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

MAY - 9 1994

Dockets: 50-528
50-529
50-530

Licenses: NPF-41
NPF-51
NPF-74

See Ltr.

Arizona Public Service Company
ATTN: Mr. W. F. Conway
Executive Vice President, Nuclear
P.O. Box 53999
Phoenix, Arizona 85072-3999

SUBJECT: PUBLIC MEETING WITH ARIZONA PUBLIC SERVICE COMPANY (APS)

This refers to the management meeting, open to public observation, conducted on April 28, 1994, at the Region IV office in Arlington, Texas, concerning activities authorized by NRC Licenses NPF-41, NPF-51, and NPF-74 for the Palo Verde Nuclear Generating Station. Attendees at the meeting are listed in Attachment 1.

This was the first management meeting between APS and NRC Region IV, and the meeting provided the opportunity for members of your staff to present to the NRC an overview of Palo Verde's organization and operating history. Your staff also provided information regarding strategic issues which APS has identified as areas for improvement. The information presented in the meeting is provided as Attachment 2.

This meeting was beneficial in providing the regional staff with information about Palo Verde and the issues facing your organization. Specifically, we recognize that your Reengineering Program is a significant undertaking, and we reiterate our comments that implementation of the program should be monitored to ensure that the safe operation of your facility is not impacted. We look forward to observing improved performance as the reengineered processes are put into place and as your organization structure is changed to use the new processes.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter will be placed in the NRC's Public Document Room.

IA3

IE45

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

Sincerely,

A. Bill Beach, Director
Division of Reactor Projects

Attachments:
1. Attendance List
2. APS Presentation Material

cc w/attachments:
Arizona Corporation Commission
ATTN: Mr. Steve Olea
1200 W. Washington Street
Phoenix, Arizona 85007

Southern California Edison Company
ATTN: James A. Beoletto, Esq.
P.O. Box 800
Rosemead, California 91770

ABB Combustion Engineering Nuclear Power
ATTN: Charles B. Brinkman, Manager
Washington Nuclear Operations
12300 Twinbrook Parkway, Suite 330
Rockville, Maryland 20852

Arizona Radiation Regulatory Agency
ATTN: Aubrey V. Godwin, Director
4814 South 40 Street
Phoenix, Arizona 85040

Maricopa County Board of Supervisors
ATTN: Chairman
111 South Third Avenue
Phoenix, Arizona 85003

Newman & Holtzinger, P.C.
ATTN: Jack R. Newman, Esq.
1615 L Street, N.W., Suite 1000
Washington, D.C. 20036

Palo Verde Services
ATTN: Curtis Hoskins, Executive
Vice President and
Chief Operating Officer
2025 N. 3rd Street, Suite 220
Phoenix, Arizona 85004

Akin, Gump, Strauss, Hauer and Feld
El Paso Electric Company
ATTN: Roy P. Lessey, Jr., Esq.
1333 New Hampshire Avenue, Suite 400
Washington, D.C. 20036

Arizona Public Service Company
ATTN: Angela K. Krainik, Manager
Nuclear Licensing
P.O. Box 52034
Phoenix, Arizona 85072-2034

MAY - 9 1994

bcc to DMB (IE45)

bcc distrib. by RIV:

L. J. Callan	Resident Inspector
DRSS-FIPB	MIS System
Branch Chief (DRP/F, WCFO)	Senior Project Inspector (DRP/F, WCFO)
RIV File	Branch Chief (DRP/TSS)
G. Cook, WCFO	M. Smith, WCFO
J. Bianchi, WCFO	
Leah Tremper, OC/LFDCB, MS: MNBB 4503	

PI:DRP/F*	C:DRP/F*	D:WCFO	DD:DRP
BOlson:wsw	HWong	KPerkins	ABeach
/ /94	/ /94	5 /9 /94	5 /9 /94

*previously concurred

130016

MAY - 9 1994

bcc to DMB (IE45)

bcc distrib. by RIV:

L. J. Callan	Resident Inspector
DRSS-FIPB	MIS System
Branch Chief (DRP/F, WCFO)	Senior Project Inspector (DRP/F, WCFO)
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/ /94	/ /94	5 /9 /94	5 /9 /94

*previously concurred

ATTACHMENT

ATTENDANCE LIST

Arizona Public Service Company

J. Levine, Vice President, Nuclear Production
E. Simpson, Vice President, Nuclear Support
J. Bailey, Assistant Vice President, Nuclear Engineering and Projects
C. Seaman, Director, Quality Assurance
G. Overbeck, Assistant to Vice President, Nuclear Production
A. Krainik, Manager, Nuclear Licensing

NRC Region IV

J. Callan, Regional Administrator
J. Montgomery, Deputy Regional Administrator
K. Perkins, Director, Walnut Creek Field Office (WCFO)
S. Collins, Director, Division of Radiation Safety and Safeguards
T. Gwynn, Director, Division of Reactor Safety (DRS)
J. Mitchell, Acting Deputy Director, DRS
D. Powers, Chief, Maintenance Branch, DRS
H. Wong, Chief, Project Branch F, Division of Reactor Projects (DRP), WCFO
G. Sanborn, Enforcement Officer
R. Huey, Enforcement Officer, WCFO
C. Hackney, Regional State Liaison Officer
B. Olson, Project Inspector, Project Branch F, DRP, WCFO

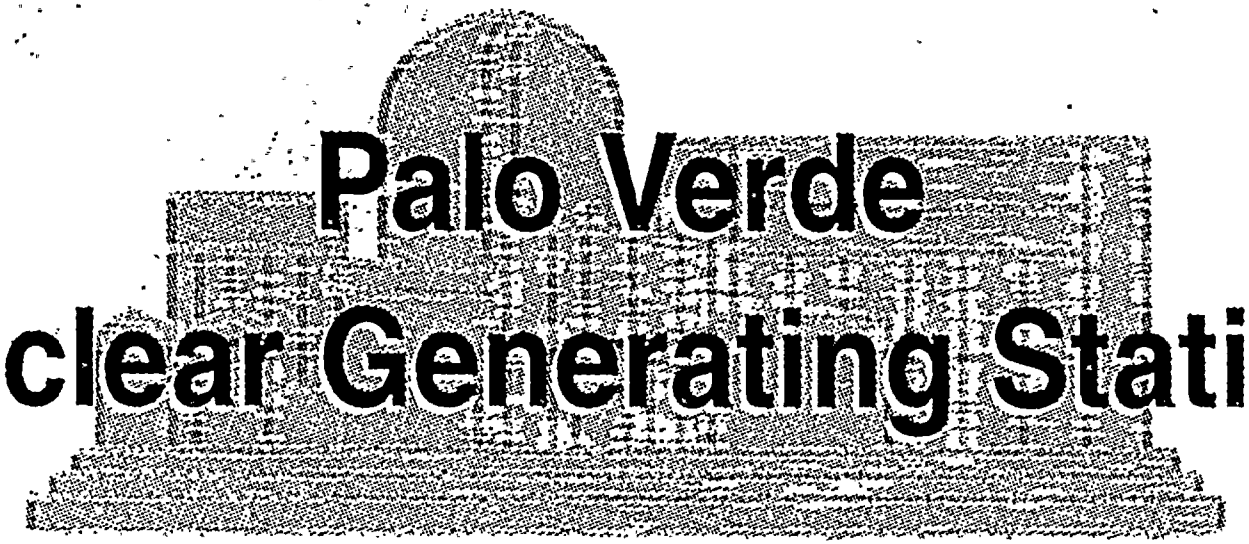
NRC NRR

E. Ademsam, Assistant Director, Region IV Reactors
B. Holian, Senior Project Manager

Other

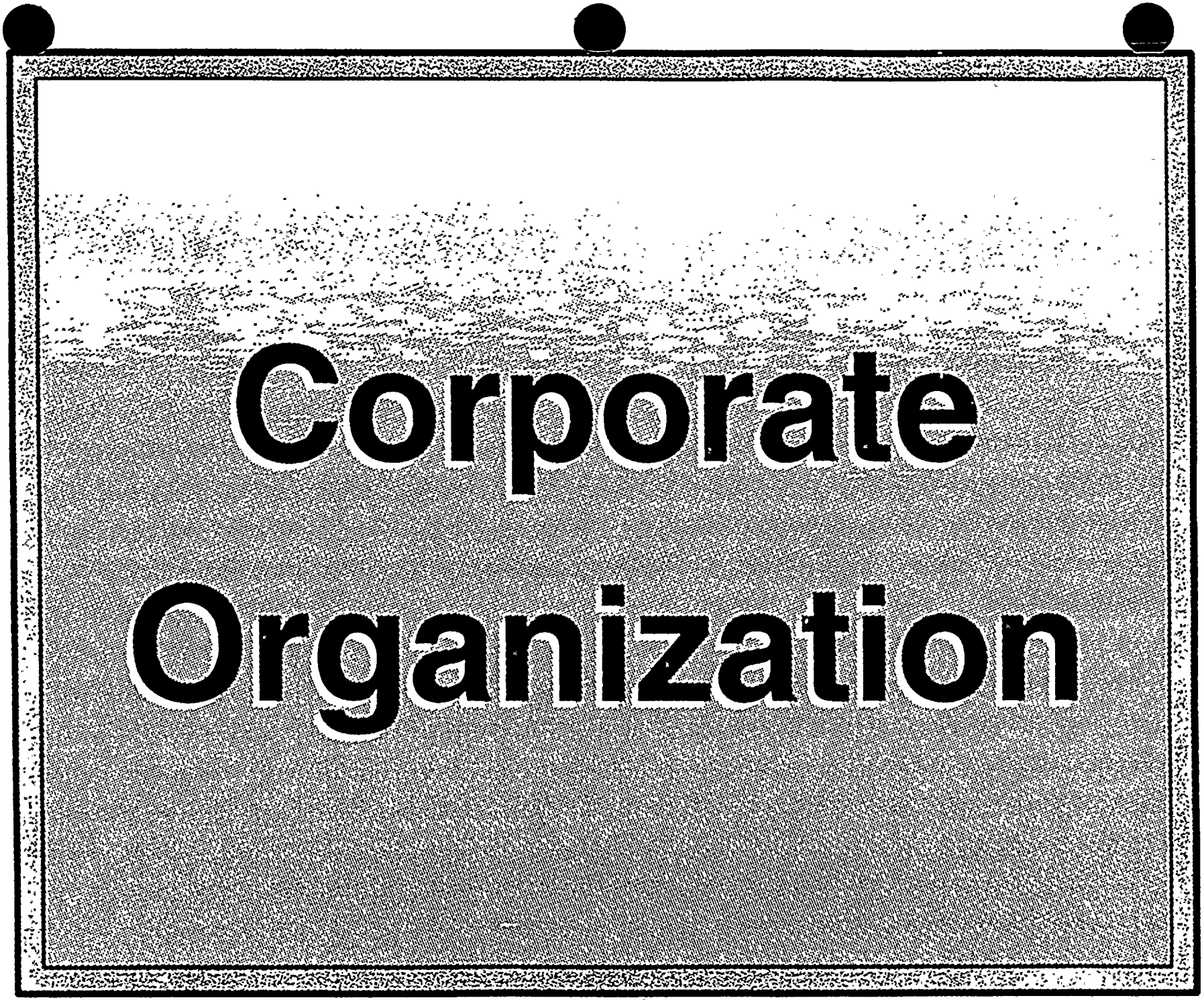
F. Growers, Site Representative, El Paso Electric
R. Henry, Site Representative, Salt River Project
D. Summers, Manager, Nuclear Services, Public Service Company New Mexico

ARIZONA PUBLIC SERVICE COMPANY

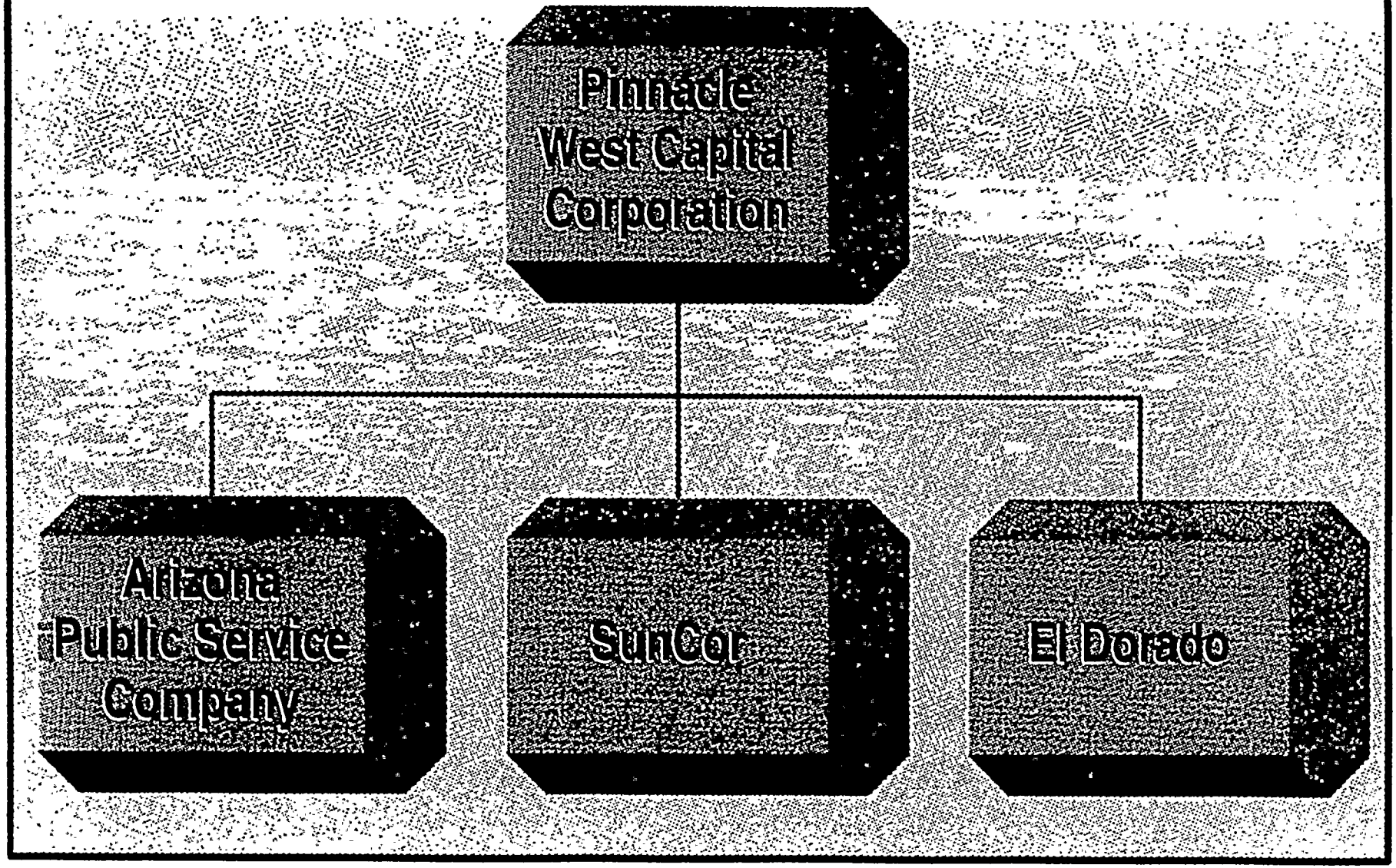


Palo Verde Nuclear Generating Station

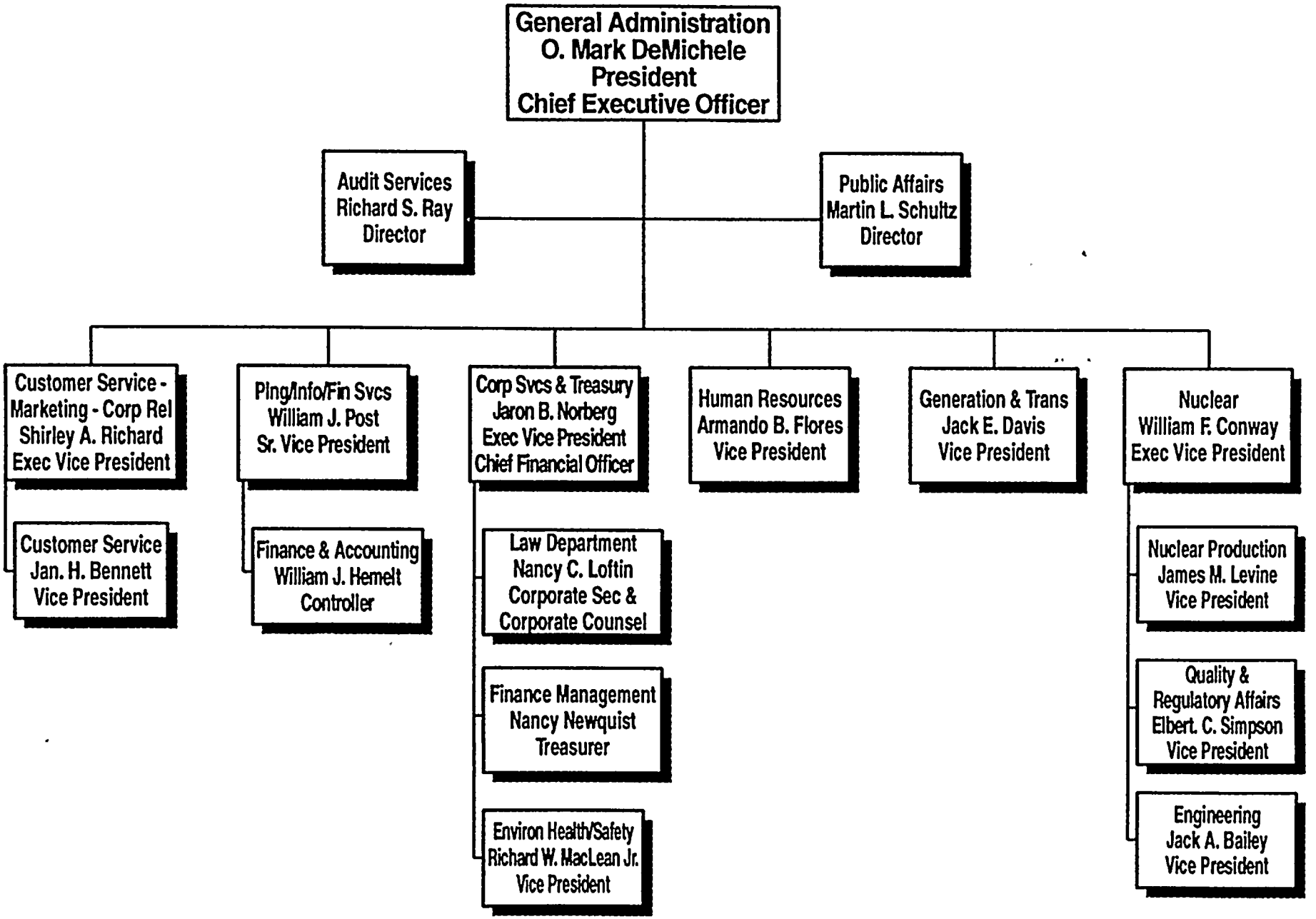
Presented to
Nuclear Regulatory Commission
April 28, 1994


