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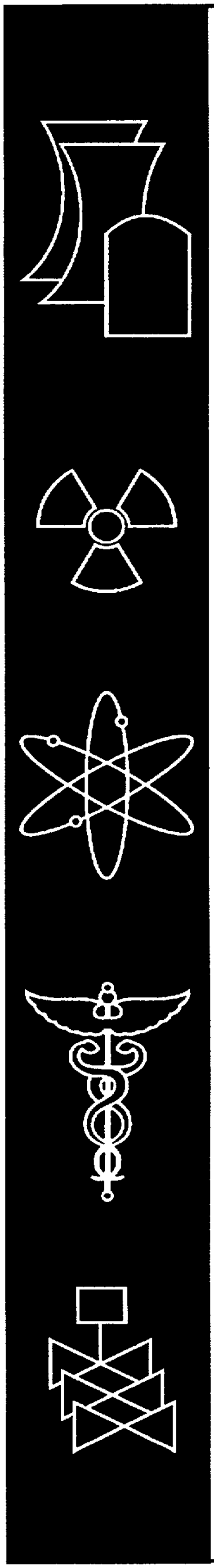

Performance Indicators for Operating Commercial Nuclear Power Reactors

Data Through September 1999

U.S. Nuclear Regulatory Commission
Office Nuclear Regulatory Research
Washington, DC 20555-0001

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Division of Risk Analysis and Applications
Office of Nuclear Regulatory Research
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Washington, DC 20555-0001

ABSTRACT

This U.S. Nuclear Regulatory Commission (NRC) report presents performance indicator data, accounting for the different operational conditions, through September 1999 for 104 reactors. There are eight NRC Performance Indicators for Operating Commercial Nuclear Power Plants: (1) automatic scrams while critical, (2) safety system actuations, (3) significant events, (4) safety system failures, (5) forced outage rate, (6) equipment forced outages per 1000 commercial critical hours, (7) collective radiation exposure, and (8) cause codes.

This report is based on data extracted from Licensee Event Reports (LERs) submitted in accordance with 10 CFR 50.73, immediate notifications to the NRC Operations Center in accordance with 10 CFR 50.72, monthly operating reports in accordance with plant technical specifications, and screening of operating experience by NRC staff. Radiation exposure data are obtained from the Institute of Nuclear Power Operations (INPO). Graphical presentations of each plant's data, including trends and deviations analyses are provided, as well as tabulated summaries of the data. The trends and deviations analyses and tabulated summaries have been presented and calculated accounting for the plant's operational conditions.

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EXECUTIVE SUMMARY

This report presents the eight NRC Performance Indicators (PIs) for the third calendar quarter of 1999 These eight indicators are: (1) automatic scrams while critical, (2) safety system actuations, (3) significant events, (4) safety system failures, (5) forced outage rate, (6) equipment forced outages per 1000 commercial critical hours, (7) collective radiation exposure, and (8) cause codes. Data are included for calendar quarters 96-4 through 99-3 for 104 operating commercial U.S. nuclear power plants. Figures 1 and 2 display annual and quarterly industry averages for all PIs except cause codes, for which an average trend is not computed. Figures 3 through 23 display quarterly peer group averages.

Figure 1. Annual Industry Performance Indicator Averages

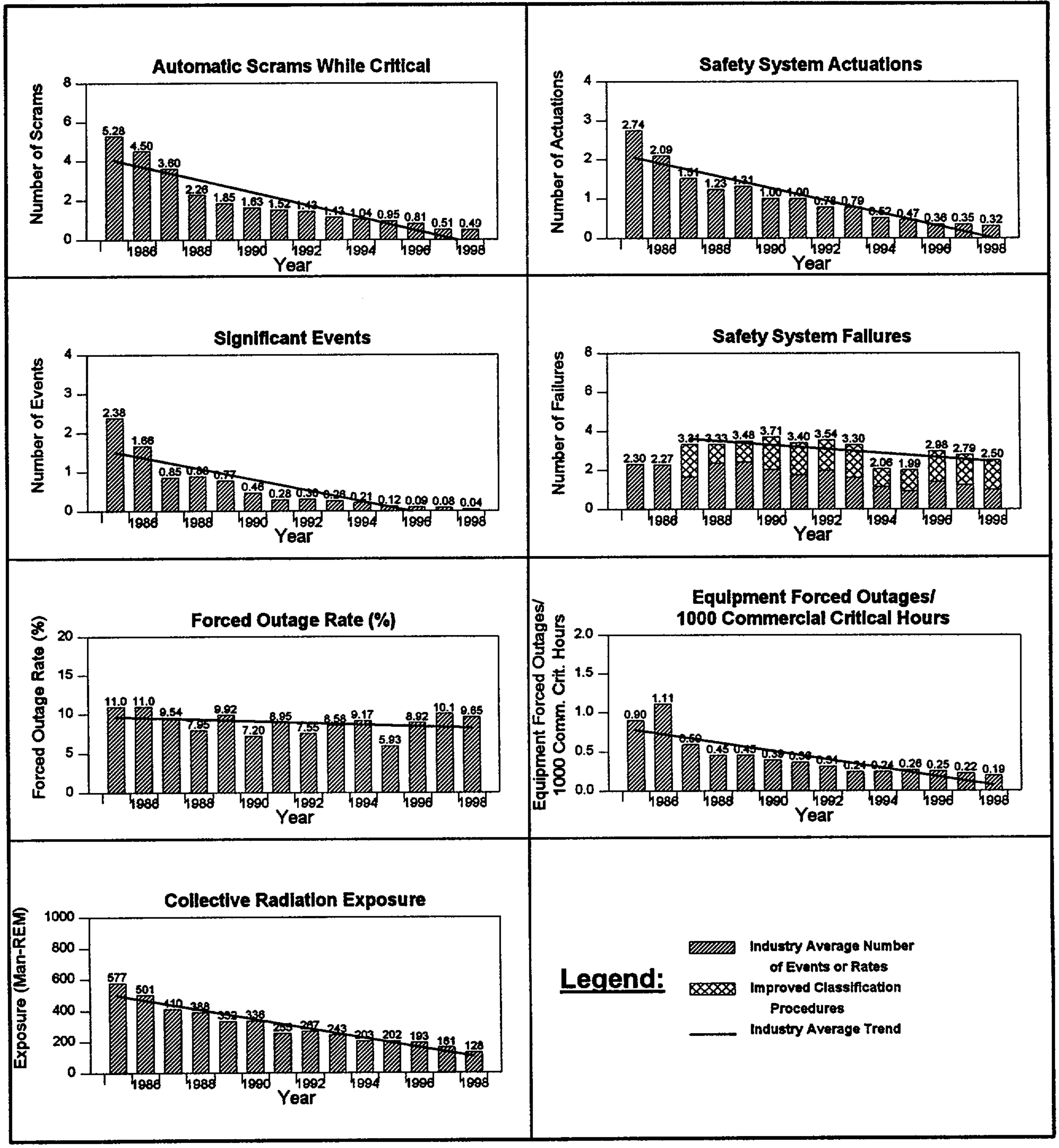


Figure 2. Quarterly Industry Performance Indicator Averages

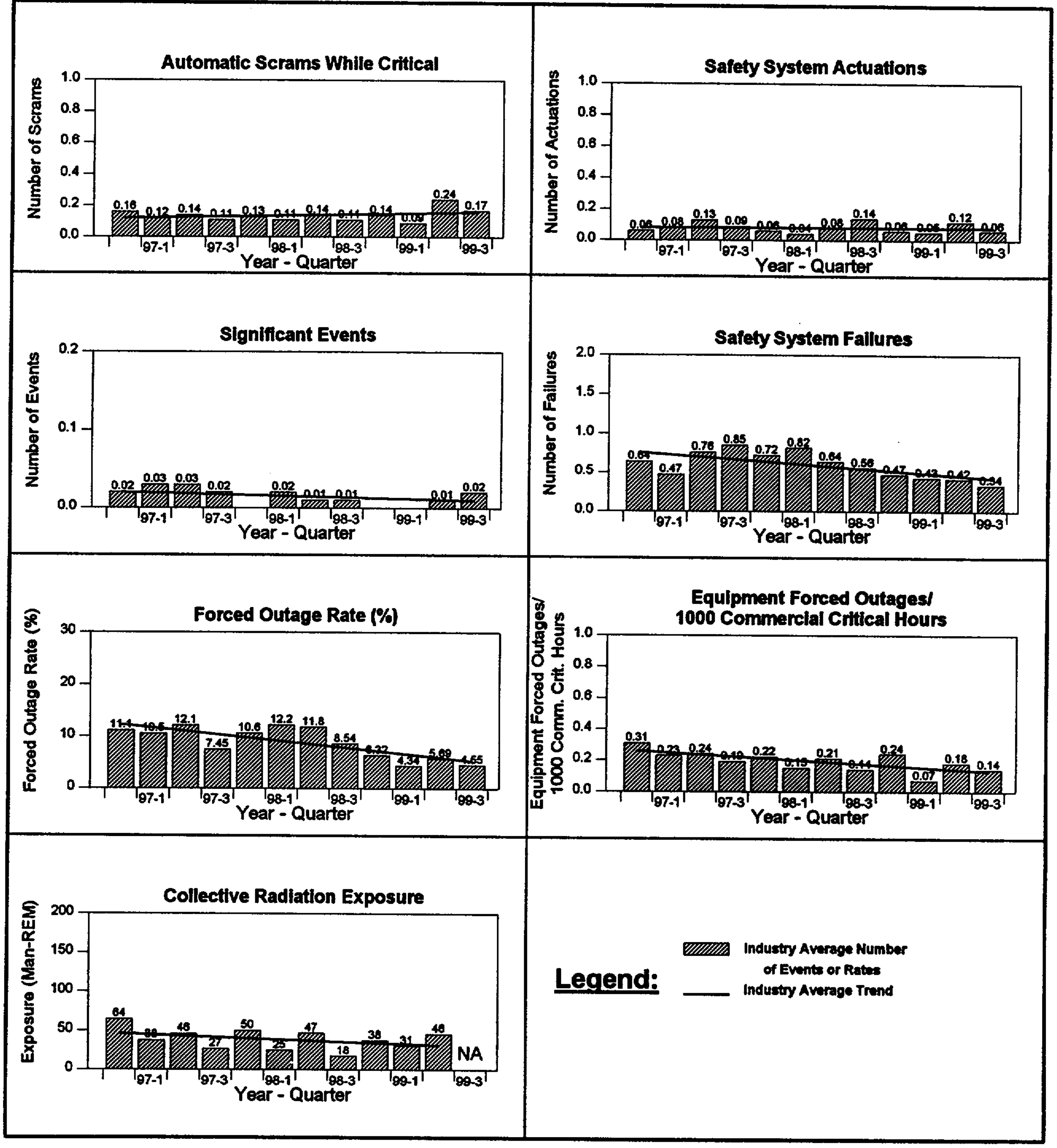


Figure 3. Peer group average number of automatic scrams while critical during Operations and Startup (Normalized for the number of days in Operations and Startup)

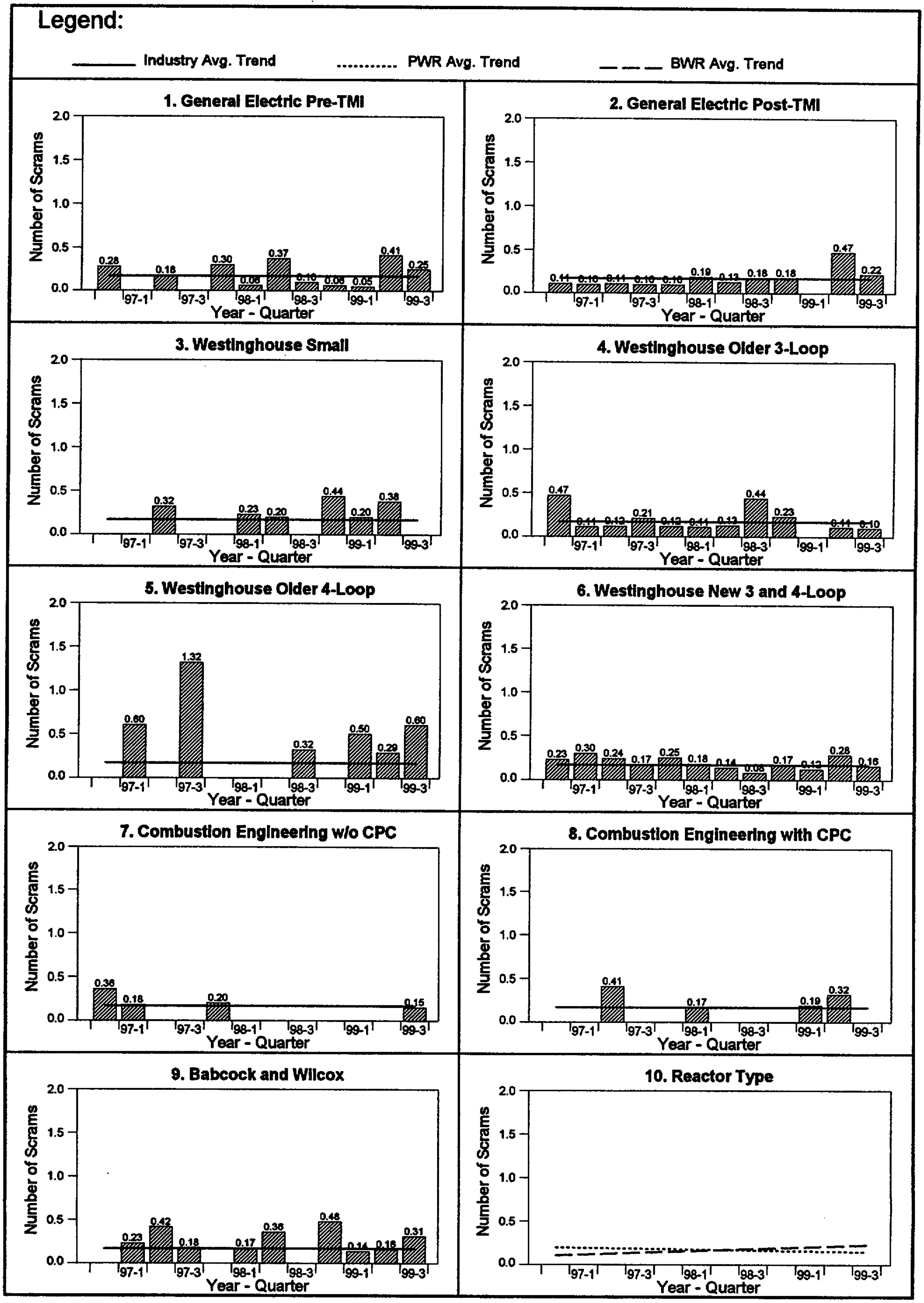
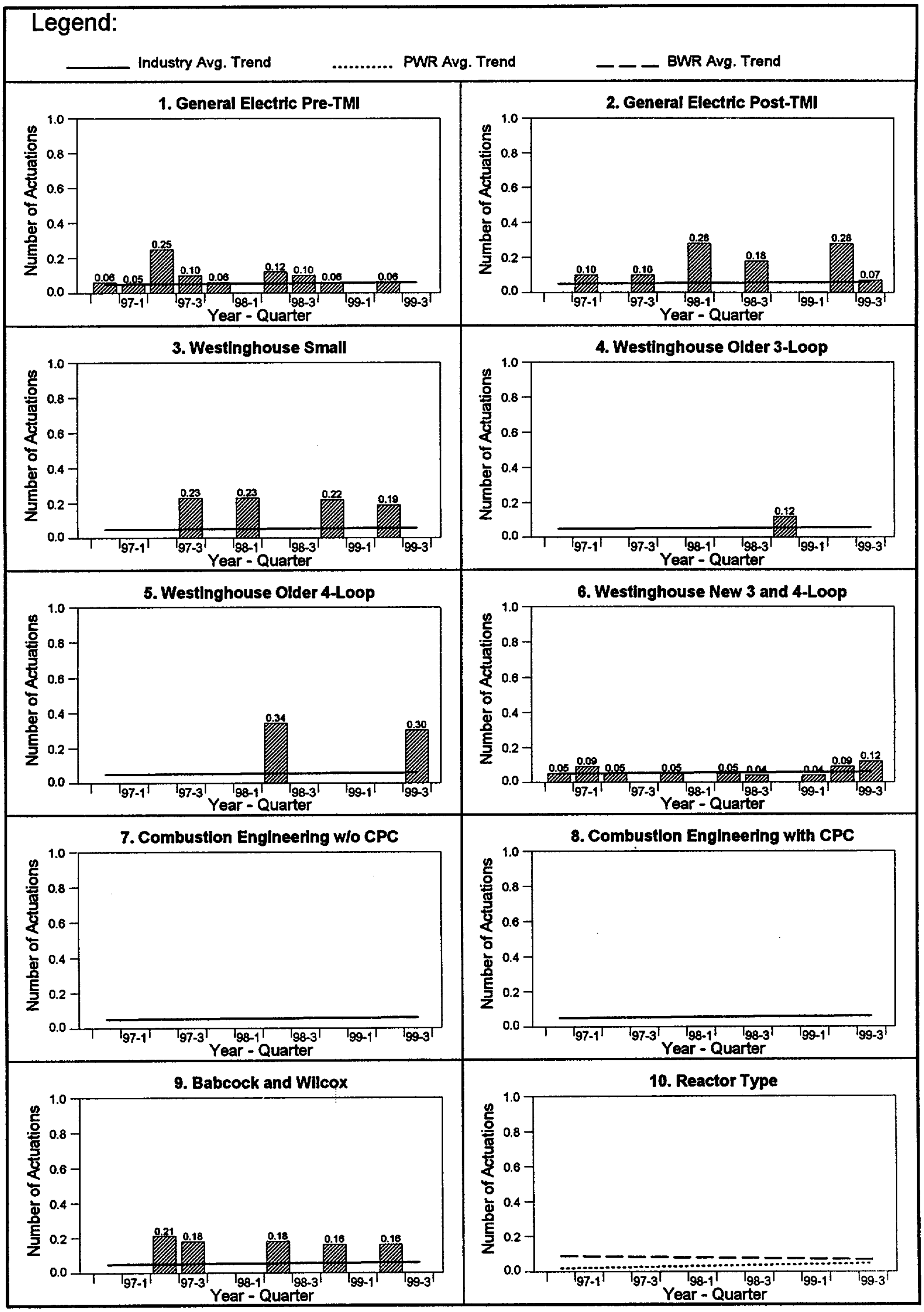


Figure 4. Peer group average number of safety system actuations during Operations and Startup (Normalized for the number of days in Operations and Startup)



1. General Electric Pre-TMI

2. General Electric Post-TMI

3. Westinghouse Small

4. Westinghouse Older 3-Loop

5. Westinghouse Older 4-Loop

6. Westinghouse New 3 and 4-Loop

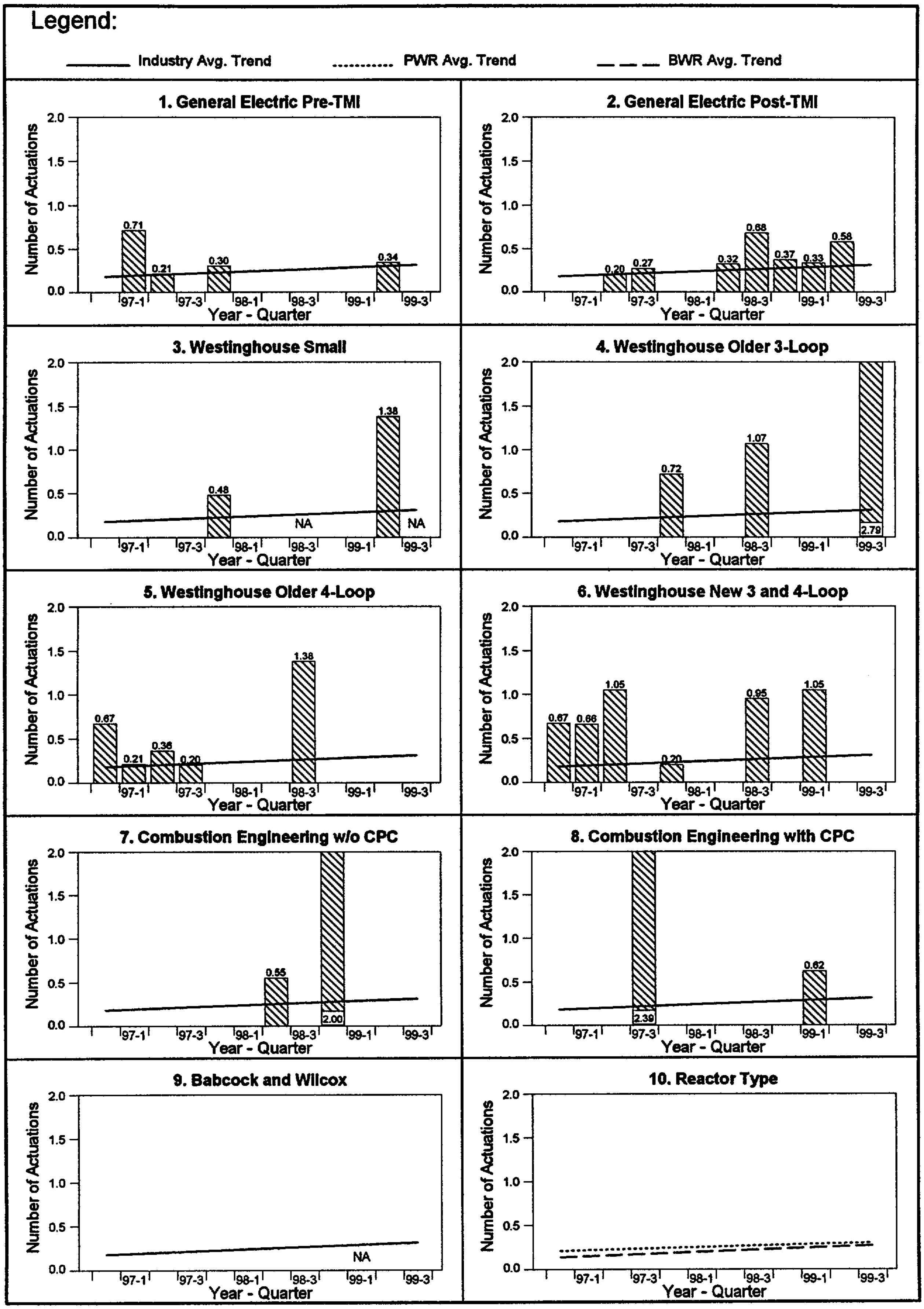
7. Combustion Engineering w/o CPC

8. Combustion Engineering with CPC

9. Babcock and Wilcox

10. Reactor Type

Figure 5. Peer group average number of safety system actuations during Shutdowns (Normalized for the number of days in Shutdown)



Legend:

1. General Electric Pre-TMI

2. General Electric Post-TMI

3. Westinghouse Small

4. Westinghouse Older 3-Loop

5. Westinghouse Older 4-Loop

6. Westinghouse New 3 and 4-Loop

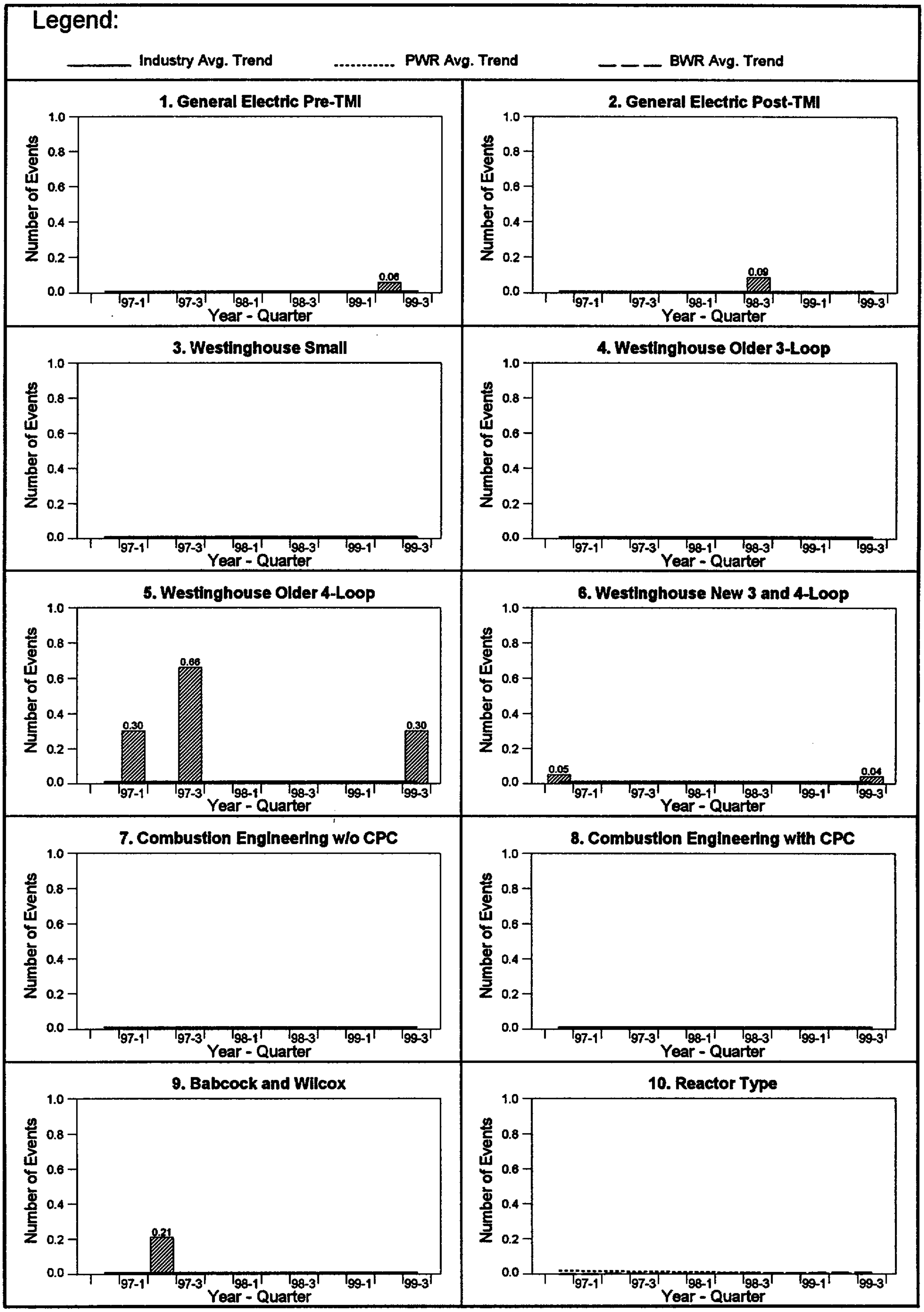
7. Combustion Engineering w/o CPC

8. Combustion Engineering with CPC

9. Babcock and Wilcox

10. Reactor Type

Figure 6. Peer group average number of significant events during Operations and Startup (Normalized for the number of days in Operations and Startup)



1. General Electric Pre-TMI
2. General Electric Post-TMI
3. Westinghouse Small
4. Westinghouse Older 3-Loop
5. Westinghouse Older 4-Loop
6. Westinghouse New 3 and 4-Loop
7. Combustion Engineering w/o CPC
8. Combustion Engineering with CPC
9. Babcock and Wilcox
10. Reactor Type

Figure 7. Peer group average number of significant events during Shutdowns (Normalized for the number of days in Shutdown)

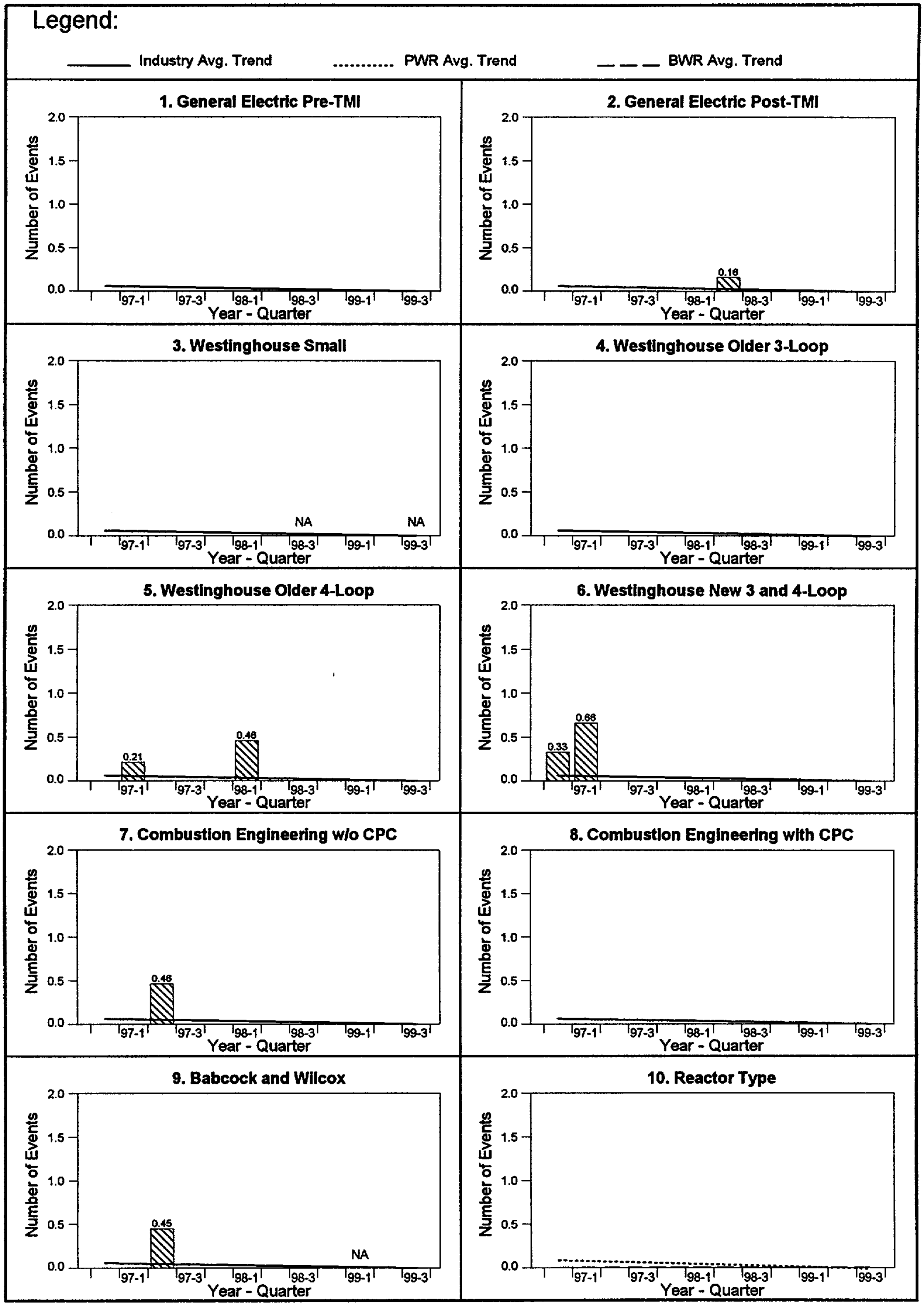


Figure 8. Peer group average number of safety system failures during Operations and Startup (Normalized for the number of days in Operations and Startup)

