



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

JUN 14 2001

Harold B. Ray, Executive Vice President
Southern California Edison Co.
San Onofre Nuclear Generating Station
P.O. Box 128
San Clemente, California 92674-0128

SUBJECT: SUMMARY OF END-OF-CYCLE ASSESSMENT MEETING FOR SAN ONOFRE
NUCLEAR GENERATING STATION

Dear Mr. Ray:

This refers to the public meeting conducted in San Clemente, California, on June 11, 2001, between your staff and the NRC. The participants discussed the results of the NRC's end-of-cycle assessment of San Onofre Nuclear Generating Station performance for the period April 2, 2000, through March 31, 2001.

The presentation included a brief overview of the reactor oversight program by the NRC for the benefit of the public. In addition, the NRC presented the overall assessment results based on inspection findings and performance indicators reported by the San Onofre Nuclear Generating Station.

The attendance list and presentation are enclosed with this summary (Enclosures 1 and 2).

In accordance with 10 CFR 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 available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Reading Room).

Should you have any questions concerning this matter, we will be pleased to discuss them with you.

Sincerely,

A handwritten signature in cursive script that reads "Charles S. Marschall".

Charles S. Marschall, Chief
Project Branch C
Division of Reactor Projects

Enclosures:

1. Attendance List
2. Licensee Presentation

Dockets: 50-361
50-362

Licenses: NPF-10
NPF-15

cc w/enclosures:

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-3-

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San Juan Capistrano, California 92672

Southern California Edison Co.

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City Manager
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32400 Paseo Adelanto
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City of San Clemente
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Mayor
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Dana Point, California 92629

City Manager
City of Dana Point
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Dana Point, California 92629

Electronic distribution from ADAMS by RIV:

Regional Administrator (**EWM**)

DRP Director (**KEB**)

DRS Director (**ATH**)

Senior Resident Inspector (**JAS7**)

Branch Chief, DRP/C (**CSM**)

Senior Project Engineer, DRP/C (**DPL**)

Section Chief, DRP/TSS (**PHH**)

J. Isom, NRR (**JAI**)

RidsNrrDipmlipb

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RIV: SPE: DRP/C	C: DRP/C			
DPLoveless, df <i>CSM</i>	CSMarschall <i>CSM</i>			
6/15/01	6/14/01			

OFFICIAL RECORD COPY

T=Telephone

E=E-mail

F=Fax

San Onofre Assessment Meeting

Attendance List

6/11/01, 4:00 P.M.

Name	Affiliation
Russell D. Hoffman	Concerned Citizen
Sharon L. Hoffman	Concerned citizen
Ray Waldo	Southern California Edison
Clyde Osterholtz	NRC
John Kramer	NRC - RI
Alberto Garcia	NRC -
Omid Tebatatabai	NRC - HQS
A.E. Skellan	SCE
Elmo Collins	NRC - RVI
Charles Marschall	NRC - RIV
BARBARA CULVERHOUSE	SOUTHERN CAL EDISON
MICHAEL SHORT	SCE
PAMELA HANDLEY	SONGS/SCE
Wright Nunn	SONGS/SCE
Phil Diehl	No. Co. Times
Nancy Ayn	FOX 6 NEWS
Eric Lee	FOX 6 NEWS
RAY GOLDEN	SCE - SONGS
Winkert REINSCHE	DYNAC syst.
Bruce Lieberman	San Diego Union-Tribune
Wai Wai Chui	Calif State Dept. of Taxes Control
WALTER BAHM	CAL/EPA
Luis R. Berg	Citizen - San Clemente