Corporate
Organization

Pinnacle West Capital Corporation

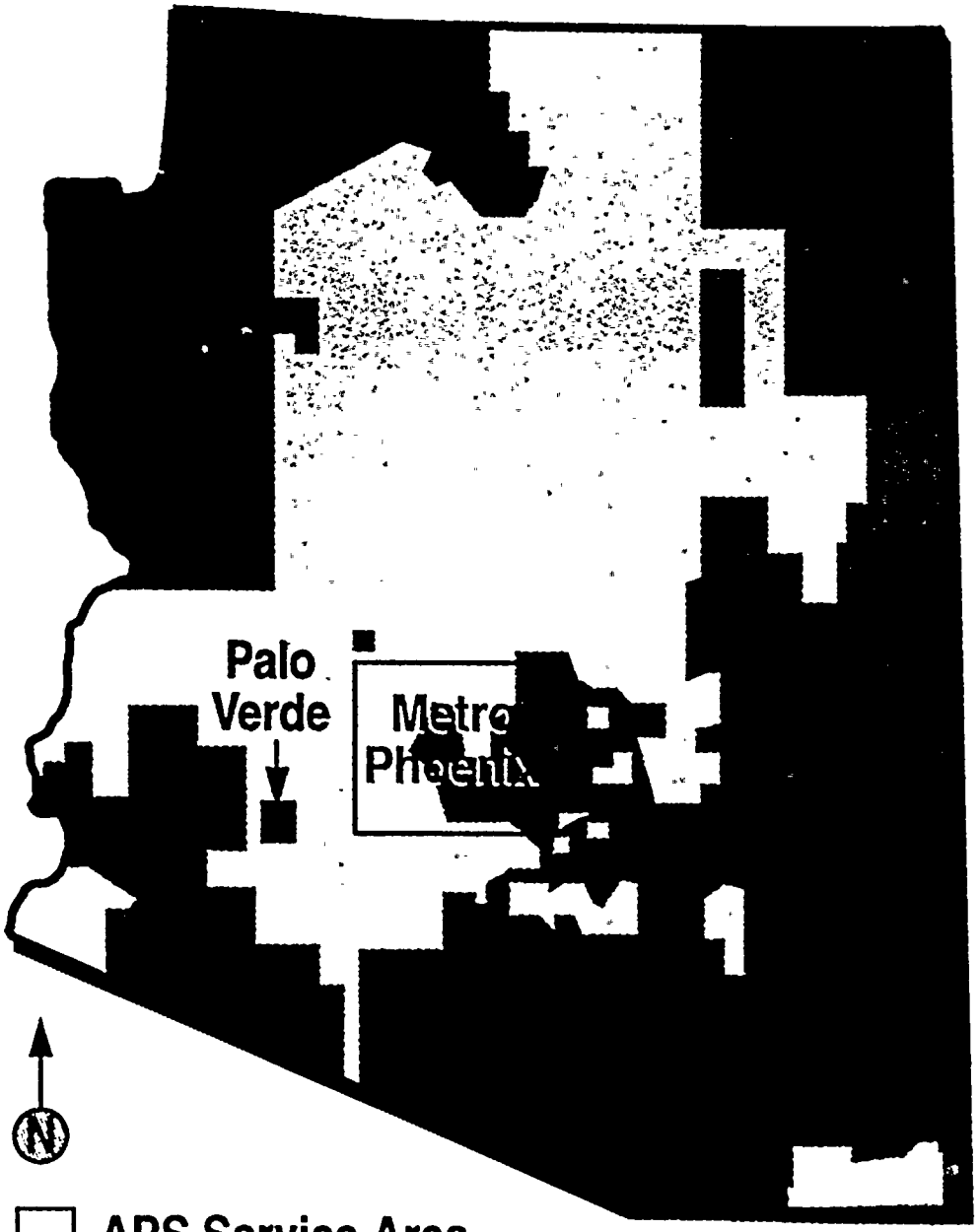


Arizona Public Service Company



APRIL 1994

Arizona Public Service Company Electric Service Area

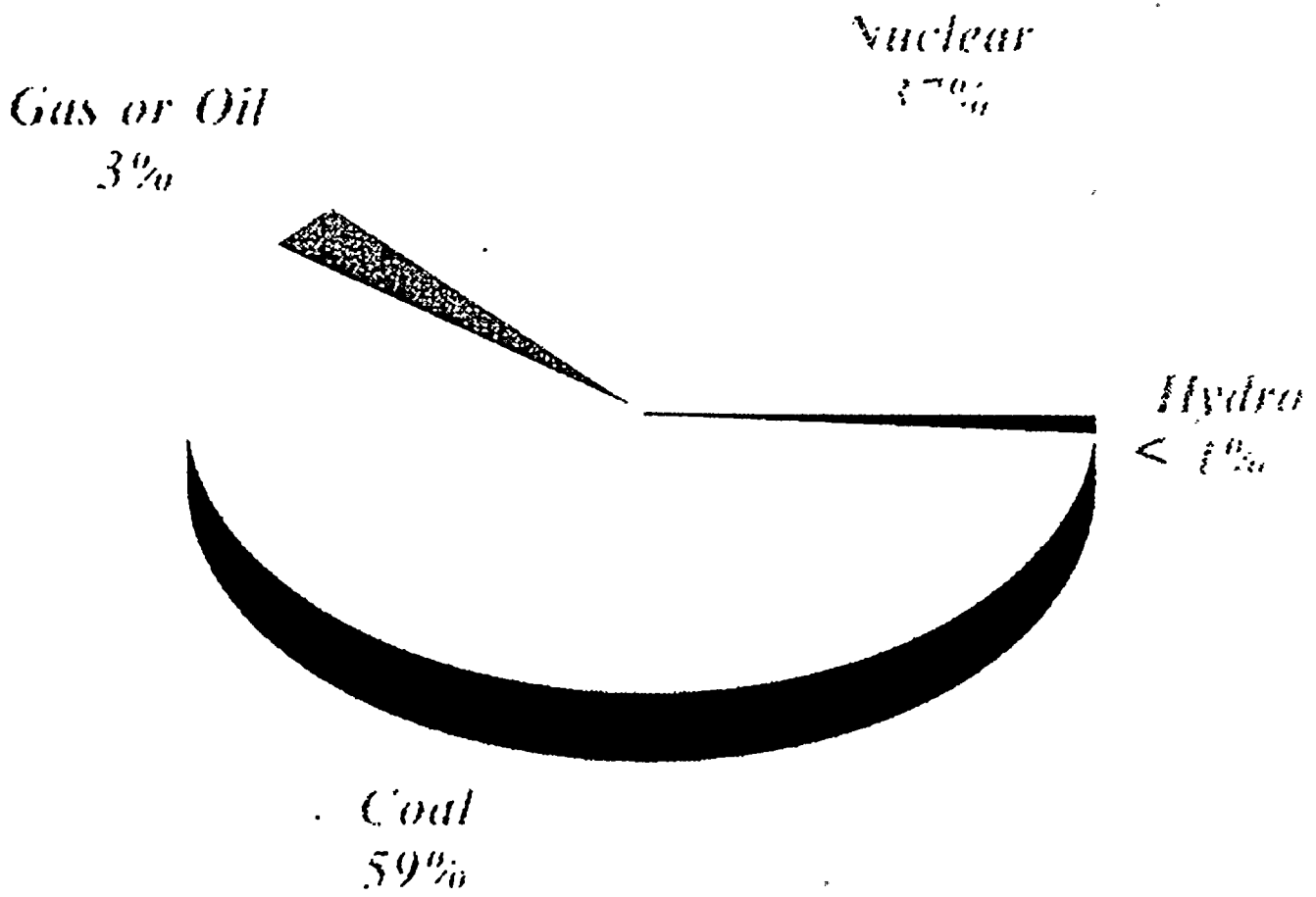


- *7,053 employees*
- *653,979 customers*
- *37,410 square miles of service territory*
- *4,022 MW installed capacity*
- *1,109 MW nuclear generation capability (28% of total)*
- *3,802.3 MW all time record peak (Aug. 2, 1993)*

Arizona Public Service Company

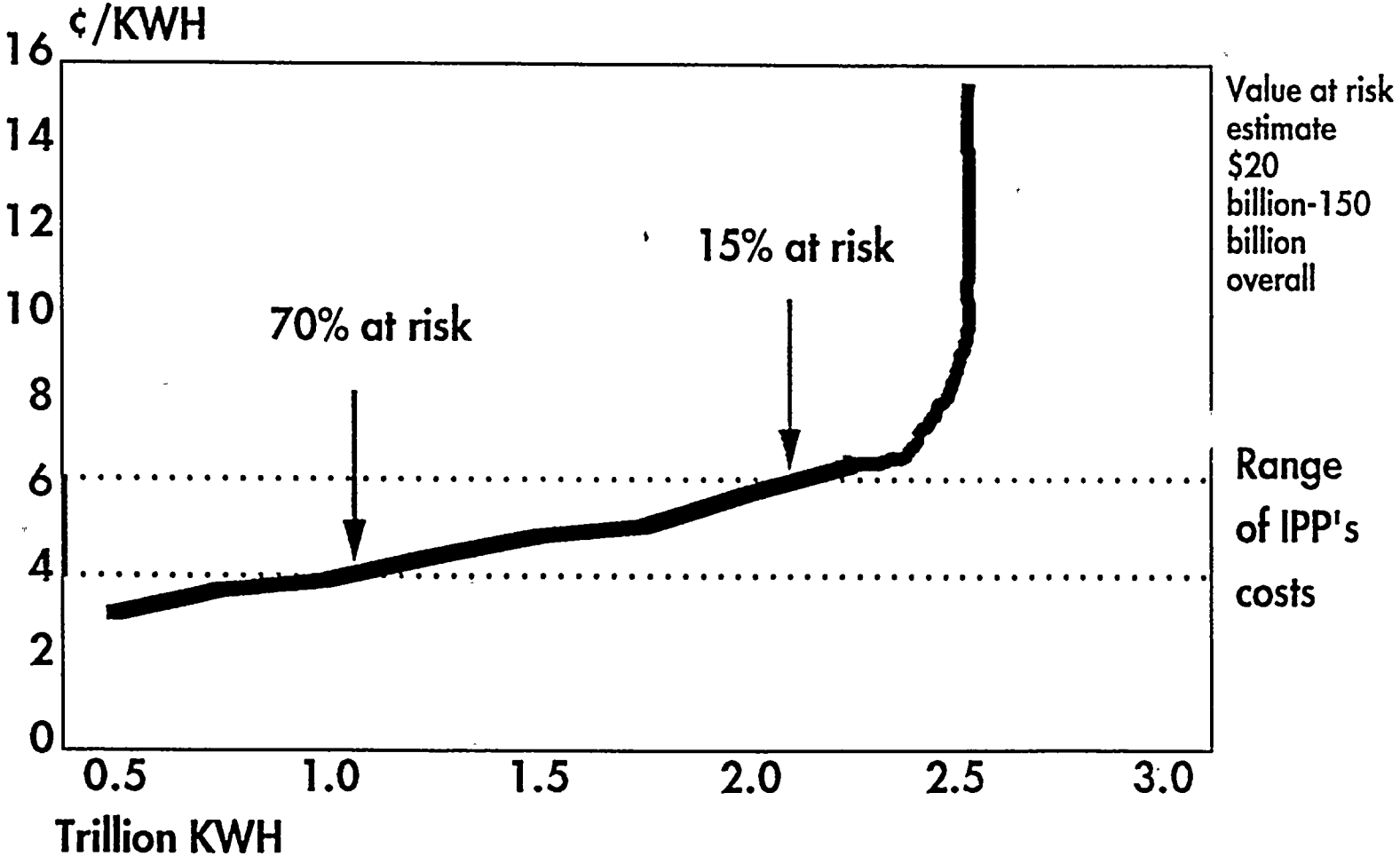
Sources of Generation

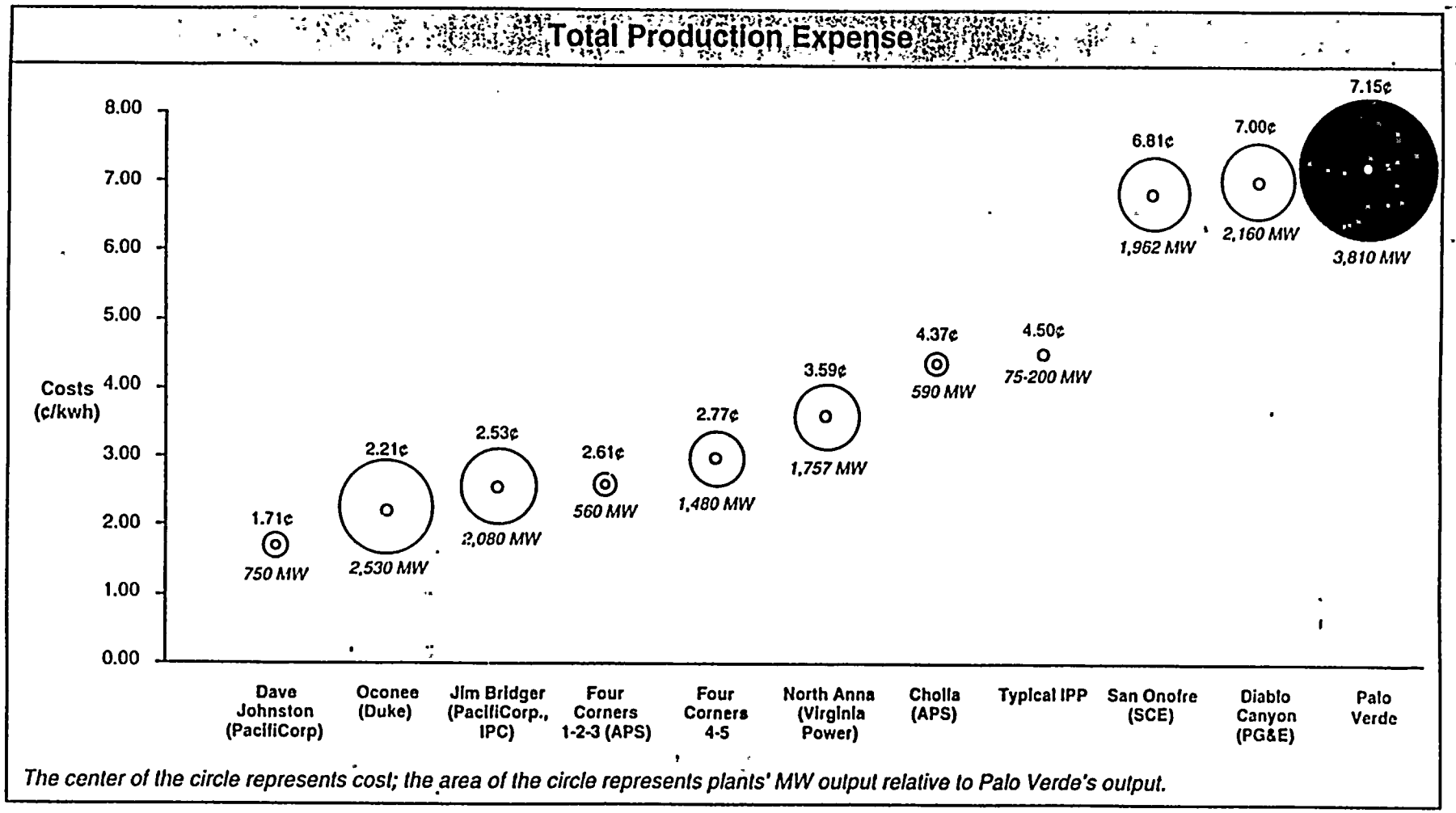
12 Months Ending 12/31/93



At Risk Capacity

Investor Owned Utility Generation Supply Curve in 1990

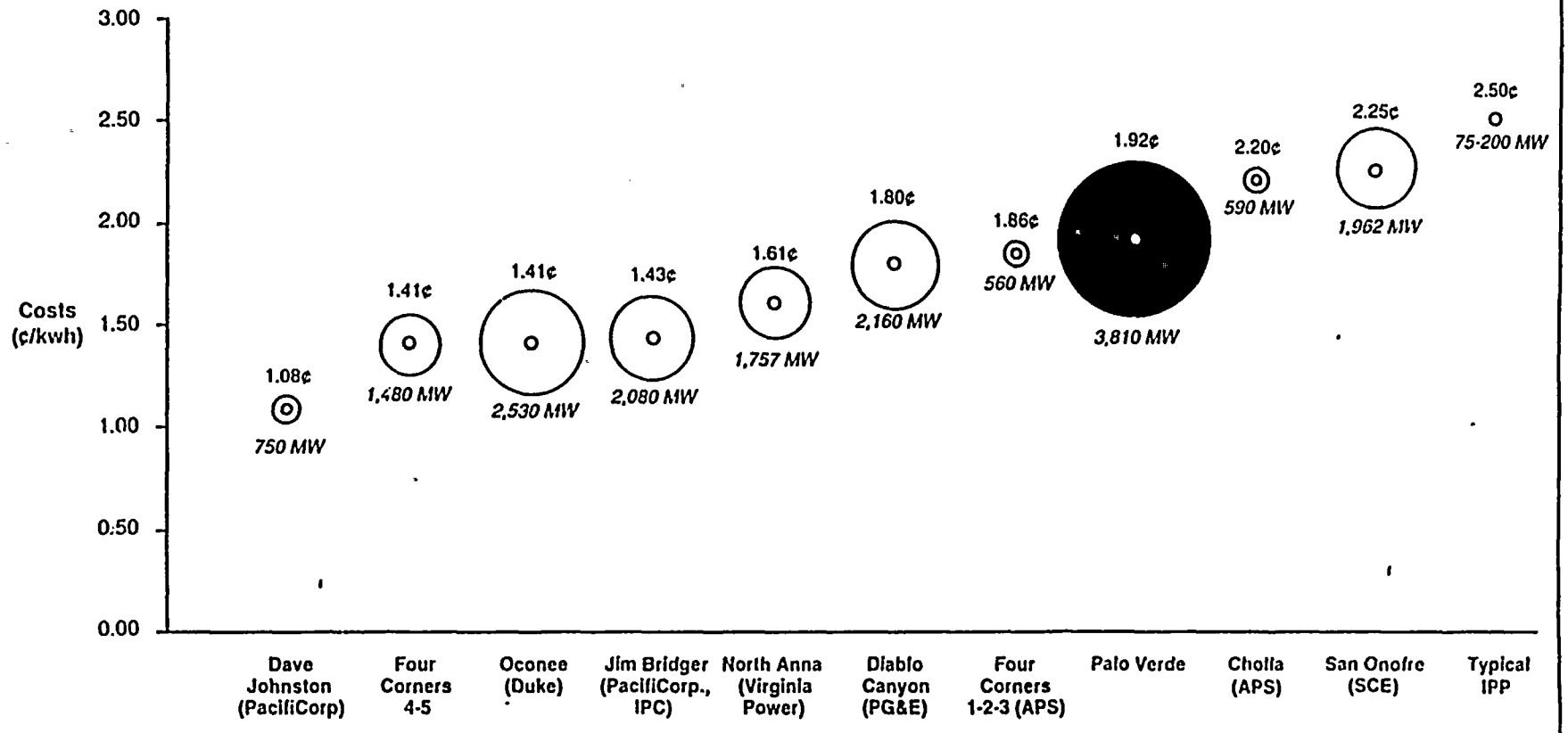




Note: North Anna and Oconee 1992 Expenses are overstated, therefore the 1990-1992 average has been substituted. The Capital component of Total Production Expense was calculated using a levelized fixed charge rate provided by the Generation Planning Department.