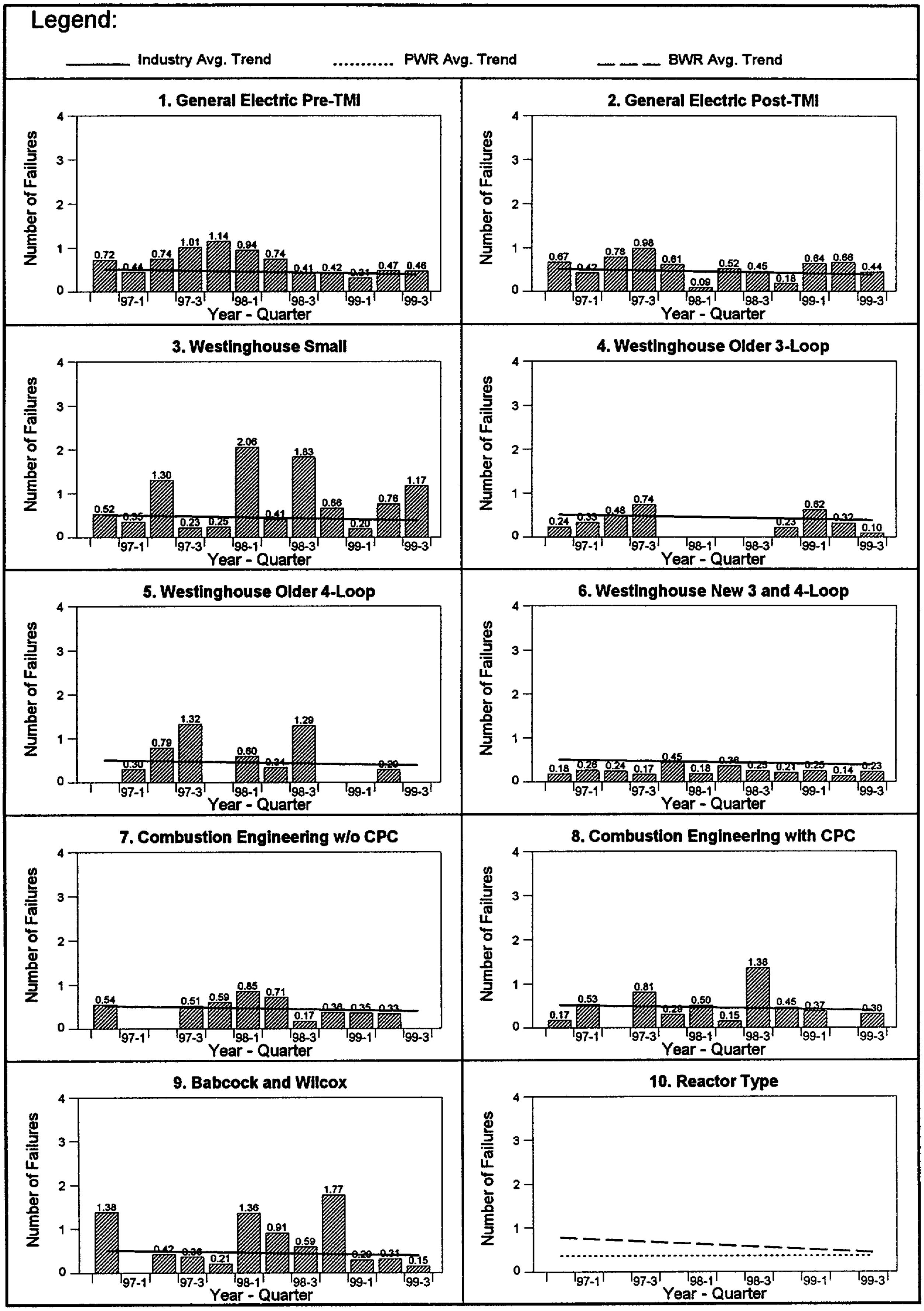


Figure 9. Peer group average number of safety system failures during Shutdowns (Normalized for the number of days in Shutdown)

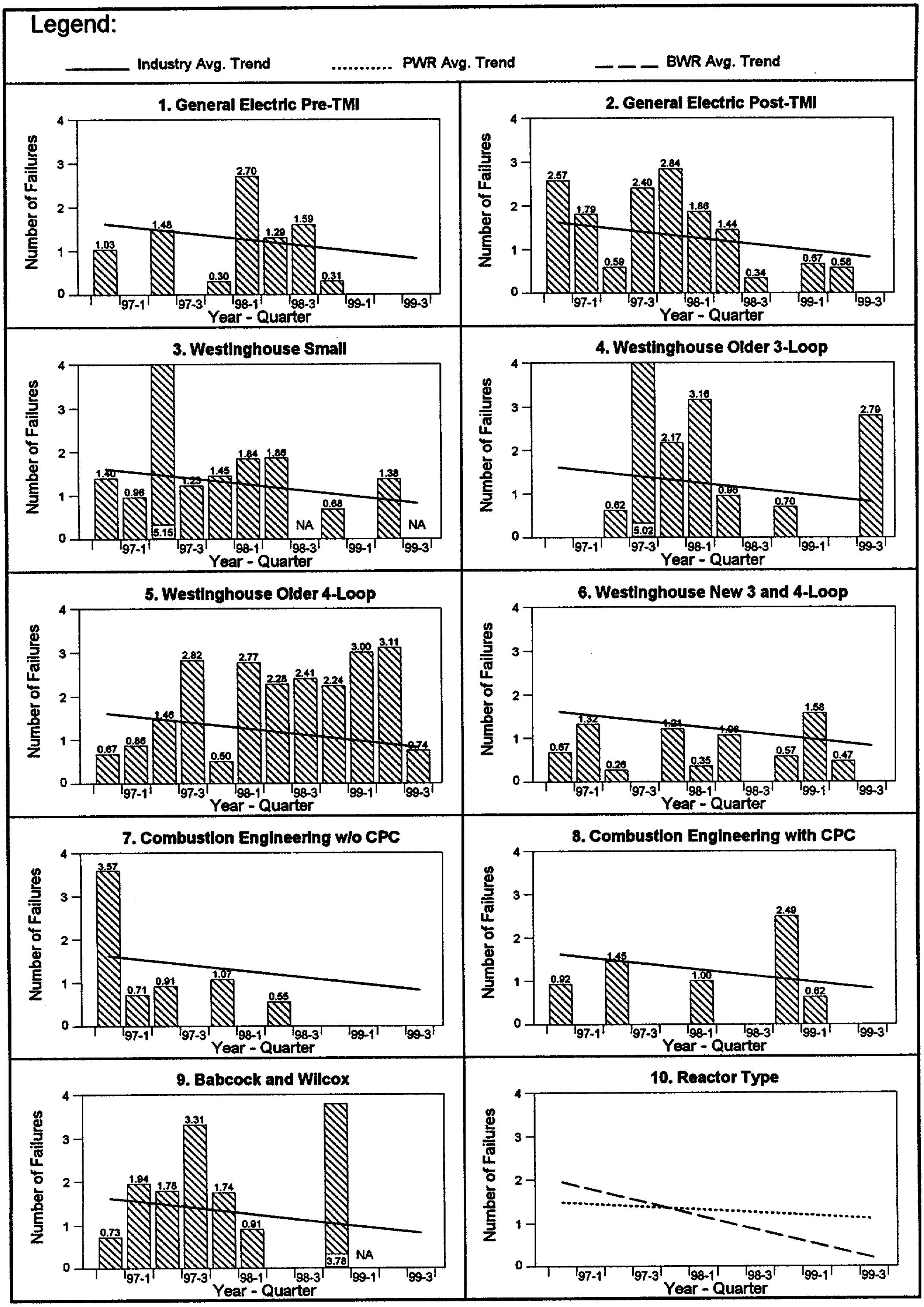


Figure 10. Peer group average forced outage rate

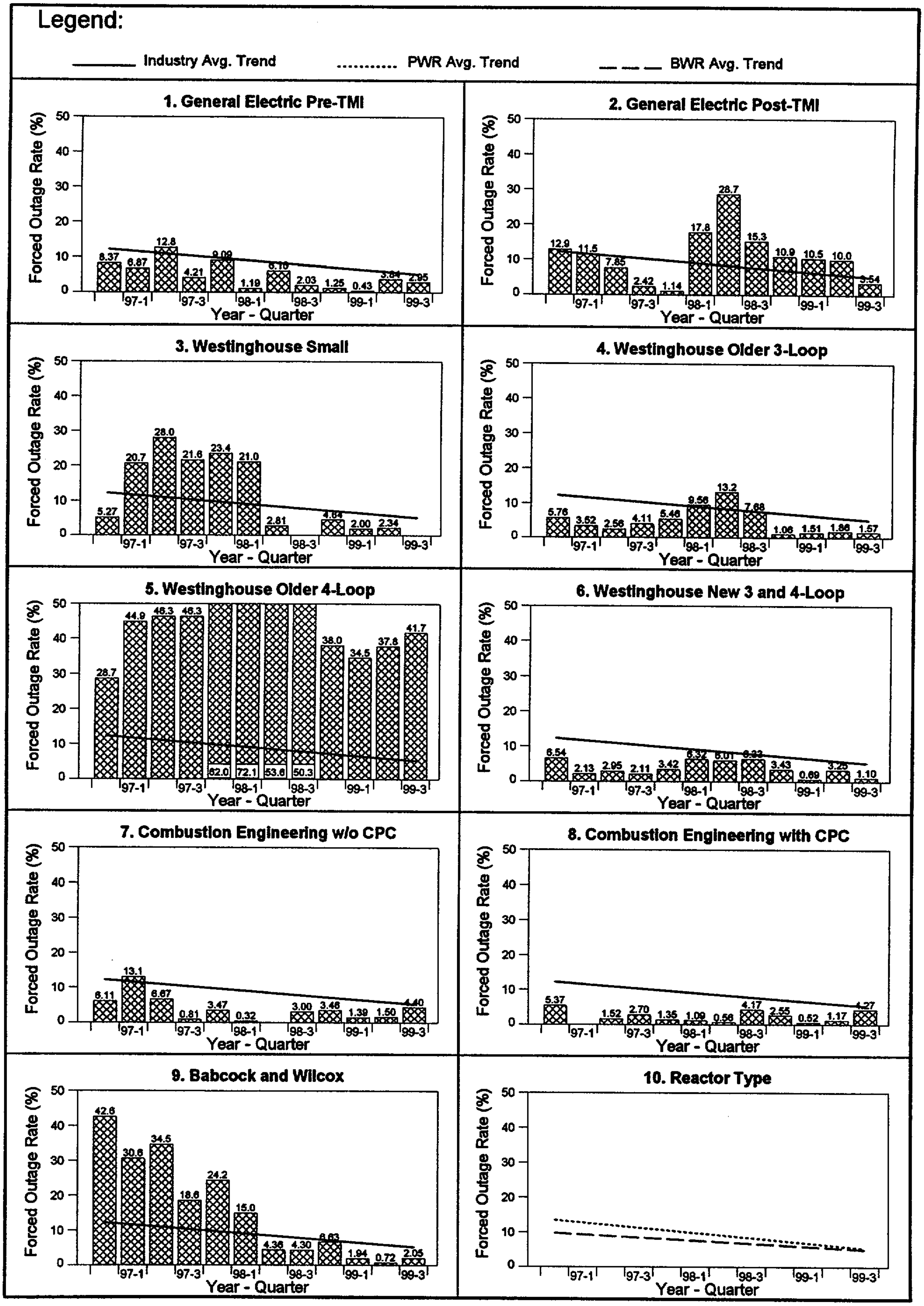
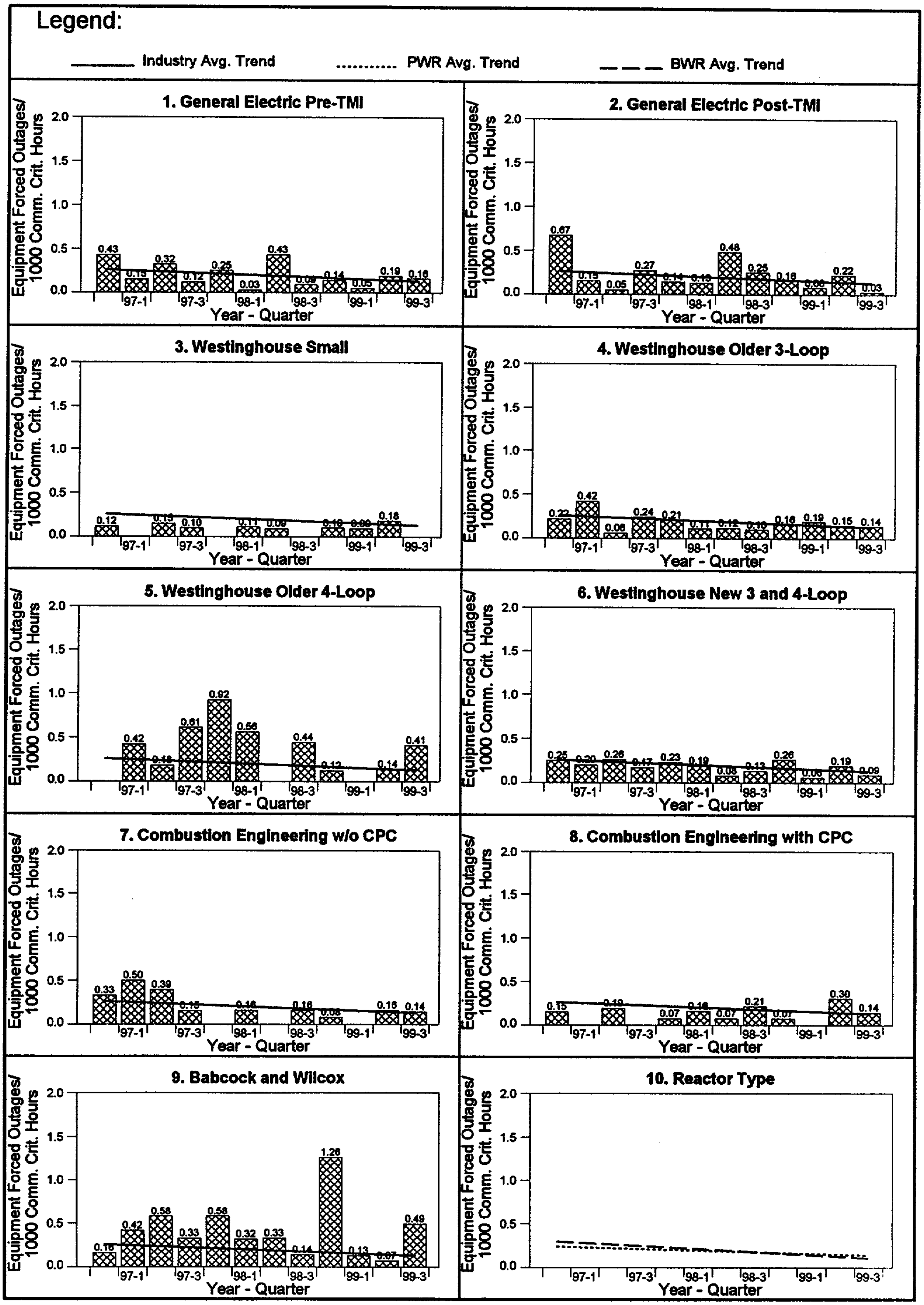


Figure 11. Peer group average equipment forced outages/1000 commercial critical hours



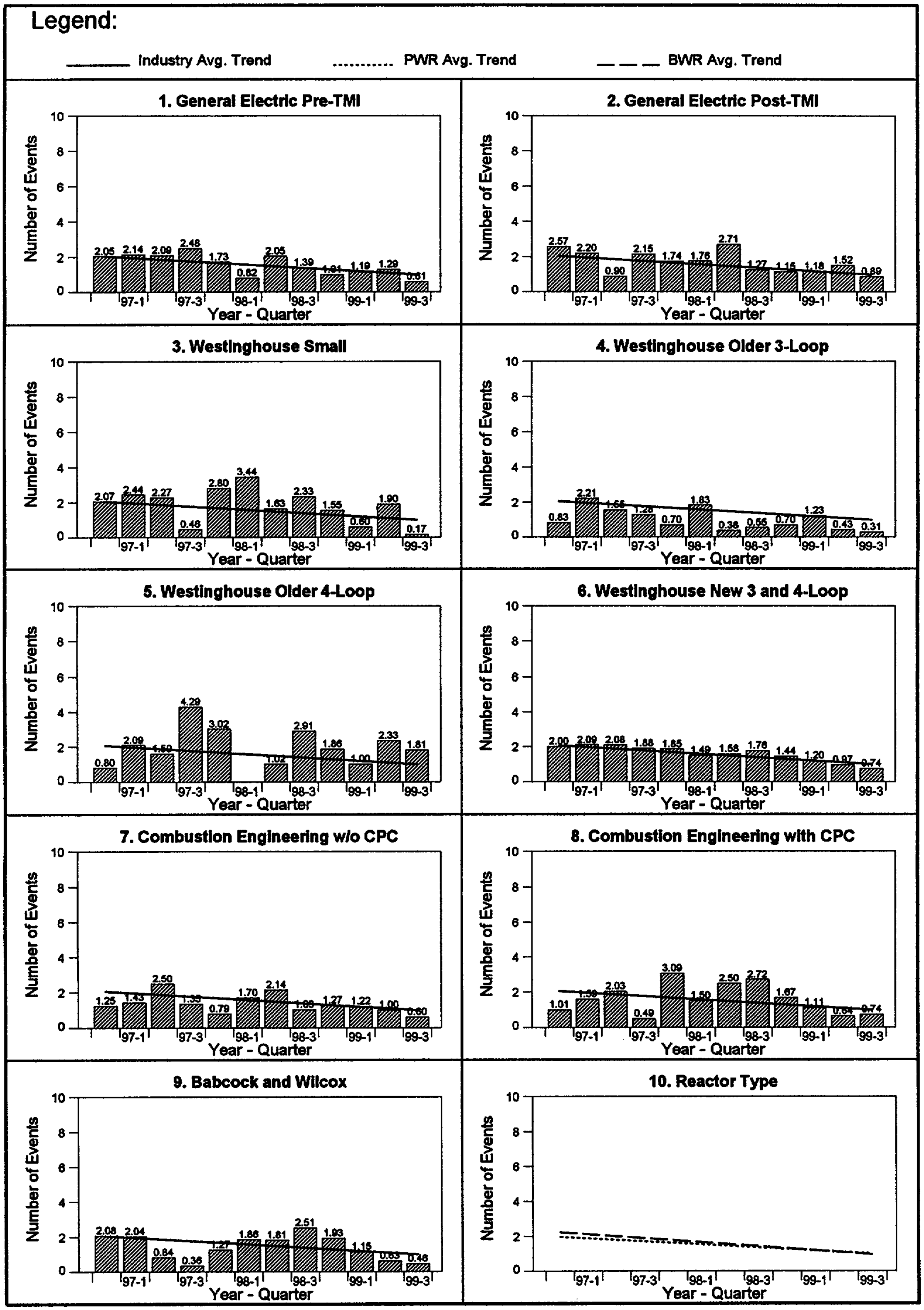


Figure 12. Peer group average number of administrative cause codes during Operations and Startup (Normalized for the number of days in Operations and Startup)

Figure 13. Peer group average number of administrative cause codes during Shutdowns (Normalized for the number of days in Shutdown)

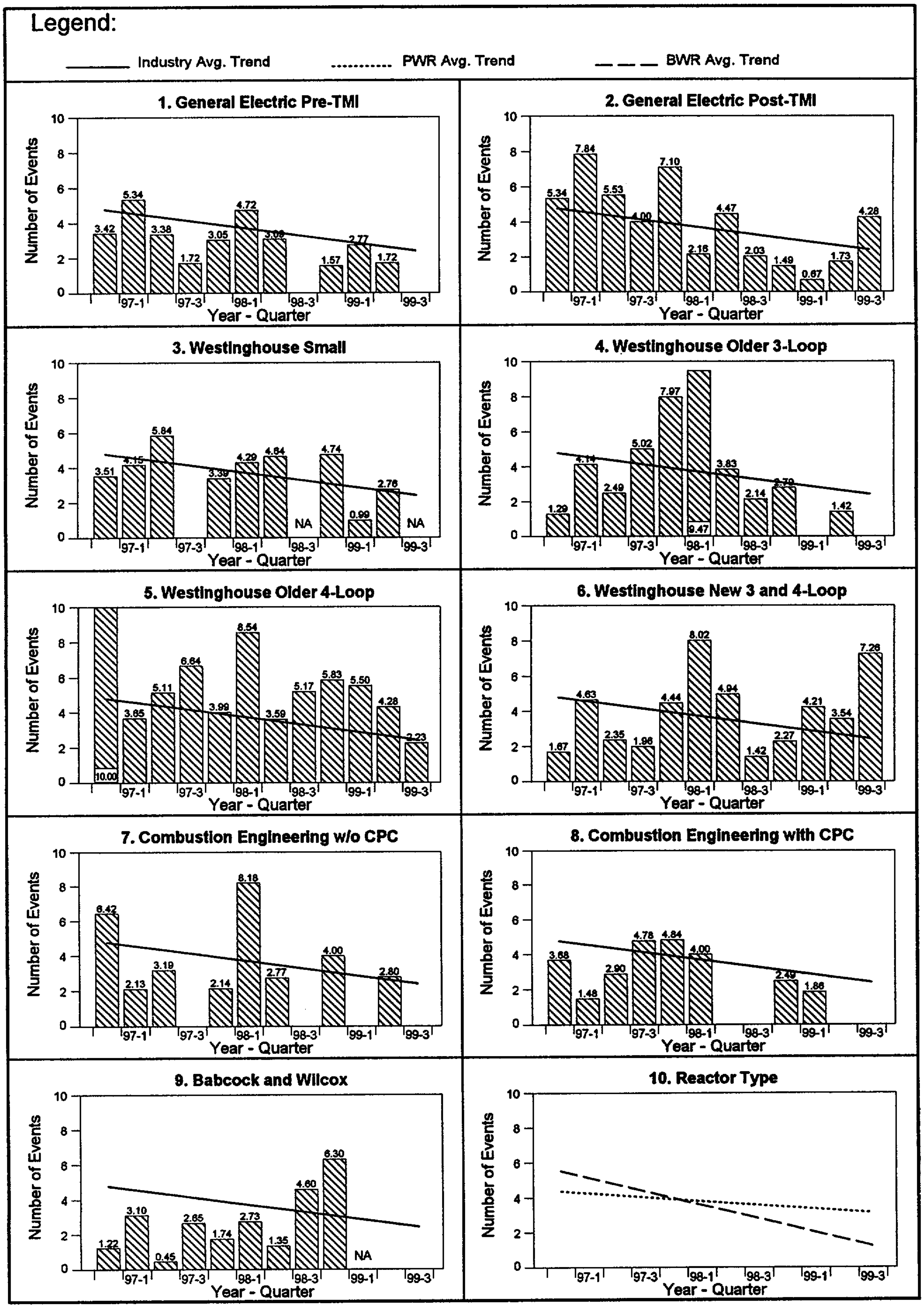


Figure 14. Peer group average number of licensed operator error cause codes during Operations and Startup (Normalized for the number of days in Operations and Startup)

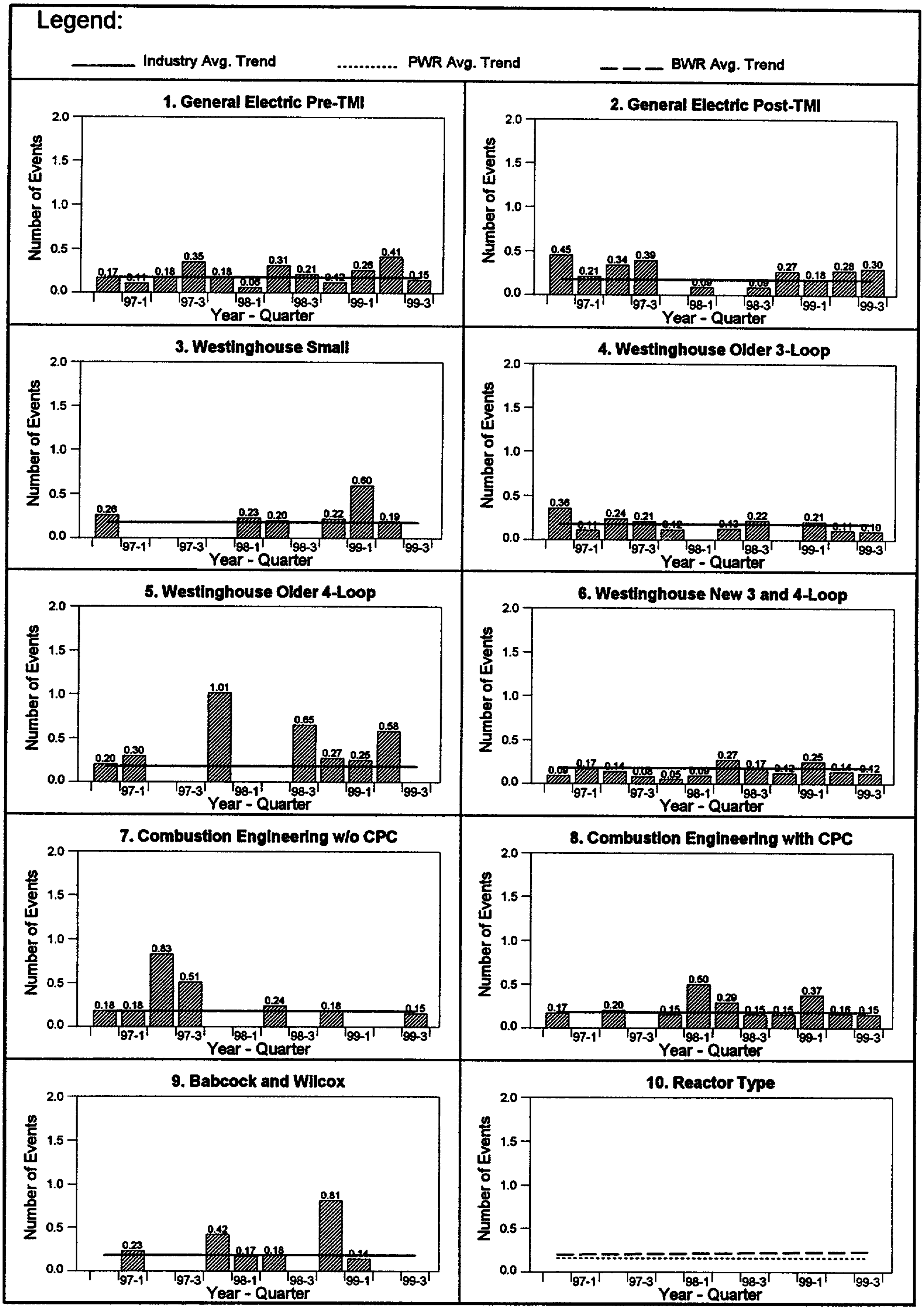


Figure 15. Peer group average number of licensed operator error cause codes during Shutdowns (Normalized for the number of days in Shutdown)

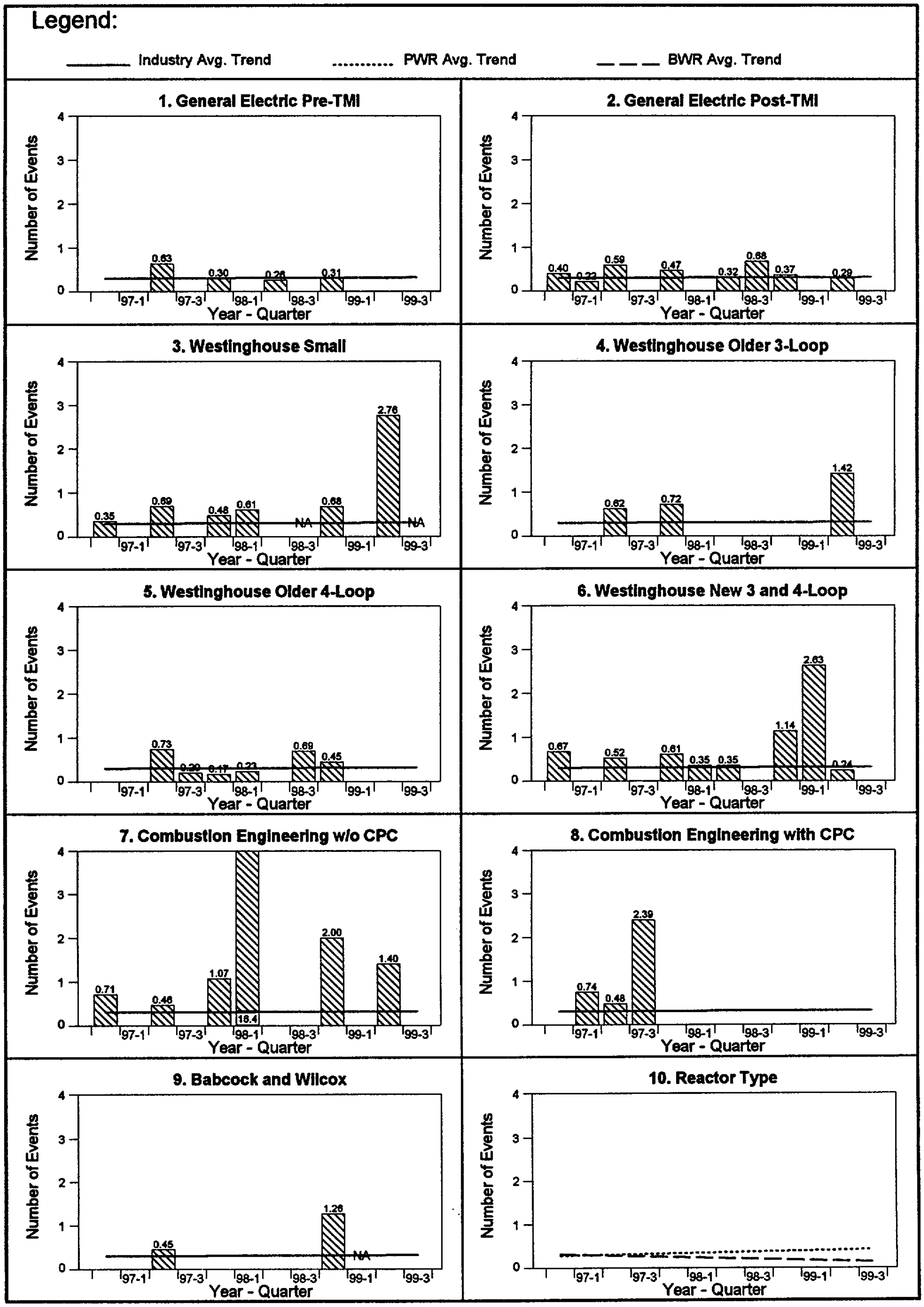


Figure 16. Peer group average number of other personnel error cause codes during Operations and Startup (Normalized for the number of days in Operations and Startup)