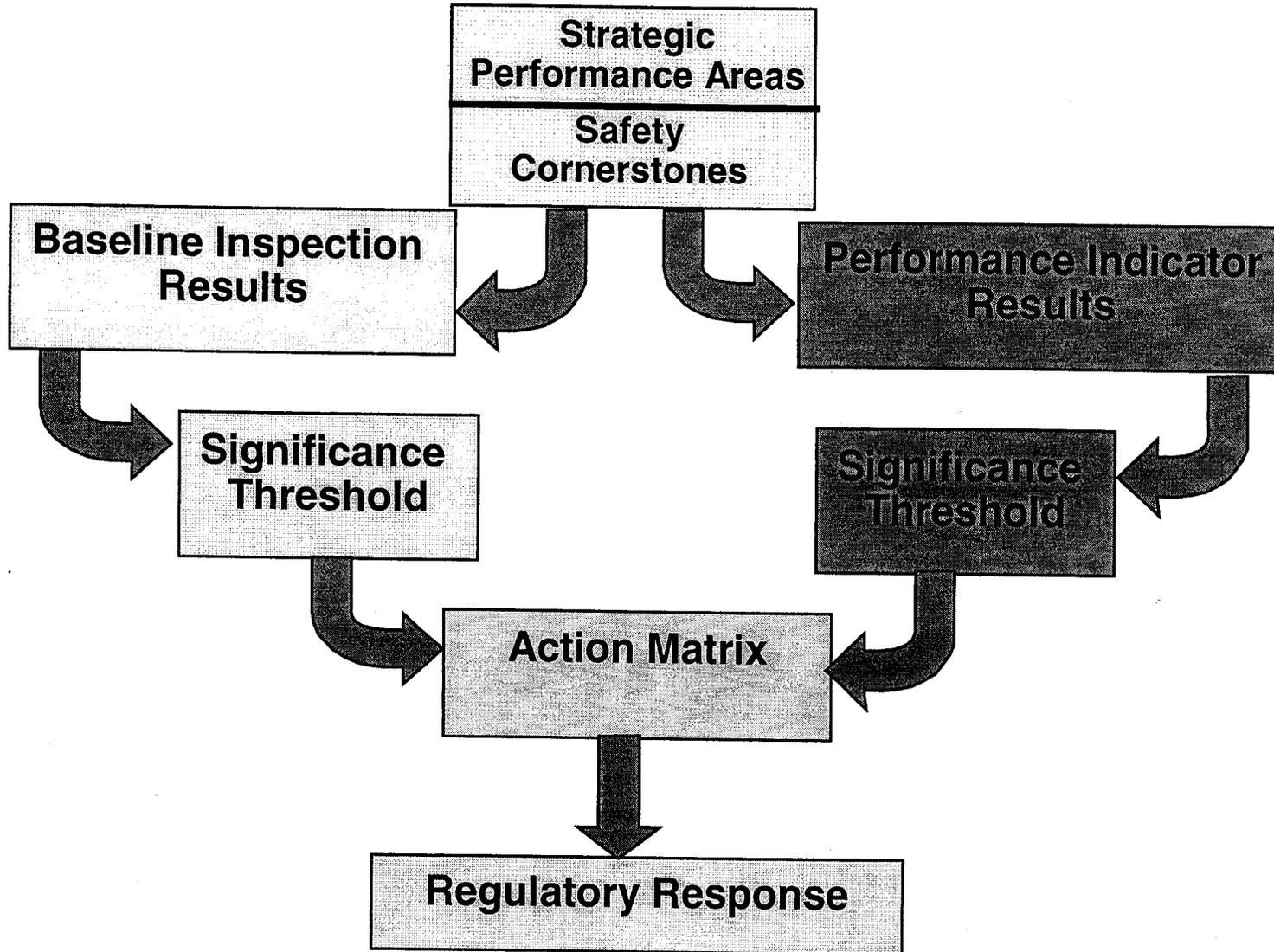
NRC Public Meeting

End of Cycle Assessment of San Onofre Nuclear
Generating Station

Agenda

- Introduction and opening comments - Elmo Collins
- Introduction and opening comments- Dwight Nunn
- Presentation of assessment - Charles Marschall
- Discussion of assessment - NRC and San Onofre staff
- Closing remarks - Dwight Nunn
- Closing remarks - Elmo Collins
- Adjourn

Reactor Oversight Process





Reactor Oversight Process

[Nuclear Reactors](#) | [NRC Home Page](#) | [NRC Site Contents](#) | [Search](#)

Plant
Assessment
Results

NEW ROP
Program
Documents

NEW Initial
Implementation
Evaluation
Panel

ROP "Plain
Language"
Description

Meeting
Notices &
Summaries

Lessons Learned Public Workshop

March 26 - 28, 2001 in Gaithersburg, MD

[Agenda](#)