Source: FERC Form 1 (1992); Generation Planning Department; and Reengineering Team Analysis

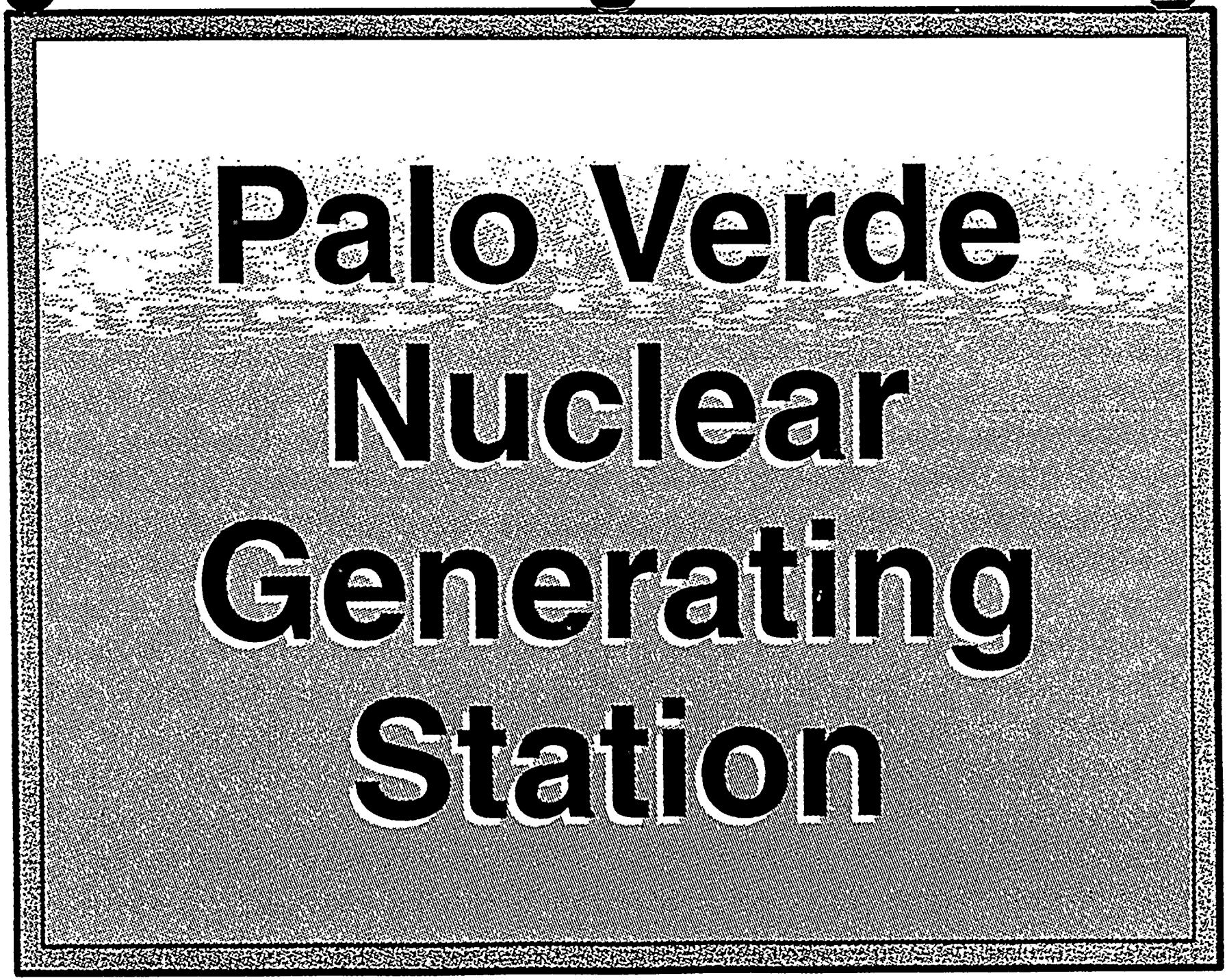
Fuel and O&M Production Expenses



The center of the circle represents cost; the area of the circle represents plants' MW output relative to Palo Verde's output.

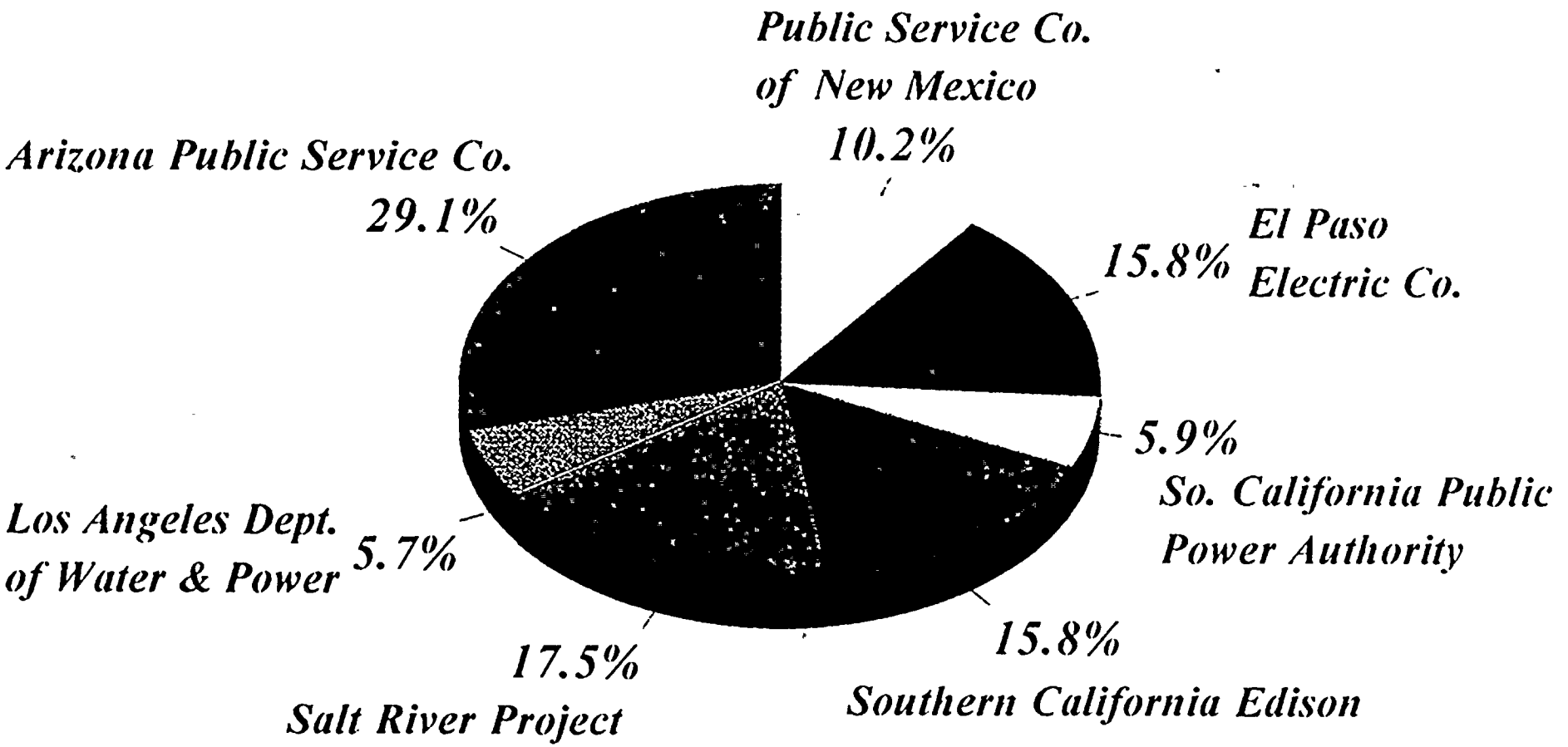
Note: Palo Verde expenses exclude Sale and Leaseback payments. North Anna and Oconee 1992 Expenses are overstated, therefore the 1990-1992 average has been substituted.

Source: FERC Form 1 (1992)


Palo Verde
Nuclear
Generating
Station

Palo Verde Nuclear Generating Station

Participant Ownership



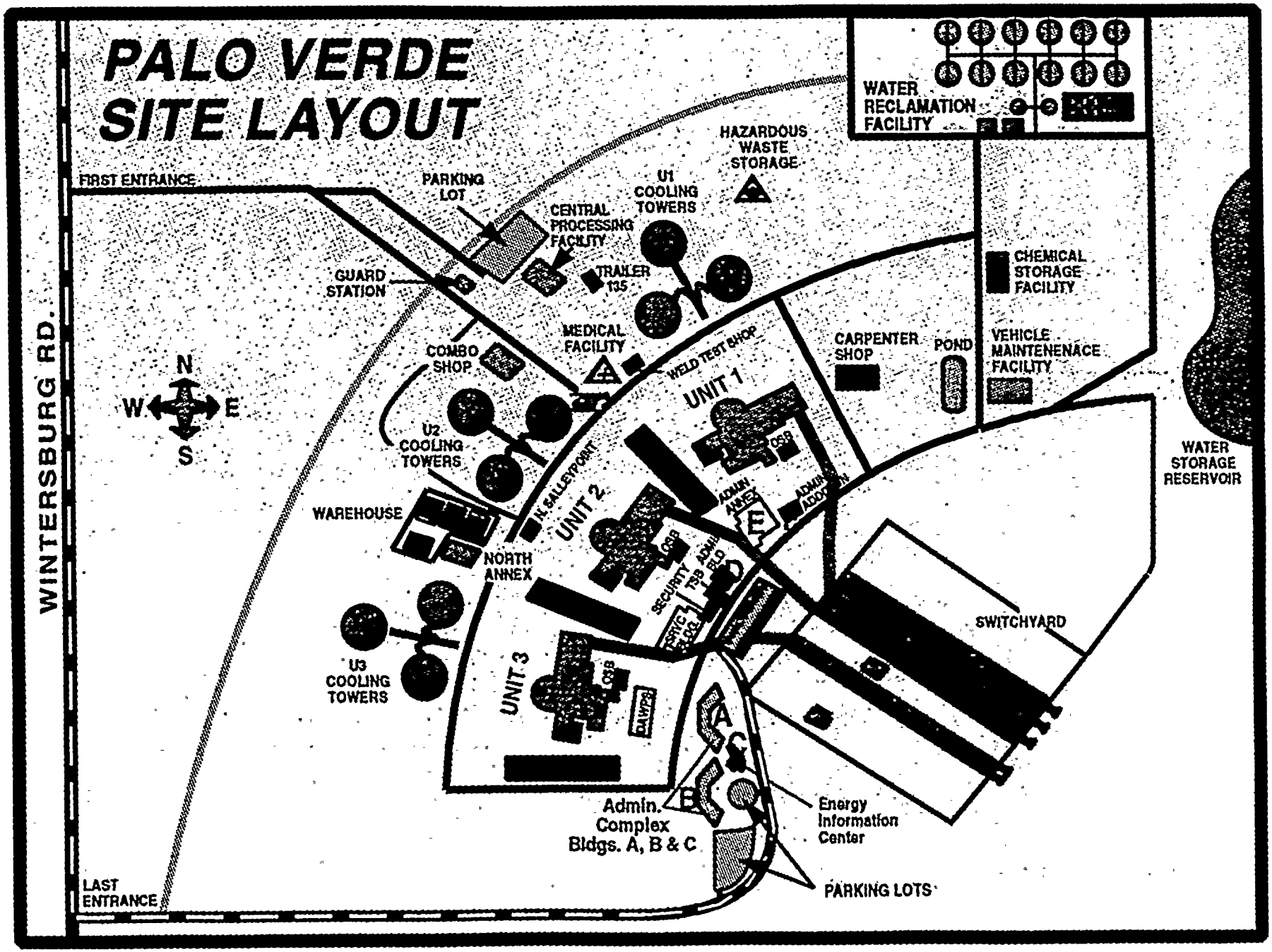
CONSTRUCTION & OPERATING HISTORY

Groundbreaking	June 1976
Unit 1 Initial Criticality	May 1985
Unit 1 Commercial Operation	January 1986
Unit 2 Initial Criticality	May 1986
Unit 2 Commercial Operation	September 1986
Unit 3 Initial Criticality	October 1987
Unit 3 Commercial Operation	January 1988

LICENSING HISTORY

PVNGS Construction Permit Application	July 1974
PVNGS Construction Permit Issued	May 1976
Unit 1 Low Power License Issued	December 1984
Unit 1 Full Power License Issued	June 1985
Unit 2 Low Power License Issued	December 1985
Unit 2 Full Power License Issued	April 1986
Unit 3 Low Power License Issued	March 1987
Unit 3 Full Power License Issued	November 1987


Standardization
Experience


PALO VERDE
SITE LAYOUT
WATER
RECLAMATION
FACILITY
HAZARDOUS
WASTE
STORAGE
FIRST ENTRANCE
PARKING
LOT
U1
COOLING
TOWERS
CENTRAL
PROCESSING
FACILITY
TRAILER
135
GUARD
STATION
CHEMICAL
STORAGE
FACILITY
MEDICAL
FACILITY
WELD TEST SHOP
CARPENTER
SHOP
POND
VEHICLE
MAINTENENACE
FACILITY
COMBO
SHOP
N
W
E
S
UNIT 1
U2
COOLING
TOWERS
WATER
STORAGE
RESERVOIR
WAREHOUSE
N. SALLEYPORT
UNIT 2
NORTH
ANNEX
SECURITY
SWITCHYARD
U3
COOLING
TOWERS
UNIT 3
Admin.
Complex
Bldgs. A, B & C
Energy
Information
Center
LAST
ENTRANCE
PARKING LOTS
WINTERSBURG RD.

Slide Along Design

- 3 Separate Power Blocks:
  - Control Room
  - NSSS
  - Turbine
  - Auxiliary
  - Cooling Towers
- Wagon Wheel Layout:
  - Access to shared facilities:
    - Shops
    - Administration Building
    - Security Headquarters
    - Switchyard

Safety

- Single PSAR, FSAR:
  - Less review time
  - Concentrate on important issues
- New issues are resolved on all 3 dockets simultaneously:
  - Less review time
  - More time to determine optimal solutions
- Single PRA:
  - Completed quickly
  - Lessons learned between units and more equipment failure data improved quality

Design - Engineering

- Same set of design drawings used for construction of all 3 units
- Identical Specifications for Procurement
- Design margin to allow as-built flexibility between units
- Common system management between 3 units

Operations/Maintenance

- **Training common between units:**
  - Improved instructor productivity
  - Common simulators
  - Increased mobility of trained operators between units
  - Improved human factors (no mirror image plant problems)
- **Procedures common between units:**
  - Administrative procedures
  - Operating and maintenance procedures
- **Maintenance:**
  - Common training aids and instructions
  - Work Order duplication (Maintenance Instructions)
- **Outage Planning:**
  - Shared schedules, work orders, lessons learned, tooling
  - Reduced duplication

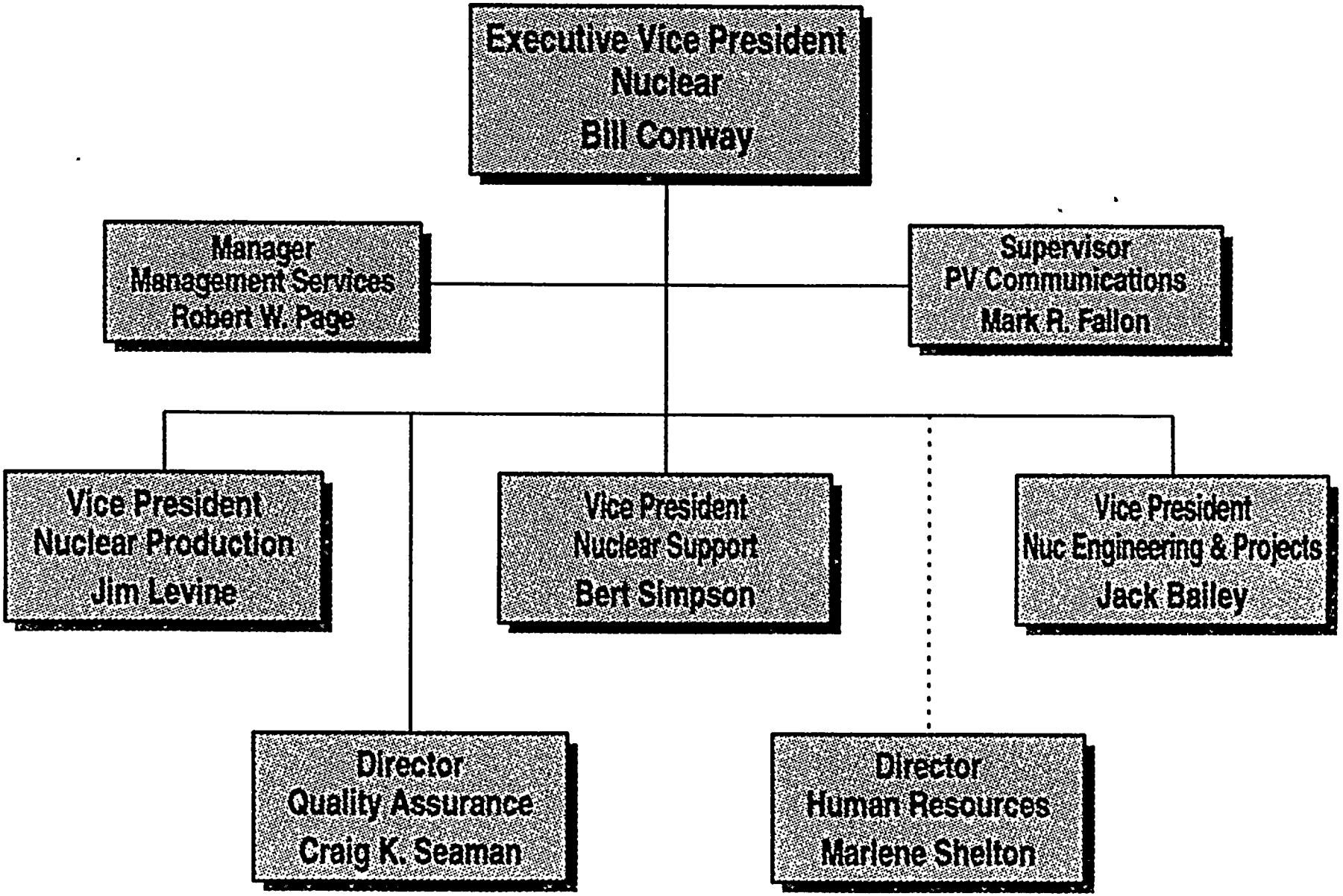
Problems of Standardization

- Hardware/equipment problems were found during startup or during operation of a single unit
  - Positive:
    - Corrective action quickly applied to other units
    - Increased safe operation
    - Proactive planning and repair
  - Negative:
    - Single supplier can extend outage time due to their inability to deal with large volume repairs or fabrication
    - Intensive manpower is required for short-term problems due to the effect on all 3 units operating status

Unique Features of PVNGS

- First and only operating CE System 80 design
- Reactor power cutback with steam bypass has prevented numerous reactor trips
- Core Protection Calculator (CPC) - Digital Protection System
- Cooling water for condensers originates from the Phoenix effluent sewage system (treated at site)
- Reactor coolant pumps procured from KSB-Germany (improved seal design)
- Dry Site - zero liquid release site

Current PVNGS Organization (April 1994)