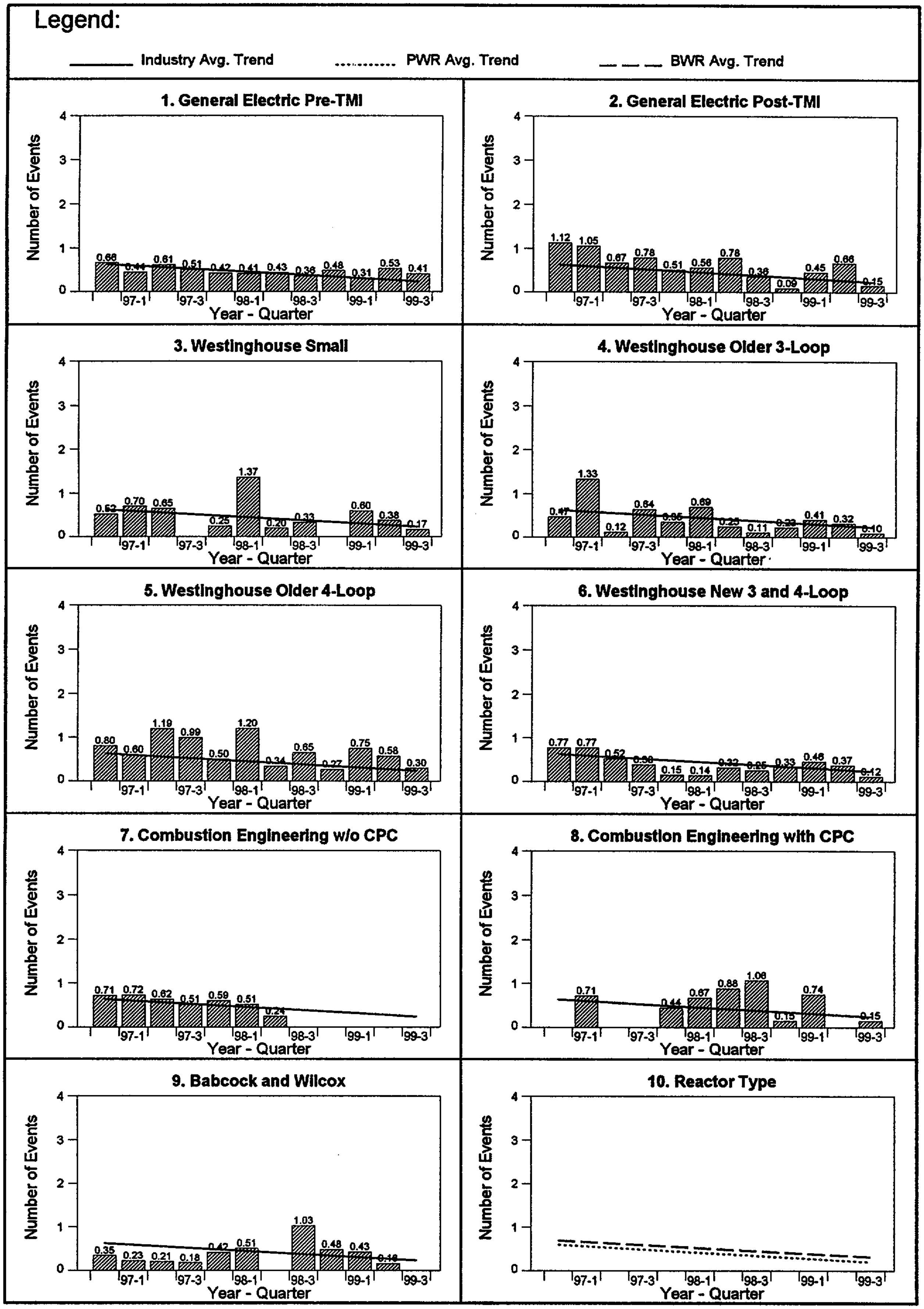


Figure 17. Peer group average number of other personnel error cause codes during Shutdowns (Normalized for the number of days in Shutdown)

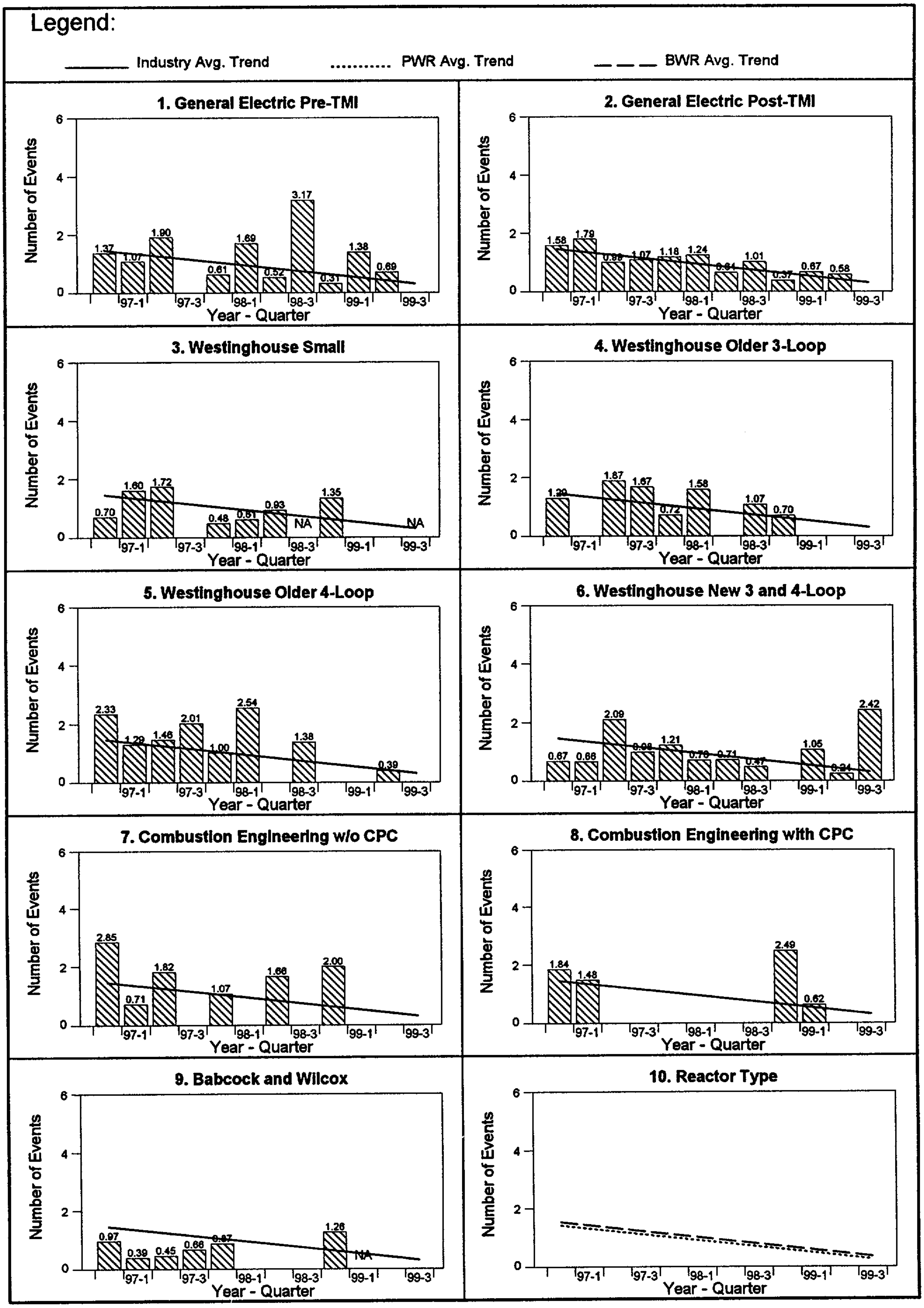


Figure 18. Peer group average number of maintenance cause codes during Operations and Startup (Normalized for the number of days in Operations and Startup)

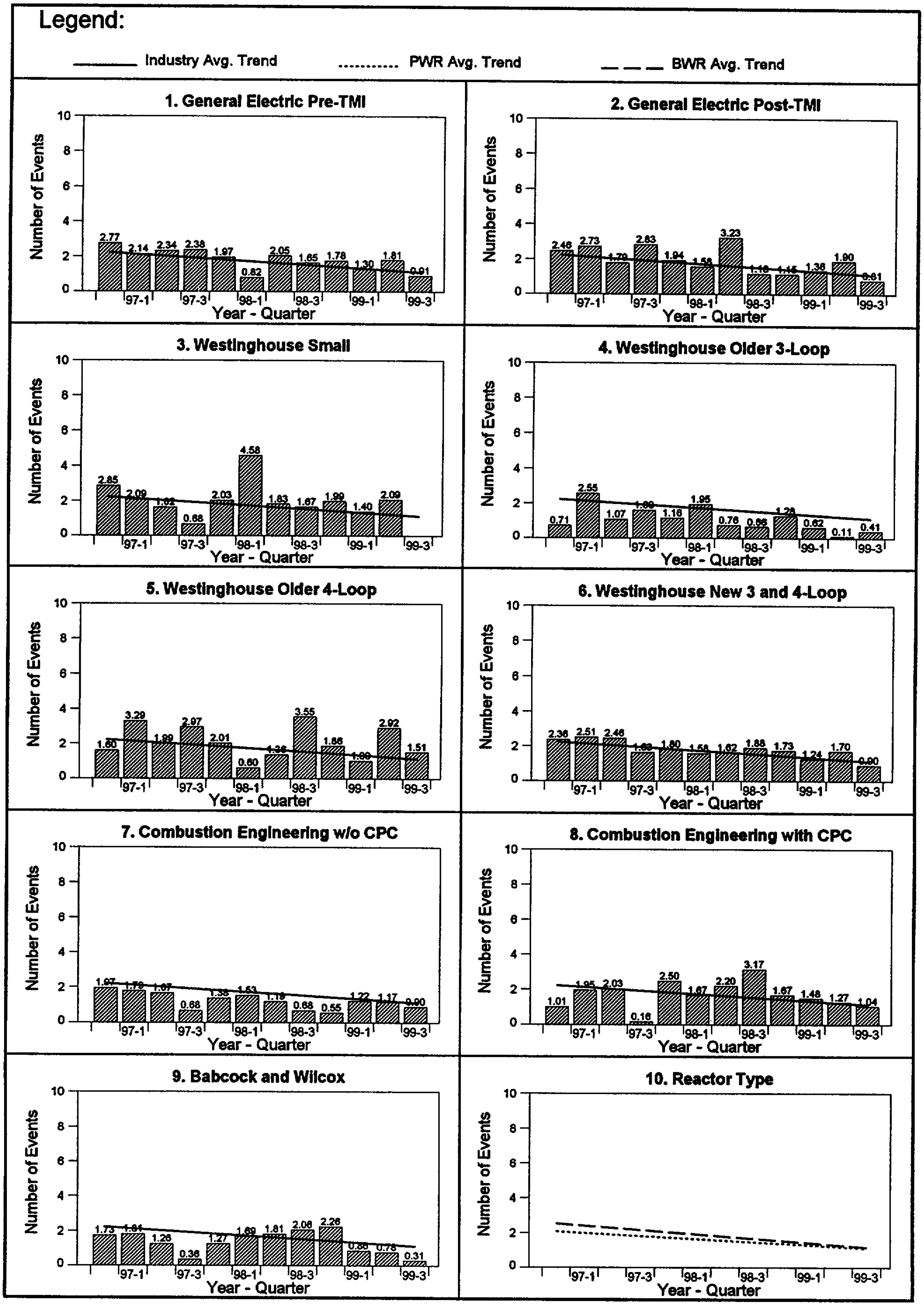
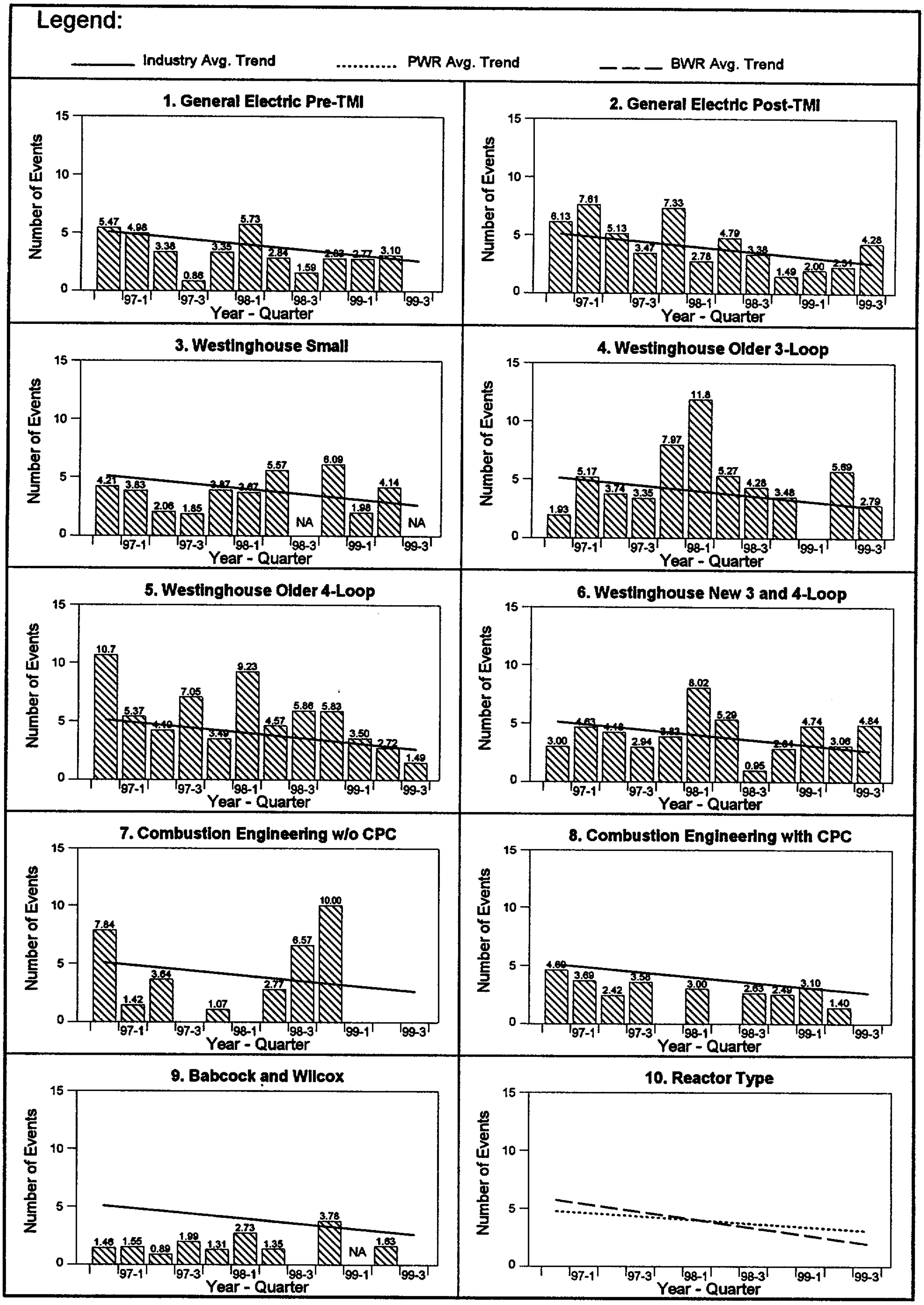


Figure 19. Peer group average number of maintenance cause codes during Shutdowns (Normalized for the number of days in Shutdown)



1. General Electric Pre-TMI

2. General Electric Post-TMI

3. Westinghouse Small

4. Westinghouse Older 3-Loop

5. Westinghouse Older 4-Loop

6. Westinghouse New 3 and 4-Loop

7. Combustion Engineering w/o CPC

8. Combustion Engineering with CPC

9. Babcock and Wilcox

10. Reactor Type

Figure 20. Peer group average number of design cause codes during Operations and Startup (Normalized for the number of days in Operations and Startup)

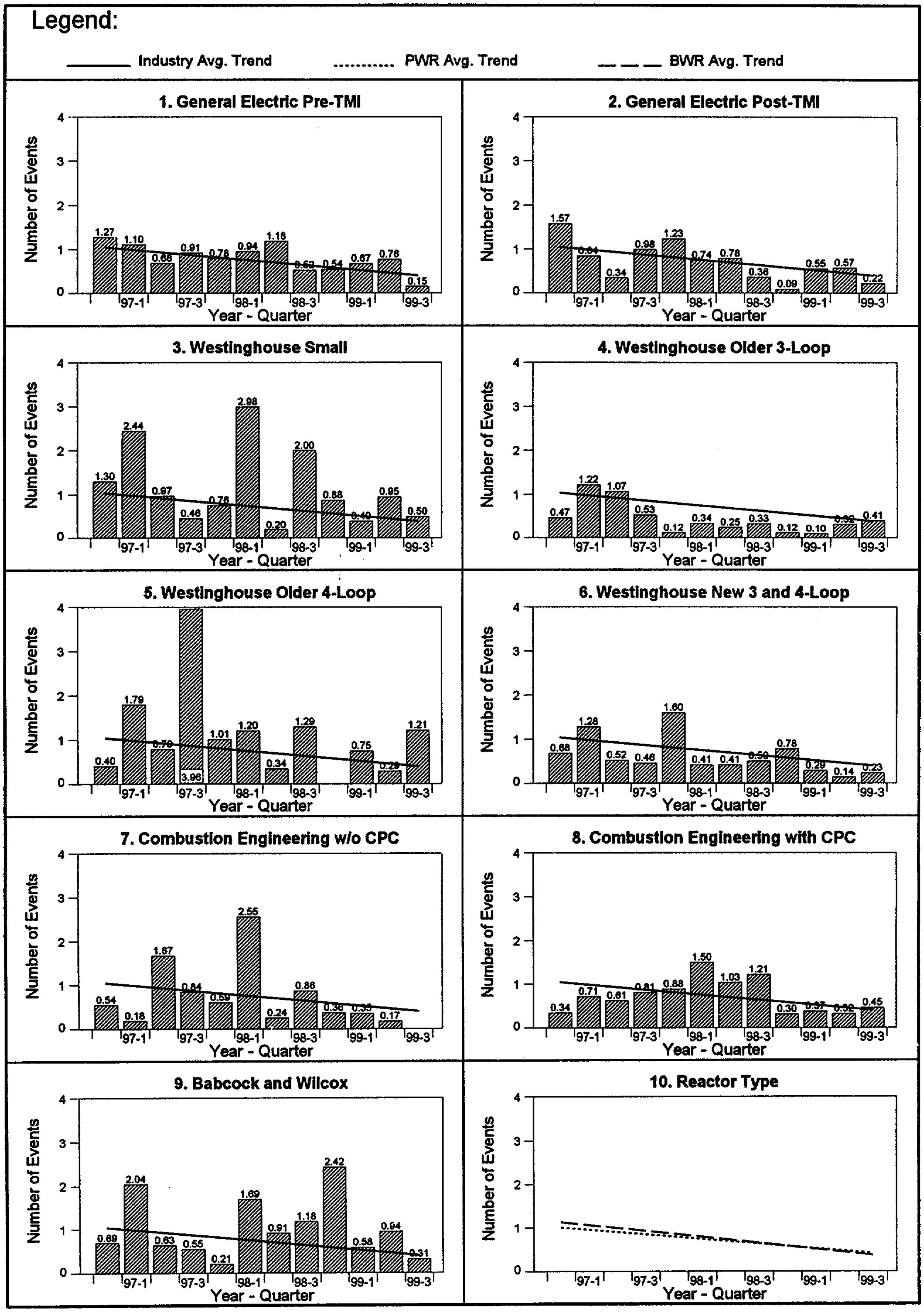


Figure 21. Peer group average number of design cause codes during Shutdowns (Normalized for the number of days in Shutdown)

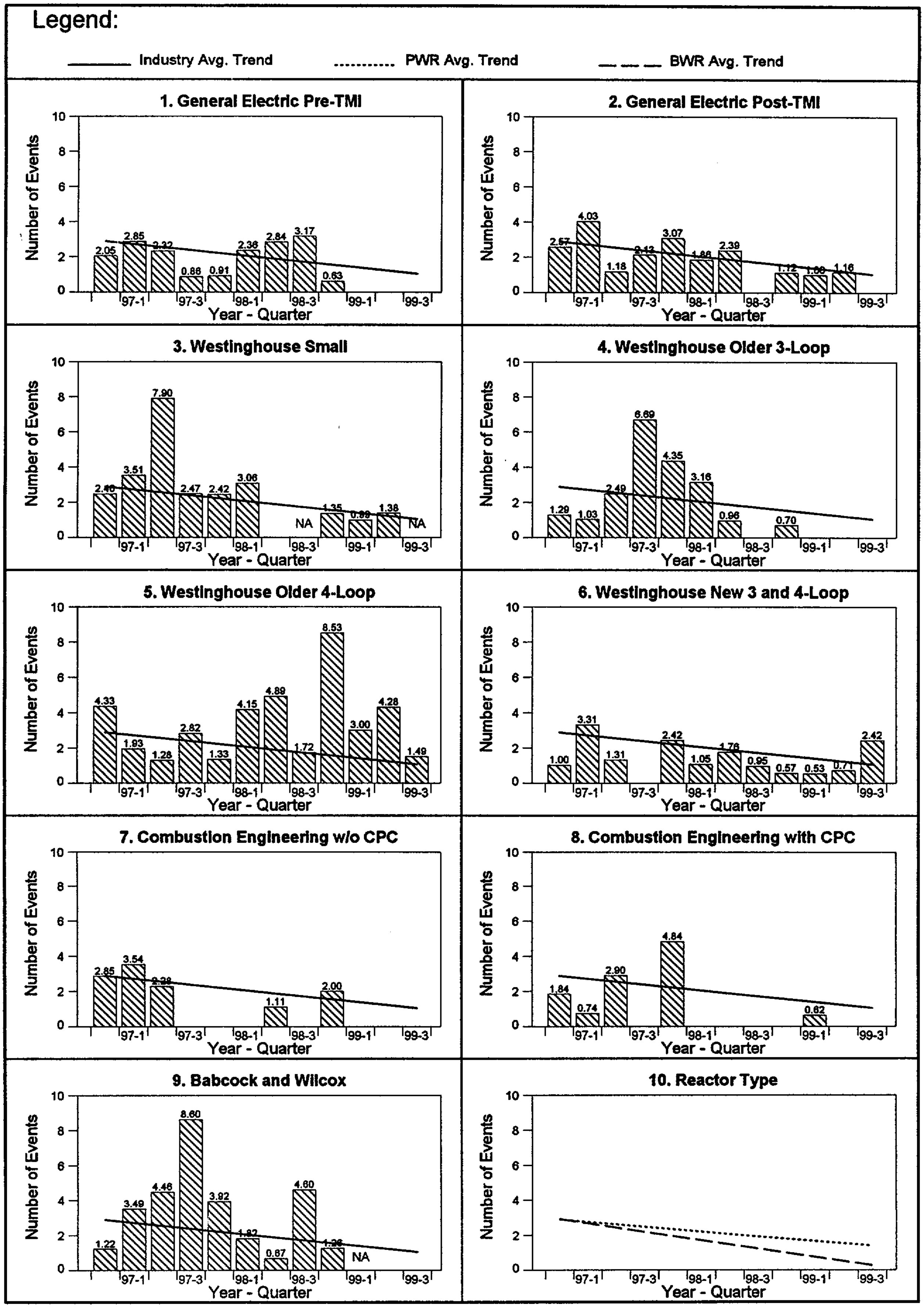


Figure 22. Peer group average number of miscellaneous cause codes during Operations and Startup (Normalized for the number of days in Operations and Startup)

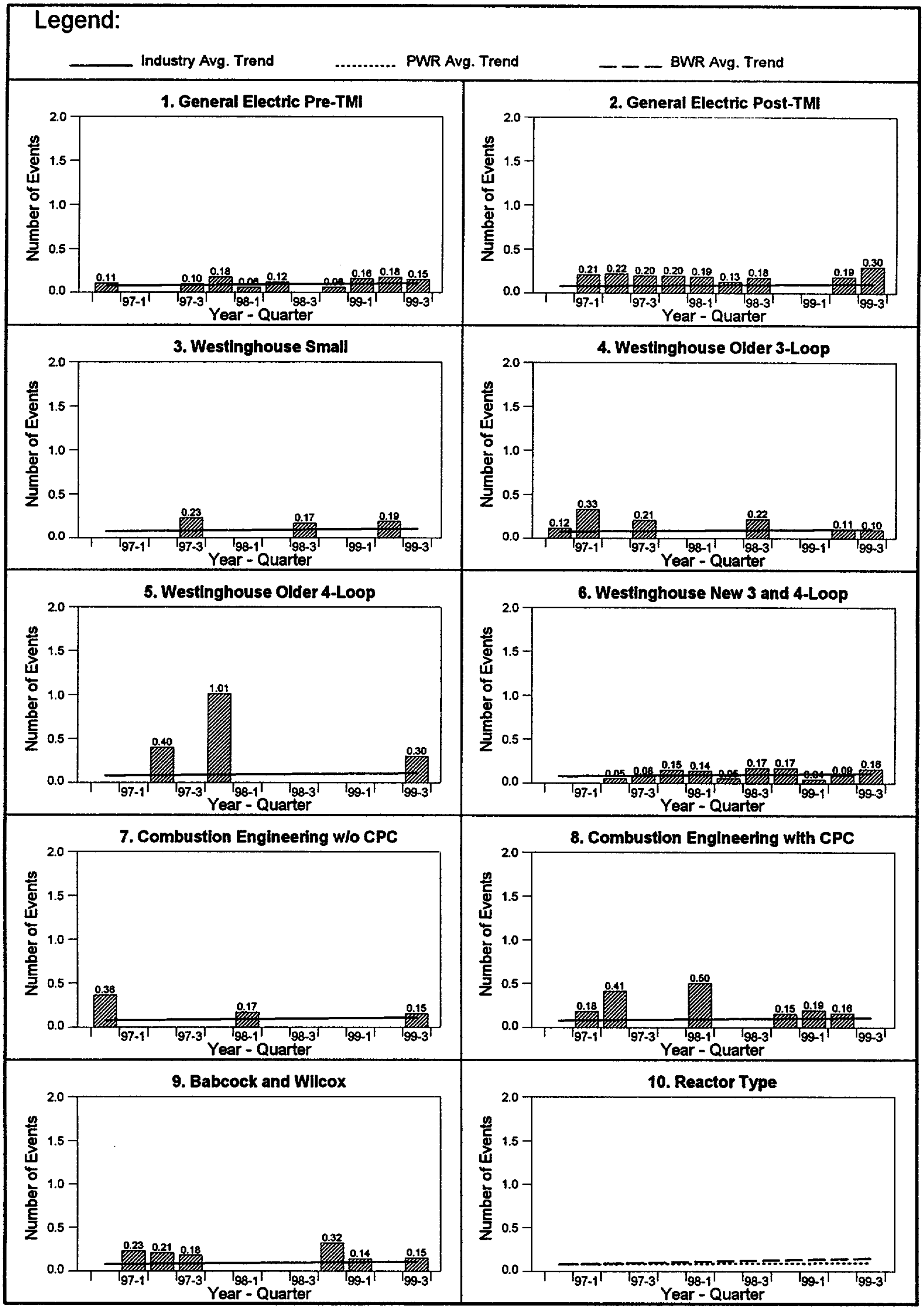
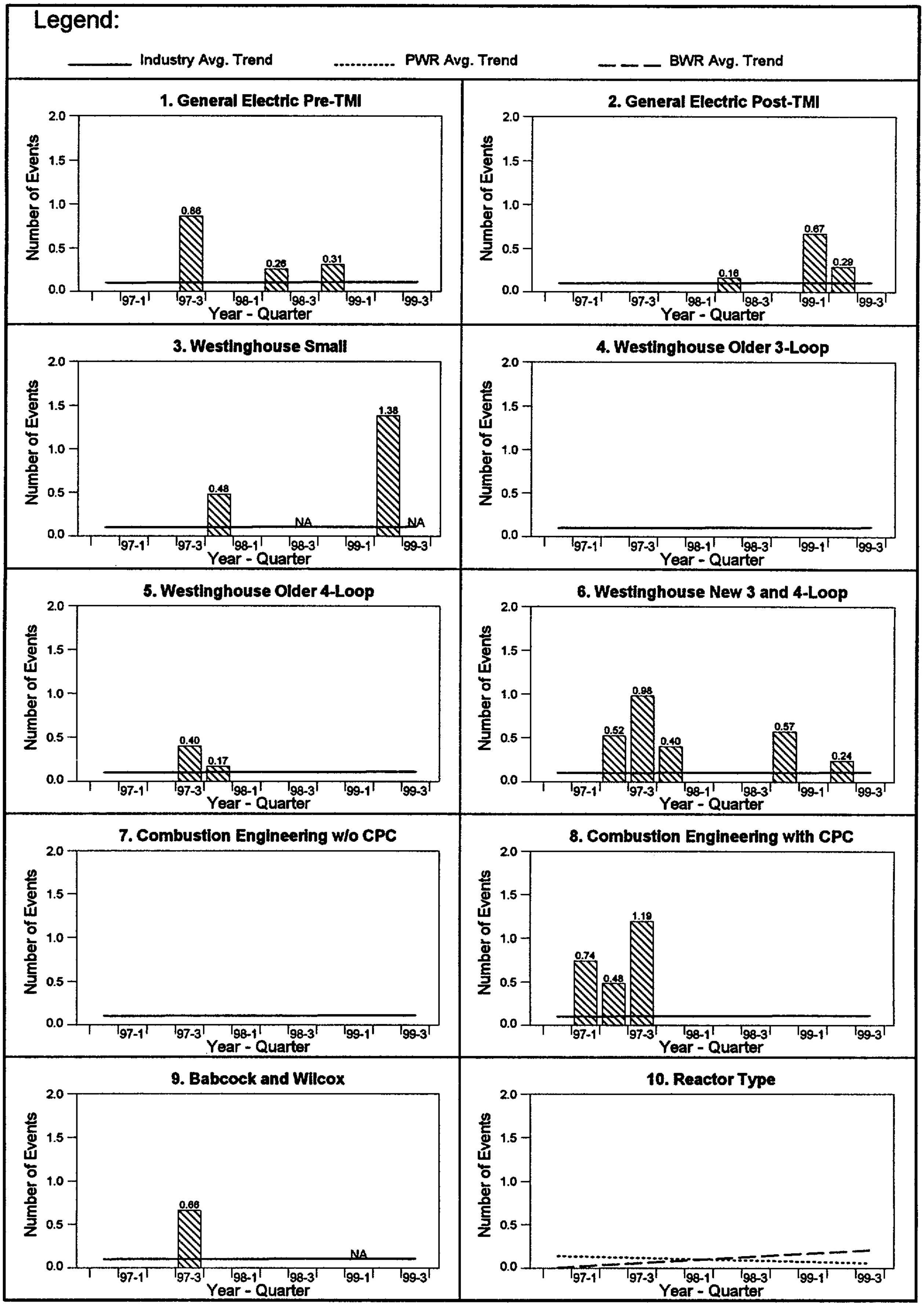


Figure 23. Peer group average number of miscellaneous cause codes during Shutdowns (Normalized for the number of days in Shutdown)



UNITED STATES
NUCLEAR REGULATORY COMMISSION

ANNOUNCEMENT NO. 200
DATE: November 28, 1989

TO: ALL NRC EMPLOYEES

SUBJECT: REVISED GUIDANCE ON THE USE OF PERFORMANCE INDICATORS

This announcement revises the earlier guidance of NRC Announcement 30, dated February 5, 1988, regarding the use of the results of the NRC Performance Indicator Program. All NRC employees shall adhere to the following guidance.