[Summary Slides from Closing Session](#)

NEW [Meeting Summary](#) NEW

[Federal Register Notice: Request for Public Comment on the First Year of Initial Implementation of the Reactor Oversight Process](#)

Role of the Reactor Oversight Process

The Nuclear Regulatory Commission's (NRC's) mission is to ensure adequate protection of the public health and safety and the environment, as it relates to the peaceful use of nuclear materials in the United States. The agency itself does not operate nuclear power plants. Rather, it regulates the operation of the nation's 103 nuclear power plants by establishing regulatory requirements for the design, construction and operation of such plants. The NRC issues licenses for the plants to operate, licenses the plant operators, and establishes plant specific technical specifications for plant operators to follow to ensure that the plants are operated safely within these requirements.

US NRC Reactor Oversight Process - Plant Assessment Results

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Address <http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html> Go Links

US NRC Reactor Oversight Process

Plant Assessment Results

[PI Summary](#)
[Inspection Findings Summary](#)
[Action Matrix Summary](#)
[Inspection Reports List](#)
[Cornerstones & PI](#)
[Home](#)

- Alphabetical listing of plants
 A B C D F G H I K L M N O
 P Q R S T V W
- Region 1 plants
- Region 2 plants
- Region 3 plants
- Region 4 plants

Alphabetical listing of plants:

- ▲ **A**
 - Arkansas 1
 - Arkansas 2
- ▲ **B**
 - Beaver Valley 1
 - Beaver Valley 2
 - Braidwood 1
 - Braidwood 2
 - Browns Ferry 2
 - Browns Ferry 3
 - Brunswick 1
 - Brunswick 2
 - Byron 1
 - Byron 2
- ▲ **C**
 - Callaway
 - Calvert Cliffs 1
 - Calvert Cliffs 2
 - Catawba 1
 - Catawba 2
 - Clinton
 - Columbia Generating Station
 - Comanche Peak 1
 - Comanche Peak 2
 - Cooper (Pilot Plant)
 - Crystal River 3
- ▲ **D**
 - D.C. Cook 1

New This Quarter

- New format of Action Matrix Summary
- Action Matrix Designation on plant performance summaries

Individual Plant Performance Summaries - Performance information is summarized for each plant and sorted by the seven cornerstones of safety. This information can be viewed by selecting the plant name from the left column (organized alphabetically as well as by the region where the plants are located). For each plant, the current Action Matrix designation is displayed along with the performance indicators (PIs) and a summary of NRC inspection findings. Links are also provided to NRC assessment letters, inspection plans, and inspection reports.

Comprehensive Performance Summary Matrices - The most recent quarterly performance indicator color designations for all plants are summarized in a PI Summary matrix. The most significant inspection finding color designations over the previous 4 quarters for all plants is summarized in an Inspection Findings Summary matrix. Based on the latest applicable performance indicators and inspection findings, the current Action Matrix designation for each plant is available in the Action Matrix Summary. The Action Matrix Summary provides a matrix of the five columns with the plants listed within their applicable column. You can drill down into more detailed information from any of these three summaries.

Background - Both PIs and inspection findings are evaluated and given a color designation based on their safety significance. Green inspection findings or PIs indicate a very low risk significance and therefore have little or no impact on safety. White, yellow, or red inspection findings or PIs each, respectively, represent a greater degree of safety significance.

San Onofre Operating Summary - Unit 2

- Refueling outage, October - November 2000
- Otherwise, essentially full power operation

San Onofre Operating Summary - Unit 3

- Refueling outage, January - February 2001
- Forced outage, February - May 2001
- Otherwise, essentially full power operation

San Onofre Mid-cycle Assessment

Completed November 6, 2000

- Licensee Response Column
 - ▶ All inspection findings had very low safety significance (Green)
 - ▶ No performance indicators required additional NRC oversight

