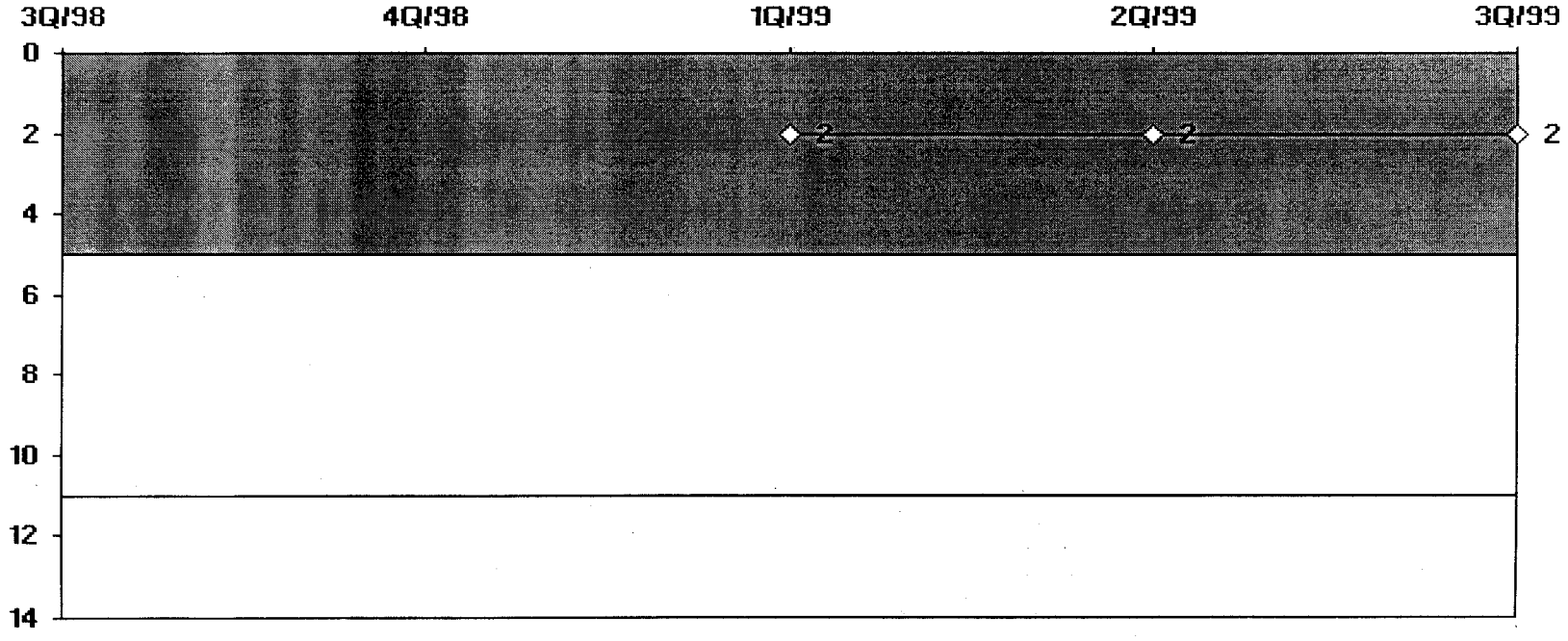
- Unplanned Scrams
- Scrams with Loss of Normal Heat Removal
- Unplanned Power Change
- Emergency AC Power System Unavailability
- High Pressure Injection System Unavailability
- Heat Removal System Unavailability
- Residual Heat Removal System Unavailability
- Safety System Functional Failure
- Reactor Coolant System Specific Activity
- Reactor Coolant System Leakage
- Drill/Exercise Performance
- ERO Drill Participation
- Alert and Notification System
- Occupational Exposure Control Effectiveness
- RETS/ODCM Radiological Effluents
- Protected Area Equipment
- Personnel Screening Program
- FFD/Personnel Reliability Program

Reactor Oversight Process



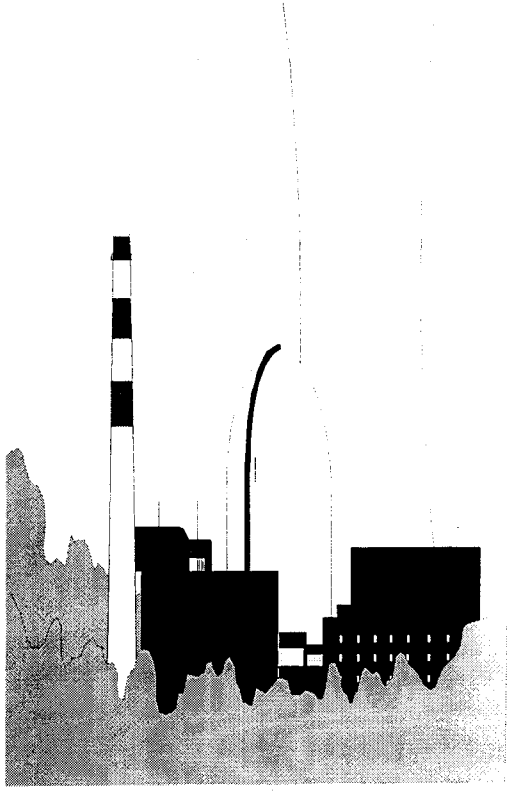
A Performance Indicator uses objective data to monitor performance in each Cornerstone area