The Performance Indicator Program provides an additional view of operational performance and enhances our ability to recognize areas of poor and/or declining safety performance of operating plants. However, it is only a tool and is to be used in conjunction with other tools, such as the results of routine and special inspections and the systematic assessment of licensee performance (SALP) program, for providing input to NRC management decisions regarding the need to adjust plant-specific regulatory programs.

It should be recognized that performance indicators have limitations and are subject to misinterpretation. Therefore, caution is warranted in the interpretation and use of the data. The application of performance indicators for purposes and in manners other than those stated above will be counter to the NRC objective of ensuring operational safety. To avoid such situations, the following specific directives are provided:

1. The Performance Indicator Program for operating reactors is a single, coordinated, overall NRC program under the direction of AEOD. NRC offices other than AEOD should not deviate from the NRC program without written permission of the EDO or the Director, AEOD.

2. Performance indicators are intended as a tool for senior NRC management to monitor trends in overall performance for a given plant. The performance indicators for a given plant should be viewed as a set. When viewed as a set, the performance indicators provide an additional measure of plant operational performance. However, they should not be used in communications with licensees as a measure of performance level.

3. Performance indicators are intended to be one of several tools for use by senior NRC management in decision-making regarding plant-specific regulatory programs. Senior management in each NRC office should have access to performance indicators for their assigned unit(s). Performance indicators are not to be overemphasized in relation to other measures of safety performance. For this reason, no regulatory action should be taken on the basis of Performance Indicator Program results alone.

4. Performance indicators do not provide a valid basis for ranking individual nuclear power plants and should not be presented in such a way as to imply "problem facility" status for individual plants.

5. The Performance Indicator Program is separate and distinct from the SALP program, although it is recognized that the indicators have relationships in varying degrees to SALP functional areas. Indicators, such as failures of a plant's safety systems or frequent forced outages due to equipment failures, may be symptomatic of safety problems. Thus, the staff may recognize events and failures captured by certain indicators in SALP discussions and reports, but these SALP references are to be based on the underlying causes of poor performance and not on the results of the Performance Indicator Program, either individually or as a set. Regional Administrators should ensure that our decision-making process adheres to this guidance, especially in SALP discussions and documentation.

6. NRC senior management should bear in mind when evaluating performance indicator results that the indicators are assessment tools that aid in identification of unanticipated performance, and that the underlying causes should be carefully assessed, evaluated, and understood (factoring in other available information).

7. Quarterly compilations of Performance Indicator Program results should be placed in the Public Document Room following dissemination to NRC management and the Commission.

It should be recognized that in conducting reviews, inspections, and evaluations of plants, it is often necessary to rely on plant data. Such information has been routinely used in our SALP, safety evaluation reports, and technical evaluation reports. The foregoing policy is not intended to change this process.

NRC staff must be sensitive to inappropriate pressure from any source which causes licensee personnel at individual nuclear power plants to "manage the indicators" or take any actions that are contrary to plant safety because of performance indicators, individually or as a set (such as inhibiting reactor trips). Any such instances should be promptly communicated to appropriate licensee management and brought to NRC management attention.

James M. Taylor
Acting Executive Director
for Operations

ANALYSIS OF THE PERFORMANCE INDICATOR DATA THROUGH SEPTEMBER 1999

1. INTRODUCTION

This U.S. Nuclear Regulatory Commission (NRC) report presents performance indicator data, accounting for the different operational conditions, through September 1999 for 104 reactors. There are eight NRC Performance Indicators for Operating Commercial Nuclear Power Plants: (1) automatic scrams while critical, (2) safety system actuations, (3) significant events, (4) safety system failures, (5) forced outage rate, (6) equipment forced outages per 1000 commercial critical hours, (7) collective radiation exposure, and (8) cause codes.

This report is based on data extracted from Licensee Event Reports (LERs) submitted in accordance with 10 CFR 50.73, immediate notifications to the NRC Operations Center in accordance with 10 CFR 50.72, monthly operating reports in accordance with plant technical specifications, and screening of operating experience by NRC staff. Radiation exposure data are obtained from the Institute of Nuclear Power Operations (INPO). Graphical presentations of each plant's data, including trends and deviations analyses are provided, as well as tabulated summaries of the data. The trends and deviations analyses and tabulated summaries have been presented and calculated accounting for the plant's operational conditions.

2. BACKGROUND

Since May 1986, an interoffice task group has been working to develop an overall NRC program for using quantitative indicators of nuclear power plant safety performance. In July and August of 1986, the group conducted a trial program for 50 plants with 17 prospective performance indicators. For the most part, this trial program used data through calendar year 1984. The group then selected eight performance indicators to be recommended as the best set for initial implementation. One of these, corrective maintenance backlog, was deleted by the staff following consideration of industry comments.

In October 1986, a prototype report was prepared by expanding the trial program data to 100 operating reactors and including the data through the first half of 1986. The staff's recommended program, the task group report, and the prototype report were documented in SECY-86-317, "Performance Indicators", dated October 28, 1986. The Commission was briefed on the staff's recommended program in November 1986, and approved the implementation of the program in December 1986, instructing the staff to delete the enforcement action index from the set of indicators. In February 1987, the first quarterly PI report was issued and provided to senior management. This report covered the calendar quarters 85-1 through 86-4. In May 1987, an annual collective radiation exposure indicator was incorporated into the first quarter 1987 report. This was later revised to a quarterly collective radiation exposure indicator and incorporated into the first quarter 1989 report. In 1989, as documented in SECY-89-046 and SECY-89-211, the staff proposed that a new performance indicator based on cause codes be added to the program. Through Staff Requirements Memoranda (SRM) dated March 15, 1989, and August 10, 1989, the Commission approved cause codes as a new singular performance indicator. The new cause code indicator was subsequently incorporated by the staff into the program beginning with the second quarter 1989 report. Beginning in December 1989, the impact of the plant's peer group and operational conditions on the performance indicators was assessed. The peer group/operational cycle methodology was developed and a trial period conducted in 1992. In SECY 92-425, the staff proposed official implementation of the enhanced methodology beginning with the first quarter 1993 report. This plan was approved by the Commission in March 1993. Reports were provided quarterly to NRC management until June 1993, when the frequency was changed to twice a year. Following publication of the third quarter 1995 report, the frequency was changed to once a year.

3. DEFINITIONS OF THE PERFORMANCE INDICATORS

The performance indicator data presented in this report are categorized according to specific definitions. The definitions of the eight indicators currently in the program are provided below.

3.1 Automatic Scrams While Critical (Scrams)

This indicator monitors the number of unplanned automatic scrams that occurred while the affected reactor was critical. Examples of the types of scrams included in this indicator are those that resulted from unplanned transients, equipment failures, spurious signals, or human error. Also included are those that occurred during the execution of procedures in which there was a high chance of a scram occurring, but the occurrence of a scram was not planned. Scram data are primarily derived from 10 CFR 50.73 Licensee Event Report (LER) information and supplemented as necessary from 10 CFR 50.72 Immediate Notification reports. The reactor was "critical" if the report so states. Otherwise, criticality is determined from a detailed review of the other operational information. This indicator is similar to the unplanned automatic scrams per 7000 critical hours indicator of INPO.

3.2 Safety System Actuations (SSA)

Safety system actuations are manual or automatic actuations of the logic or equipment of either certain Emergency Core Cooling Systems (ECCS) or, in response to an actual low voltage on a vital bus, the Emergency AC Power System. Input for this indicator are derived from LERs and supplemented by 50.72 reports. In determining which events should be counted by this indicator, the following conventions are used:

1. Only actuations of the High Pressure Injection System, Low Pressure Injection System, or Safety Injection Tanks are counted for pressurized water reactors (PWRs). For boiling water reactors (BWRs), only actuations of the High Pressure Coolant Injection System, Low Pressure Coolant Injection System, High Pressure Core Spray System, or Low Pressure Core Spray System are counted. Actuations of the Reactor Core Isolation Cooling System are not counted.

2. Actuations of Emergency AC Power Systems are counted only if they were in response to an actual low voltage condition on a vital bus. Specifically, actuations are counted only if the Emergency AC Power System's output breaker closed, or should have closed, to power a dead bus. Actuations resulting from momentary low voltage conditions that do not result in emergency output breaker closure are not counted.

3. Logic actuations of any of the equipment associated with the specific ECCS or Emergency AC Power System are considered necessary and sufficient to constitute a data count. For example, if only a valve in a system is commanded to move to its emergency operational position, this is counted as an actuation. A pump does not have to be commanded to go to its emergency mode of operation and fluid does not need to be injected for an occurrence to be counted.

4. Only one ECCS actuation is counted in any one occurrence, even if multiple ECCS systems actuate during the occurrence. For example, actuation of both the High Pressure Injection and the Low Pressure Injection Systems at a PWR during the same occurrence counts as only a single ECCS actuation.

5. Only one Emergency AC Power System actuation is counted in any occurrence, even if multiple emergency generators actuate during the occurrence. For example, actuation of all four emergency diesel generators (EDGs) at a unit counts as only a single actuation for that occurrence.

6. Occurrences involving actuations of both an Emergency AC Power System to power a dead bus and an ECCS are given a count of two, one for the Emergency AC Power System actuation and one for the ECCS actuation.

7. At multi-unit sites that share equipment (e.g., a swing EDG or shared buses), actuations are counted and assigned to the unit at which the actuation signal or loss of power originated. If the signal source cannot be associated with one unit, the actuation is assigned to both units.

3.3 Significant Events (SE)

Significant events are those events identified by NRC staff through detailed screening and evaluation of operating experience. The screening process includes the daily review and discussion of all reported operating reactor events, as well as other operational data such as special tests or construction activities. An event identified from the screening process as a significant event candidate is further evaluated to determine if any actual or potential threat to the health and safety of the public was involved. Examples of some of the types of criteria considered during the significant event screening and evaluations are summarized as follows:

1. Degradation of important safety equipment. Events considered under this category include situations that had the potential to reduce or actually reduced the operational capability of equipment. One example is the identification of a common cause failure mechanism, which could cause redundant components or multiple independent components to fail in response to a test or actual demand signal. This category does not include such items as a missed surveillance test, if the equipment was subsequently tested and determined to be operable.

2. Unexpected plant response to a transient. Events considered under this category include situations in which changes in reactor parameters represent unanticipated reductions in margins of safety. For example, a rapid plant cooldown following a reactor trip exacerbated by a balance-of-plant malfunction or an undesirable system interaction. This category does not include minor differences in predicted and observed conditions that can be reasonably explained by instrument errors or modeling techniques and simplifying assumptions.

3. Degradation of fuel integrity, primary coolant pressure boundary, important associated structures. Events considered under this category include those of similar character to those identified in item 1 above, related to nuclear fuel, reactor coolant system containment, or important plant structures.

4. Scram with complication. Events considered under this category are scrams that occurred while the affected reactor was critical, followed by an equipment failure, malfunction, or personnel error. The failure, malfunction, or error generally does not include those that lead to or directly caused the scram. Failures that both cause the scram and reduce the capability of the mitigating system (e.g., electric power, instrument air, other auxiliary support functions, or deficient procedures) are counted.

   Examples of equipment failure/malfunctions include:

   - Mitigating system failures - Loss of redundancy due to single failures, reduced capacity, or margin. This includes components or trains out of service for maintenance.
   - Failure adding to complexity of event - Erroneous control system responses, electrical switching difficulties, mitigating system and key plant parameter instrumentation malfunctions/failures.
   - Additional event initiators - Stuck-open primary or secondary relief/safety valves, pipe breaks, and operating wrong equipment/trains.

   Examples of personnel errors include:

   - Improper control or termination of mitigating system.
   - Misdiagnosis of the event or failure to follow procedures.

In addition to the situations described in items 1 through 4 above, other broad categories considered for significant events include:

5. Unplanned release of radioactivity. Events considered under this category include unplanned releases of radioactivity that had the potential to exceed or actually exceeded the limits of the Technical Specifications or Regulations.

6. Operation outside the limits of the Technical Specifications. Events considered under this category include occurrences when plant operation was conducted inconsistent with the license requirements. This category applies to risk significant deviations and most likely does not include incidents involving missed surveillances, small errors in setpoints, or other administratively inoperable conditions.

7. Other. Events considered under this category include a series of events or recurring incidents that alone are not significant but when considered collectively represent ineffective corrective actions, or a deficiency in the plant hardware or administrative programs.

3.4 Safety System Failures (SSF)

Safety system failures are any events or conditions that could prevent the fulfillment of the safety function of structures or systems. If a system consists of multiple redundant subsystems or trains, failure of all trains constitutes a safety system failure. Failure of one of two or more trains is not counted as a safety system failure. The definition for the indicator parallels NRC reporting requirements in 10 CFR 50.72 and 10 CFR 50.73. The following is a list of the major safety systems, subsystems, and components monitored for this indicator:

Accident Monitoring Instrumentation
Auxiliary (and Emergency) Feedwater System
Combustible Gas Control
Component Cooling Water System
Containment and Containment Isolation
Containment Coolant Systems
Control Room Emergency Ventilation System
Emergency Core Cooling Systems
Engineered Safety Features Instrumentation
Essential Compressed Air Systems
Essential or Emergency Service Water
Fire Detection and Suppression Systems
Isolation Condenser
Low Temperature Overpressure Protection
Main Steam Line Isolation Valves
Onsite Emergency AC & DC Power w/Distribution
Radiation Monitoring Instrumentation
Reactor Coolant System
Reactor Core Isolation Cooling System
Reactor Trip System and Instrumentation
Recirculation Pump Trip Actuation Instrumentation
Residual Heat Removal Systems
Safety Valves
Spent Fuel Systems
Standby Liquid Control System
Ultimate Heat Sink

3.5 Forced Outage Rate (FOR)

Forced outages are those required to be initiated no later than the end of the weekend following the discovery of an off-normal condition. Based on the data provided in the monthly operating reports, the forced outage rate is the number of forced outage hours divided by the sum of unit service hours (i.e., generator on-line hours) and forced outage hours.

3.6 Equipment Forced Outages per 1000 Commercial Critical Hours (EFO)

This indicator is the number of forced outages caused by equipment failures per 1000 critical hours of commercial reactor operation. It is the inverse of the mean time between forced outages caused by equipment failures. The inverse number was adopted to facilitate calculation and display. The source of these data are the same as that for the forced outage rate.

3.7 Collective Radiation Exposure

This indicator is the total radiation dose accumulated by unit personnel. Prior to the third quarter of 1992, values at multi-unit sites were reported as site averages, with the exception of the Indian Point and Millstone sites which reported individual unit values. Beginning with the third quarter of 1992, some multi-unit sites reported site average values, while other multi-unit sites reported individual unit values. A note at the bottom left corner of the Quarterly Data charts identifies which method is used. The radiation exposure data are obtained from INPO and because of the techniques employed in gathering the data, these data lag the other performance indicator data by one quarter.

3.8 Cause Codes

Cause codes are intended to identify possible deficiencies in six programmatic categories. The cause code data are developed using the NRC's Sequence Coding and Search System (SCSS) database. Any event can have any or all of the cause codes assigned to it, but only one of each type can be assigned to any one event. This database is developed from all LERs, not just those associated with specific events monitored by the other PIs. The programmatic categories and their definitions are:

3.8.1 Administrative Control Problems

Management and supervisory deficiencies that affect plant programs or activities are included in this category. This category covers the implementation of the numerous functional disciplines necessary to operate a nuclear power facility such as operations, maintenance, licensing, design, health physics, etc. Examples of administrative control problems include poor planning, breakdown or lack of adequate management or supervisory control, inadequate interdepartmental coordination, poor communication between supervisors and staff or among departments, deficiencies resulting in weak or incorrect operating, surveillance or testing procedures, and departures from program requirements. The administrative control problems category is used if there is evidence that a particular problem is recurring and no effective corrective action has been taken. Specific examples are:

- No corrective action after a design problem is discovered.
- QA/QC problems.
- Unauthorized work activity.
- Unqualified personnel performing plant tasks.
- 10 CFR 50.59 review not performed.
- Personnel contamination due to lack of warning signs.
- Technical Specification surveillance not scheduled.
- Inadequate procedure resulting in inadvertent safety injection.

3.8.2 Licensed Operator Errors

This cause category captures errors of omission or commission by licensed reactor operators during plant activities. These errors may initiate events or may be committed during the course of an event. Licensed operator errors typically occur due to carelessness, lack of experience or training, fatigue, stress, attitude, or poor work habits. Improper supervision is also included whenever the event is the result of improper instructions given by a licensed operator, such as an operations supervisor or control room shift supervisor. Excluded from this category are administrative control problems, such as incorrect procedures or inadequate planning activities, which caused an operator to take inappropriate actions. Examples of licensed operator errors include:

- Operator withdrew control rods out of order.
- Operator failed to bypass scram discharge volume high level trip following a trip. A second trip resulted.

3.8.3 Other Personnel Errors

This programmatic cause category captures errors of omission or commission committed by non-licensed personnel involved in plant activities. Included in this category are plant staff (technicians, maintenance workers, equipment operators) and contract personnel. Not included in this category are administrative control problems, such as incorrect procedures or inadequate planning activities, which caused personnel to take inappropriate actions. This cause category is used in conjunction with the Maintenance Problems category when an event is the result of a personnel error involved with a maintenance activity. Examples of other personnel errors include:

- Test personnel inadvertently shorted two cables while performing test.
- Maintenance personnel omitted two fasteners while reassembling valve operator.
- Steps in surveillance procedure performed out of order.

3.8.4 Maintenance Problems

The intent of the maintenance problems cause category is to capture the full range of problems which can be attributed in any way to programmatic deficiencies in the maintenance functional organization. Activities included in this category are maintenance, testing, surveillance, calibration, and radiation protection. The deficiencies noted within this category generally lead to inadequate or improper upkeep and repair of plant equipment and systems or inadequate programs to monitor equipment and plant performance as necessary to prevent hardware failures.

This is the broadest of all categories and is intended to identify areas where improved plant performance is possible through a program which includes such things as increased attention to detail, more frequently performed surveillances, or the use of better trained personnel. The Maintenance Problems Cause category is used to track the performance of plant management's capability to properly repair failed equipment and to preclude equipment failures through improved preventative maintenance programs. Additionally, as an indication of potential maintenance problems, hardware failures which cannot be readily attributable to any preventable cause are also included in this category.

Maintenance related errors are often coupled with other cause categories such as Other Personnel Errors or Administrative Control Problems. The Maintenance Problems category is used in conjunction with other categories when an error occurs while a maintenance, surveillance, or test activity is in progress, whether the error was the result of a deficient procedure or a personnel error.

3.8.5 Design/Construction/Installation/Fabrication Problems

This category covers a full range of programmatic deficiencies in the areas of design, construction, installation, and fabrication. It is used in conjunction with other cause categories when necessary to capture all contributors to the event. One exception to the use of additional categories is that since the very nature of the design process implies a personnel error, it is not necessary to also included one of the personnel error categories for the design error itself.

Examples of the problems included in this category are:

- Check valve installed backwards resulted in RHR overpressurization when isolation valve was opened.
- Transmitter sensing lines reversed.
- Loss of control power due to underrated fuse.
- Use of wrong seal material resulted in solenoid malfunction.
- Equipment not qualified for the environment.
- Defect discovered in pump casing attributed to a manufacturing process.

The design modification process is an ongoing task at nuclear power plants. Examples of design modification problems included in this category are:

- Incorrect interpretation of plant drawings led to an incorrect design modification package.
- Incorrect modification package caused the installation of a component in an unfavorable configuration (e.g., incorrect wiring, incorrect location of instrumentation tubing, valve installed in wrong line, etc.).
- Post modification test procedure is incorrect due to incorrect information in the design modification package.

This cause category may be used in conjunction with other cause categories such as administrative control problems.

3.8.6 Miscellaneous

This category is used for spurious or one-time failures of electronic piece-parts and failures due to meteorological conditions such as lightning, ice, high winds, etc. Electronic components which are included in this category are circuit cards, rectifiers, bistable, fuses, capacitors, diodes, resistors, transducers, amplifiers, and computation modules.

This category does not include failures that can be attributed to other problems, such as maintenance problems or design/construction/installation/fabrication problems. Additionally, failures of mechanical equipment for which a cause can not be specifically identified are included in the maintenance problems category.

Examples of electronic piece-part or environmental-related failures include:

- Flashovers occurred in switchyard due to high wind and rain from a thunderstorm.
- Capacitor failure in instrument power supply caused loss of signal from containment leakage detection radiation monitor.
- Surges from lightning strike close to plant propagated through the plant electrical system, causing the main generator to trip.

4. PEER GROUP AND OPERATIONAL CYCLE DEFINITIONS

The performance indicator data are categorized by peer group and operational condition as discussed in the following sections.

4.1 Peer Group Listing

The plants have been categorized into nine peer groups based on NSSS vendor, product line, generating capacity, and licensing date. A tenth peer group includes all new plants that have received a low power license since January 1, 1987. The following list presents the peer groups:

Pre-TMI General Electric Plants

- Big Rock Point
- Browns Ferry 1
- Browns Ferry 2
- Browns Ferry 3
- Brunswick 1
- Brunswick 2
- Cooper Station
- Dresden 2
- Dresden 3
- Duane Arnold
- FitzPatrick
- Hatch 1
- Hatch 2
- Millstone 1
- Monticello
- Nine Mile Pt. 1
- Oyster Creek
- Peach Bottom 2
- Peach Bottom 3
- Pilgrim
- Quad Cities 1
- Quad Cities 2
- Vermont Yankee

Post-TMI General Electric Plants

- Clinton 1
- Fermi 2
- Grand Gulf
- Hope Creek
- LaSalle 1
- LaSalle 2
- Limerick 1
- Limerick 2
- Nine Mile Pt. 2
- Perry
- River Bend
- Susquehanna 1
- Susquehanna 2
- Wash. Nuclear 2

Babcock and Wilcox Plants

- Arkansas 1
- Crystal River 3
- Davis-Besse
- Oconee 1
- Oconee 2
- Oconee 3
- Three Mile Isl. 1

Combustion Engineering Plants without Core Protection Calculators

- Calvert Cliffs 1
- Calvert Cliffs 2
- Fort Calhoun
- Maine Yankee
- Millstone 2
- Palisades
- St. Lucie 1
- St. Lucie 2

Combustion Engineering Plants with Core Protection Calculators

- Arkansas 2
- Palo Verde 1
- Palo Verde 2
- Palo Verde 3
- San Onofre 2
- San Onofre 3
- Waterford 3

Westinghouse 2-Loop and Small 3 and 4-Loop Plants

- Ginna
- Haddam Neck
- Kewaunee
- Point Beach 1
- Point Beach 2
- Prairie Island 1
- Prairie Island 2

Westinghouse Older 3-Loop Plants

- Beaver Valley 1
- Farley 1
- Farley 2
- North Anna 1
- North Anna 2
- Robinson 2
- Surry 1
- Surry 2
- Turkey Point 3
- Turkey Point 4

Westinghouse New 3 and 4-Loop Plants

- Beaver Valley 2
- Braidwood 1
- Braidwood 2
- Byron 1
- Byron 2
- Callaway
- Catawba 1
- Catawba 2
- Comanche Peak 1
- Comanche Peak 2
- Diablo Canyon 1
- Diablo Canyon 2
- Harris
- McGuire 1
- McGuire 2
- Millstone 3
- Seabrook
- Sequoyah 1
- Sequoyah 2
- South Texas 1
- South Texas 2
- Summer
- Vogtle 1
- Vogtle 2
- Watts Bar 1
- Wolf Creek

Westinghouse Older 4-Loop plants

- Cook 1
- Cook 2
- Indian Point 2
- Indian Point 3
- Salem 1
- Salem 2
- Zion 1
- Zion 2

All New Plants Since 1/1/87

- Braidwood 1
- Braidwood 2
- Beaver Valley 2
- Comanche Peak 1
- Comanche Peak 2
- Limerick 2
- Palo Verde 3
- Seabrook
- South Texas 1
- South Texas 2
- Vogtle 1
- Vogtle 2
- Watts Bar 1

4.2 Operational Cycle Definitions

The operational cycle methodology calculates the performance indicator trends and deviations in a manner that accounts for the different plant operational conditions. The operational cycle phases and phase types are defined as follows:

4.2.1 Operational Cycle Phases

The operational cycle begins when a plant recovers from a refueling outage and ends when the plant is ready to exit the next refueling outage. The operational cycle has been divided into five phases to facilitate event analysis. These phases give consideration to the different activities being conducted at the plant. The phases are defined as follows:

- Refueling outage phase - The period the reactor is subcritical for a refueling outage.
- Startup phase - The 25 operating days (i.e., reactor critical) immediately following a refueling outage.
- Power operations phase - Those operating days not contained in the startup or pre-refueling phase.
- Non-refueling outage phase - The period the reactor is subcritical for an outage, other than refueling, that is longer than approximately 72 hours in duration.
- Pre-refueling phase - The 25 operating days immediately preceding a refueling outage.

Regulatory shutdown days, where Commission approval is required for either restart or operation above low power, are excluded from all phases.

4.2.2 Operational Cycle Phase Types

The five phases are combined into two phase types - operations, consisting of the startup, power operations, and pre-refueling phases; and shutdown, consisting of the refueling and non-refueling outage phases. To accomplish this construction of operations and shutdown phase types, each plant's operating history must be partitioned. All refueling outages, and non-refueling outages that are longer than approximately 72 hours, are removed from the time sequence and, retaining their chronological order, are combined into the shutdown phase type. The remaining days, consisting of startups, power operations, and pre-refuelings, are brought together in chronological order to form the operations phase type. These two phase types are then treated as continuums for the purpose of calculating trends and deviations. Each of these continuums, while arranged chronologically, does not necessarily consist of consecutive calendar days, depending upon the plant's operating history.

5. DISPLAY OF PERFORMANCE INDICATOR DATA

The performance indicator data in this report are presented in charts and tables as discussed in the following sections.

5.1 Quarterly Data

Figures 7.1a through 7.104a provide individual charts of PI data for each plant, containing individual bars showing quarterly PI data values. The bars are shaded to identify the number of events that occurred during each phase type and startup phase. Except for the cause codes, each chart has a linear regression trend line of industry averages to provide a comparative performance level. In the case of the safety system failure and collective radiation exposure indicators, the linear regression line pertains to plant type averages (pressurized or boiling water reactor). To present a picture of a plant's recent operating history, a profile showing periods of time when the plant was in the operations or shutdown phase type is provided at the top of the page.

5.2 Trends and Deviations

Figures 7.1b through 7.104b provide plant profiles of the trends and deviations calculated from the corresponding performance indicator count values. Each chart is subdivided into three parts: operations phase type (including startup), shutdown phase type, and forced outages (which are not a function of phase type). The "Plant Self-Trend" charts (short term trends over the most recent 270 operations days and 90 shutdown days) are based on the slope of a linear regression line plotted over each plant's data. The slope is divided by a scaling factor so that all performance indicator trend values are on the same scale. The "Deviations from Peer Group Median" charts (long term deviations over the most recent 540 operations days and 180 shutdown days) compare each plant's performance with the performance of its peers. These comparisons are made by subtracting a plant's event rate from the peer group median event rate. The result is divided by a scaling factor so that all performance indicator deviation values are on the same scale. The trends and deviations are calculated for all indicators except radiation exposure. Because an automatic scram while critical PI event cannot occur while shutdown, a scram trend and deviation calculation is not performed for the shutdown phase type.

Tests of the statistical significance of each plant's trends and deviations assist in distinguishing between those patterns of events that are likely to occur randomly and those that are unlikely to occur randomly. The tests determine the probability that an observed pattern is a random occurrence rather than a real performance trend or deviation. The significance tests use Monte Carlo simulation techniques to determine the probability that an observed pattern is random. Trends and deviations values with a probability of being random greater than 0.200 are of low statistical significance and are shaded white. Those with a probability greater than 0.025 but less than or equal to 0.200 are of medium significance and are shaded gray. Patterns with a probability less than or equal to 0.025 of being random are of high statistical significance and are shaded black.

6. COMPUTATIONAL CONVENTIONS

The following conventions are used in the calculations and displays for this report.

1. Certain plants are excluded from the report and calculations as follows:

With the exception of the collective radiation exposure calculations, plants in regulatory shutdown, where Commission approval is required for either restart or operation above low power, are excluded from the peer and industry average calculations and the plant self trends and deviations calculations for the regulatory shutdown period. Radiation exposure can be significant during regulatory outages, hence these data are not excluded from any calculations. In addition, plants have been excluded after they were permanently shutdown. The following listing tabulates the excluded plants and the periods for which their data were not included in the calculations for this report.

PLANT	EXCLUDED PERIODS
Big Rock Point	From 09/20/1997 to Present
Browns Ferry 1	From 03/19/1985 to Present
Haddam Neck	From 12/04/1996 to Present
Maine Yankee	From 08/06/1997 to Present
Millstone 1	From 06/28/1996 to Present
Millstone 2	From 06/28/1996 to 04/29/1999
Millstone 3	From 06/28/1996 to 07/01/1998
Zion 1	From 12/31/97 to Present
Zion 2	From 12/31/97 to Present

2. Plants are considered to be "new plants" from the date they receive a low power license until two years after their commercial operation date.