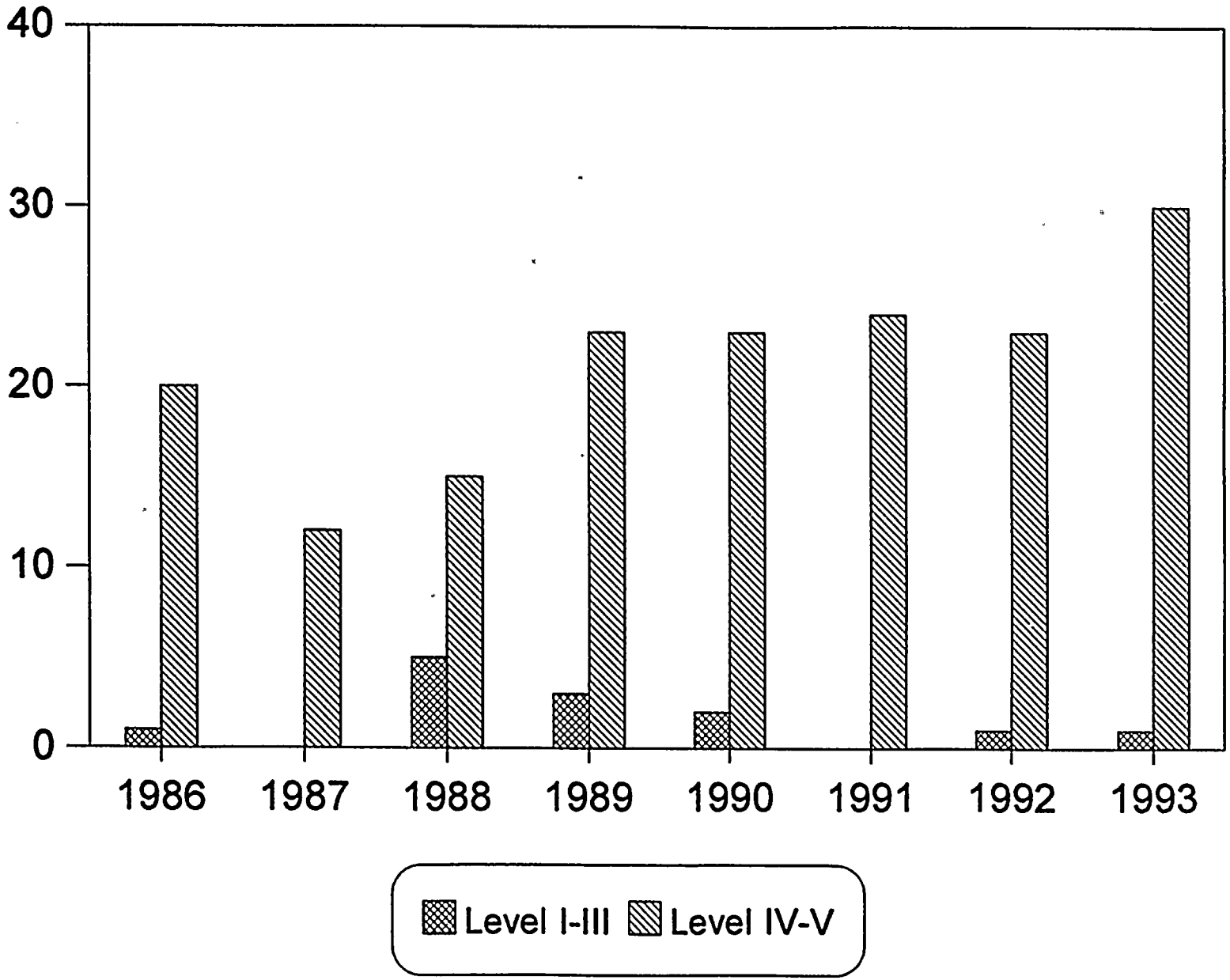



Palo Verde
Performance

SALP HISTORY

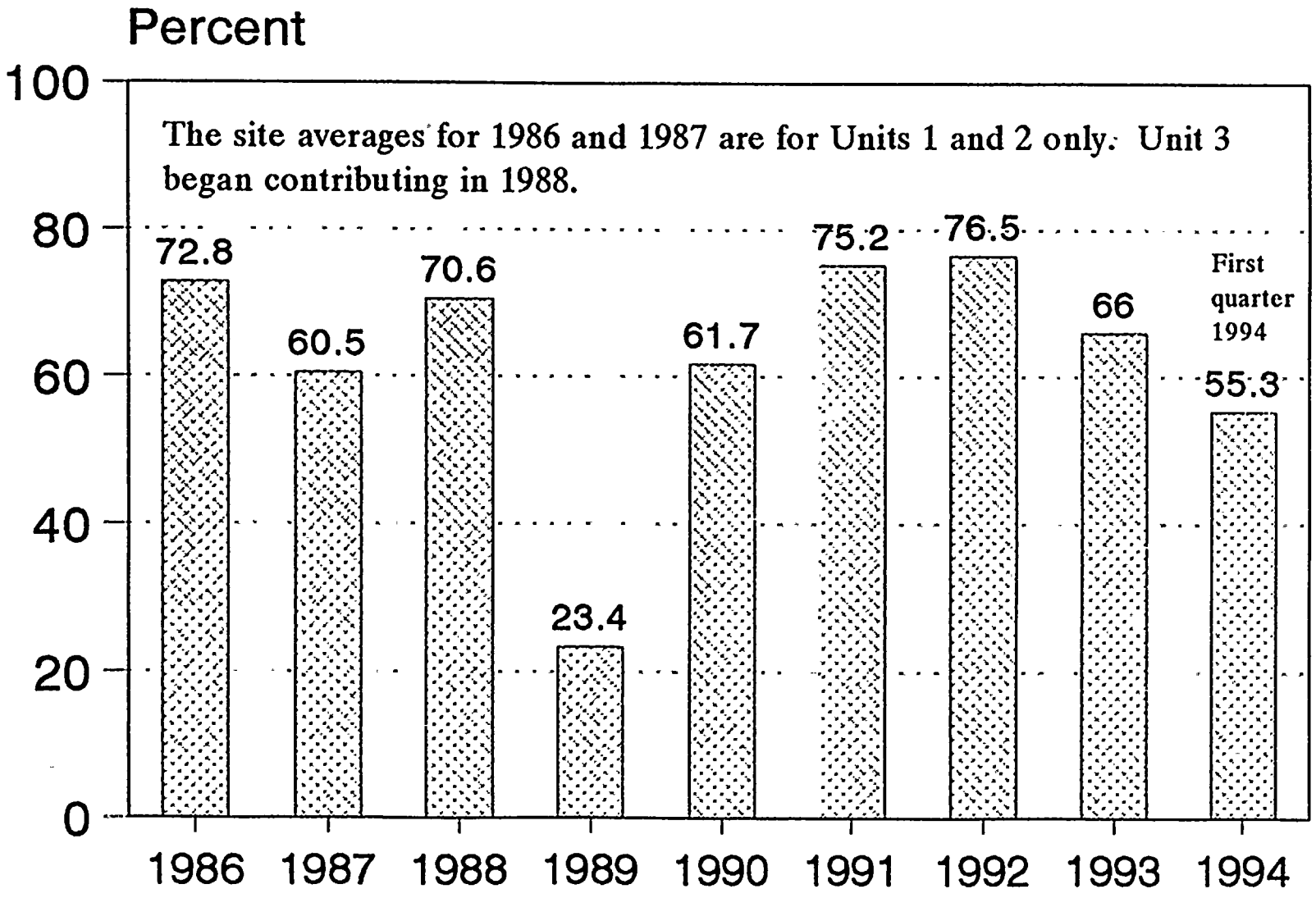
	11-1-87 - 10-31-88	11-1-88 - 10-31-89	11-1-89 - 11-30-90	12-1-90 - 2-29-92	3-1-92 - 5-31-93
Plant Operations	3↑	2	2↑	2	2
Radiological Controls	3	2	2	1	2
Maintenance/Surveillance	2	3	2	2	2
Emergency Preparedness	2	2↑	1	1	1↓
Security	2	2	2↑	2	2
Engineering/Technical Support	2	3	2	2	2↑
Safety Assessment/ Quality Verification	3	3	2	2	2
Site SALP Rating	2.43	2.43	1.85	1.71	1.85

NRC Violations



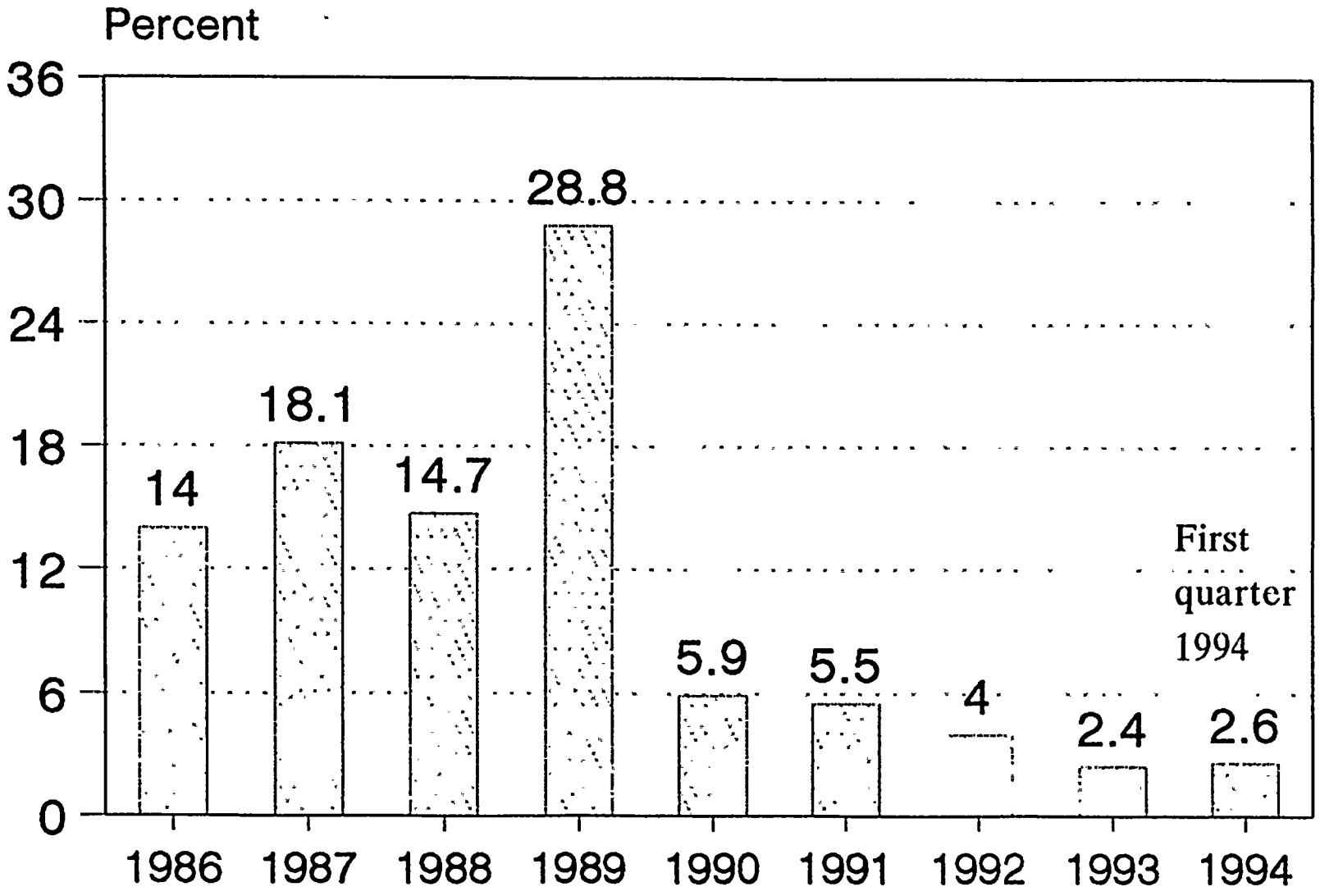
UNIT CAPACITY FACTOR (DER)

Site Averages for 1986 - 1994



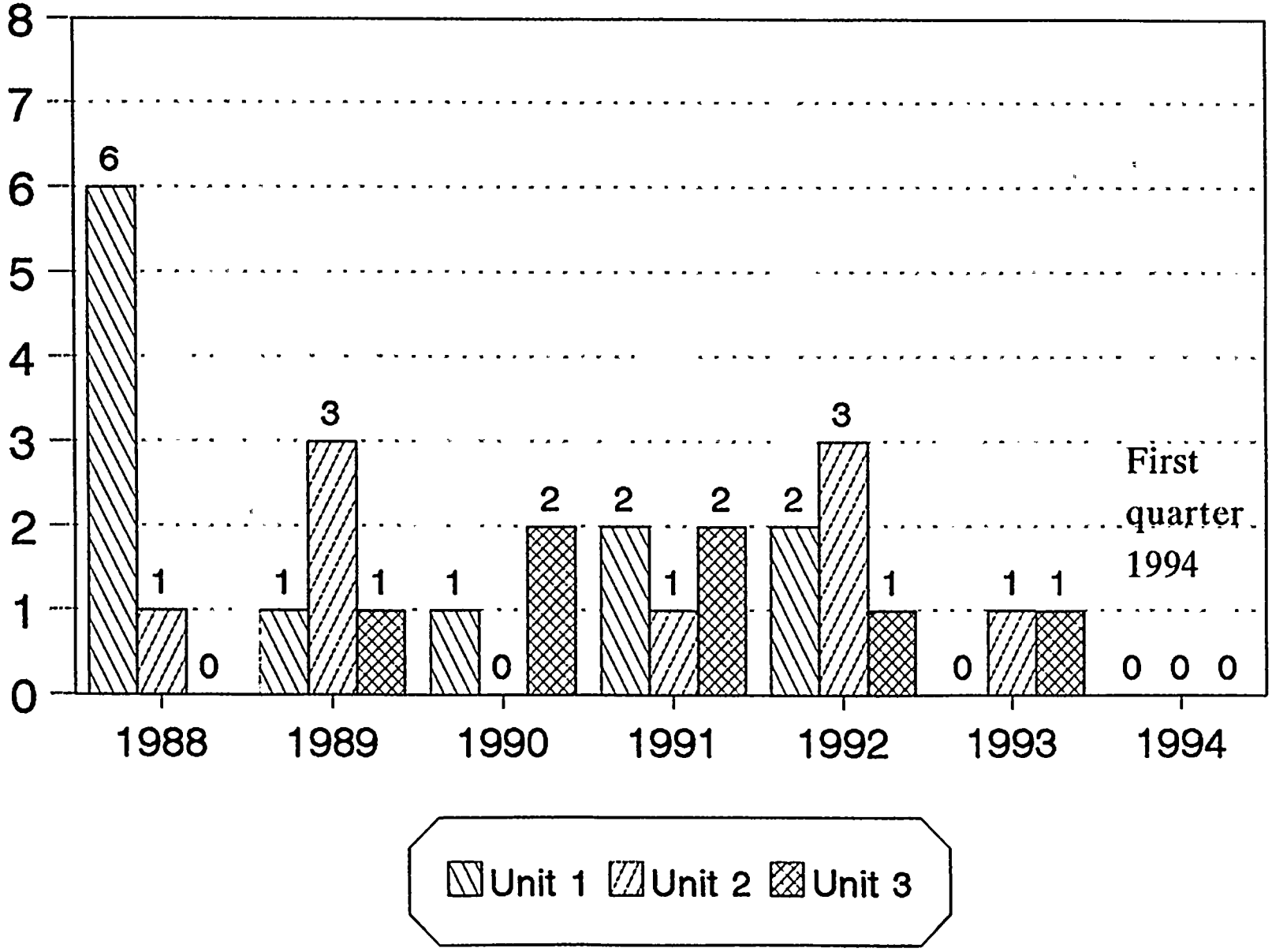
FORCED OUTAGE RATE

Site Averages for 1986 - 1994

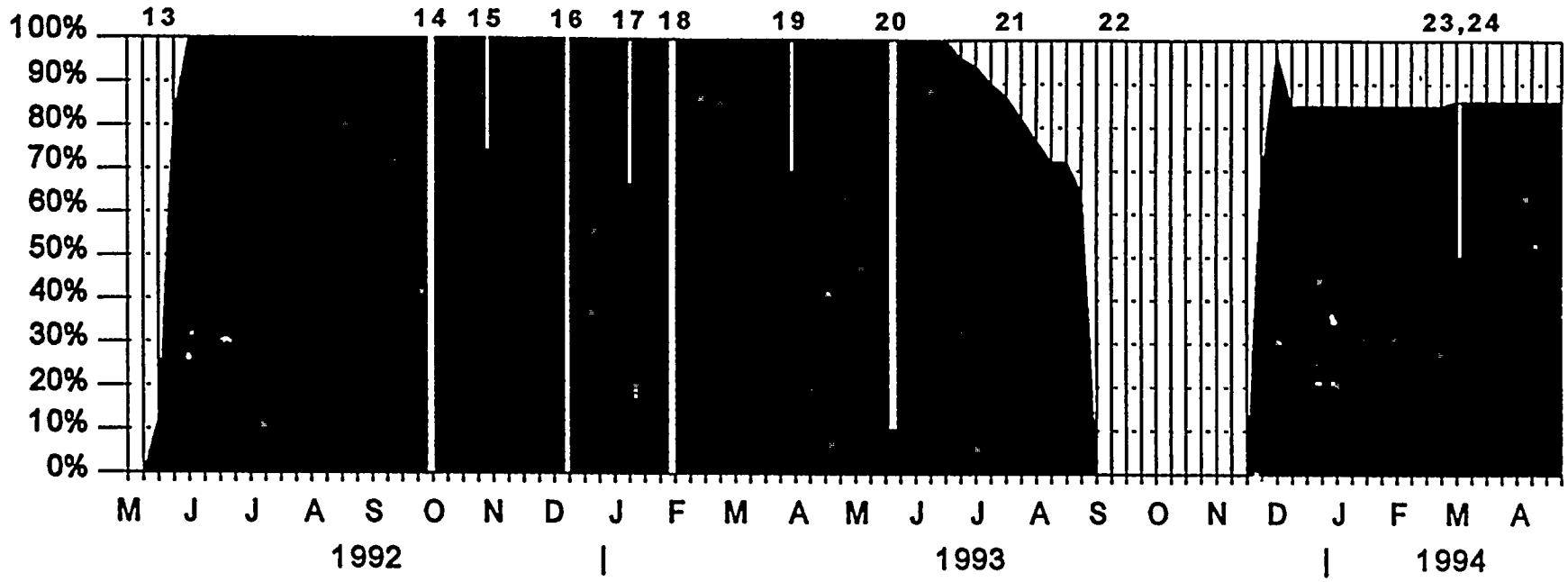


AUTOMATIC SCRAMS WHILE CRITICAL

1988 - 1994

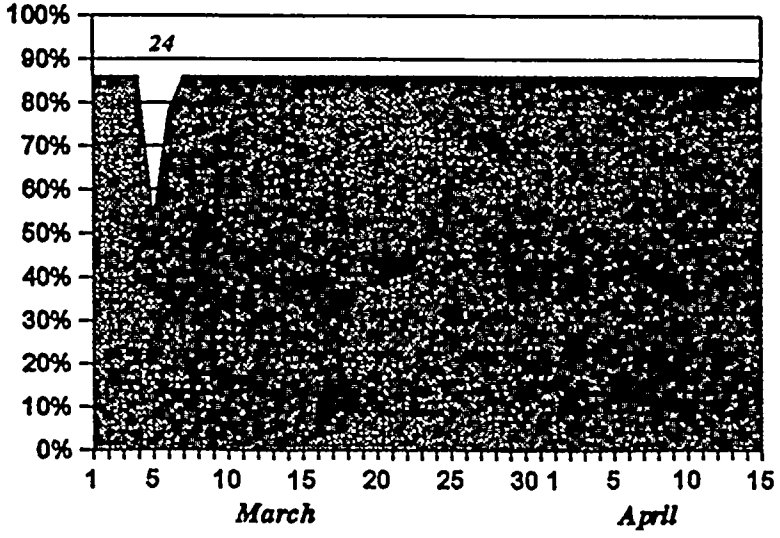


Unit 1 - 24 Month Power History



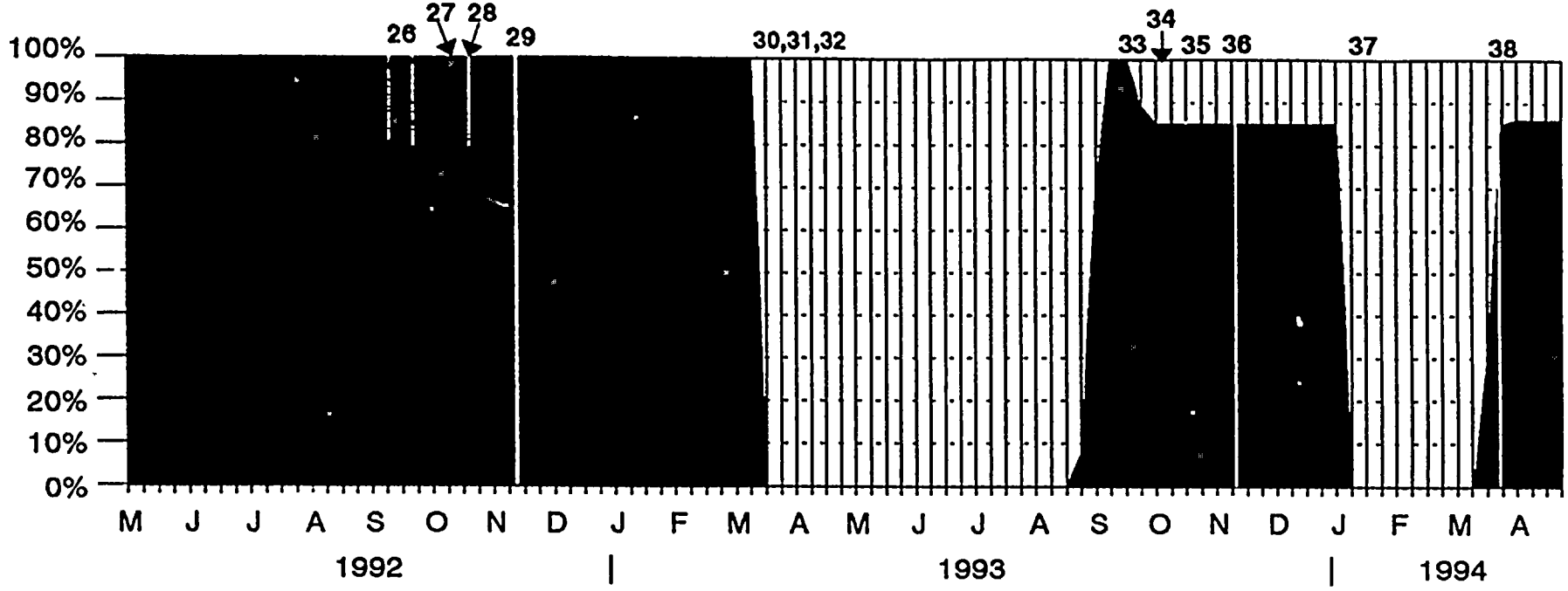
March - April

(Through 04/15)