Occupational Exposure Control Effectiveness



NRC Conducts Safety Inspections

NRC resident and regional inspectors utilize a Baseline Inspection Program to monitor plant safety performance in each of the Strategic Performance Areas



Key Aspects of Baseline Inspection Program

- Objective evidence of plant safety
- Determines causes of performance declines
- Conducted at all plants
- Emphases safety significant systems, components, activities, and events
- Monitors licensee effectiveness in finding and fixing safety issues
- Inspection reports describe significant findings and non-compliance
- Inspection reports to public

Examples of Baseline Inspection

- Daily plant tours
- Daily control room tours
- Inspect maintenance of important equipment
- Inspect controls for radiation protection of plant workers
- Inspect controls for radiation releases
- Plant security inspections

Supplemental Inspection and Event Follow-up

- Determine causes of performance declines
- Review all events for significance
- Follow-up all significant inspection findings
- Provides for graduated response

Key aspects of assessment program

- Objective assessment of performance
- Utilizes "Action Matrix" to determine agency actions in response to performance
- Provides plant specific assessment letters
- Assessment information on NRC public web site

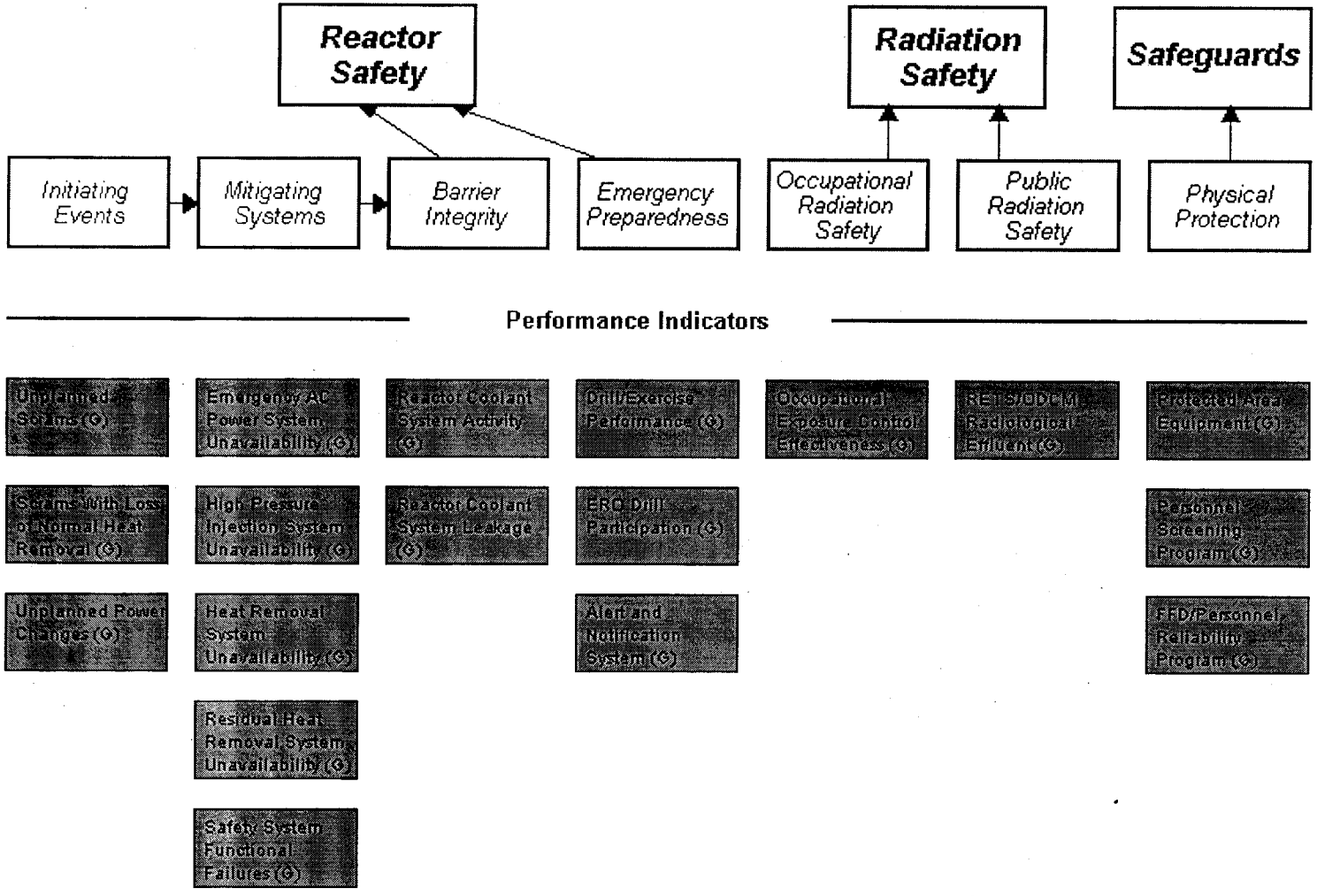
An Action Matrix is used to assess overall plant safety performance and specify thresholds for NRC Enforcement Actions