3. "NA" is used under the following conditions for new plants:

- For safety system actuations, significant events, safety system failures, and cause codes, until an initial operating license is received.
- For scrams, until critical operation.
- For forced outages and equipment forced outages, until commercial operation is declared.
- For collective radiation exposure, until the beginning of the first full calendar year of commercial operation.

Thereafter, numerical values are used. For example, a plant shut down for an entire quarter after initial criticality has zero for scrams rather than "NA".

4. "NA" is also used in the following situations:

- All quarterly PI values after a plant has permanently shutdown.
- Collective radiation exposure for the most recent quarter. These data lag the other PI data by one quarter.
- All Trends and Deviations values for those plants in a regulatory shutdown.
- Trends and Deviations values when the minimum time required to perform the calculations is not met.
- Peer group quarterly average values in the executive summary when the peer group does not have greater than 30 operations phase type or forced outage days, or 10 shutdown phase type days.
- In the case of Browns Ferry 1, beginning with the fourth quarter of 1995, INPO no longer provides radiation exposure data.

5. The Quarterly Data charts (Figures 7.1a through 7.104a) employ the following conventions:

- Industry average trend lines, except for the safety system failure and collective radiation exposure charts, are linear regression lines of the industry average number of events per quarter, disregarding phase and phase type.
- The safety system failure and collective radiation exposure industry average trend lines are linear regression lines of the average number of events per quarter of each plant type (pressurized or boiling water reactor), disregarding phase and phase type.
- The linear regression lines are calculated using a least squares method as follows:

$$y = mx + b$$

$$m = \frac{n(\sum xy) - (\sum x)(\sum y)}{n(\sum x^2) - (\sum x)^2}$$

$$b = \frac{(\sum x^2)(\sum y) - (\sum xy)(\sum x)}{n(\sum x^2) - (\sum x)^2}$$

b = y intercept
m = Slope
n = The number of data points (12 for 12 quarters).
x = The data point sequential number (1 through 12, with 12 being the most recent quarter).
y = The data point value (quarterly value).

6. The following table summarizes the time intervals used in the trends and deviations calculations:

	OPERATIONS		SHUTDOWNS		FORCED OUTAGES	
	Trends	Deviations	Trends	Deviations	Trends	Deviations
Total Days	270	540	90	180	270	540
Minimum Days	90	90	30	30	90	90
Maximum Calendar Quarters	4	12	6	12	4	12

For the trends calculations, data are parsed into specific time segments: 30 day segments for the operations phase type and forced outages, 10 day segments for the shutdowns phase type. The slope of the linear regression line that plots the data is calculated and divided by a scaling factor, so that all performance indicator trend values are on the same scale. In accordance with the above table, an operations phase type trend value is based on the slope of a linear regression line that plots data from the most recent 270 operations days or four calendar quarters, whichever is shorter in calendar time. If a minimum of 90 operations days did not occur during the last four quarters, the calculation is not performed.

The trend scaling factors (η) normalize the data using the 2nd and 98th percentile values (p) of all calculated plant trend slopes for a given PI, and scale the result to fall between -0.9 and 0.9 as follows:

$$\eta = \frac{p}{0.9}$$

p = 2nd percentile value for negative slopes, 98th percentile value for positive slopes.

The plant trend equation is:

$$Trend = \frac{-m}{|\eta|}$$

m = Slope
η = Trend scaling factor

A plant's performance may be improving ($m < 0$), unchanged ($m = 0$) or declining ($m > 0$). A minus sign is applied so that positive trends indicate improving plant performance.

For the deviations calculation, a plant's event rate is determined by counting the number of phase type events over a specific time period, then dividing by the number of phase type days during that time period. That rate is subtracted from the applicable peer group median rate. The result is divided by a scaling factor so that all performance indicator deviation values are on the same scale. Thus, a shutdown phase type deviation value is determined by subtracting a plant event rate for the most recent 180 shutdown days or 12 calendar quarters, whichever is shorter in calendar time, from the peer group median event rate. If a minimum of 30 shutdown days did not occur during the last 12 quarters, the calculation is not performed.

The deviation scaling factor (κ) is similar to the trend scaling factor, but normalizes the data using the 2nd and 98th percentile values of the difference between the peer group median rate and the plant rates. The deviation equation is:

$$Deviation = \frac{\omega - \epsilon}{|\kappa|}$$

ω = Peer group median of ϵ
ϵ = Plant event rate
κ = Deviation scaling factor

The deviations calculation for new plants is slightly different in that it compares a new plant's performance with the performance of all new plants (since January 1, 1987) for the same time in plant life. For example, a plant that has completed 100 operational days after low power licensing is compared with other plants at 100 operational days after low power licensing.

Regulatory outage periods are excluded from all trends and deviations calculations. The forced outage rate trends and deviations calculations also exclude scheduled outage days. The equipment forced outages per 1000 commercial critical hours calculations use the same time periods (operations days) as the operations phase type.

7. Beginning with the third quarter 1993 report, the peer group quarterly average values in the executive summary were determined using improved calculational techniques.

8. Beginning with the first quarter 1994 report, the industry quarterly average values in the quarterly PI tables were determined using improved calculational techniques.

9. Beginning with the third quarter 1994 report, the refueling outage definition was revised to include the entire period of subcritical operation vice only the period in the cold shutdown and refueling modes.

7. QUARTERLY DATA AND TRENDS & DEVIATIONS FIGURES

Figure 7.1a

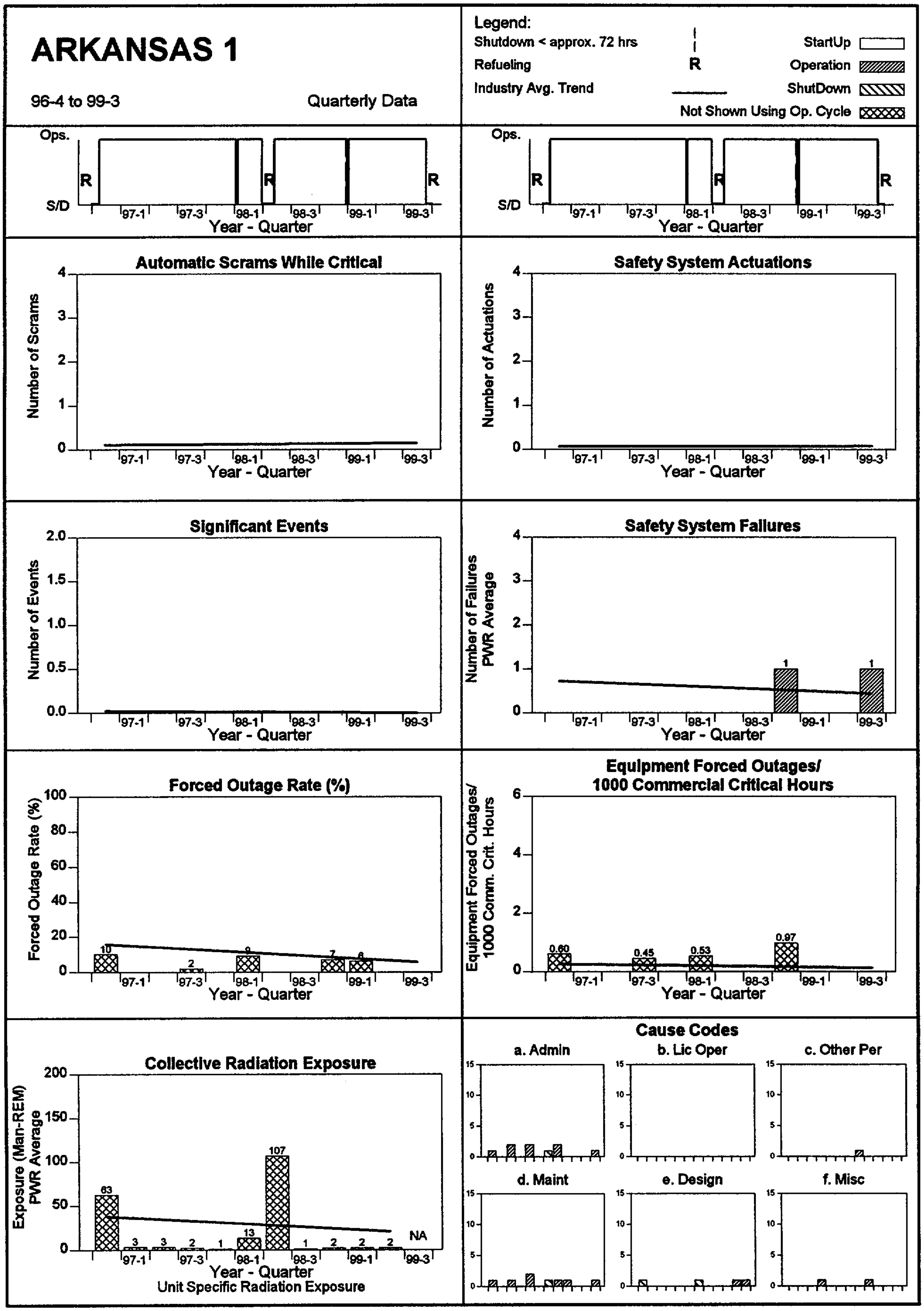

ARKANSAS 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
Safety System Failures
Number of Failures PWR Average
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
10
2
9
7
6
Equipment Forced Outages/ 1000 Commercial Critical Hours
Equipment Forced Outages/ 1000 Comm. Crit. Hours
0.60
0.45
0.53
0.97
Collective Radiation Exposure
Exposure (Man-REM) PWR Average
63
3
3
2
1
13
107
1
2
2
2
NA
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc

Figure 7.1b

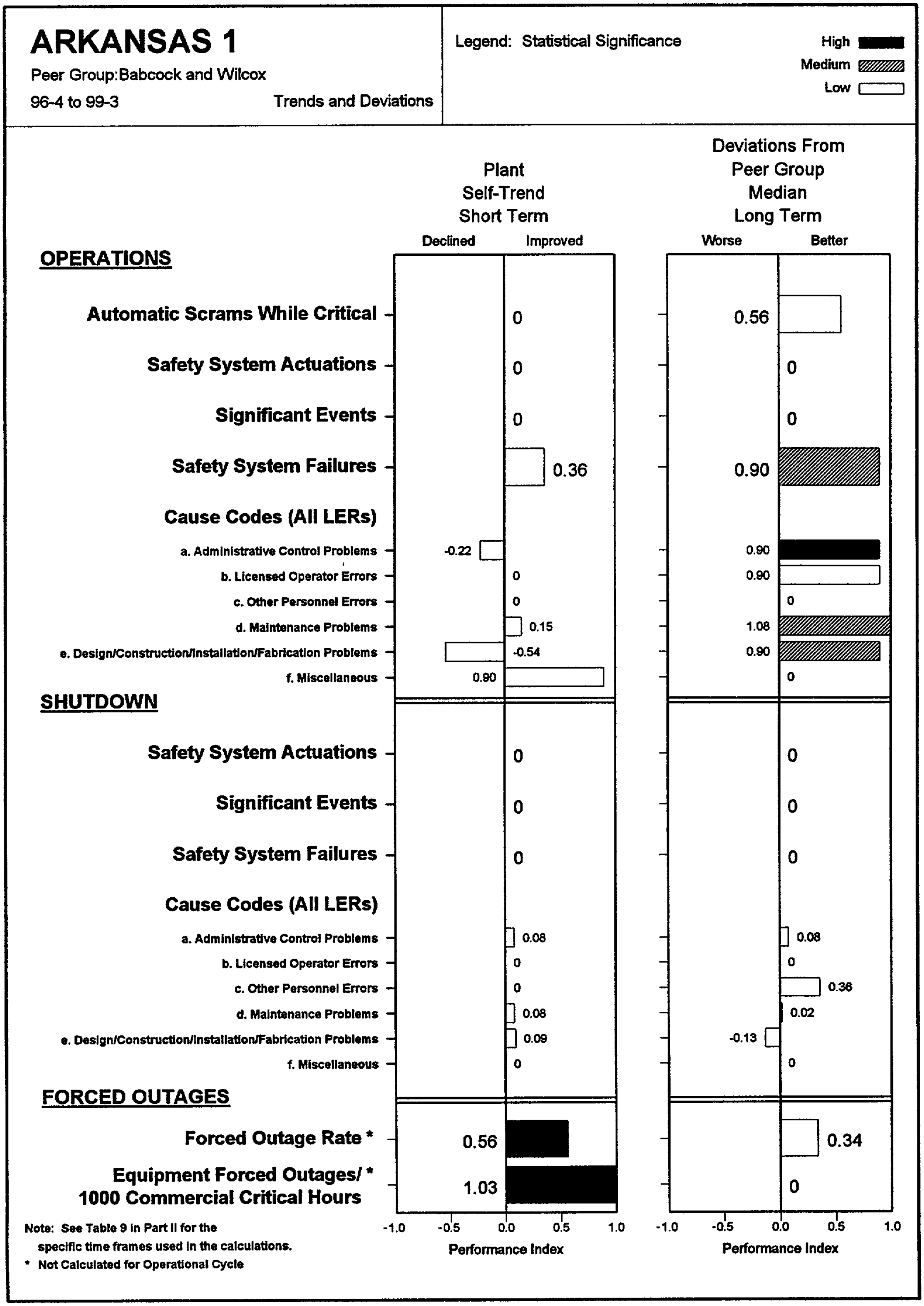

ARKANSAS 1
Peer Group:Babcock and Wilcox
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical
0
0.56
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0.36
0.90
Cause Codes (All LERs)
a. Administrative Control Problems
-0.22
0.90
b. Licensed Operator Errors
0
0.90
c. Other Personnel Errors
0
0
d. Maintenance Problems
0.15
1.08
e. Design/Construction/Installation/Fabrication Problems
-0.54
0.90
f. Miscellaneous
0.90
0
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0
Cause Codes (All LERs)
a. Administrative Control Problems
0.08
0.08
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
0.36
d. Maintenance Problems
0.08
0.02
e. Design/Construction/Installation/Fabrication Problems
0.09
-0.13
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
0.56
0.34
Equipment Forced Outages/ * 1000 Commercial Critical Hours
1.03
0
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.2a

ARKANSAS 2

96-4 to 99-3

Quarterly Data

Legend:

Shutdown < approx. 72 hrs	¦	StartUp	☐
Refueling	R	Operation	▨
Industry Avg. Trend	———	ShutDown	▧
		Not Shown Using Op. Cycle	▩

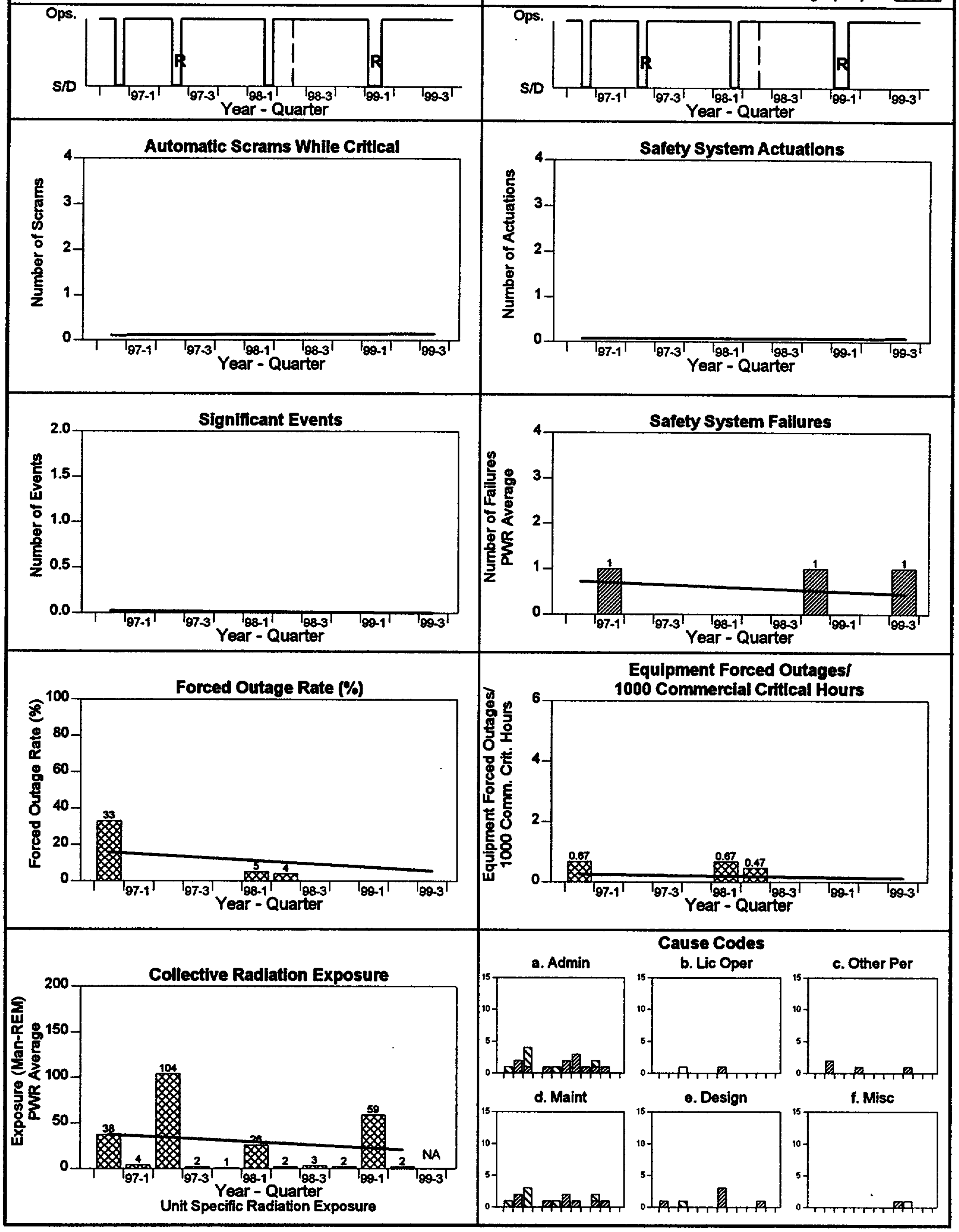


Figure 7.2b

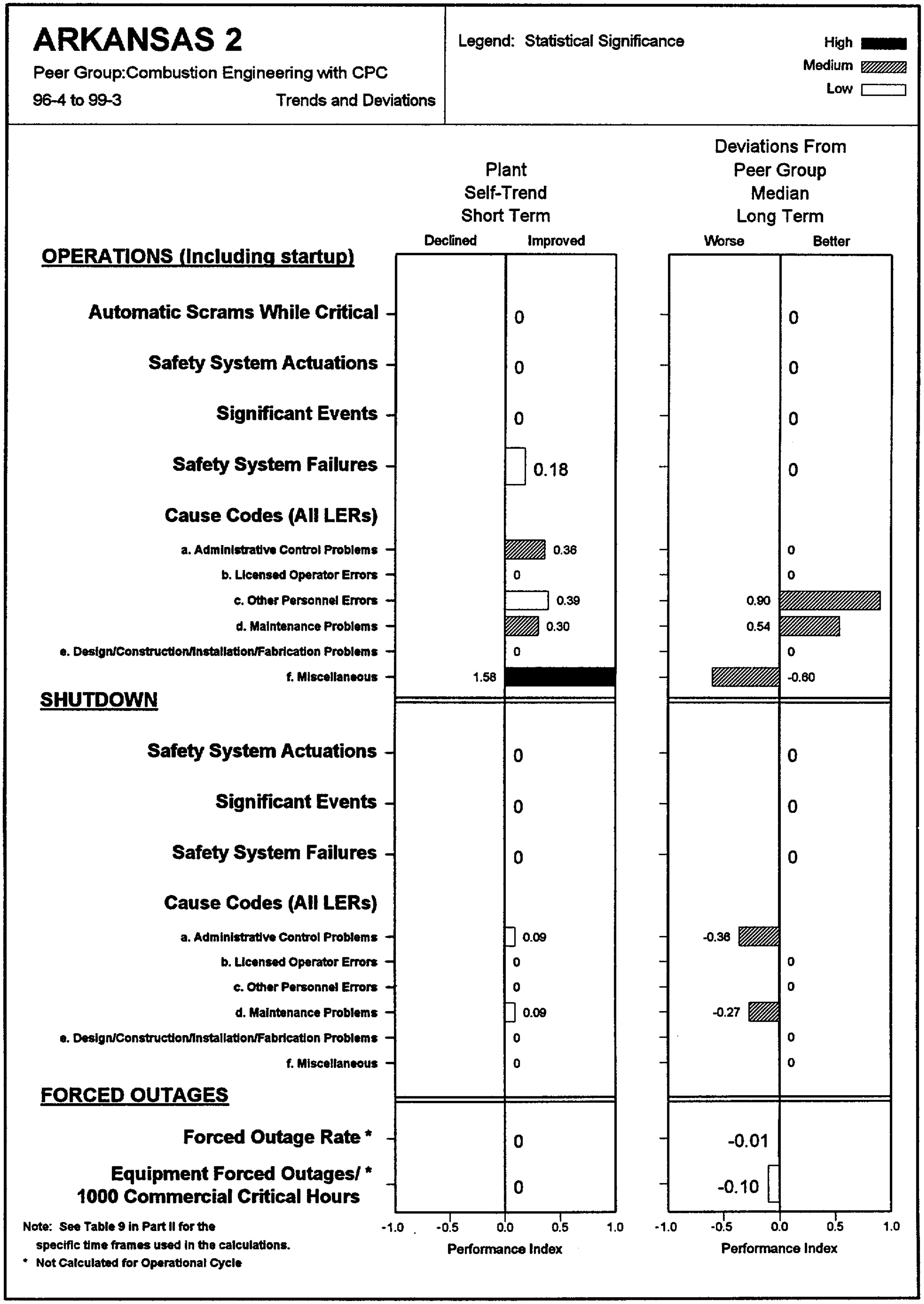

ARKANSAS 2
Peer Group:Combustion Engineering with CPC
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical 0 0
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0.18 0
Cause Codes (All LERs)
a. Administrative Control Problems 0.36 0
b. Licensed Operator Errors 0 0
c. Other Personnel Errors 0.39 0.90
d. Maintenance Problems 0.30 0.54
e. Design/Construction/Installation/Fabrication Problems 0 0
f. Miscellaneous 1.58 -0.60
SHUTDOWN
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 0
Cause Codes (All LERs)
a. Administrative Control Problems 0.09 -0.36
b. Licensed Operator Errors 0 0
c. Other Personnel Errors 0 0
d. Maintenance Problems 0.09 -0.27
e. Design/Construction/Installation/Fabrication Problems 0 0
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * 0 -0.01
Equipment Forced Outages/ * 1000 Commercial Critical Hours 0 -0.10
-1.0 -0.5 0.0 0.5 1.0
Performance Index
-1.0 -0.5 0.0 0.5 1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.3a

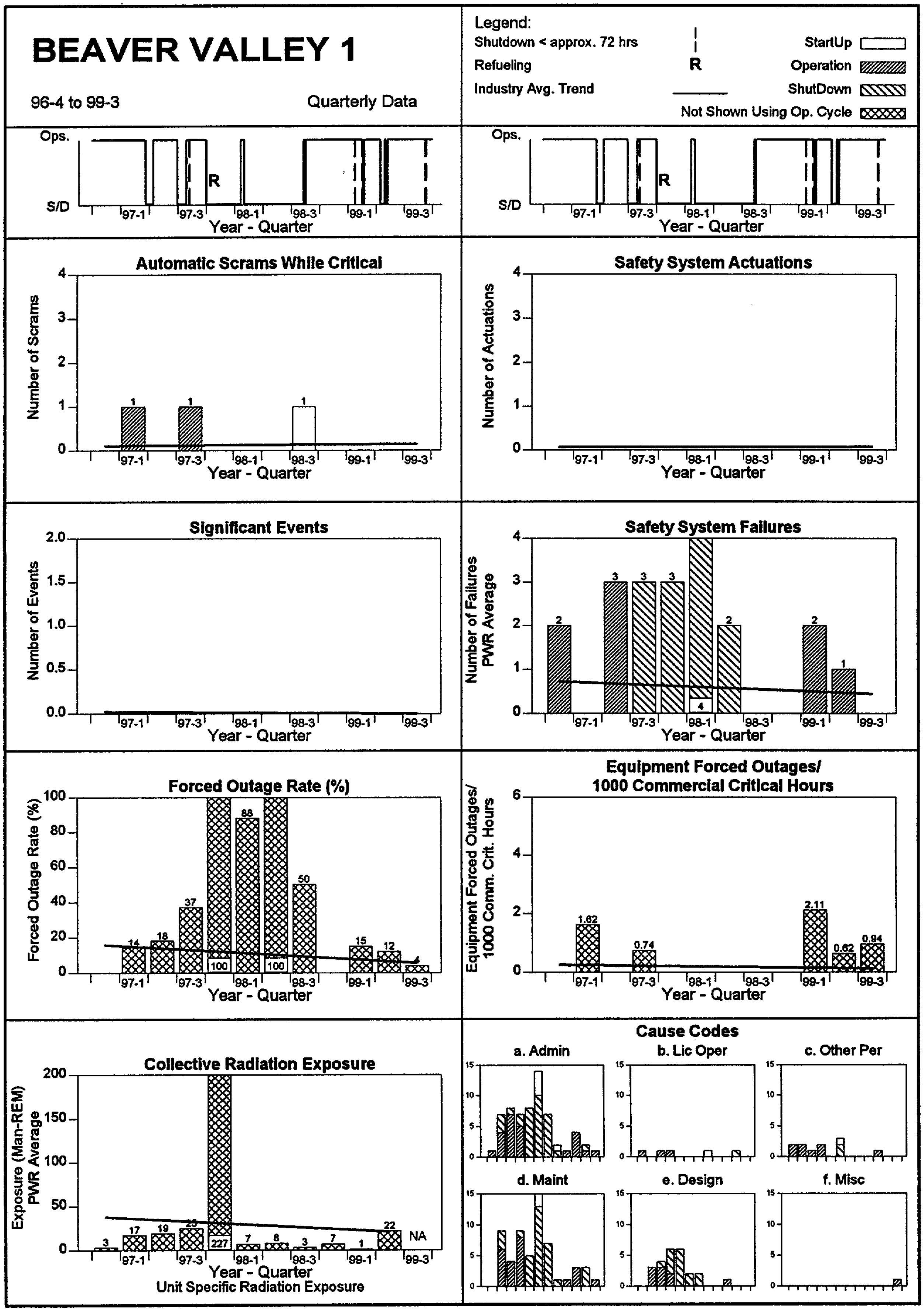

BEAVER VALLEY 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
1
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
2
3
3
3
4
2
2
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
14
18
37
100
88
100
50
15
12
4
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
1.62
0.74
2.11
0.62
0.94
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
3
17
19
25
227
7
8
3
7
1
22
NA
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.3b

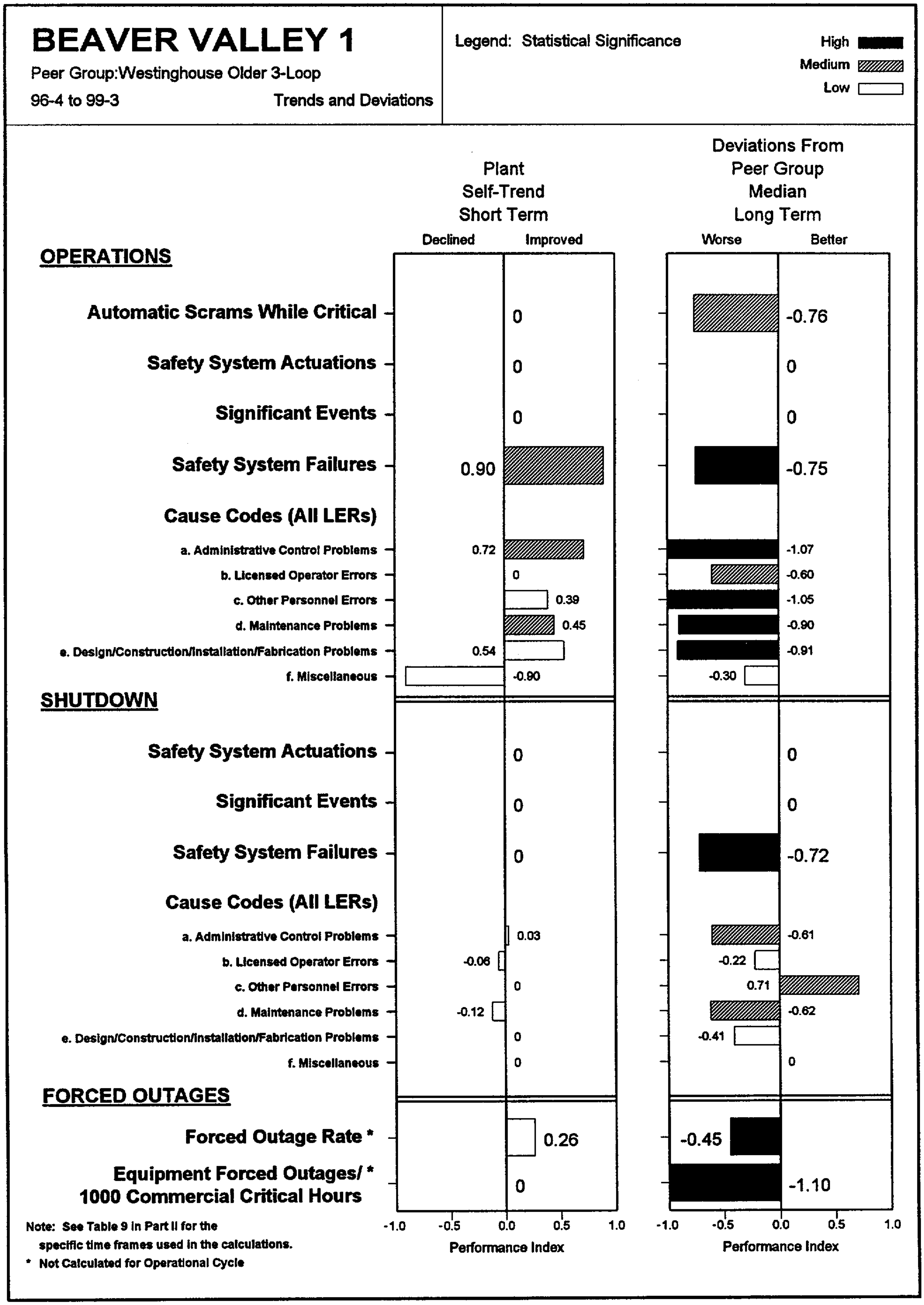

BEAVER VALLEY 1
Peer Group:Westinghouse Older 3-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical 0 -0.76
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0.90 -0.75
Cause Codes (All LERs)
a. Administrative Control Problems 0.72 -1.07
b. Licensed Operator Errors 0 -0.60
c. Other Personnel Errors 0.39 -1.05
d. Maintenance Problems 0.45 -0.90
e. Design/Construction/Installation/Fabrication Problems 0.54 -0.91
f. Miscellaneous -0.90 -0.30
SHUTDOWN
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 -0.72
Cause Codes (All LERs)
a. Administrative Control Problems 0.03 -0.61
b. Licensed Operator Errors -0.06 -0.22
c. Other Personnel Errors 0 0.71
d. Maintenance Problems -0.12 -0.62
e. Design/Construction/Installation/Fabrication Problems 0 -0.41
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * 0.26 -0.45
Equipment Forced Outages/ * 1000 Commercial Critical Hours 0 -1.10
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.4a