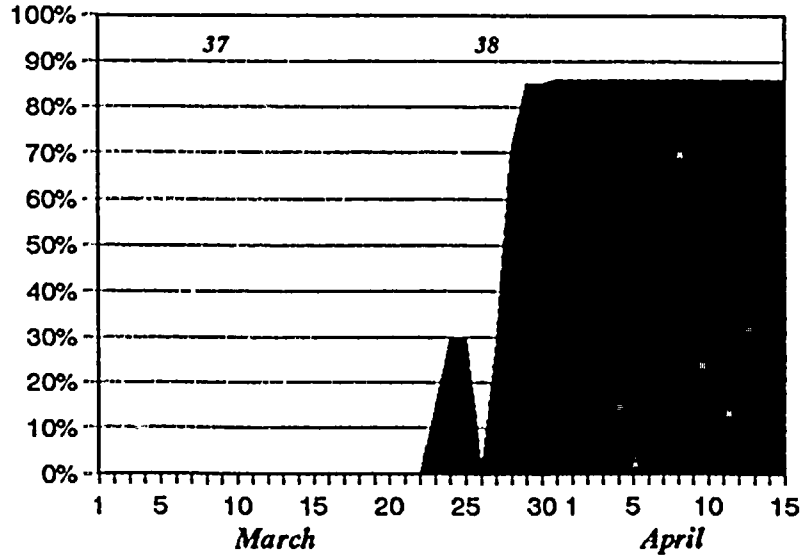
13. 2/15/92 - 5/23/92 - Third refueling outage. (98.6 days)
14. 9/28/92 - Unplanned RX trip on high pressurizer pressure following a turbine trip due to partial actuation of subsynchronous auxiliary relay. (4 days)
15. 10/25/92 - RX @ 74% due to inoperable COLSS. (5.5 hours)
16. 12/08/92 - RX trip due to main generator trip on negative sequence time overcurrent. (2 days)
17. 1/16/93 - RX @ 65% due to FWPT A power supply replacement. (15 hours)
18. 1/30/93 - Manual RX trip following main turbine trip on MSR D high level. (4 days)
19. 3/25/93 - RX @ 70% for a COLSS stalling problem and to replace a speed probe on FWPT A. (12 hours)
20. 5/15/93 - RX downpower to 12% to repair hydrogen leak in main electrical generator. (4 days)
21. 6/28/93 - Commenced end of core coastdown. (68 days)
22. 9/04/93 - 11/26/93 - Fourth refueling outage. (83.75 days)
23. 2/28/94 - Increase power to 86% per Plant Manager, based on evaluation performed by NED.
24. 3/05/94 - RX downpower to 53.6% for Steam Generator Cleanup. (26 hours)

Unit 2 - 24 Month Power History



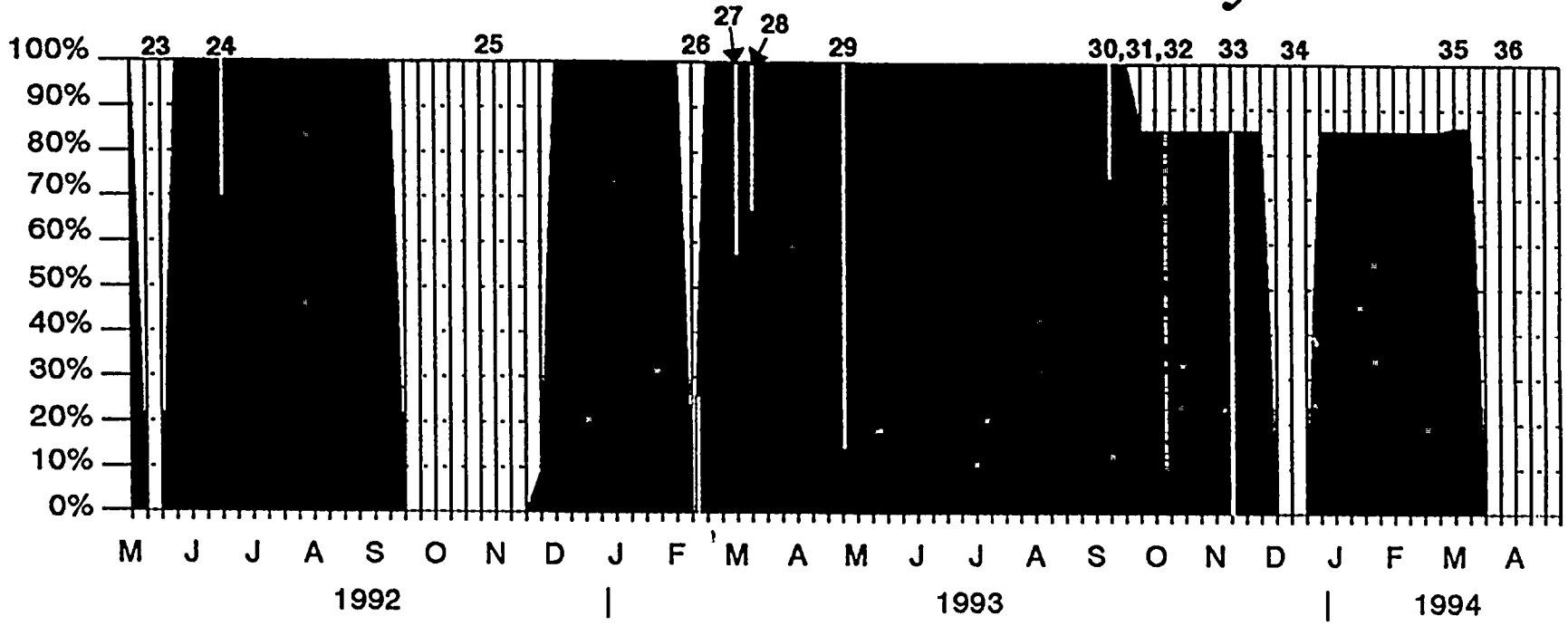
March - April

(Through 04/15)



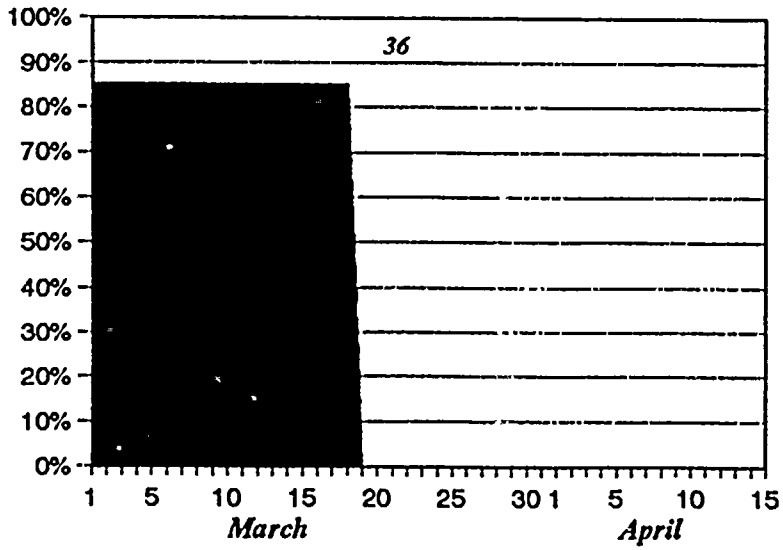
26. 9/16/92, 9/17/92 & 9/21/92 - RX @ 78% due to inoperable COLSS. (30.3 hours)
27. 10/4/92 - RX @ 77% due to inoperable COLSS. (24 hours)
28. 10/22/92 - RX @ 78% due to inoperable COLSS . (18 hours)
29. 11/13/92 - Unplanned RX trip due to loss of CEDMCS MG Sets. (3 days)
30. 3/7/93 - Commenced coastdown for fourth refueling outage.
31. 3/14/93 - Manual RX trip due to SG tube leak. (4.8 days)
32. 3/19/93 - 9/1/93 - Fourth refueling outage. (167 days)
33. 9/11/93 - RX @ 80% to clean up steam generators. (3 days)
34. 09/23/93 - RX at 85% to decrease probability of an SG tube failure.
35. 10/15/93 - RX downpower to 65% for SG cleanup and 2 B feedwater heater repair. (20 hours)
36. 11/02/93 - Unplanned RX trip after RX power cutback due to switchgear problem. (42 hours)
37. 1/8/94 - 3/22/94 - Manually tripped RX and began mid-cycle Steam Generator tube inspection outage. (74 days)
38. 3/25/94 - Manual RX trip due to an oil leak from a loose fitting on RCP 1A. (29.7 hours)

Unit 3 - 24 Month Power History



March - April

(Through 04/15)



23 5/4/92 - RX @ 70% due to loss of COLSS & control room annunciators ALERT declared and unit later shut down at management's discretion (14 3 days)

24 6/3/92 - RX @ 60% due to "B" FWP trip on overspeed (4 days)

25 9/19/92 - 11/25/92 - Third refueling outage (67 7 days)

26 2/4/93 - Unplanned RX trip on low S/G level due to main feedwater pump A problem (7 days)

27 2/27/93 - RX power outback to 57% due to manual trip of feedwater pump "A" (5 days)

28 3/4/93 - RX power outback to 55% due to manual trip of feedwater pump "A" (4 days)

29 4/20/93 - RX power outback to 47% and downpower to 12% following a main turbine trip (2 4 days)

30 9/24/93 - RX power downpower to 75% for chemistry clean-up of SG (61 hours)

31 9/26/93 - RX power increased to operate at 85% to reduce the probability of a SG tube failure

32 10/9/93 - Turbine was removed from service to repair an electrical solenoid valve RX power reduced to 10% (64 5 hours)

33 11/3/93 - Manually tripped RX when a control rod problem was encountered while downpowering to isolate a steam leak (4 days)

34 11/29/93 - 12/26/93 - Manually tripped RX and began mid-cycle Steam Generator tube Inspection outage (27 9 days)

35 2/26/94 - Increased power to 86% per Plant Manager, based on evaluation performed by NED