		Licensee Response Column	Regulatory Response Column	Degraded Cornerstone Column	Multiple/ Repetitive Degraded Cornerstone Column	Unacceptable Performance Column
RESULTS		All Assessment Inputs (Performance Indicators (PIs) and Inspection Findings) Green; Cornerstone Objectives Fully Met	One or Two White Inputs (in different cornerstones) in a Strategic Performance Area; Cornerstone Objectives Fully Met	One Degraded Cornerstone (2 White Inputs or 1 Yellow Input) or any 3 White Inputs in a Strategic Performance Area; Cornerstone Objectives Met with Minimal Reduction in Safety Margin	Repetitive Degraded Cornerstone, Multiple Degraded Cornerstones, Multiple Yellow Inputs, or 1 Red Input; Cornerstone Objectives Met with Longstanding Issues or Significant Reduction in Safety Margin	Overall Unacceptable Performance; Plants Not Permitted to Operate Within this Band, Unacceptable Margin to Safety
RESPONSE	Regulatory Performance Meeting	None	Branch Chief (BC) or Division Director (DD) Meet with Licensee	DD or Regional Administrator (RA) Meet with Licensee	RA (or EDO) Meet with Senior Licensee Management	Commission meeting with Senior Licensee Management
	Licensee Action	Licensee Corrective Action	Licensee root cause evaluation and corrective action with NRC Oversight	Licensee Self Assessment with NRC Oversight	Licensee Performance Improvement Plan with NRC Oversight	
	NRC Inspection	Risk-Informed Baseline Inspection Program	Baseline and supplemental inspection procedure 95001	Baseline and supplemental inspection procedure 95002	Baseline and supplemental inspection procedure 95003	
	Regulatory Actions	None	Supplemental inspection only	Supplemental inspection only	-10 CFR 2.204 DFI -10 CFR 50.54(f) Letter - CAL/Order	Order to Modify, Suspend, or Revoke Licensed Activities
COMMUNICATION	Assessment Letters	BC or DD review/sign assessment report (w/ inspection plan)	DD review/sign assessment report (w/ inspection plan)	RA review/sign assessment report (w/ inspection plan)	RA review/sign assessment report (w/ inspection plan) Commission Informed	
	Annual Public Meeting	SRI or BC Meet with Licensee	BC or DD Meet with Licensee	RA (or designee) Discuss Performance with Licensee	EDO (or Commission) Discuss Performance with Senior Licensee Management	Commission Meeting with Senior Licensee Management
	INCREASING SAFETY SIGNIFICANCE ---------->					

Inspection Findings & Additional Information

Current Action Matrix Column: Licensee Response Column

Monticello
1Q/2001 Performance Summary



Legend: R=Red W=White T=Thresholds under development N=Not Applicable
Y=Yellow G=Green I=Insufficient data to calculate PI U=Unique Design

	Initiating Events →	Mitigating Systems →	Barrier Integrity	Emergency Preparedness	Occupational Radiation Safety	Public Radiation Safety	Physical Protection
Most Significant Inspection Findings							
1Q/2001	No findings this quarter	G	G	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter
4Q/2000	No findings this quarter	Findings without color designation	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter
3Q/2000	No findings this quarter	G	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter
2Q/2000	No findings this quarter	G	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter	G

Miscellaneous findings

Additional Inspection & Assessment Information

- **Assessment Reports/Inspection Plans:**
  - 1Q/2001
  - 4Q/2000
  - 3Q/2000
  - 2Q/2000
- **List of Inspection Reports**