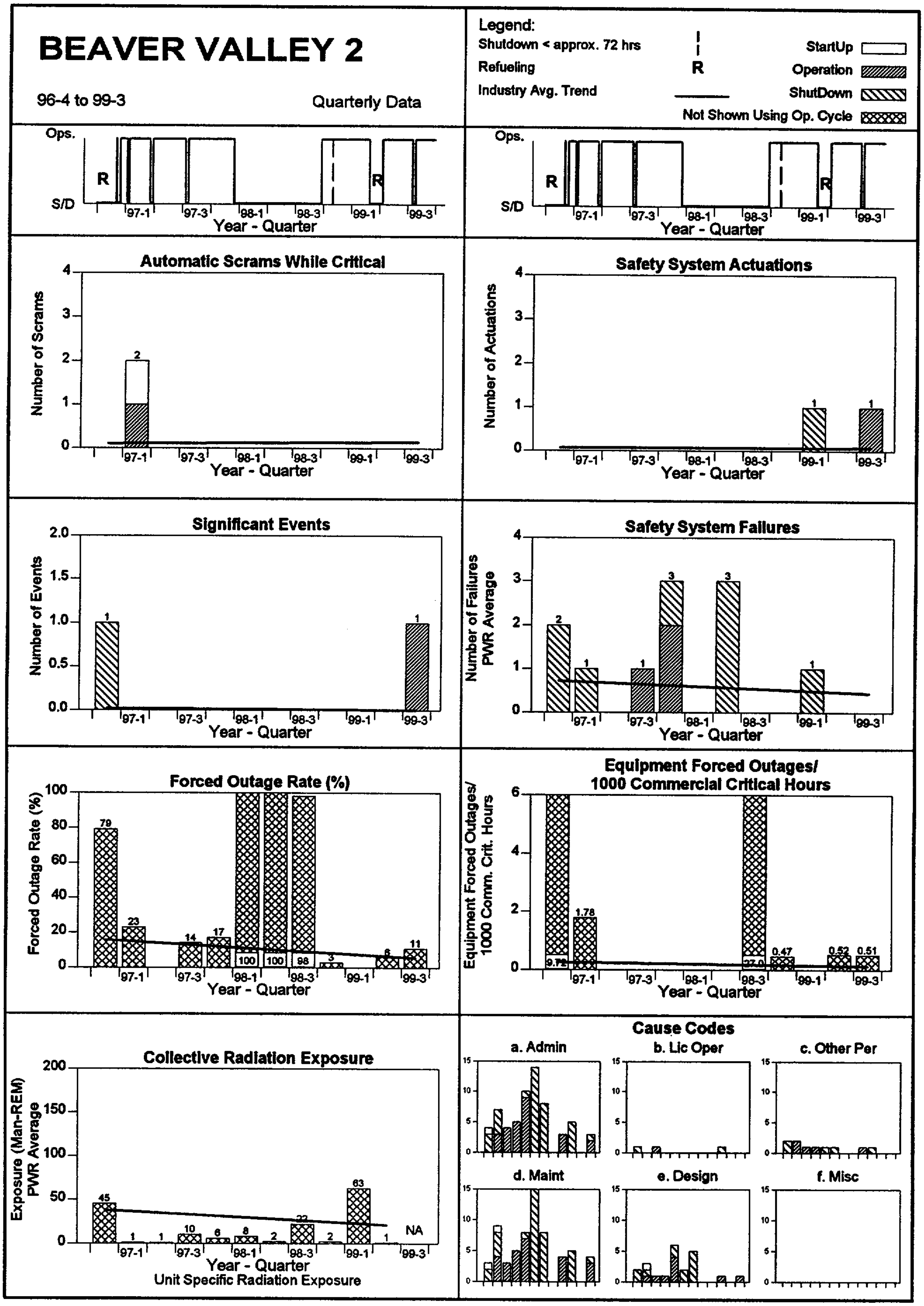

BEAVER VALLEY 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
Year - Quarter
97-1
97-3
98-1
98-3
99-1
99-3
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
2
Safety System Actuations
Number of Actuations
1
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
1
1
Safety System Failures
Number of Failures
PWR Average
2
1
1
3
3
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
79
23
14
17
100
100
98
3
6
11
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
9.72
1.78
27.0
0.47
0.52
0.51
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
45
1
1
10
6
8
2
22
2
63
1
NA
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.4b

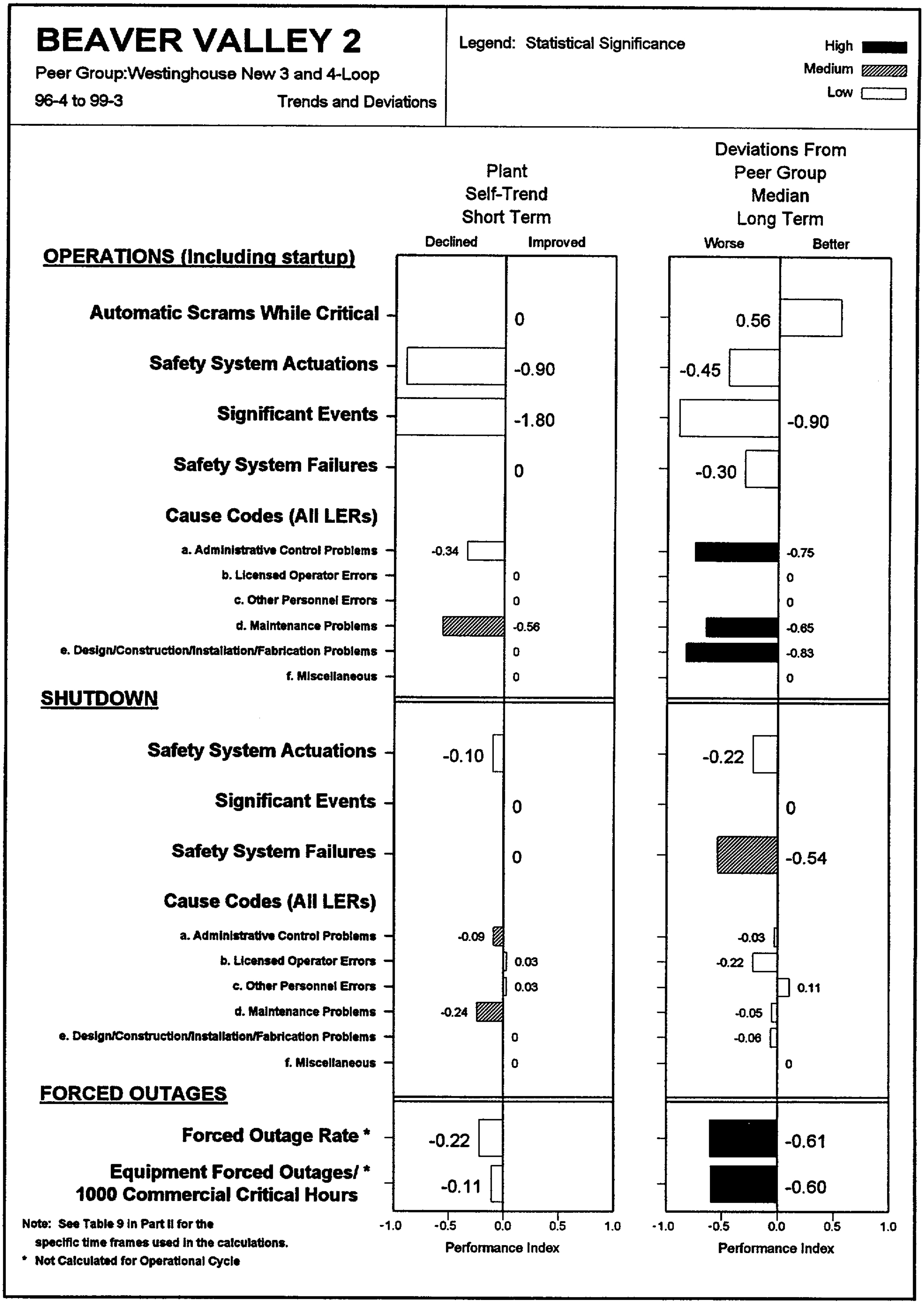

BEAVER VALLEY 2
Peer Group:Westinghouse New 3 and 4-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical 0 0.56
Safety System Actuations -0.90 -0.45
Significant Events -1.80 -0.90
Safety System Failures 0 -0.30
Cause Codes (All LERs)
a. Administrative Control Problems -0.34 -0.75
b. Licensed Operator Errors 0 0
c. Other Personnel Errors 0 0
d. Maintenance Problems -0.56 -0.65
e. Design/Construction/Installation/Fabrication Problems 0 -0.83
f. Miscellaneous 0 0
SHUTDOWN
Safety System Actuations -0.10 -0.22
Significant Events 0 0
Safety System Failures 0 -0.54
Cause Codes (All LERs)
a. Administrative Control Problems -0.09 -0.03
b. Licensed Operator Errors 0.03 -0.22
c. Other Personnel Errors 0.03 0.11
d. Maintenance Problems -0.24 -0.05
e. Design/Construction/Installation/Fabrication Problems 0 -0.06
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * -0.22 -0.61
Equipment Forced Outages/ * 1000 Commercial Critical Hours -0.11 -0.60
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.5a

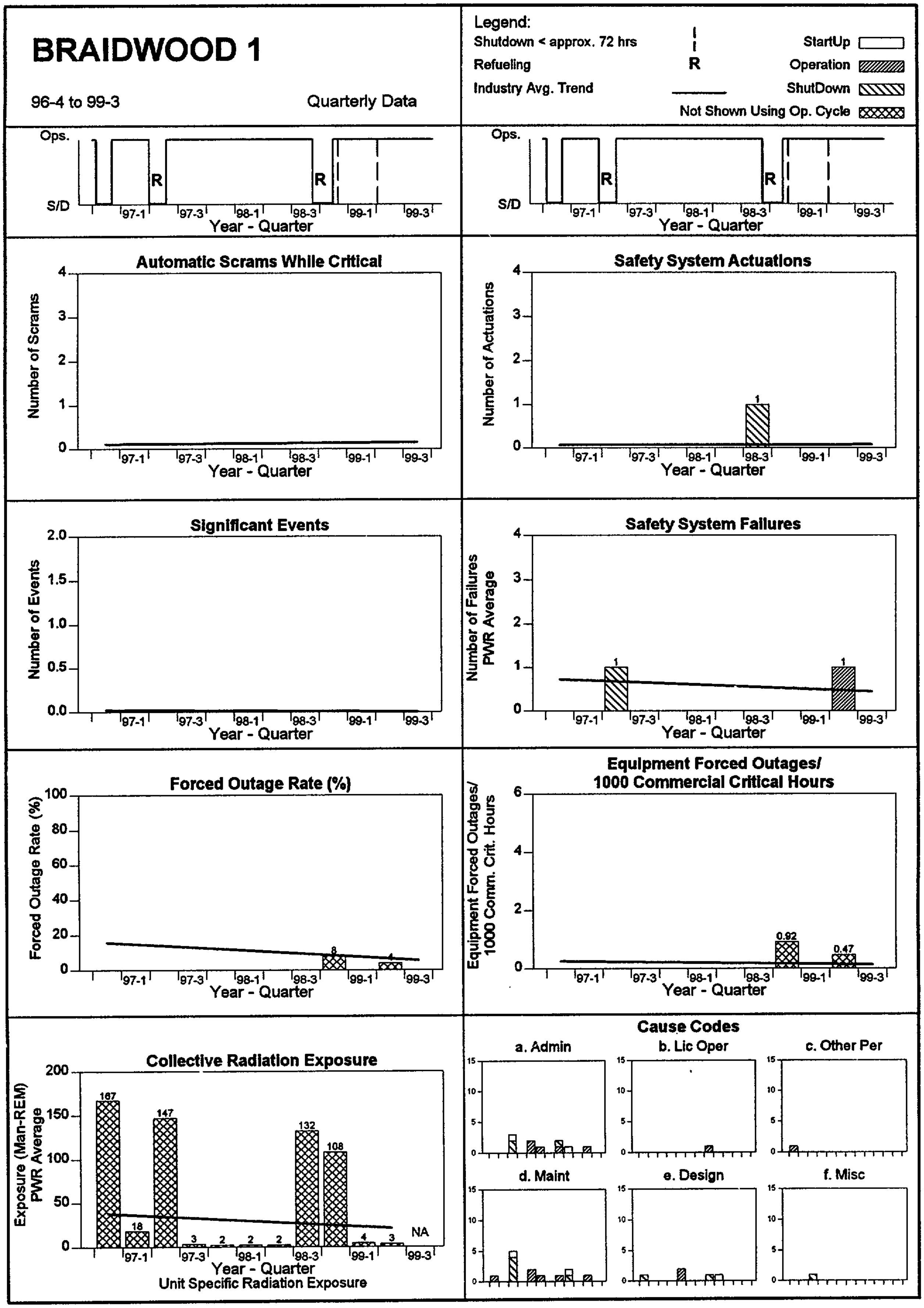
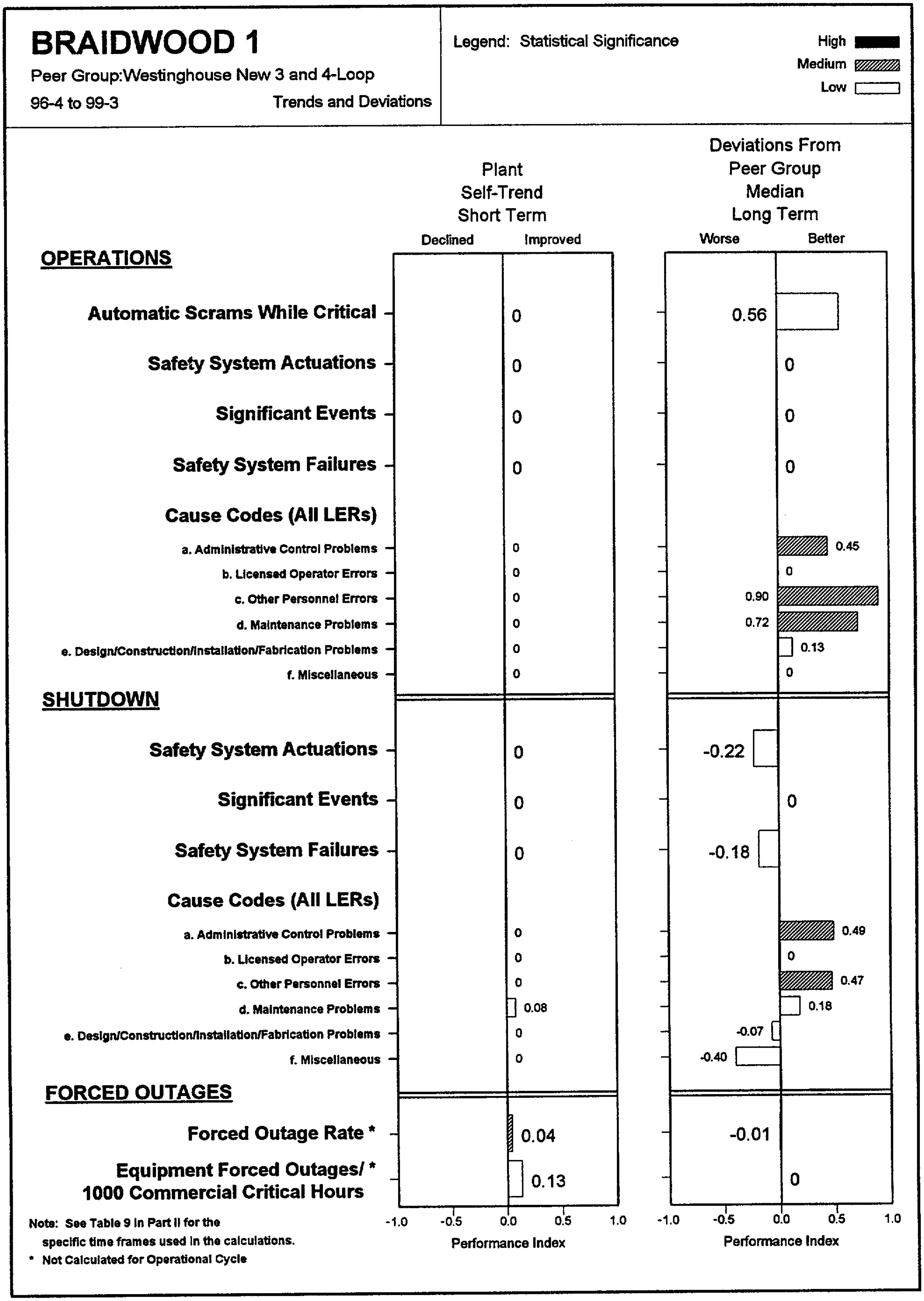

BRAIDWOOD 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
Safety System Actuations
Number of Actuations
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
8
4
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.92
0.47
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
167
18
147
3
2
2
2
132
108
4
3
NA
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.5b



BRAIDWOOD 1
Peer Group:Westinghouse New 3 and 4-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low ☐
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical
0
0.56
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0
Cause Codes (All LERs)
a. Administrative Control Problems
0
0.45
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
0.90
d. Maintenance Problems
0
0.72
e. Design/Construction/Installation/Fabrication Problems
0
0.13
f. Miscellaneous
0
0
SHUTDOWN
Safety System Actuations
0
-0.22
Significant Events
0
0
Safety System Failures
0
-0.18
Cause Codes (All LERs)
a. Administrative Control Problems
0
0.49
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
0.47
d. Maintenance Problems
0.08
0.18
e. Design/Construction/Installation/Fabrication Problems
0
-0.07
f. Miscellaneous
0
-0.40
FORCED OUTAGES
Forced Outage Rate *
0.04
-0.01
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0.13
0
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.6a

BRAIDWOOD 2

96-4 to 99-3 Quarterly Data

Legend:
Shutdown < approx. 72 hrs |
Refueling R
Industry Avg. Trend ———
StartUp ☐
Operation ▨
ShutDown ▧
Not Shown Using Op. Cycle ▩

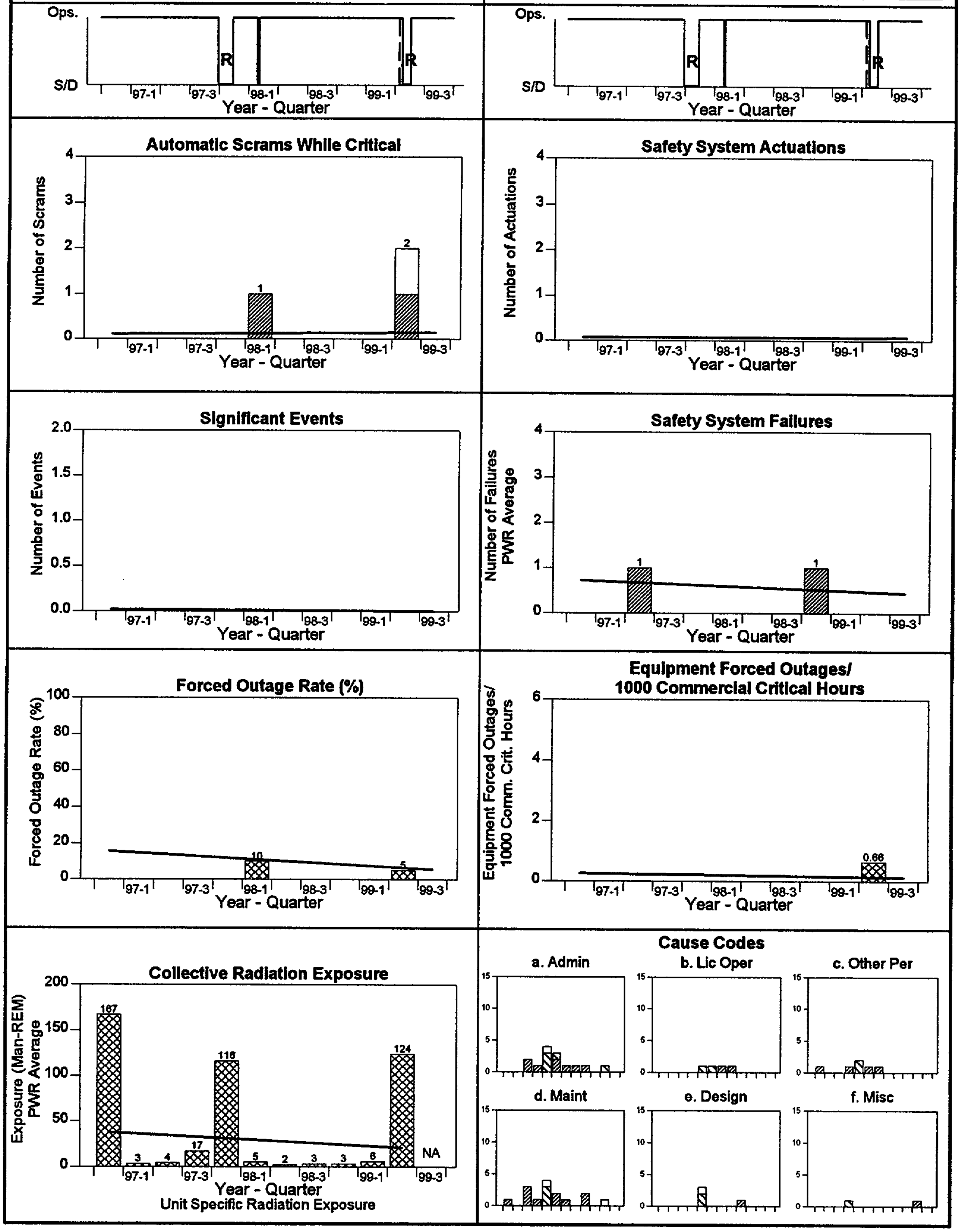


Figure 7.6b

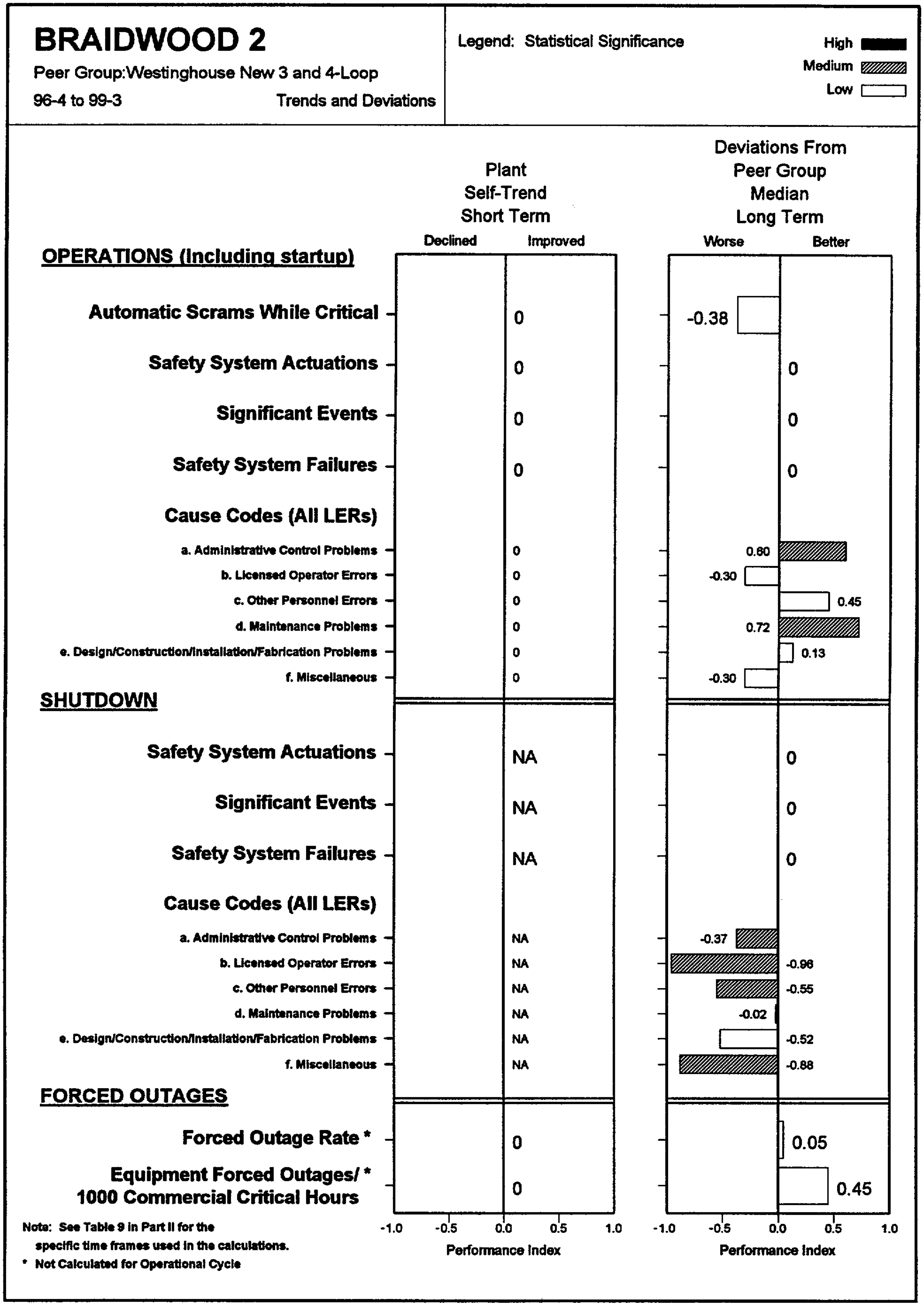

BRAIDWOOD 2
Peer Group:Westinghouse New 3 and 4-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical
0
-0.38
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0
Cause Codes (All LERs)
a. Administrative Control Problems
0
0.60
b. Licensed Operator Errors
0
-0.30
c. Other Personnel Errors
0
0.45
d. Maintenance Problems
0
0.72
e. Design/Construction/Installation/Fabrication Problems
0
0.13
f. Miscellaneous
0
-0.30
SHUTDOWN
Safety System Actuations
NA
0
Significant Events
NA
0
Safety System Failures
NA
0
Cause Codes (All LERs)
a. Administrative Control Problems
NA
-0.37
b. Licensed Operator Errors
NA
-0.96
c. Other Personnel Errors
NA
-0.55
d. Maintenance Problems
NA
-0.02
e. Design/Construction/Installation/Fabrication Problems
NA
-0.52
f. Miscellaneous
NA
-0.88
FORCED OUTAGES
Forced Outage Rate *
0
0.05
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0
0.45
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index

Figure 7.7a

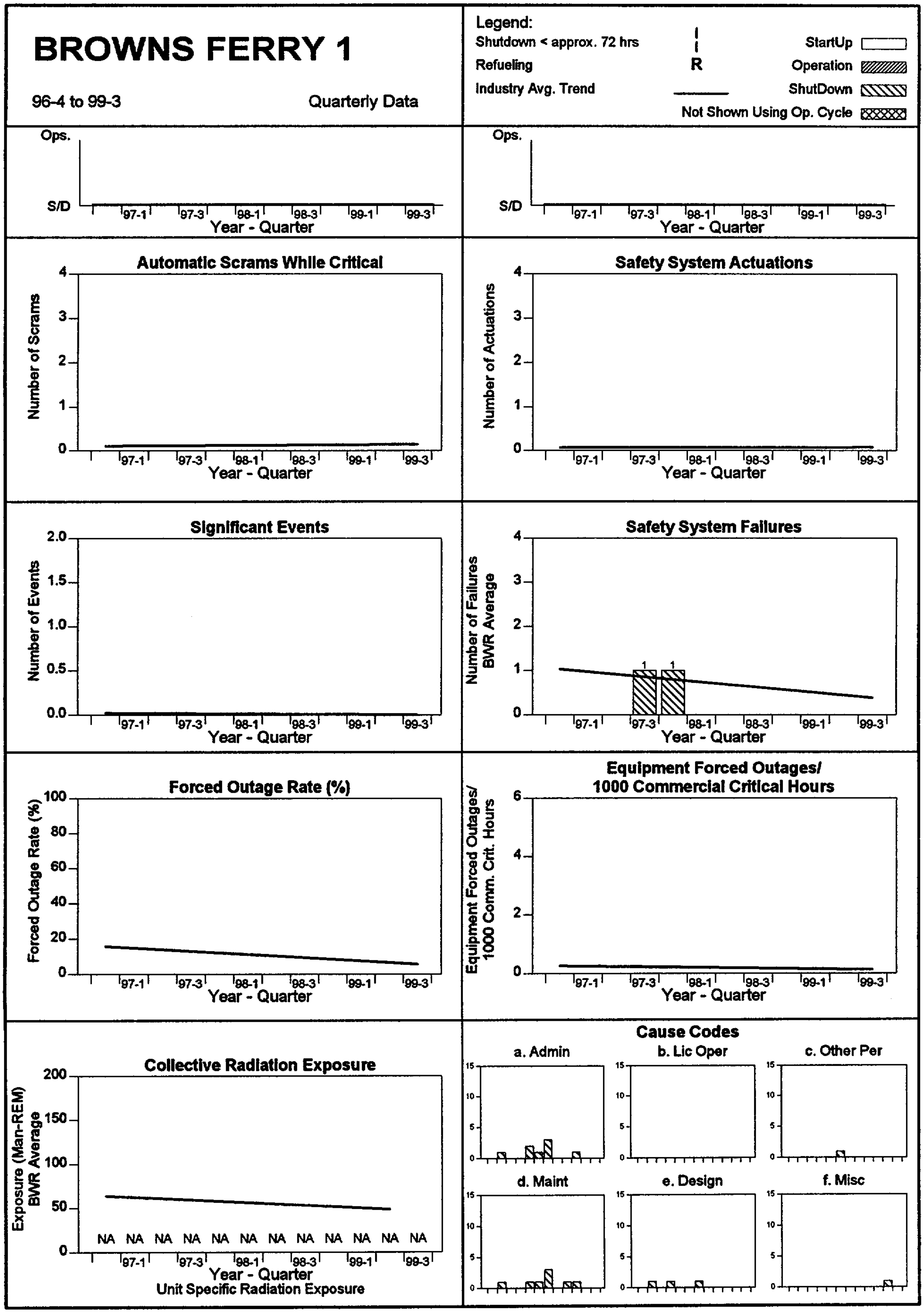

BROWNS FERRY 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs ¦
Refueling R
Industry Avg. Trend ——
StartUp ☐
Operation ▨
ShutDown ▧
Not Shown Using Op. Cycle ▩
Ops.
S/D
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Ops.
S/D
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
4
3
2
1
0
Year - Quarter
Safety System Actuations
Number of Actuations
4
3
2
1
0
Year - Quarter
Significant Events
Number of Events
2.0
1.5
1.0
0.5
0.0
Year - Quarter
Safety System Failures
Number of Failures
BWR Average
4
3
2
1
0
1
1
Year - Quarter
Forced Outage Rate (%)
Forced Outage Rate (%)
100
80
60
40
20
0
Year - Quarter
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
6
4
2
0
Year - Quarter
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
200
150
100
50
0
NA NA NA NA NA NA NA NA NA NA NA NA
Year - Quarter
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
15
10
5
0