36 3/19/94 - Began Fourth refueling outage

Strategic Issues

Culture

- Employee Concerns

Human Performance

Regulatory Strategy

Reengineering

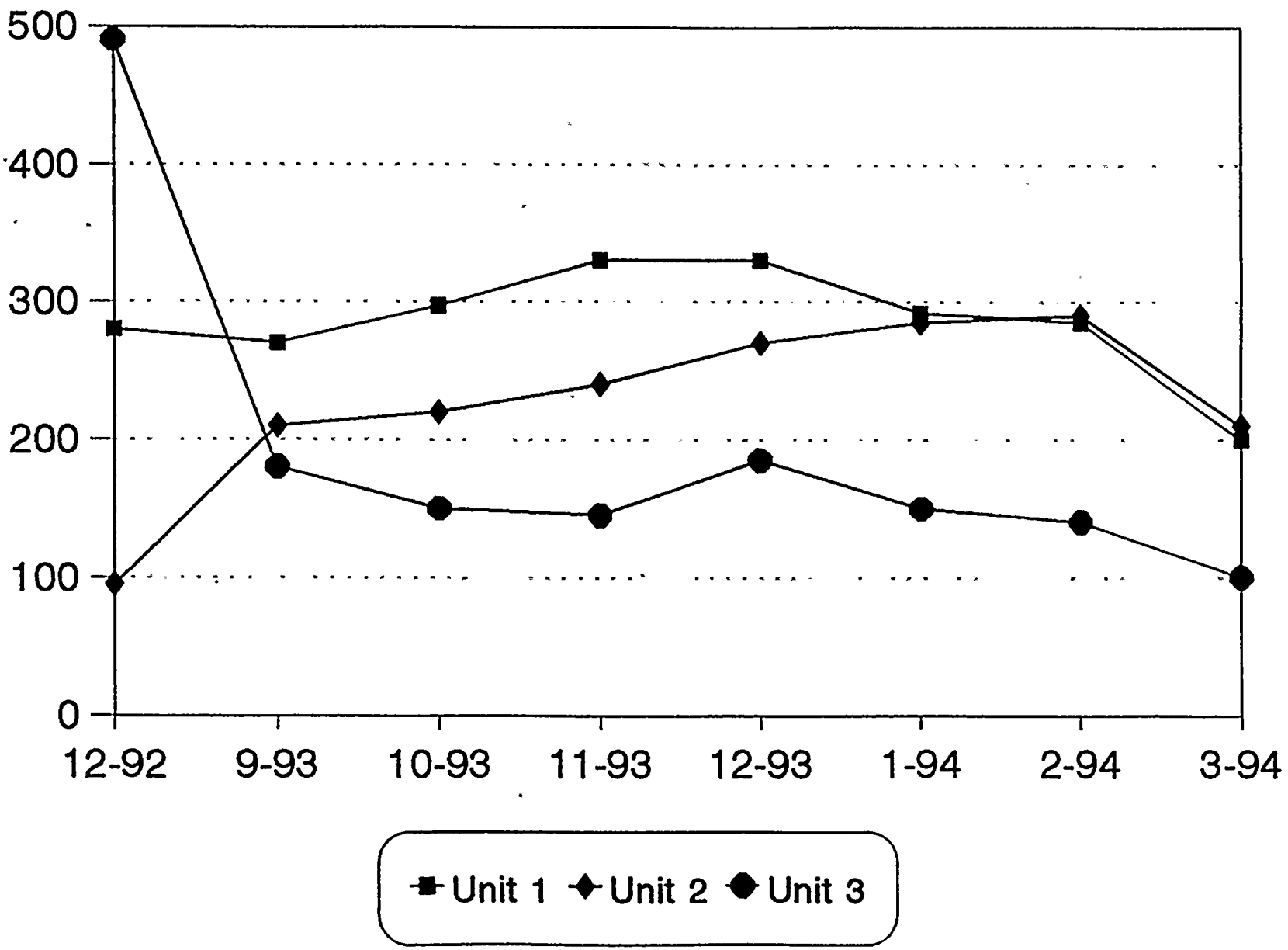
Production/Cost

Industrial Safety

Training and Qualification

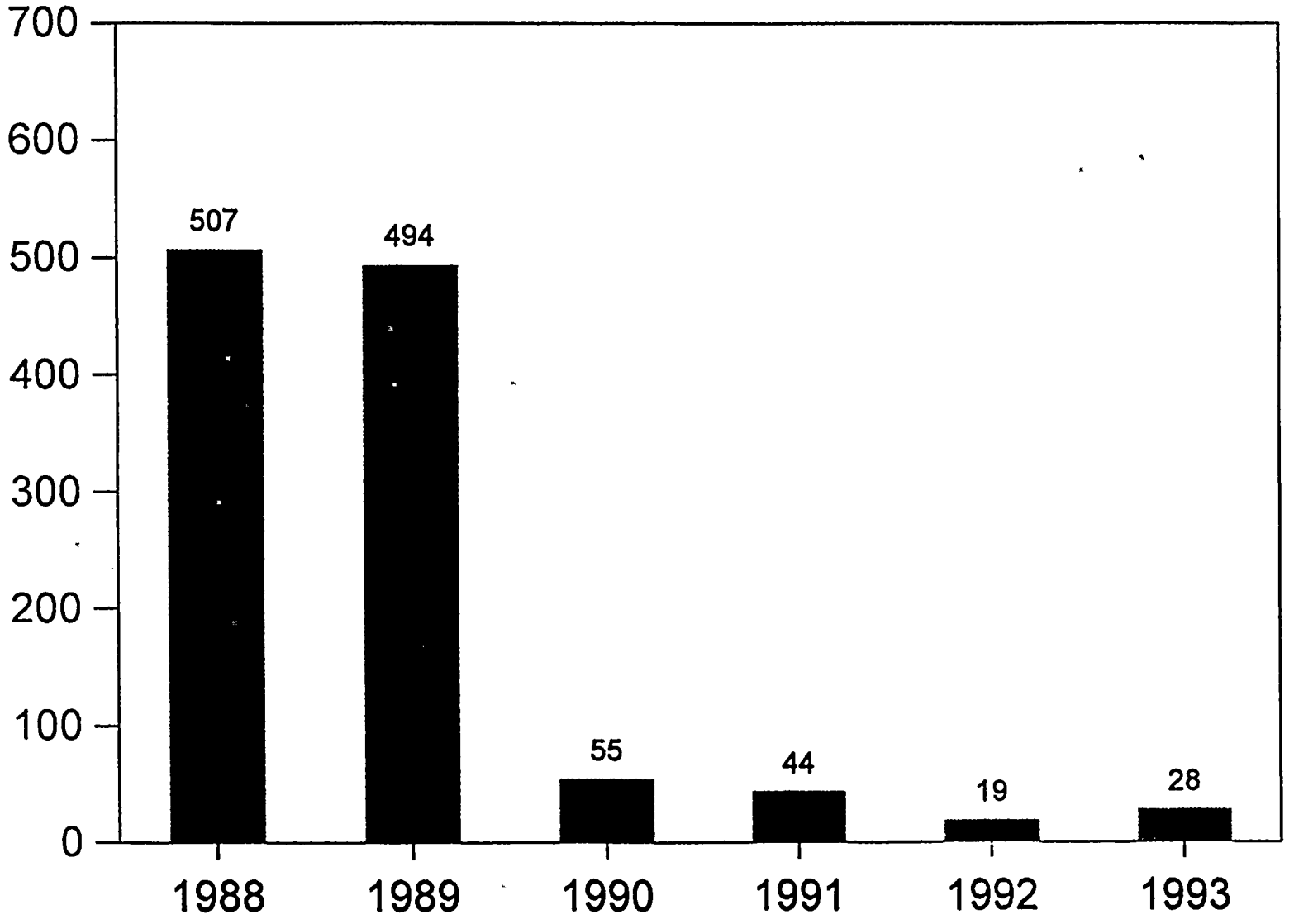
Unit Maintenance Backlog

Mech, Elec, I&C, Util



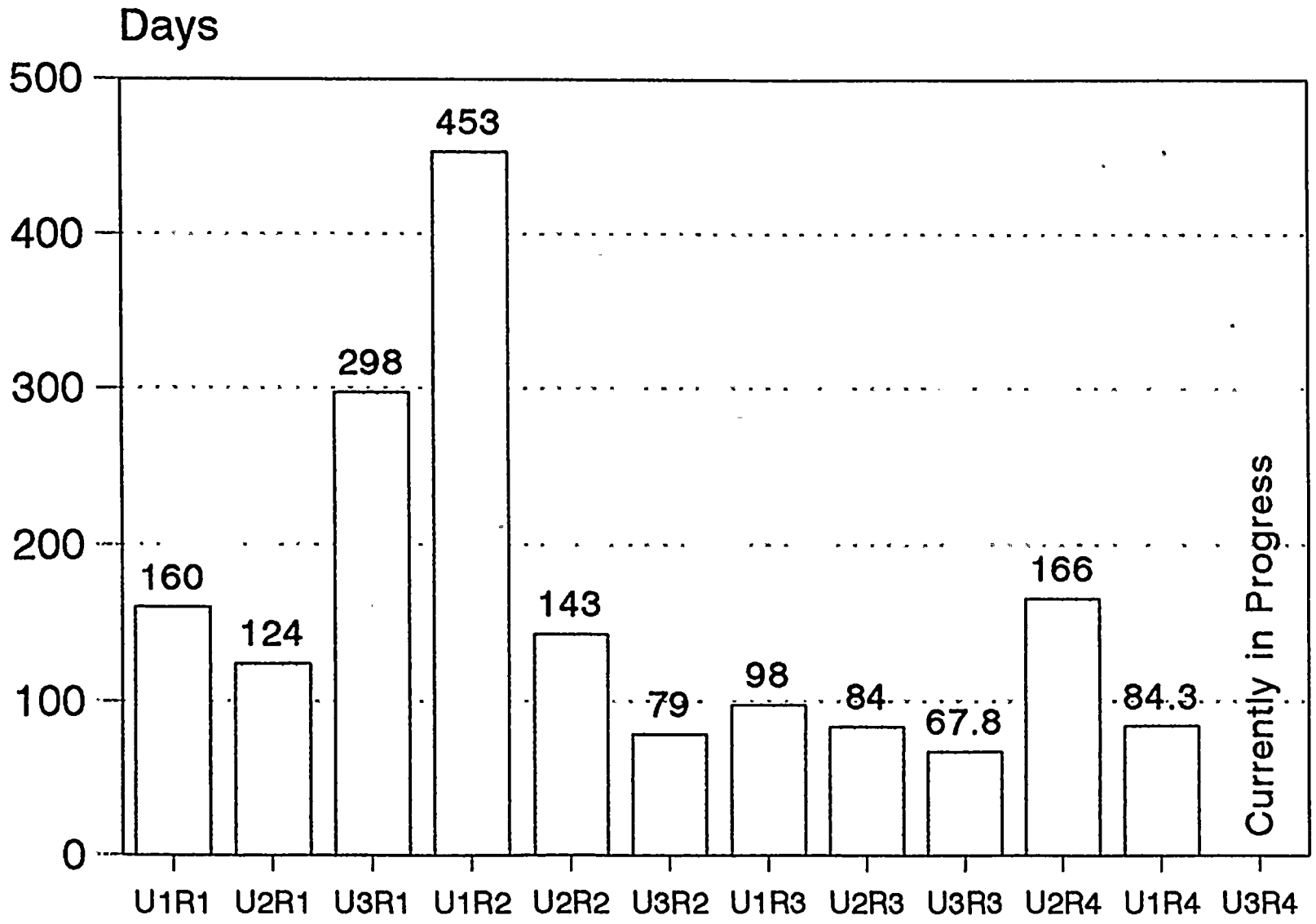
Preventive Maintenance Items Past Due

Year-end Snapshot



OUTAGE DURATIONS

Breaker to Breaker



UNIT 3 REFUELING OUTAGE
MAJOR WORK ITEMS

Install Handholes in Steam Generators

ERFDADS/SPDS Replacement

Replacement of 7 I-600 Pressurizer Nozzles

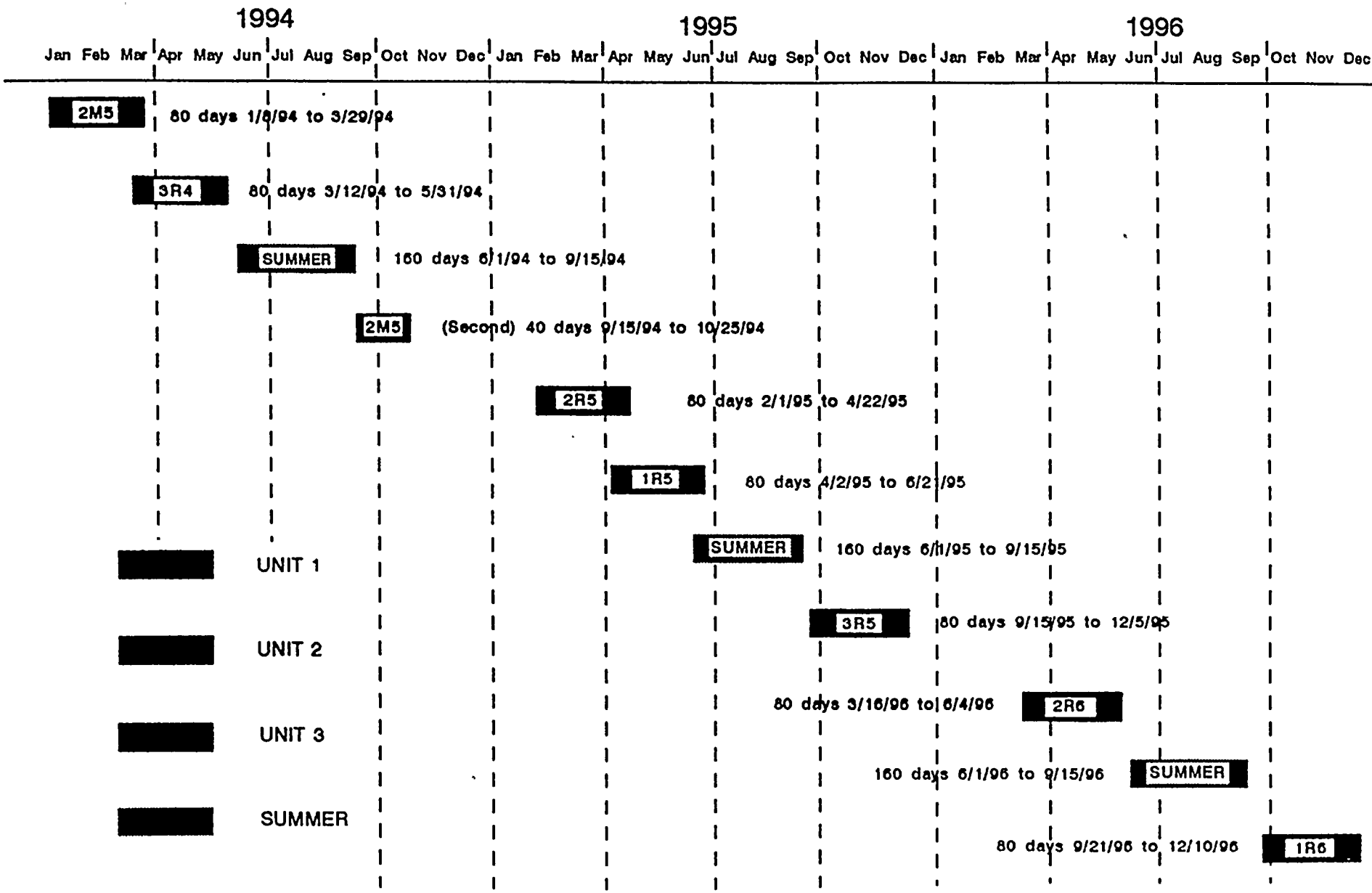
Reactor Trip Switchgear Replacement

Connection of Station Blackout Generators to Unit 3

Chemical Cleaning of Steam Generators

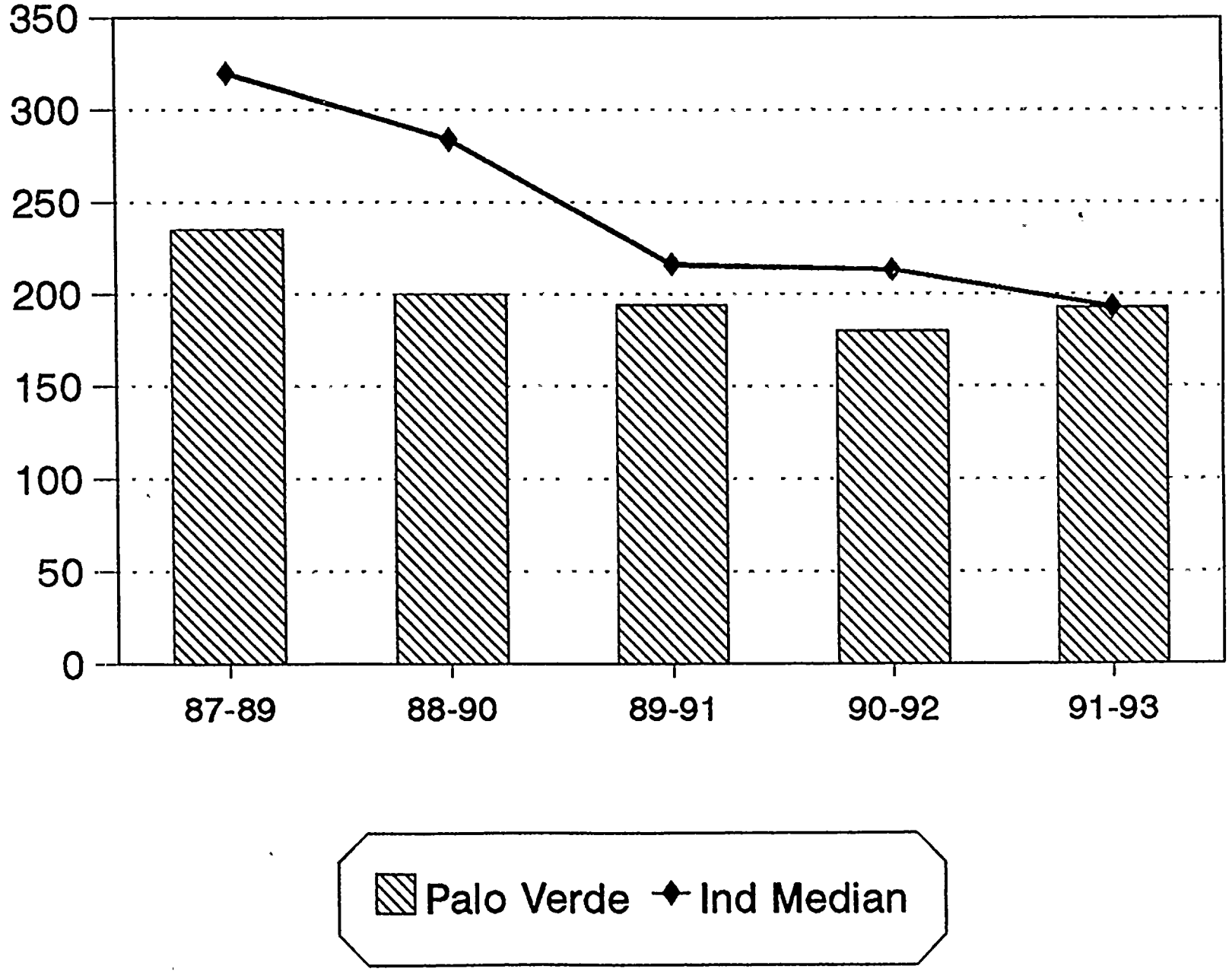
Upgrade Diesel Generator Starting Air Systems
Compressors and Fuel Oil Delivery System

OUTAGE SCHEDULE



Radiation Exposure

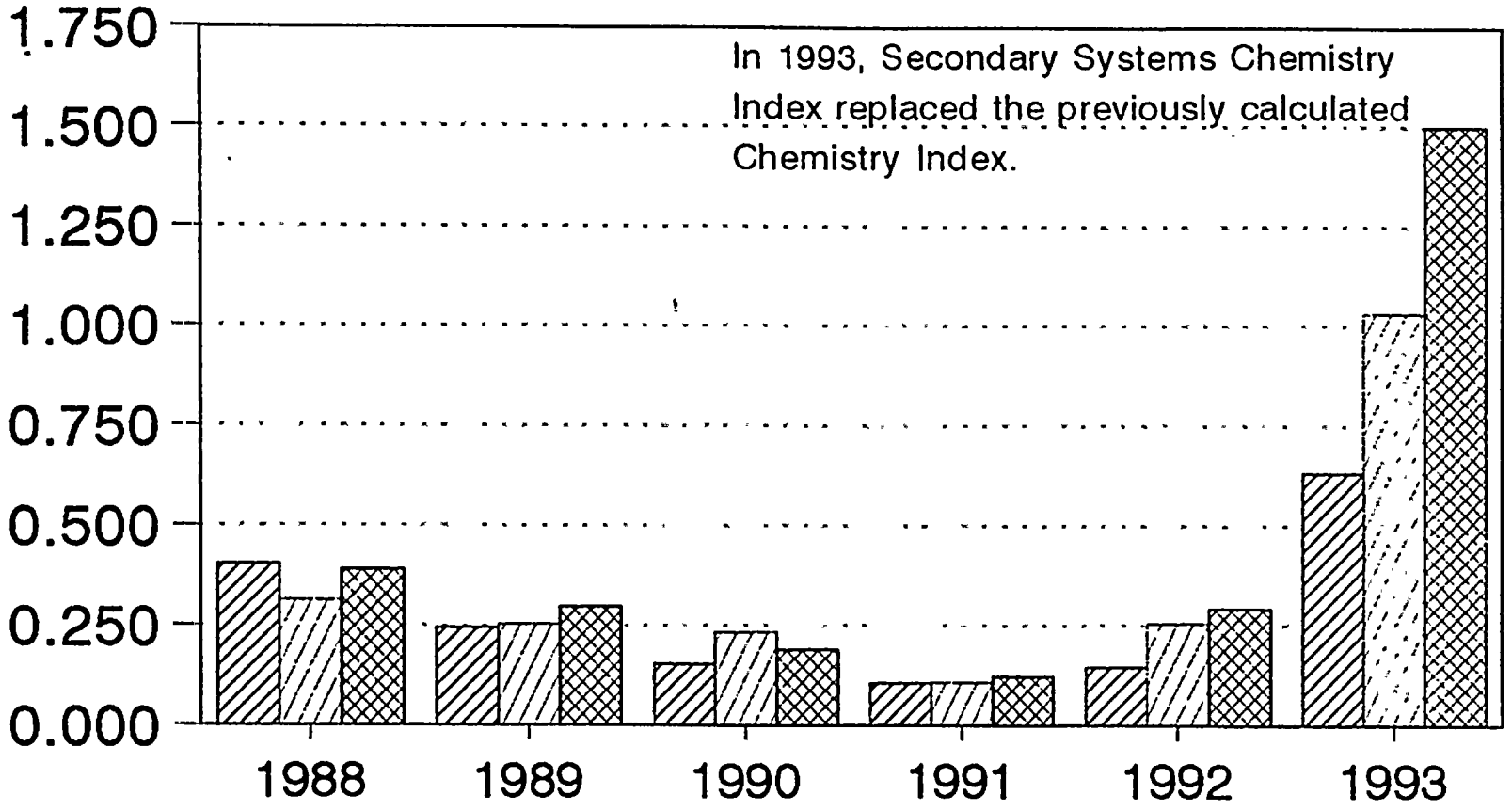
3 Year Rolling Window



CHEMISTRY INDEX

Yearly Unit Average

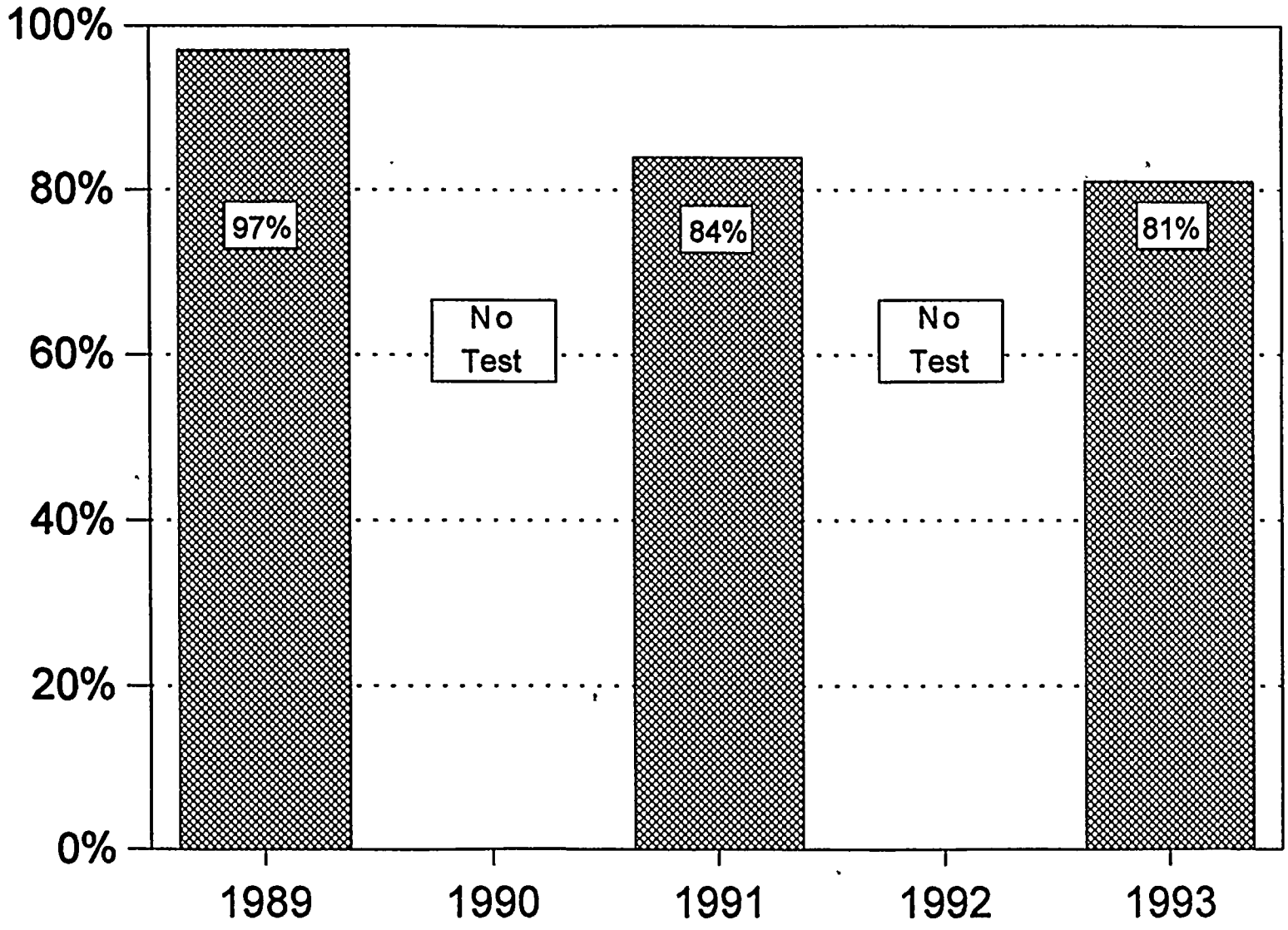
1988 to 1993



	1988	1989	1990	1991	1992	1993
Unit 1	0.404	0.243	0.154	0.105	0.146	0.630
Unit 2	0.314	0.253	0.234	0.109	0.255	1.030
Unit 3	0.390	0.298	0.190	0.123	0.292	1.500

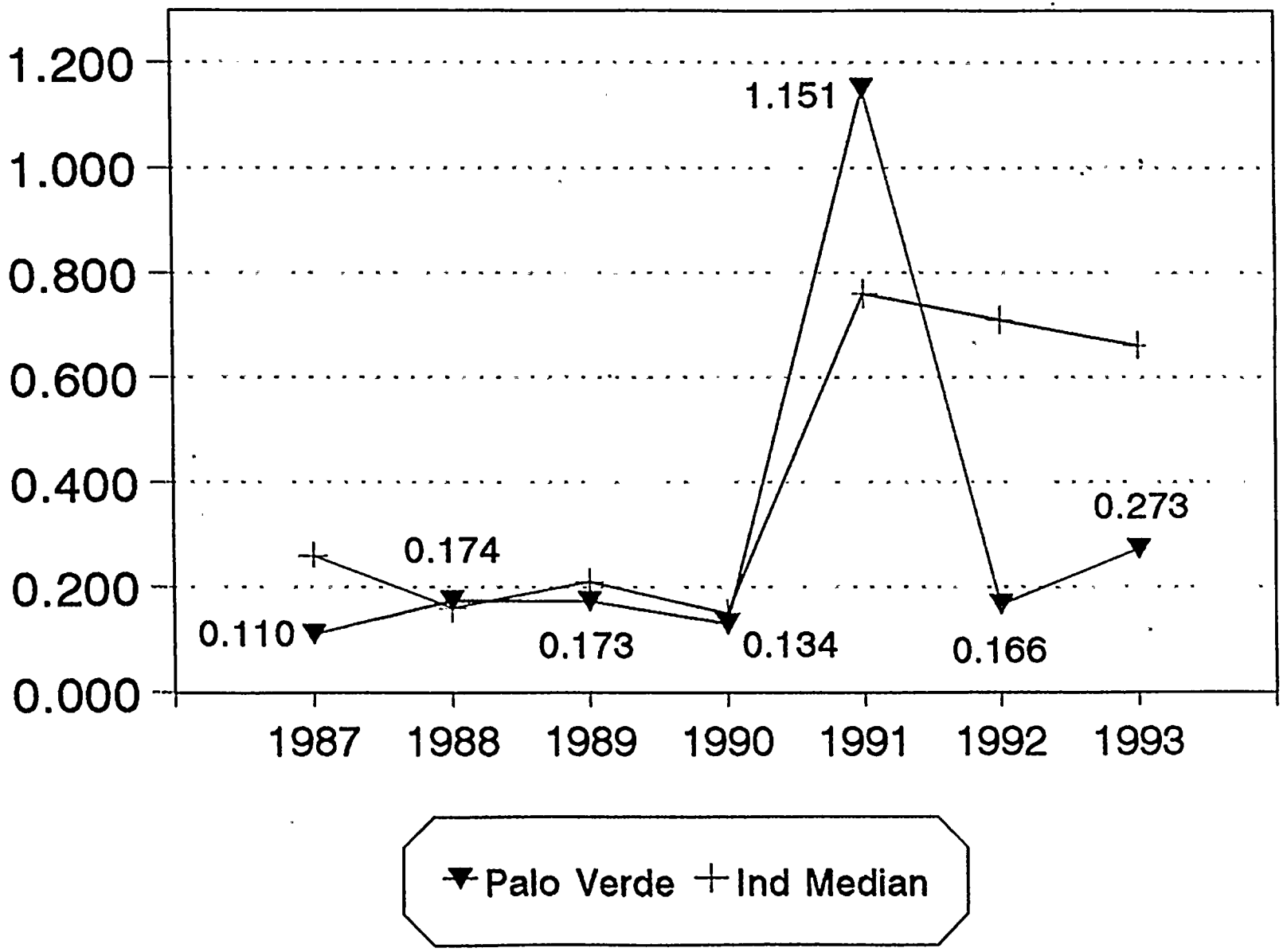
Licensed Operator

Requalification Examination Pass Rate



INDUSTRIAL SAFETY ACCIDENT RATE

1987 - 1993



EMPLOYEE CONCERNS

Independent Assessments

Culture Changes

Programmatic Changes

ECP Backlog Reduction

Actions taken by APS to assure an atmosphere exists at PVNGS which encourages employees to freely raise concerns.