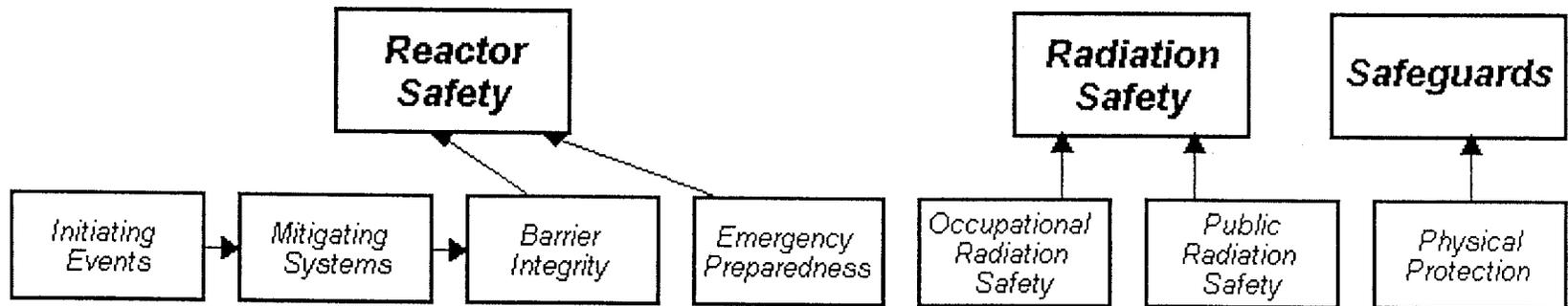
San Onofre Overall Performance

- Preserved public health and safety
- Met all cornerstone objectives

San Onofre Performance for the Inspection Cycle

- Performance Indicators for the most recent quarter
- All in the licensee response band

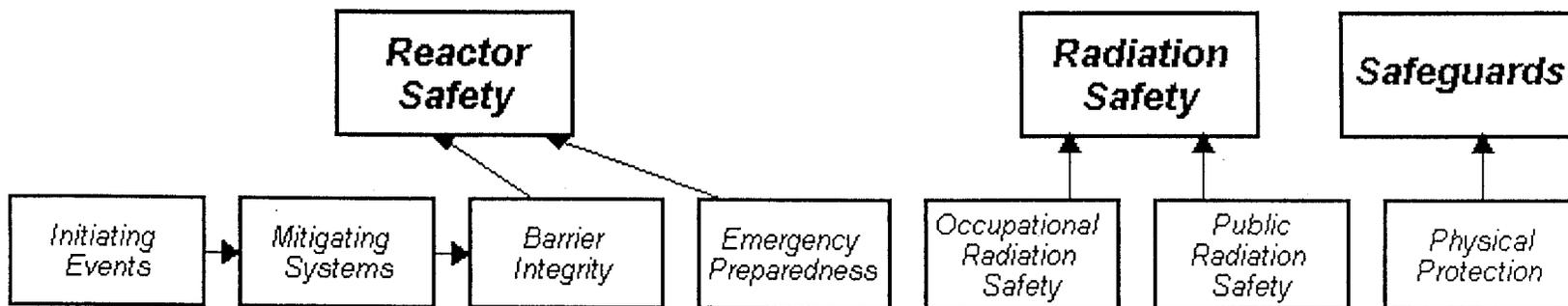
San Onofre 2 1Q/2001 Performance Summary



Performance Indicators

Unplanned Scrams (G)	Emergency AC Power System Unavailability (G)	Reactor Coolant System Activity (G)	DRI/Exercize Performance (G)	Occupational Exposure Control Effectiveness (G)	RETS/ODCM Radiological Effluent (G)	Protected Area Equipment (G)
Scrams With Loss of Normal Heat Removal (G)	High Pressure Injection System Unavailability (G)	Reactor Coolant System Leaks (G)	ERC Drill Participation (G)			Personnel Screening Program (G)
Unplanned Power Changes (G)	Heat Removal System Unavailability (G)		Alarm and Notification System (G)			PFD/Personnel Reliability Program (G)
	Residual Heat Removal System Unavailability (G)					
	Safety System Functional Failures (G)					