Figure 7.7b

BROWNS FERRY 1

Peer Group:General Electric Pre-TMI

96-4 to 99-3 Trends and Deviations

Legend: Statistical Significance

High ■
Medium ▨
Low ☐

	Plant Self-Trend Short Term (Declined / Improved)	Deviations From Peer Group Median Long Term (Worse / Better)
OPERATIONS		
Automatic Scrams While Critical	NA	NA
Safety System Actuations	NA	NA
Significant Events	NA	NA
Safety System Failures	NA	NA
Cause Codes (All LERs)		
a. Administrative Control Problems	NA	NA
b. Licensed Operator Errors	NA	NA
c. Other Personnel Errors	NA	NA
d. Maintenance Problems	NA	NA
e. Design/Construction/Installation/Fabrication Problems	NA	NA
f. Miscellaneous	NA	NA
SHUTDOWN		
Safety System Actuations	NA	NA
Significant Events	NA	NA
Safety System Failures	NA	NA
Cause Codes (All LERs)		
a. Administrative Control Problems	NA	NA
b. Licensed Operator Errors	NA	NA
c. Other Personnel Errors	NA	NA
d. Maintenance Problems	NA	NA
e. Design/Construction/Installation/Fabrication Problems	NA	NA
f. Miscellaneous	NA	NA
FORCED OUTAGES		
Forced Outage Rate *	NA	NA
Equipment Forced Outages/ * 1000 Commercial Critical Hours	NA	NA

-1.0 -0.5 0.0 0.5 1.0
Performance Index

-1.0 -0.5 0.0 0.5 1.0
Performance Index

Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.8a

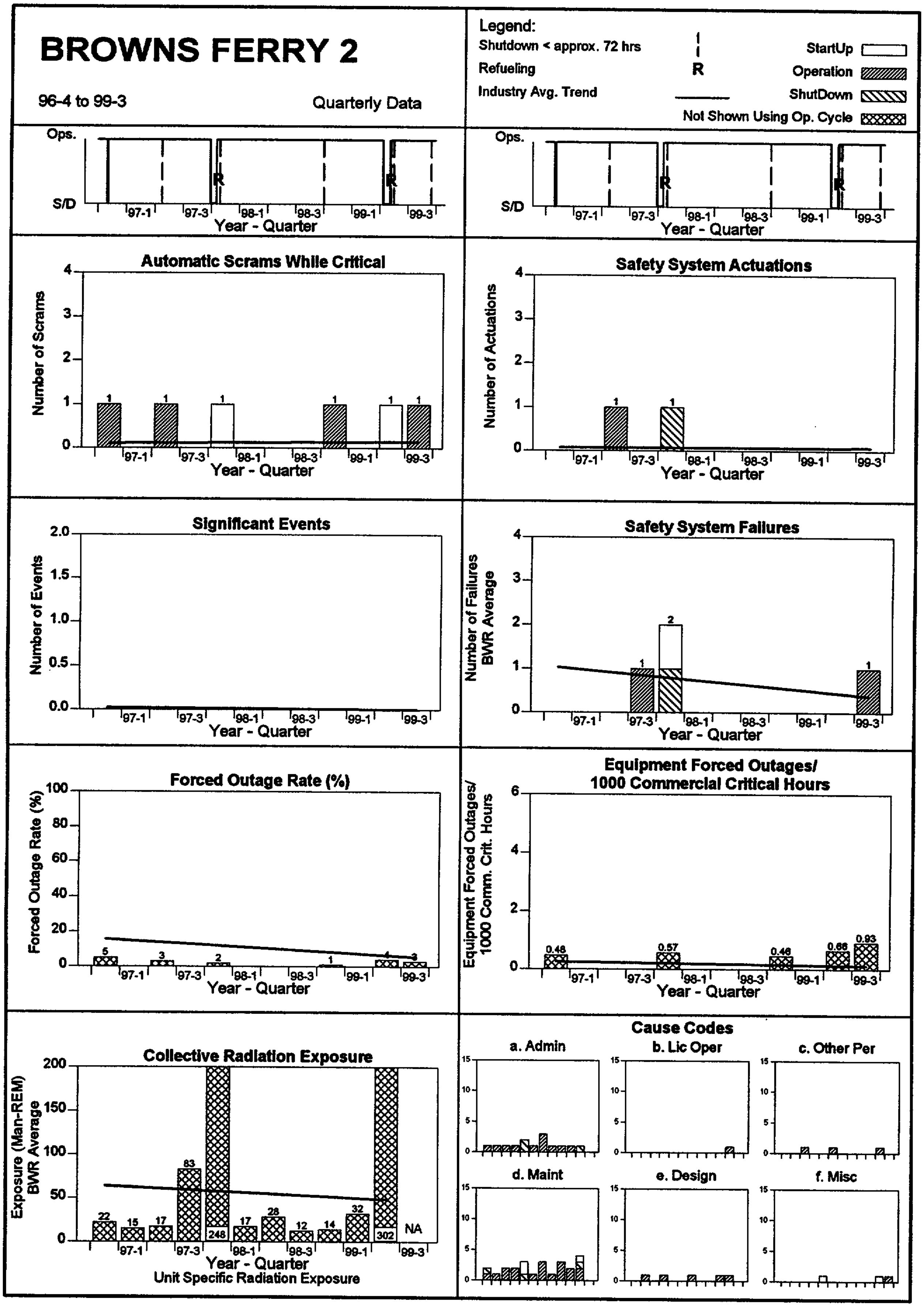
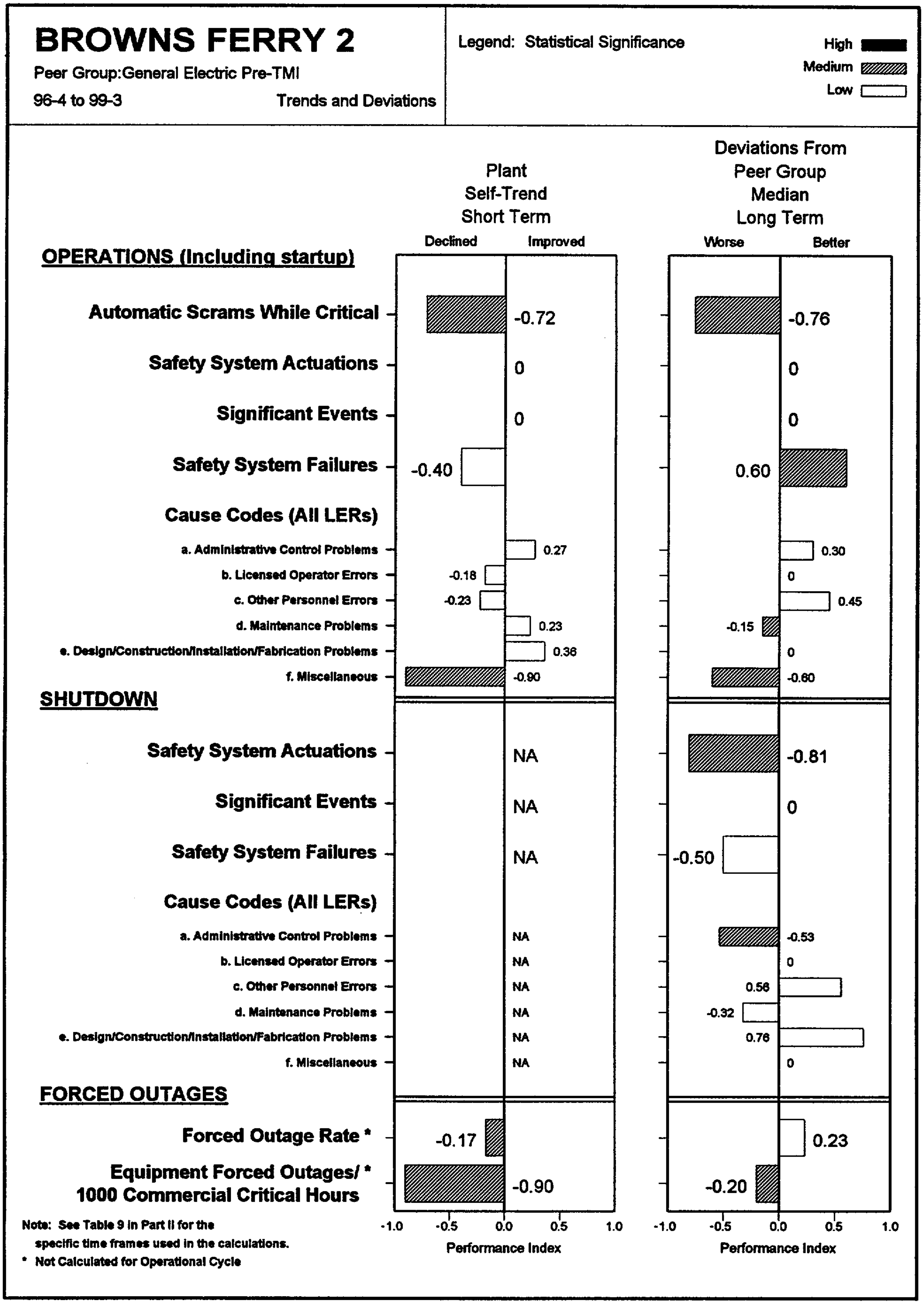

BROWNS FERRY 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
1
1
1
1
1
Safety System Actuations
Number of Actuations
1
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
BWR Average
1
2
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
5
3
2
1
4
3
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.48
0.57
0.46
0.66
0.93
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
0
50
100
150
200
22
15
17
83
248
17
28
12
14
32
302
NA
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.8b



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.9a

BROWNS FERRY 3

96-4 to 99-3 Quarterly Data

Legend:

Shutdown < approx. 72 hrs	¦	StartUp	☐
Refueling	R	Operation	▨
Industry Avg. Trend	——	ShutDown	▧
		Not Shown Using Op. Cycle	▩

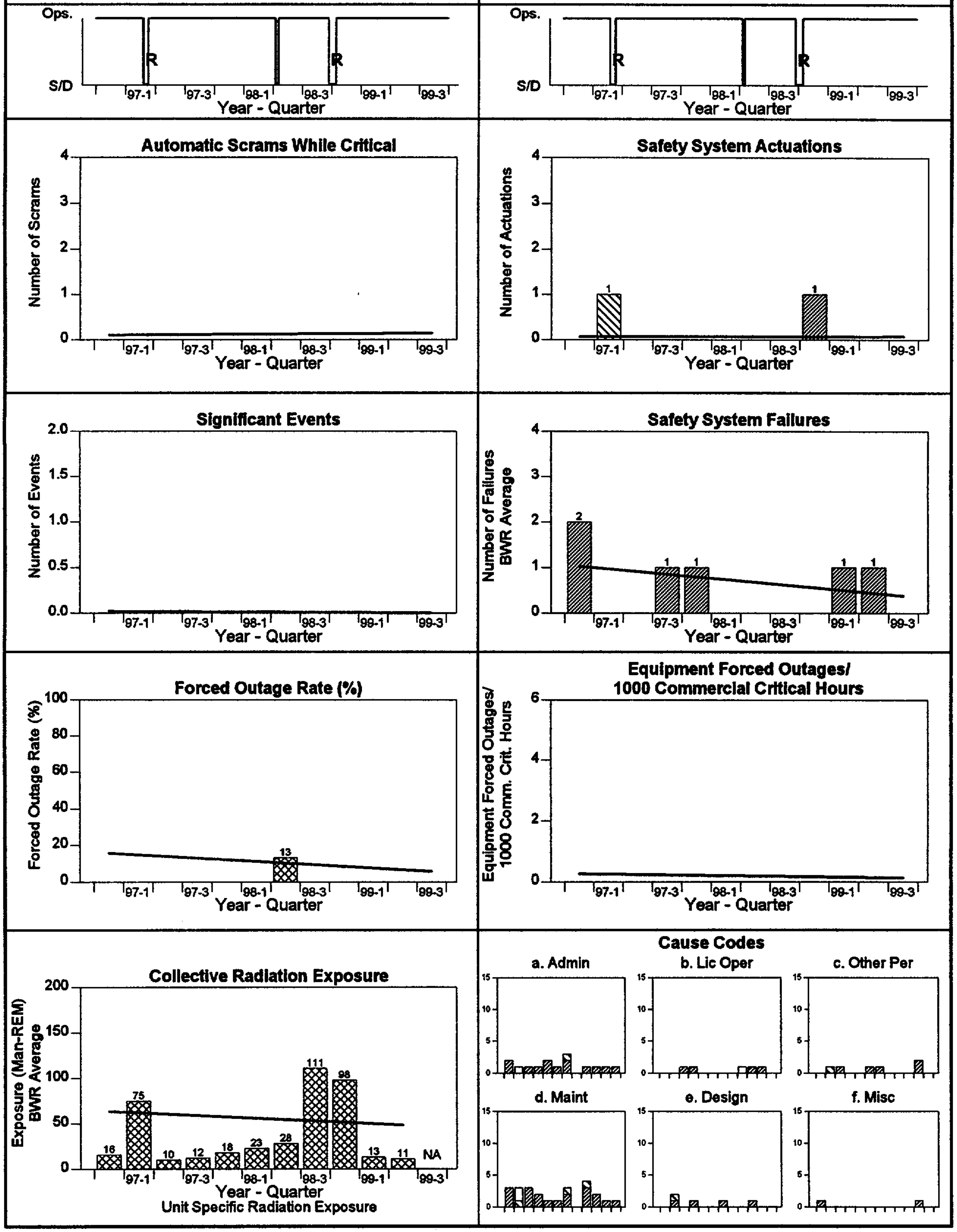


Figure 7.9b

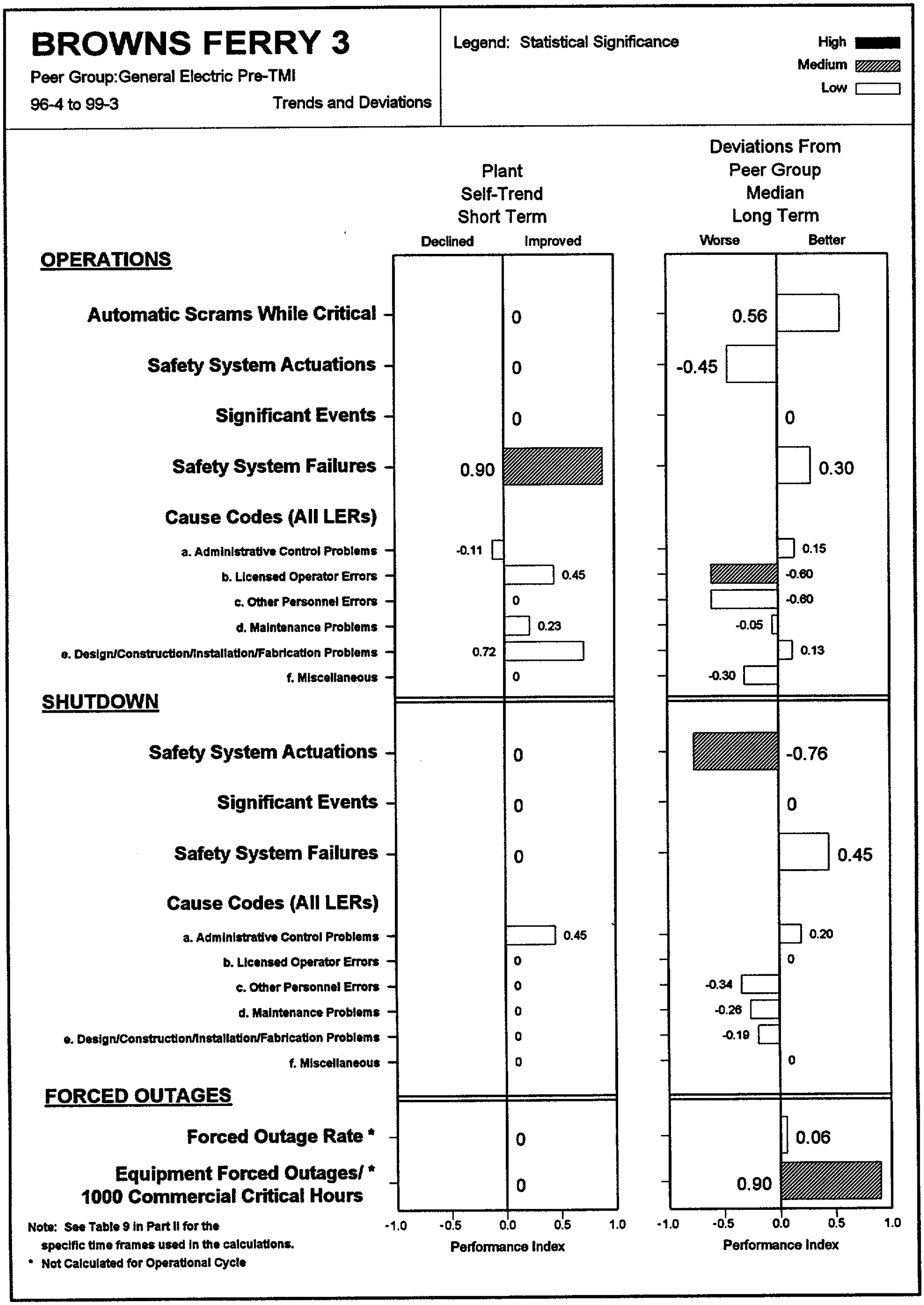

BROWNS FERRY 3
Peer Group:General Electric Pre-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical 0 0.56
Safety System Actuations 0 -0.45
Significant Events 0 0
Safety System Failures 0.90 0.30
Cause Codes (All LERs)
a. Administrative Control Problems -0.11 0.15
b. Licensed Operator Errors 0.45 -0.60
c. Other Personnel Errors 0 -0.60
d. Maintenance Problems 0.23 -0.05
e. Design/Construction/Installation/Fabrication Problems 0.72 0.13
f. Miscellaneous 0 -0.30
SHUTDOWN
Safety System Actuations 0 -0.76
Significant Events 0 0
Safety System Failures 0 0.45
Cause Codes (All LERs)
a. Administrative Control Problems 0.45 0.20
b. Licensed Operator Errors 0 0
c. Other Personnel Errors 0 -0.34
d. Maintenance Problems 0 -0.26
e. Design/Construction/Installation/Fabrication Problems 0 -0.19
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * 0 0.06
Equipment Forced Outages/ * 1000 Commercial Critical Hours 0 0.90
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.10a

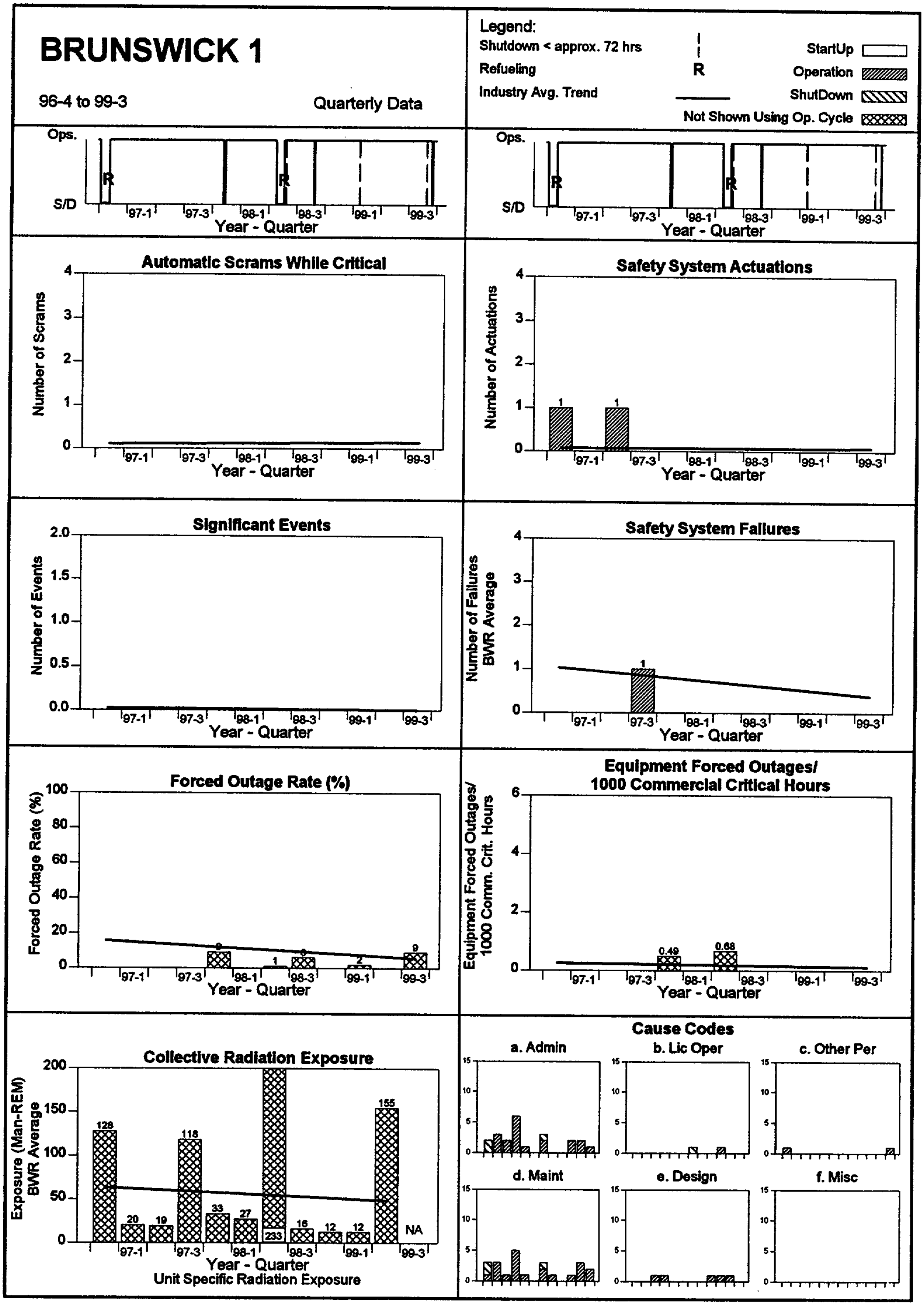
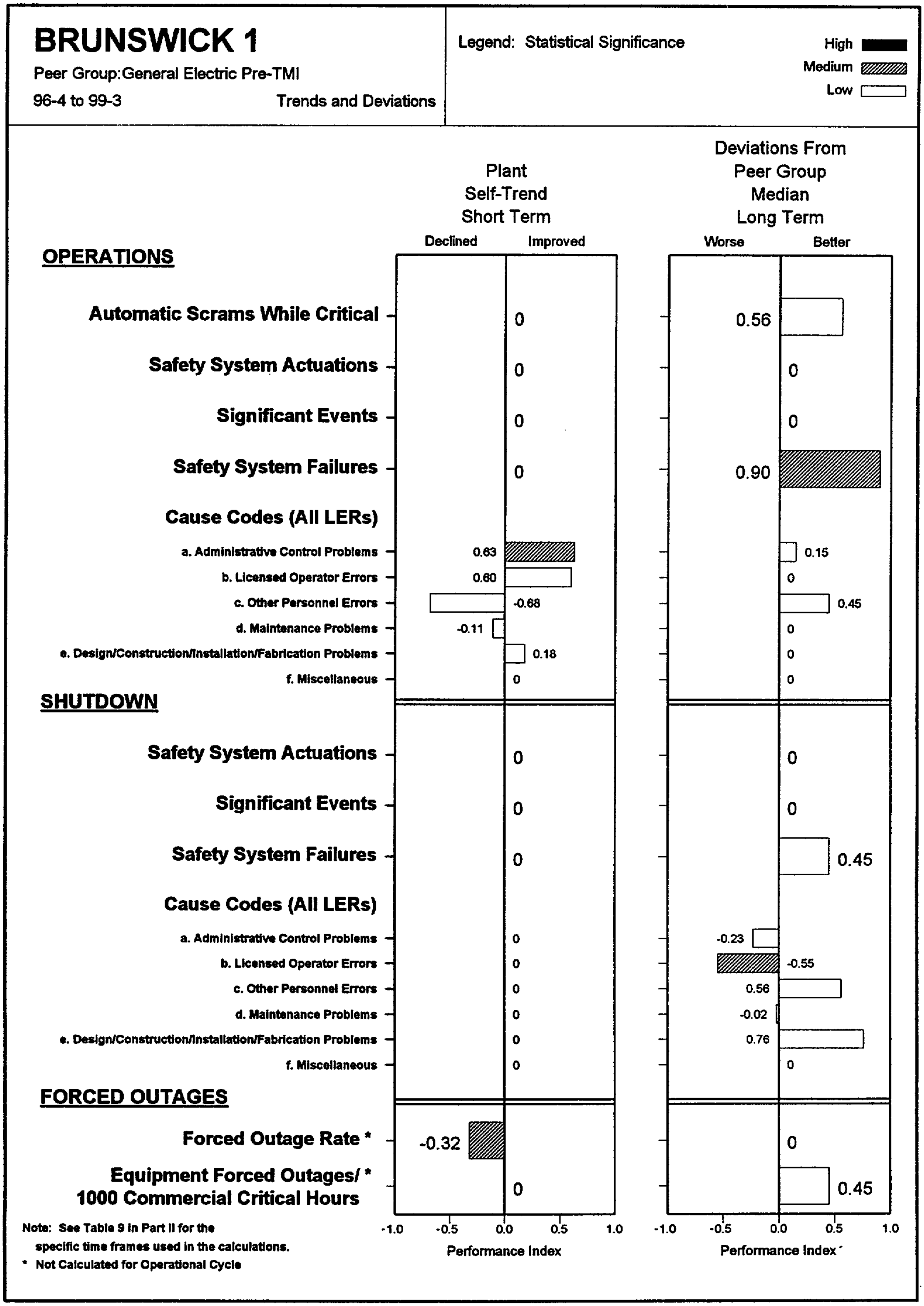

BRUNSWICK 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
4
3
2
1
0
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Safety System Actuations
Number of Actuations
4
3
2
1
0
1
1
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Significant Events
Number of Events
2.0
1.5
1.0
0.5
0.0
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Safety System Failures
Number of Failures
BWR Average
4
3
2
1
0
1
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Forced Outage Rate (%)
Forced Outage Rate (%)
100
80
60
40
20
0
9
1
6
2
9
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
6
4
2
0
0.49
0.68
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
200
150
100
50
0
128
20
19
118
33
27
233
16
12
12
155
NA
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
15
10
5
0

Figure 7.10b



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.11a

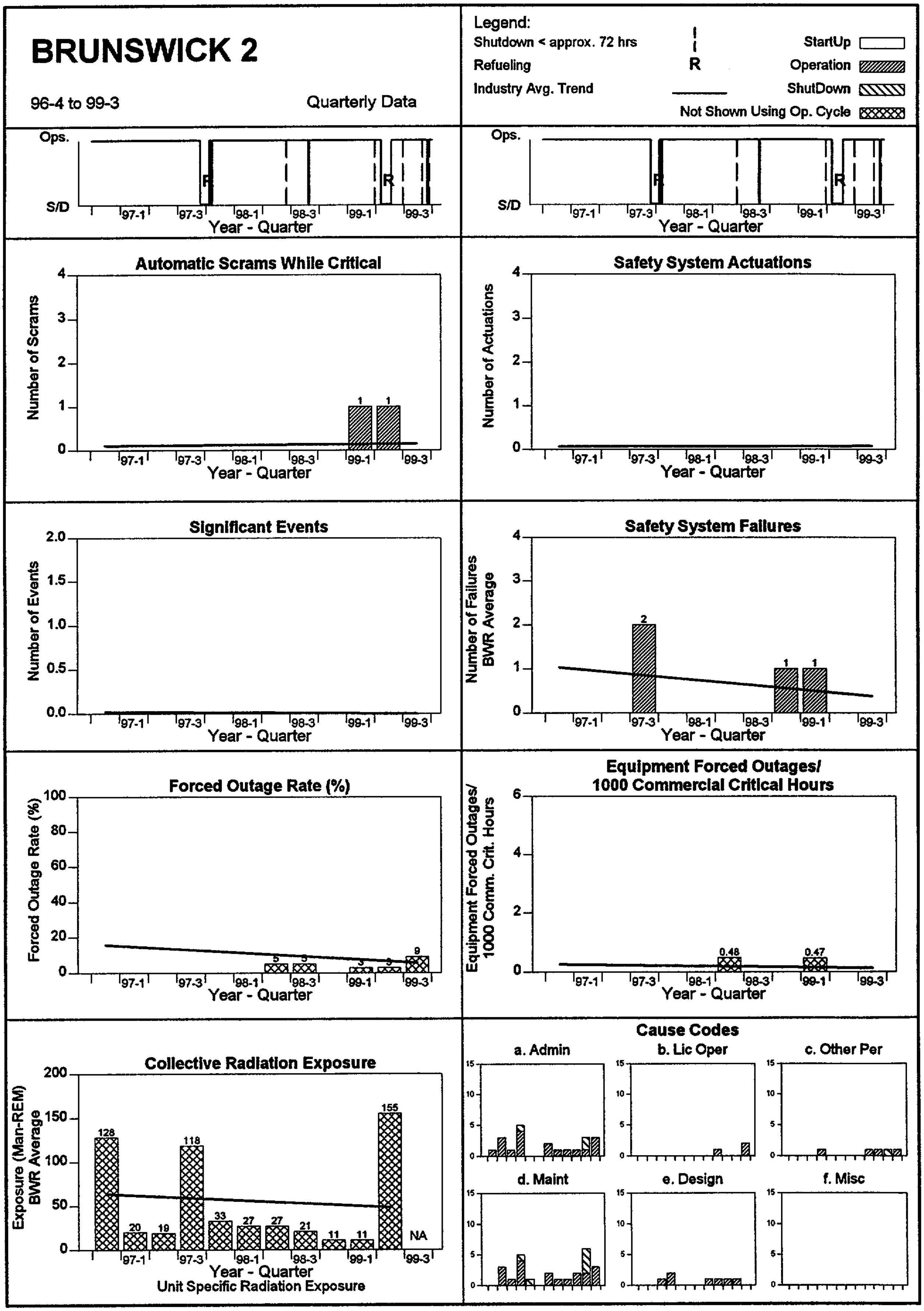

BRUNSWICK 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
BWR Average
2
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
5
5
3
3
9
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.48
0.47
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
0
50
100
150
200
128
20
19
118
33
27
27
21
11
11
155
NA
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.11b