- Independent Assessments
  - Behavioral Consultant Services
  - Duke Engineering & Services
- Cultural Changes
  - Focus
  - Breakthrough Leadership
  - DeMichele - Conway All Hands Meetings
  - Communication of expectations
  - "Can We Talk"

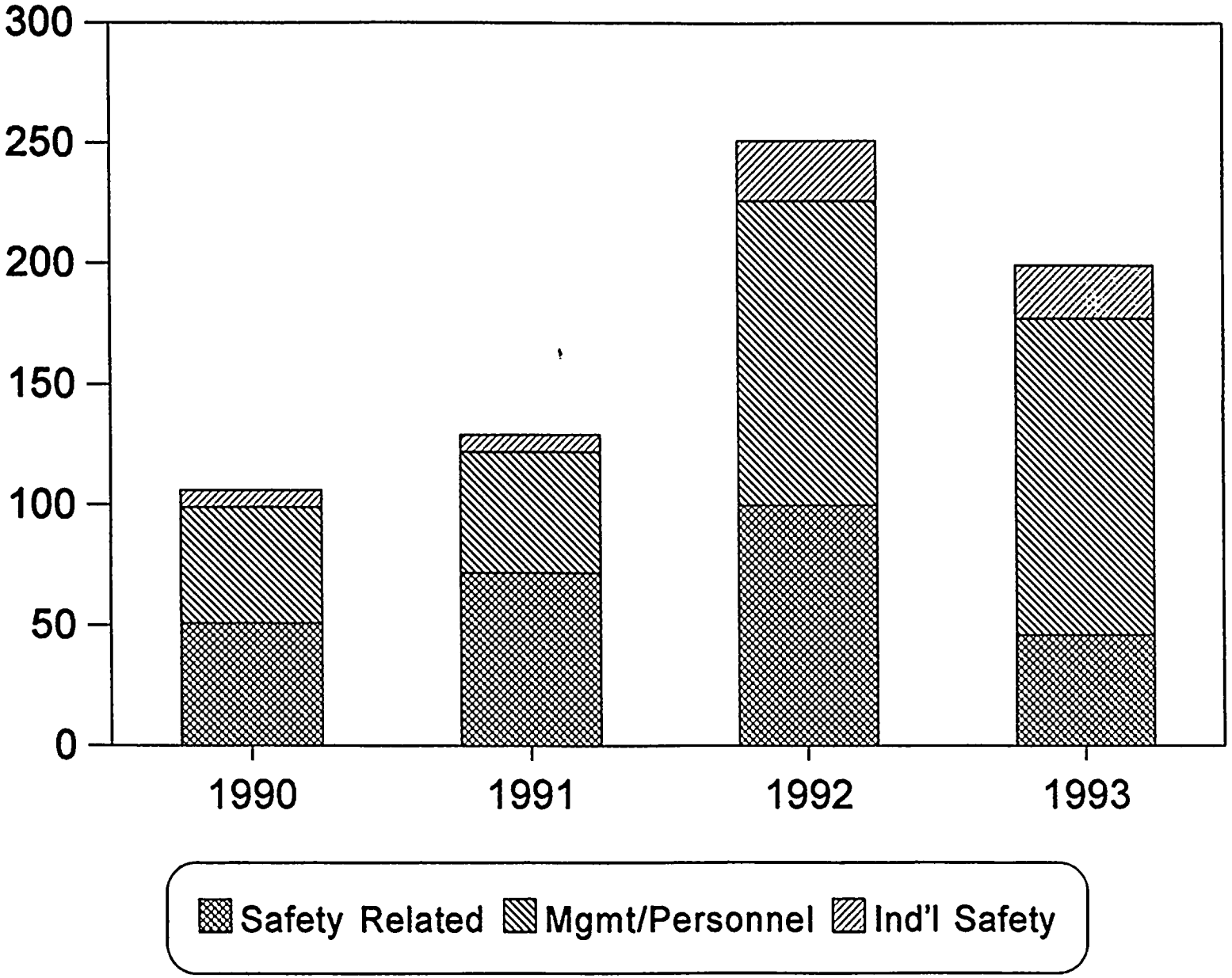
Programmatic Changes

- Integrated Resolution Process
- Employee Concerns Program (ECP)
- Management Issue Tracking/Resolution (MITR)
- Differing Professional Opinion (DPO)

ECP Backlog Reduction

- Significant case backlog reduction
  from 140 (10/93) to 4 (4/94)
- ECP Historical Perspective
- Potential Impact of Reengineering

Employee Concerns At PVNGS



Human Performance Strategic Issue

Current Situation

Action Plan

Twelve Self-Assessment Areas

Benefits

Current Situation

Cultural influence on Human Performance recognized

Procedures are adequate, but complex

Trending process fragmented

Departmental self-assessment needs improvement

Industry experience and training needs to be focused

Action Plan

Implement Leadership Performance Profiles (complete)

Evaluate PEP "as intended" (initial survey complete)

Identify Consolidated Trending Program needs (complete)

Implement Performance Assessment and Trend Report program:

- 12 Self-Assessment areas identified
- Criteria for Annunciator Report completed
- Data collection for Pilot Report in progress
- Initial Performance Assessment and Trend Report scheduled for 5-1-94

Twelve Self-Assessment Areas

Maintenance

Operations

Engineering

Radiation Protection

Chemistry

Training

Emergency Planning

Quality Assurance and Oversight

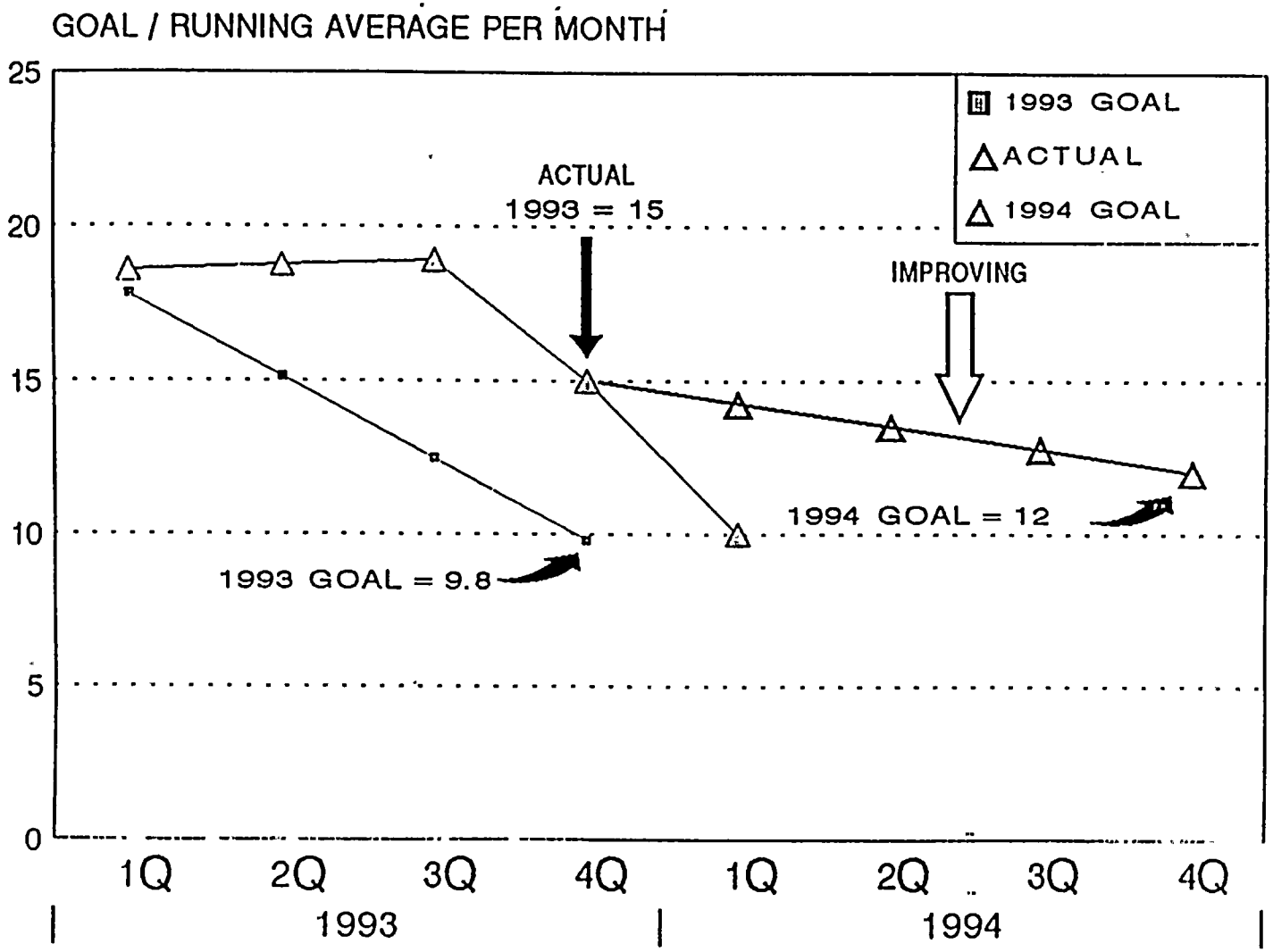
Material and Inventory

Regulatory and Industry Affairs

Environmental and Safety

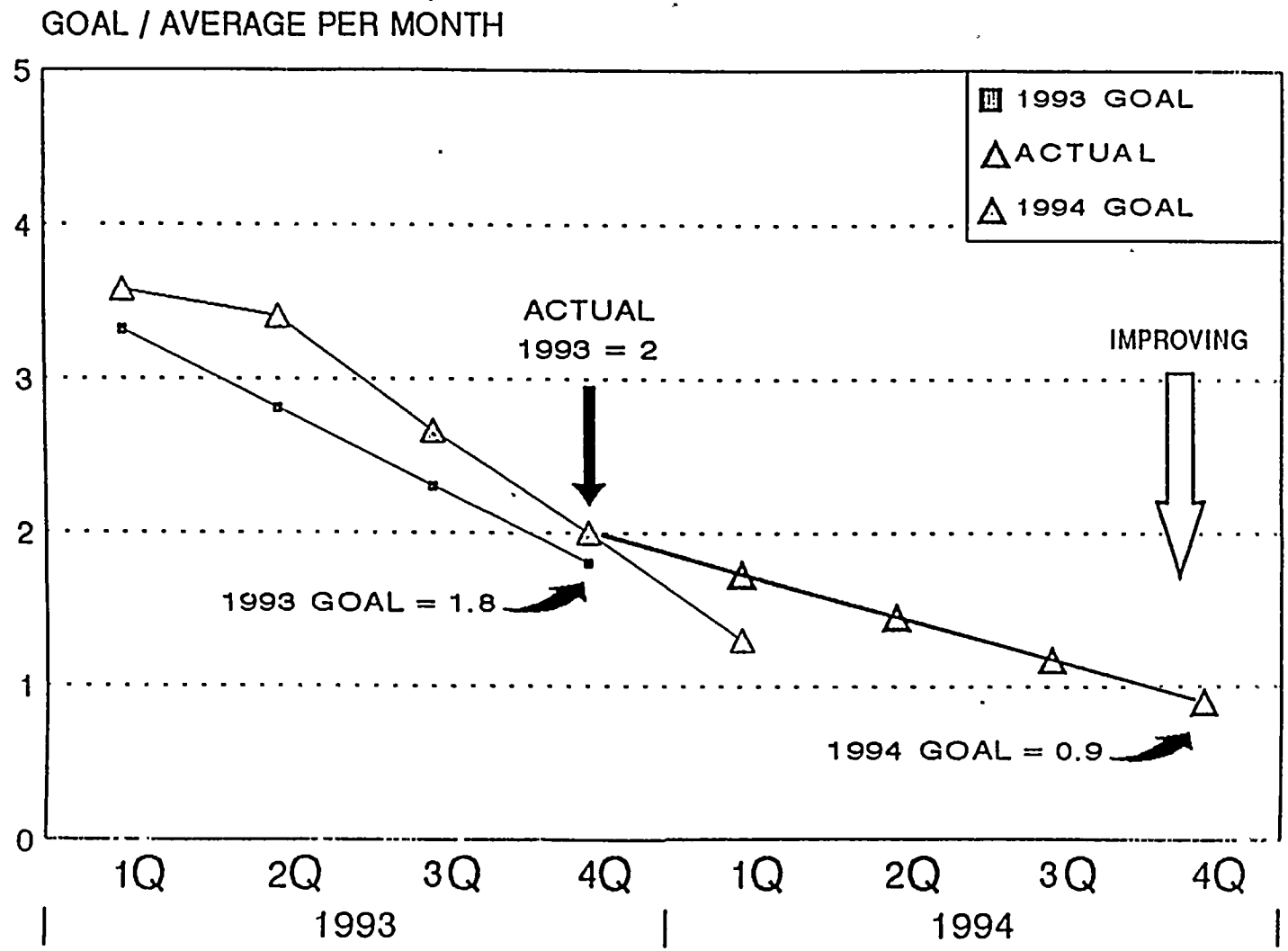
Security

SITEWIDE HUMAN PERFORMANCE IMPROVEMENT
TOTAL EVENTS



EVENTS ARE DEFINED AS UNDESIRABLE OR UNEXPECTED RESULTS OF AN ACTION OR SERIES OF ACTIONS. EXAMPLES INCLUDE: EQUIPMENT MALFUNCTION, OSHA RECORDABLE INJURY, FAILURE TO FOLLOW RADIOLOGICAL POSTINGS, ACTION RESULTING IN EQUIPMENT BEING REMOVED FROM SERVICE, IN ADDITION TO SIGNIFICANT EVENTS.

SITEWIDE HUMAN PERFORMANCE IMPROVEMENT
SIGNIFICANT EVENTS



SIGNIFICANT EVENTS/CONDITIONS HAVE AN ACTUAL OR POTENTIAL IMPACT ON NUCLEAR SAFETY OR PERSONNEL SAFETY. EXAMPLES INCLUDE: REACTOR TRIPS, OPERATION OUTSIDE THE DESIGN BASIS OF THE PLANT, FUNDAMENTAL MISUNDERSTANDING OF, OR NON-COMPLIANCE WITH OPERATIONAL, REGULATORY, OR SAFETY REQUIREMENTS AND SERIOUS PERSONNEL INJURY.

Benefits

Anchor self-assessment culture

Reduce human error events

Increase frontline supervision in the field

Improve focus in training

Enhance value of industry information

Change perspective to proactive versus reactive

Regulatory Strategic Issue

Regulatory Performance Indicators

Self-Assessment Culture

Commitment Control

Regulatory Communication

Regulators

NRC

INPO

ANI

ARRA/ADEQ

OSHA

Public Utility Commissions

NRC

Issue performance indicators to monitor trends for each plant

Compare plant performance against industry and peer group

Compare cause codes for plant events

Indicators

- ◊ Automatic Scrams While Critical
- ◊ Safety System Actuation
- ◊ Significant Events
- ◊ Safety System Failures
- ◊ Forced Outage Rate (%)
- ◊ Equipment Forced Outage Rate/1000 Commercial Hours
- ◊ Radiation Exposure

PVNGS Added

- ◊ Number of NRC Violations
- ◊ Number of Ineffective Corrective Actions
- ◊ Re-qualification Exam Pass Rate

Future-Focused Self-Assessment Plan

Perform Self-SALP

- Implement high priority corrective actions

Make Operating Experience program enhancements

Develop Self-Assessment strategy

Implement Nuclear Assurance reengineering changes

Commitment Control

Understand historical perspective

Continue Cost Beneficial Licensing Activities

Prepare "commitment" definition

Make commitments strategically

Consider future commitments carefully

Assign clear responsibility for the commitment

Track and follow up on problem resolution

Regulatory Communication

Goal is to develop mutual understanding and cooperative relationship

Ongoing informal discussions continue

NRC meeting attendance by appropriate APS Management

Regular formal communications
- Progress of improvement plans
- Status of regulatory issues
- Proactive presentation of plant status

Face-to-face discussions
- Avail Senior Management to the NRC
- Topics are the current issues of interest

Reengineering

Process ➡ Organization ➡ Staffing

Control of Work

Modifications

Quality Assurance

Operations

Outages

Materials

Department Reengineering

Reengineering Advisory Group

Bert Simpson
Jim Levine
Jack Bailey
Dave Mauldin
Bill Ide
Craig Seaman
Gregg Overbeck

Reengineering Advisory Team

All PVNGS Key Leaders

Process Gaps

Fragmented organization

Too many handoffs

Existing complex work process contribute to Human Error

Specialist vs. generalist

Designed more mods than we can install

Created groups to check other groups work

Procedures written by groups who are not ultimately responsible for the work

Inadequate review of old modifications from cost benefit perspective

Maintaining Plant Safety Requires Us to Address Several Key Issues

To ensure the changes will work...

A formal reengineering program was utilized to redesign our processes

Best practice plants were visited and learnings were incorporated

Changes were piloted and learnings were incorporated

The implementation of changes is sequenced to minimize disruption

Outside experts reviewed process changes

Reengineering Advisory Group controlled process

To ensure sufficient resources...

Workload model was developed for initial staffing estimates

Additional resources in excess of required complement

To ensure people are qualified...

The formal selection process will retain high performers

Maintaining Plant Safety Requires Us to Address Several Key Issues (Cont.)

To handle the affects on people...

An extensive culture change program was instituted to prepare the organization for change

The rationale for change, the type of changes, and the schedule for change was communicated to employees in a timely, proactive manner

The employee concerns program was improved

Form employee concern resolution team

Considerable resources were expended to ensure an equitable selection process

People support programs were instituted

A voluntary severance package was offered to all employees

The impact on processes...