San Onofre 3 1Q/2001 Performance Summary



Performance Indicators

Unplanned Swarms (G)	Emergency AC Power System Unavailability (G)	Reactor Coolant System Activity (G)	Drill/Exercise Performance (G)	Occupational Exposure Control Effectiveness (G)	RETS/QDCM Radiological Effluent (G)	Protected Area Equipment (G)
Swarms with Loss of Normal Heat Removal (G)	High Pressure Injection System Unavailability (G)	Reactor Coolant System Leakage (G)	ERP Drill Participation (G)			Personnel Screening Program (G)
Unplanned Power Changes (G)	Heat Removal System Unavailability (G)		Alert and Notification System (G)			FFD/Personnel Reliability Program (G)
	Residual Heat Removal System Unavailability (G)					
	Safety System Functional Failures (G)					

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

No findings
this quarter

4Q/2000

No findings
this quarter

G

G

No findings
this quarter

No findings
this quarter

No findings
this quarter

No findings
this quarter

3Q/2000

G

G

No findings
this quarter

Findings without
color designation

No findings
this quarter

No findings
this quarter

G

2Q/2000

G

G

No findings
this quarter

Miscellaneous
findings

Additional Inspection & Assessment Information

Assessment Letters/Inspection Plans:

- o 1Q/2001
- o 4Q/2000
- o 3Q/2000
- o 2Q/2000

Inspection Reports

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

No findings this quarter

4Q/2000

No findings this quarter

G

No findings this quarter

3Q/2000

No findings this quarter

G

No findings this quarter

Findings without color designation

No findings this quarter

No findings this quarter

G

2Q/2000

G

G

No findings this quarter

Miscellaneous findings

Additional Inspection & Assessment Information

Assessment Letters/Inspection Plans:

- 1Q/2001
- 4Q/2000
- 3Q/2000
- 2Q/2000

Inspection Reports

San Onofre Performance for the Inspection Cycle (cont'd)

Licensee Response Column

- All inspection findings in San Onofre corrective action system
 - ▶ Very low risk significance
- Baseline inspection planned for San Onofre Units 2 and 3

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	
R E S U L T S		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
R E S P O N S E	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
C O M M U N I C A T I O N	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 ----->						

Action Matrix Summary

<u>Licensee Response Column</u>	<u>Regulatory Response Column</u>	<u>Degraded Cornerstone Column</u>	<u>Multiple/Repetitive Degraded Cornerstone Column</u>	<u>Unacceptable Performance Column</u>
<u>Arkansas Nuclear 1</u>	<u>Calvert Cliffs 1</u>	<u>Callaway</u>	<u>Indian Point 2</u>	
<u>Arkansas Nuclear 2</u>	<u>Cooper</u>	<u>Kewaunee</u>		
<u>Beaver Valley 1</u>	<u>Fermi 2¹</u>	<u>Millstone 2</u>		
<u>Beaver Valley 2</u>	<u>FitzPatrick</u>			
<u>Braidwood 1</u>	<u>Harris 1²</u>			
<u>Braidwood 2</u>	<u>North Anna 2³</u>			
<u>Browns Ferry 2</u>	<u>Oconee 1</u>			
<u>Browns Ferry 3</u>	<u>Point Beach 1</u>			
<u>Brunswick 1</u>	<u>Prairie Island 1⁴</u>			
<u>Brunswick 2</u>	<u>Prairie Island 2⁵</u>			
<u>Byron 1</u>	<u>Quad Cities 1⁶</u>			
<u>Byron 2</u>	<u>Quad Cities 2⁷</u>			
<u>Calvert Cliffs 2</u>	<u>Summer⁸</u>			
<u>Catawba 1</u>	<u>Susquehanna 1⁹</u>			
<u>Catawba 2</u>	<u>Susquehanna 2¹⁰</u>			
<u>Clinton</u>				
<u>Columbia Generating Station</u>				
<u>Comanche Peak 1</u>				

Major Baseline Inspections through May 31, 2002

- Problem Identification and Resolution
 - ▶ July 2001
- Emergency Preparedness Exercise
 - ▶ September 2001
- Triennial Fire Protection
 - ▶ October 2001
- Radiation Protection Team
 - ▶ January 2002

San Onofre Overall Performance

- Preserved public health and safety
- Met all cornerstone objectives



NRC Public Meeting

- Closing remarks
 - ▶ Dwight Nunn, Southern California Edison
- Closing remarks
 - ▶ Elmo Collins, NRC
- Adjourn