Changes will increase personal accountability

Changes will eliminate work fragmentation and handoffs lowering probability of human error

The implementation of Engineering and Maintenance changes will occur when plants are running and only routine maintenance required

Site-wide scheduling implemented one month in advance

Nuclear Assurance aligned by SALP categories two months in advance

Operations and Outages unaffected until Fall

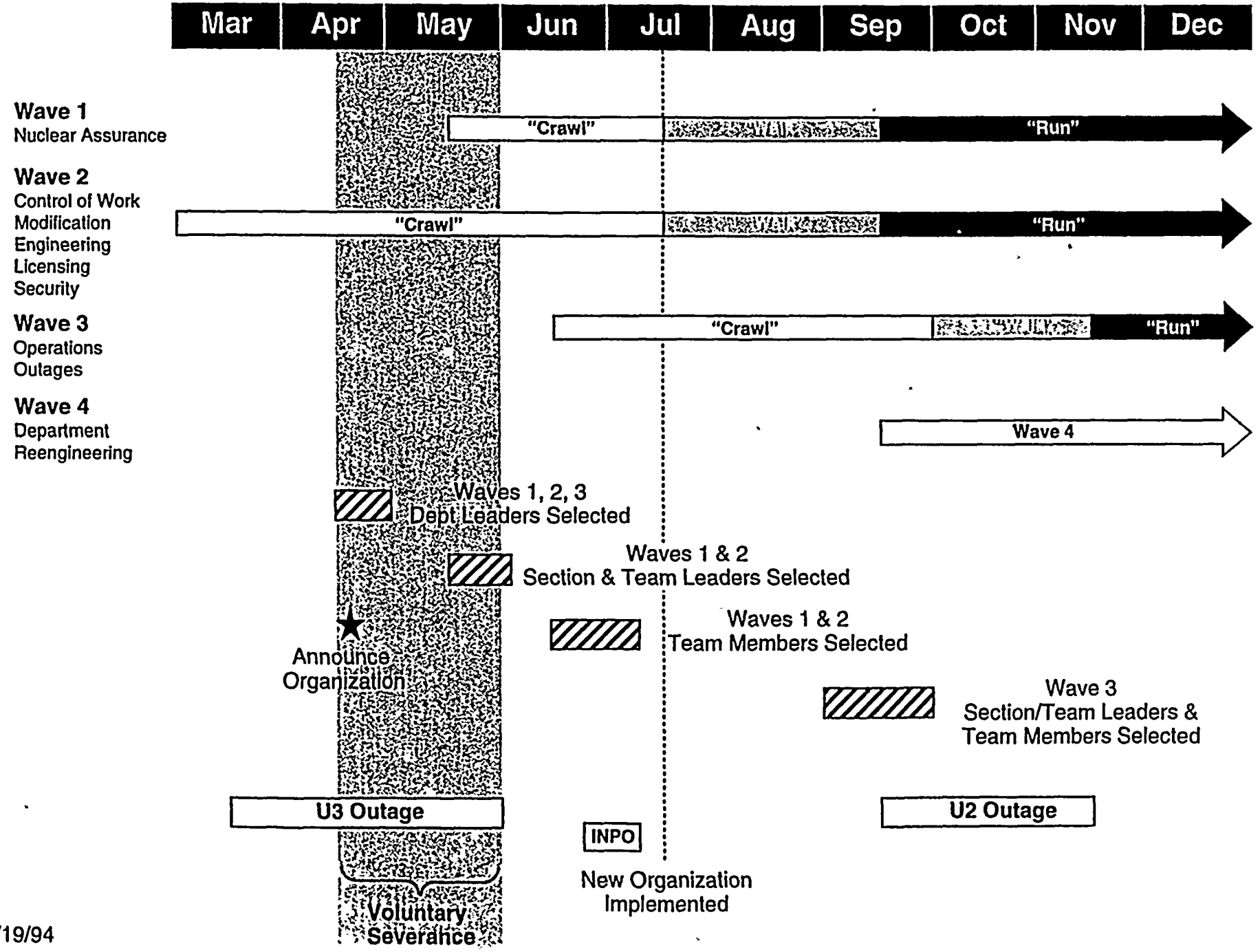
Maintaining Plant Safety Requires Us to Address Several Key Issues (Cont.)

To ensure configuration control...

- Programs and procedures affecting plant configuration were identified
- Processes and job responsibilities were designed to ensure control

To ensure commitment compliance...

- Commitments were formally reviewed and evaluated to ensure high priority ones are maintained in the new processes


Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Wave 1
Nuclear Assurance
Wave 2
Control of Work
Modification
Engineering
Licensing
Security
Wave 3
Operations
Outages
Wave 4
Department
Reengineering
"Crawl"
"Run"
"Crawl"
"Run"
"Crawl"
"Run"
Wave 4
Waves 1, 2, 3
Dept Leaders Selected
Waves 1 & 2
Section & Team Leaders Selected
Waves 1 & 2
Team Members Selected
Announce
Organization
Wave 3
Section/Team Leaders &
Team Members Selected
U3 Outage
U2 Outage
INPO
New Organization
Implemented
Voluntary
Severance

4/19/94

Staffing Impact

	Current	Future	Δ	Percent
Directors Includes General Managers	15	13	-2	14%
Department Leaders/Managers Includes Operations and Outage	42	25	-17	40%
Section Leaders/Supervisors	86	48	-38	44%
Team Leaders/Foremen	87	66	-21	24%
Frontline APS				
Administrative	94	70	-24	26%
Maintenance	627	569	-58	9%
Engineering	281	194	-87	31%
Nuclear Assurance	117	108	-9	8%
Contractors	415	174	-241	58%
Total	1764	1267	-497	28%

Actions in Progress

Piloting processes

Revising Control of Work and Modification procedures

Revising NRC commitments

Forming Transition Teams

Revising job descriptions

Reengineering Operations, Outages, and individual departments

Performing selection process

Selection Process

New position descriptions written

- Department Leaders
- Section/Team Leaders
- Team Members

Candidacy pools established

Selection Boards established

Candidates evaluated and selections made

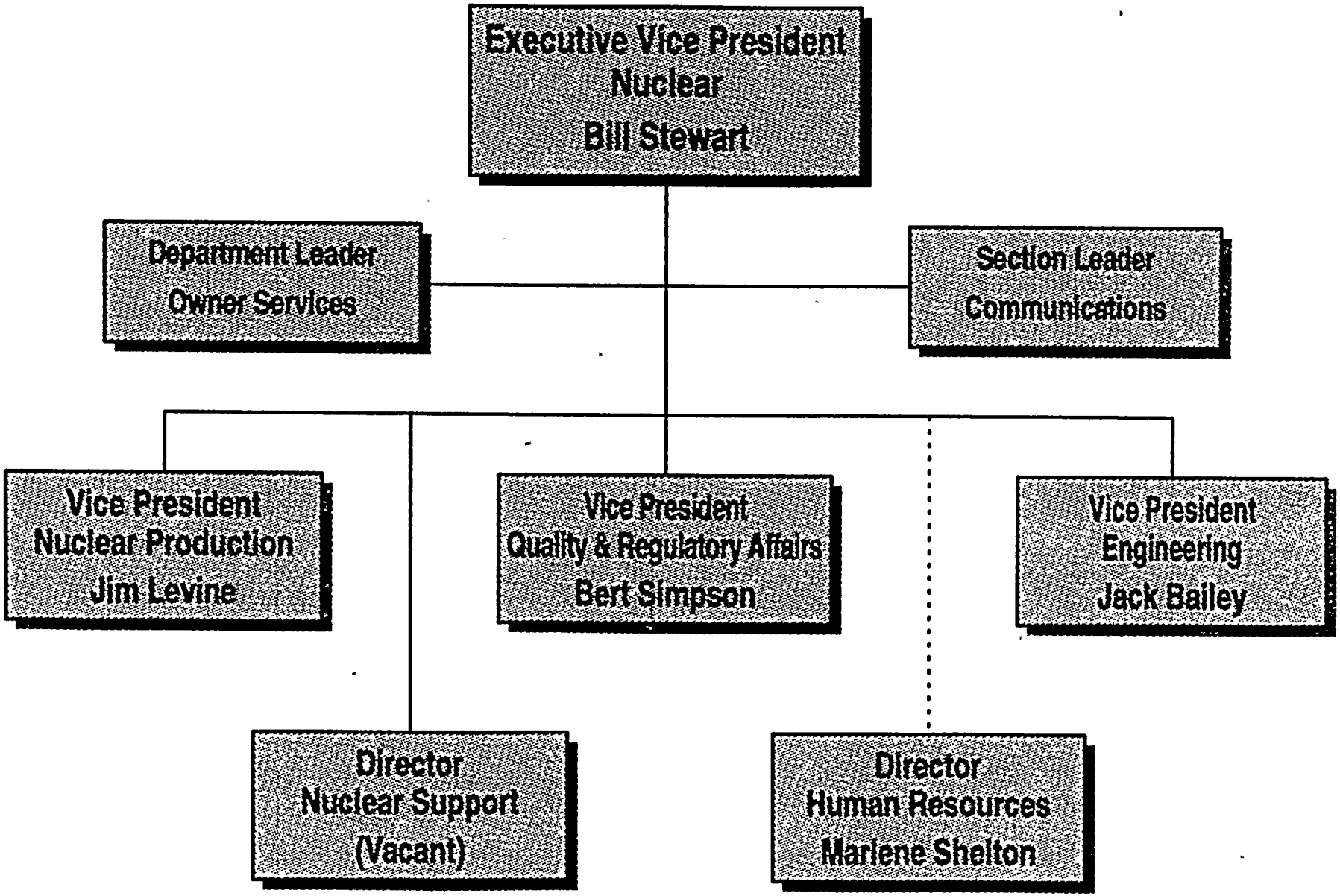
Review Board gives final approval

Reengineered organizations effective mid-July 1994

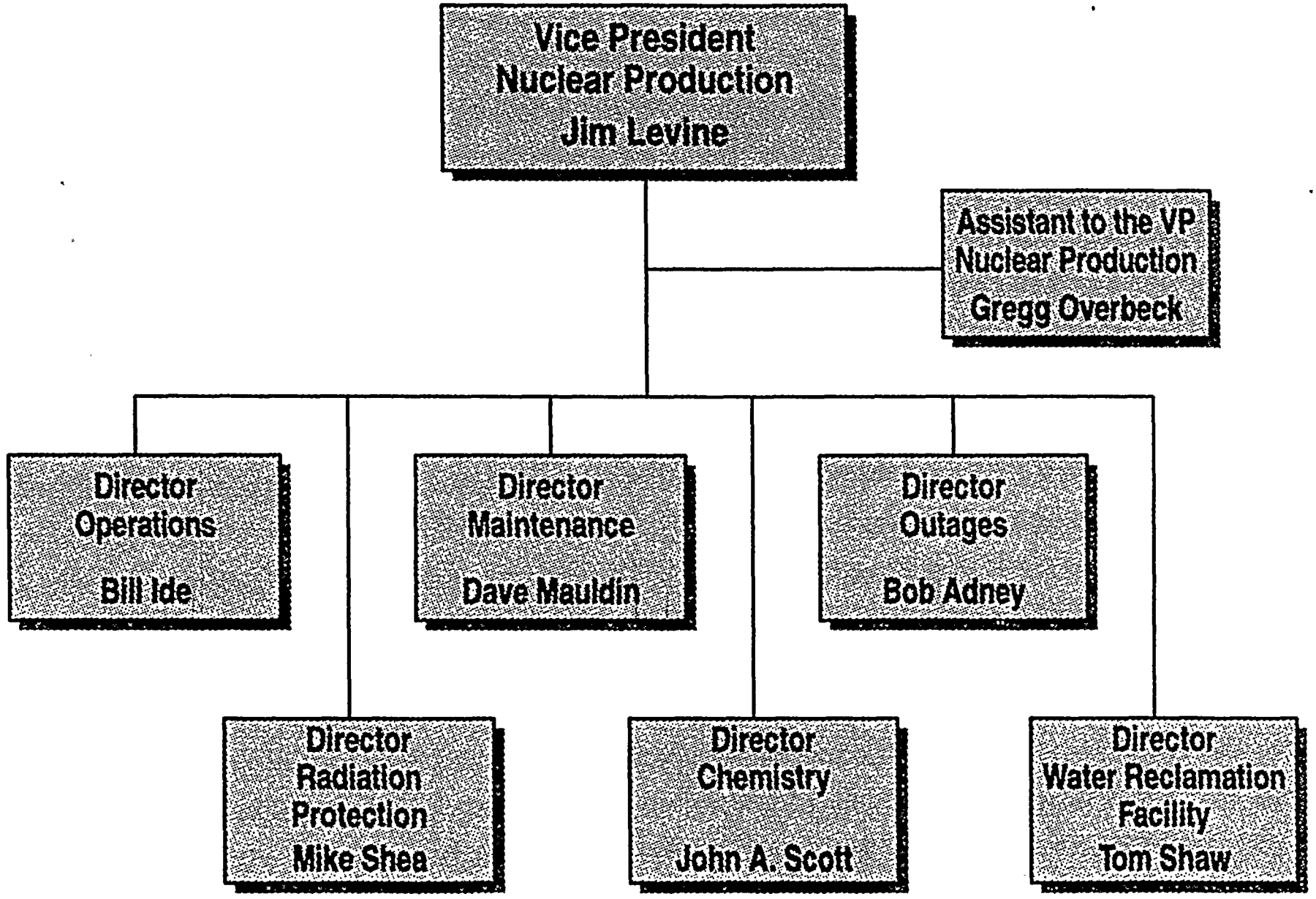
PVNGS Reengineered Organization

(Effective July 15, 1994)

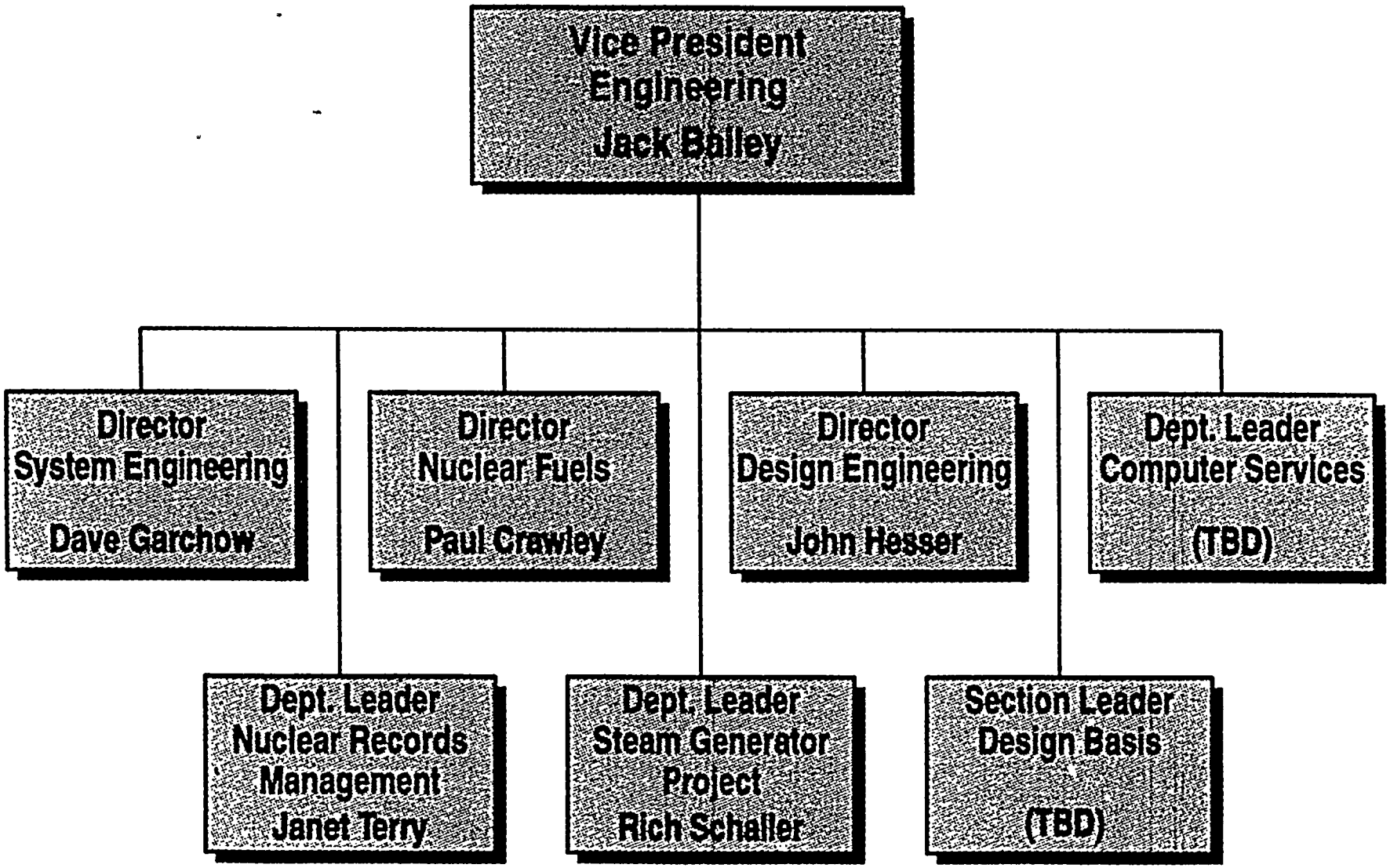
Palo Verde Functional Overview



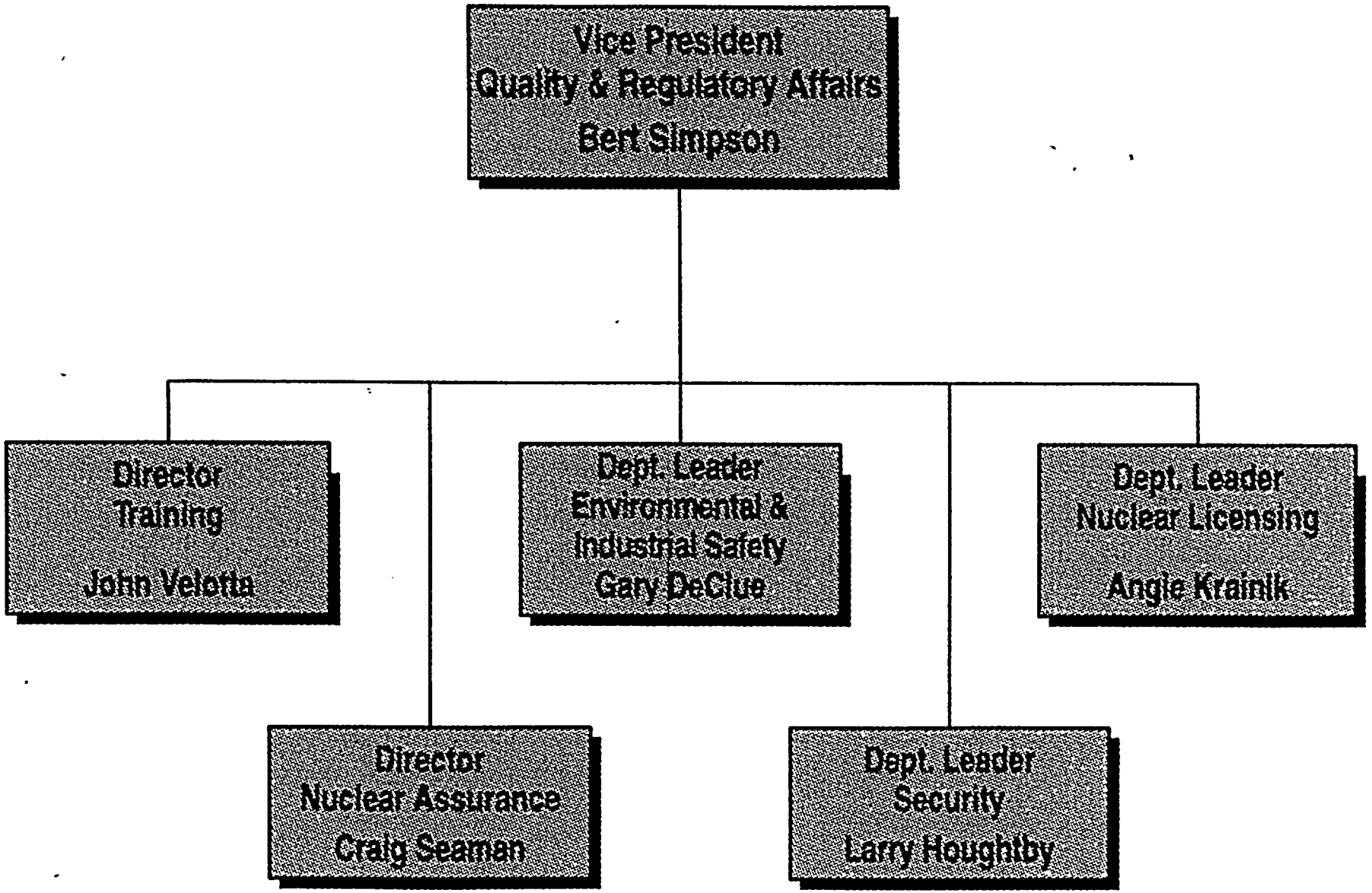
Nuclear Production
Functional Overview



Engineering
Functional Overview



Quality & Regulatory Affairs
Functional Overview



CURRENT ISSUES

Steam Generators

Hot Leg Temperature Reduction

Spent Fuel Pool Utilization

Low Level Radwaste Storage

Degraded Voltage