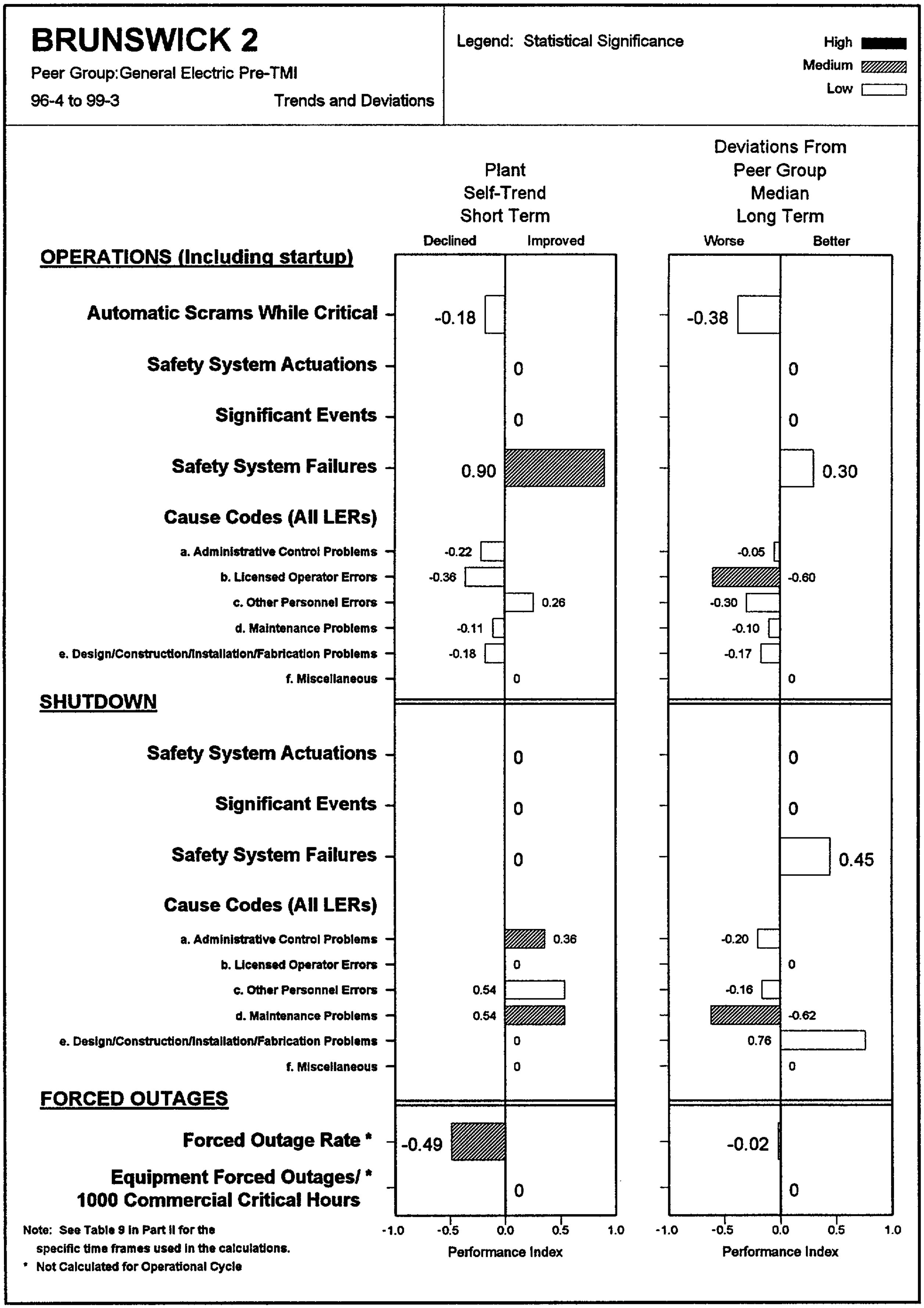

BRUNSWICK 2
Peer Group:General Electric Pre-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low ☐
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical -0.18 -0.38
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0.90 0.30
Cause Codes (All LERs)
a. Administrative Control Problems -0.22 -0.05
b. Licensed Operator Errors -0.36 -0.60
c. Other Personnel Errors 0.26 -0.30
d. Maintenance Problems -0.11 -0.10
e. Design/Construction/Installation/Fabrication Problems -0.18 -0.17
f. Miscellaneous 0 0
SHUTDOWN
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 0.45
Cause Codes (All LERs)
a. Administrative Control Problems 0.36 -0.20
b. Licensed Operator Errors 0 0
c. Other Personnel Errors 0.54 -0.16
d. Maintenance Problems 0.54 -0.62
e. Design/Construction/Installation/Fabrication Problems 0 0.76
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * -0.49 -0.02
Equipment Forced Outages/ * 1000 Commercial Critical Hours 0 0
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.12a

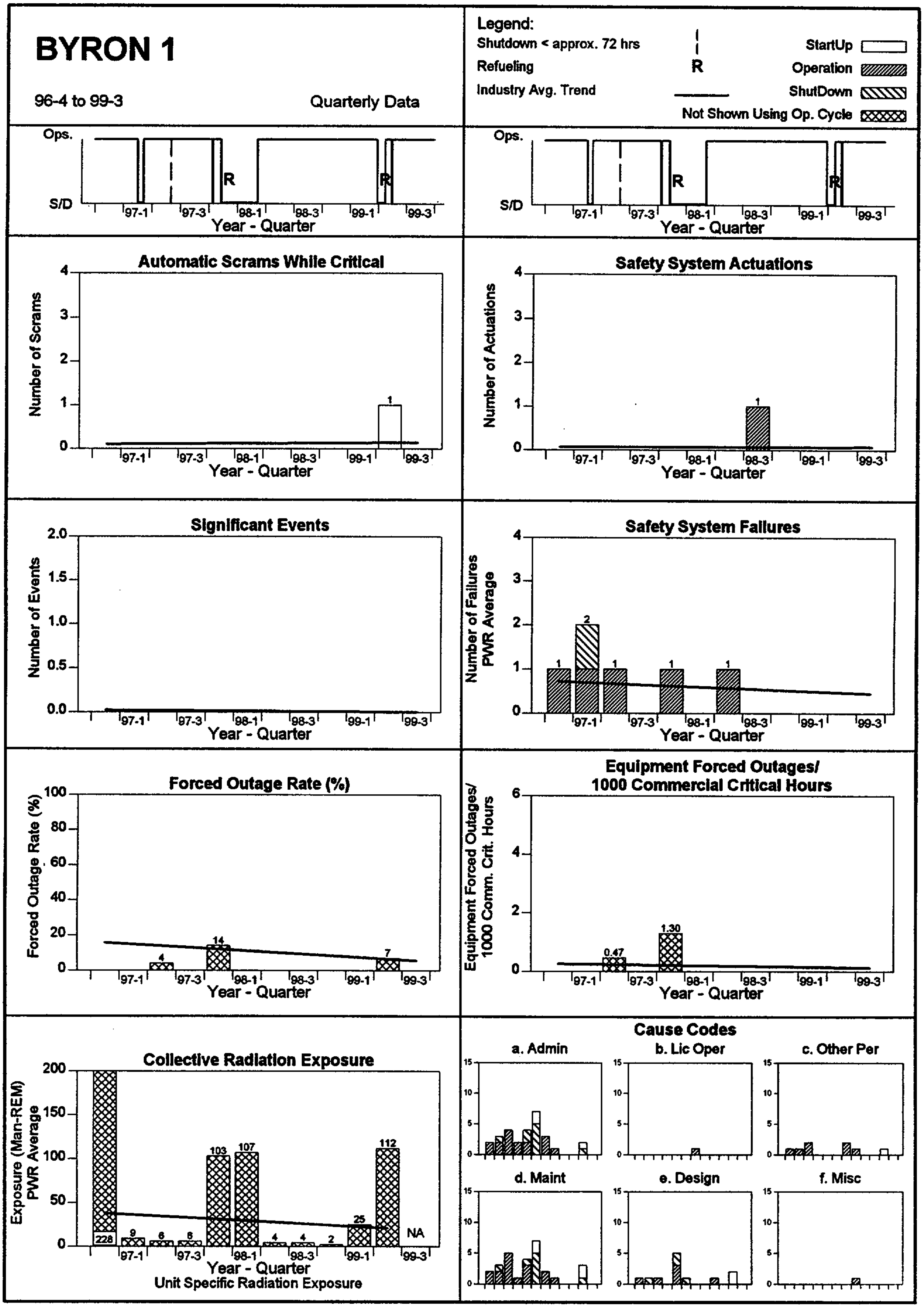

BYRON 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
Safety System Actuations
Number of Actuations
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
1
2
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
4
14
7
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.47
1.30
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
228
9
6
6
103
107
4
4
2
25
112
NA
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.12b

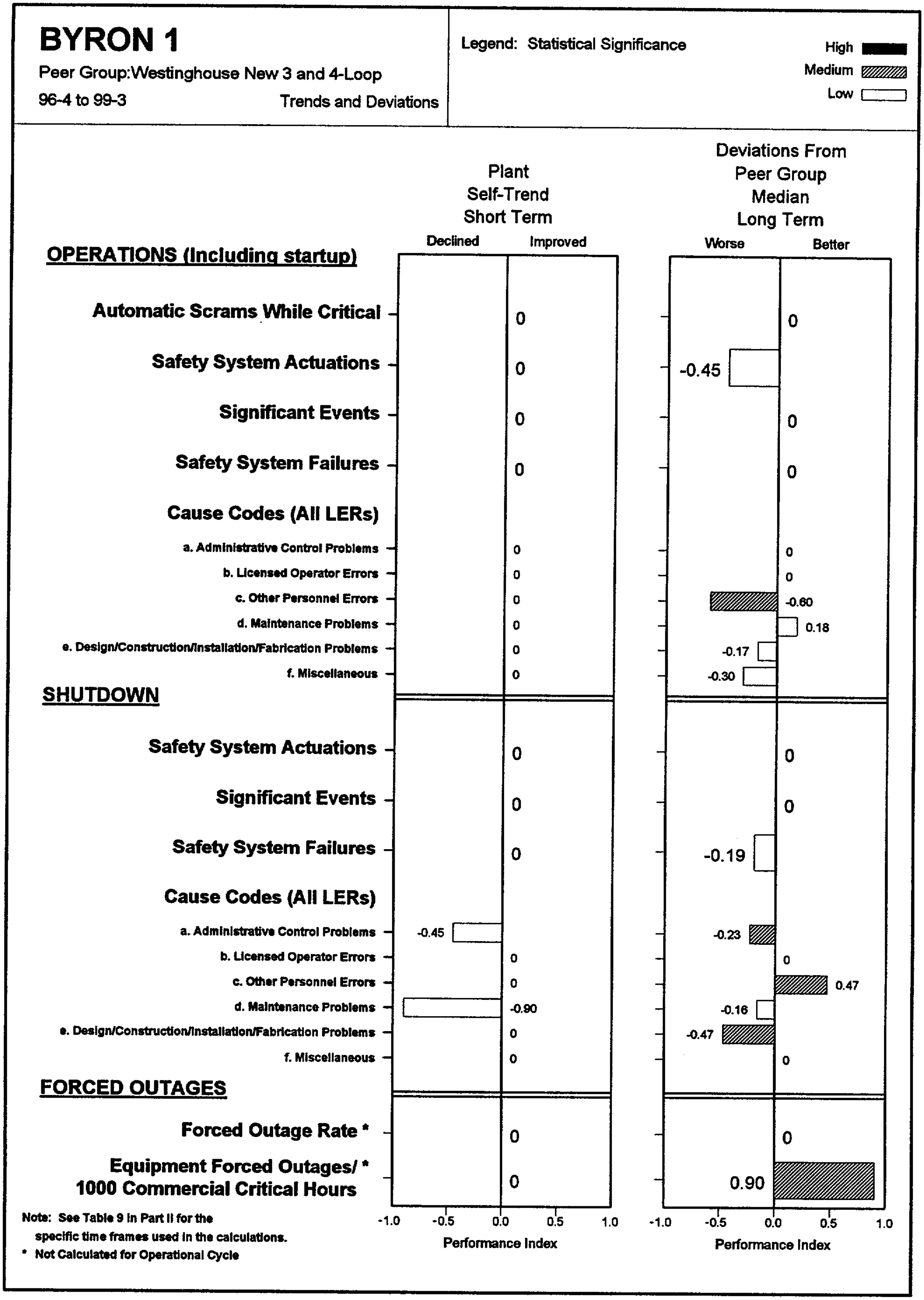

BYRON 1
Peer Group:Westinghouse New 3 and 4-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical
0
0
Safety System Actuations
0
-0.45
Significant Events
0
0
Safety System Failures
0
0
Cause Codes (All LERs)
a. Administrative Control Problems
0
0
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
-0.60
d. Maintenance Problems
0
0.18
e. Design/Construction/Installation/Fabrication Problems
0
-0.17
f. Miscellaneous
0
-0.30
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
-0.19
Cause Codes (All LERs)
a. Administrative Control Problems
-0.45
-0.23
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
0.47
d. Maintenance Problems
-0.90
-0.16
e. Design/Construction/Installation/Fabrication Problems
0
-0.47
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
0
0
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0
0.90
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.13a

BYRON 2

96-4 to 99-3

Quarterly Data

Legend:

Shutdown < approx. 72 hrs ¦

Refueling R

Industry Avg. Trend ——

StartUp ☐

Operation ▨

ShutDown ▧

Not Shown Using Op. Cycle ▩

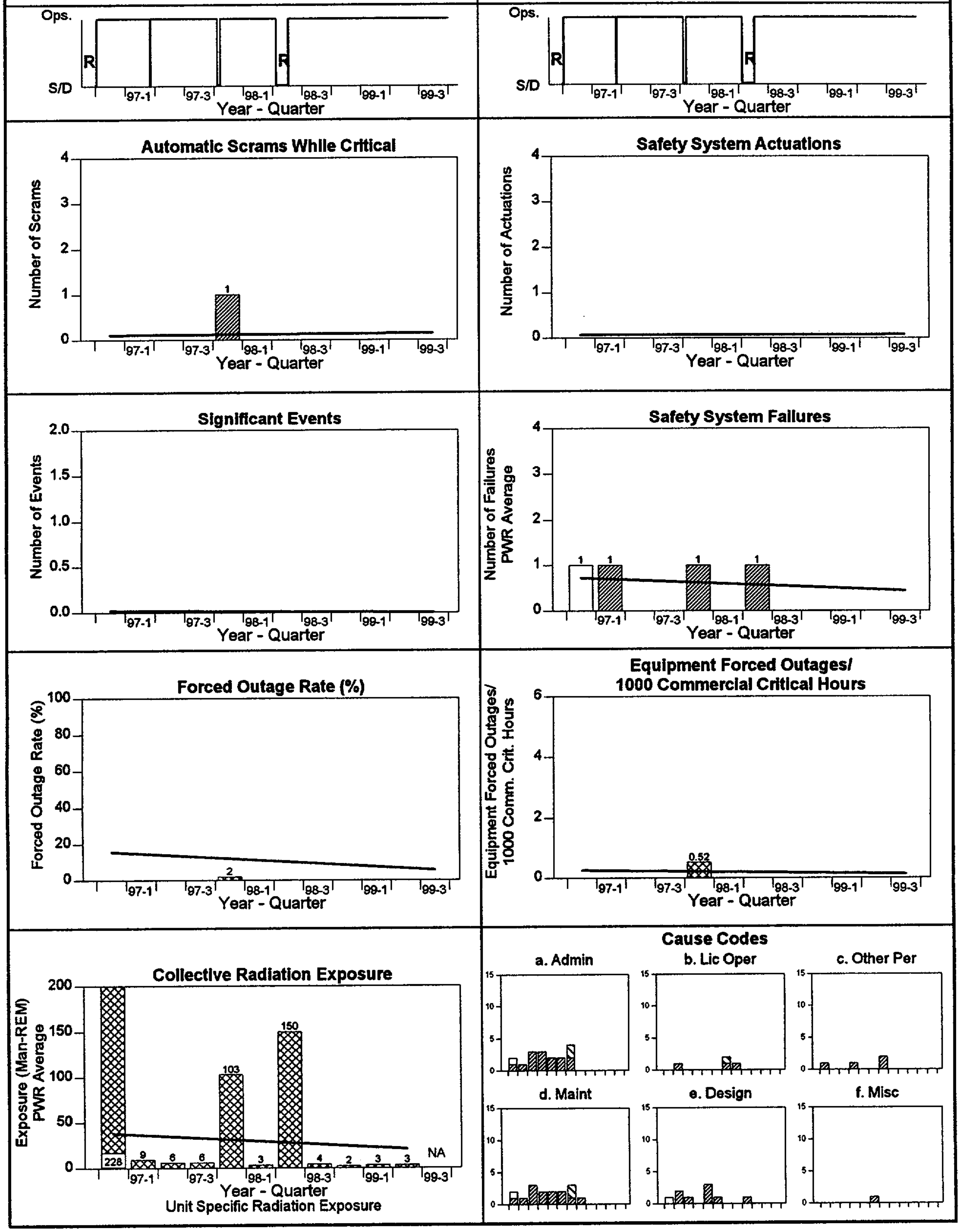
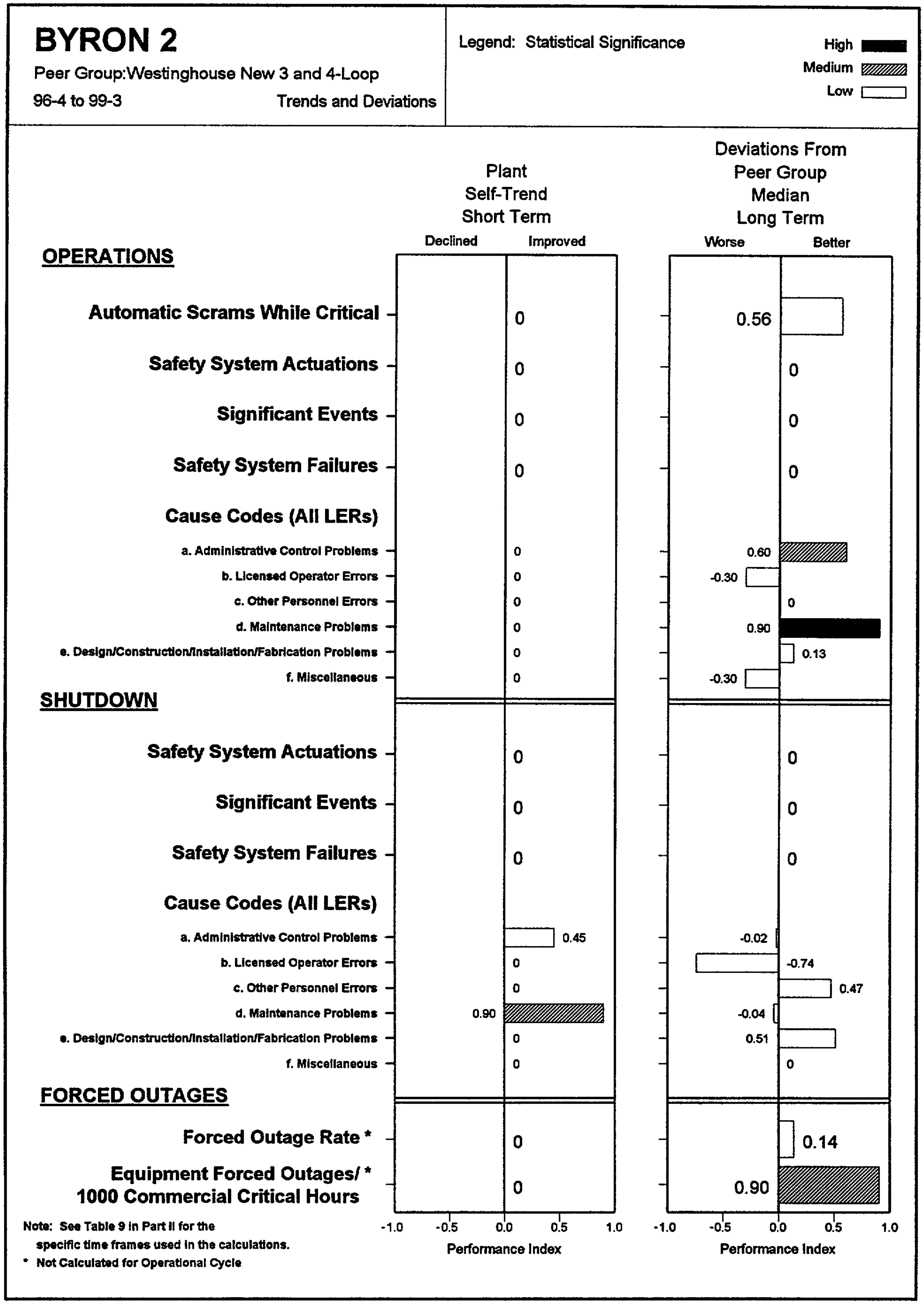


Figure 7.13b



Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.14a

CALLAWAY

96-4 to 99-3 Quarterly Data

Legend:
Shutdown < approx. 72 hrs ¦
Refueling R
Industry Avg. Trend ———
StartUp ☐
Operation ▨
ShutDown ▧
Not Shown Using Op. Cycle ▩

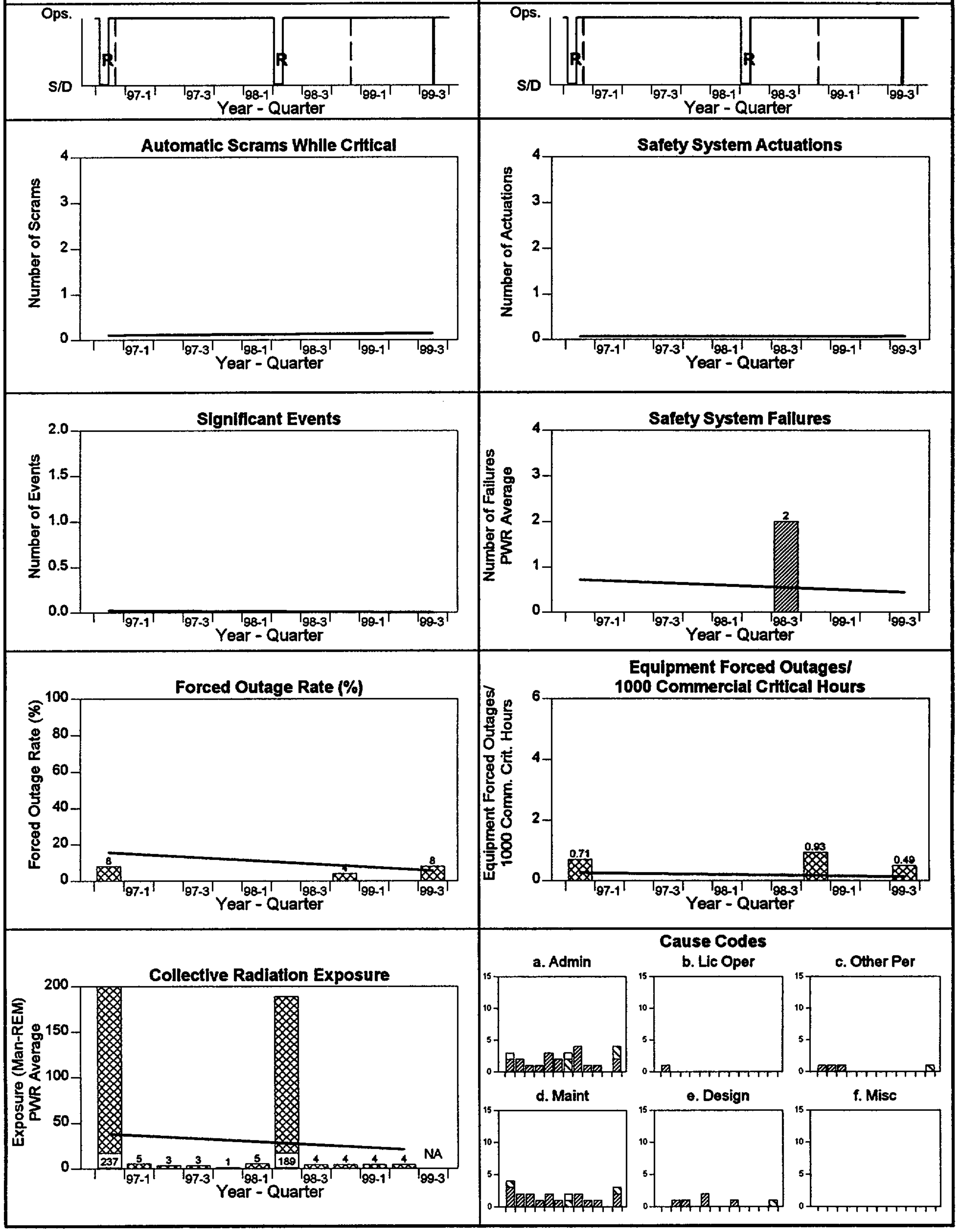


Figure 7.14b

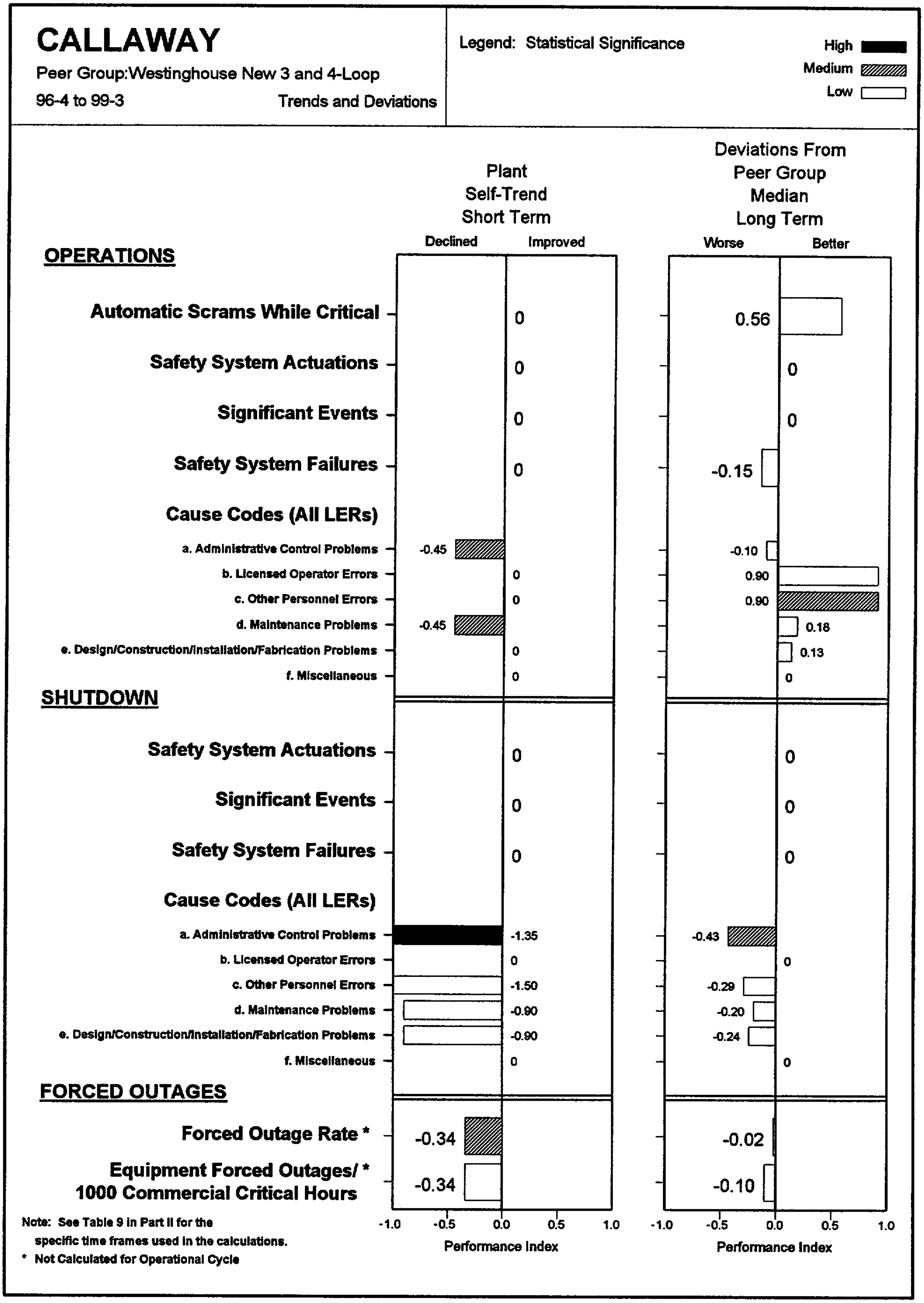

CALLAWAY
Peer Group:Westinghouse New 3 and 4-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low ☐
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical 0 0.56
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 -0.15
Cause Codes (All LERs)
a. Administrative Control Problems -0.45 -0.10
b. Licensed Operator Errors 0 0.90
c. Other Personnel Errors 0 0.90
d. Maintenance Problems -0.45 0.18
e. Design/Construction/Installation/Fabrication Problems 0 0.13
f. Miscellaneous 0 0
SHUTDOWN
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 0
Cause Codes (All LERs)
a. Administrative Control Problems -1.35 -0.43
b. Licensed Operator Errors 0 0
c. Other Personnel Errors -1.50 -0.29
d. Maintenance Problems -0.90 -0.20
e. Design/Construction/Installation/Fabrication Problems -0.90 -0.24
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * -0.34 -0.02
Equipment Forced Outages/ * 1000 Commercial Critical Hours -0.34 -0.10
-1.0 -0.5 0.0 0.5 1.0
Performance Index
-1.0 -0.5 0.0 0.5 1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.15a

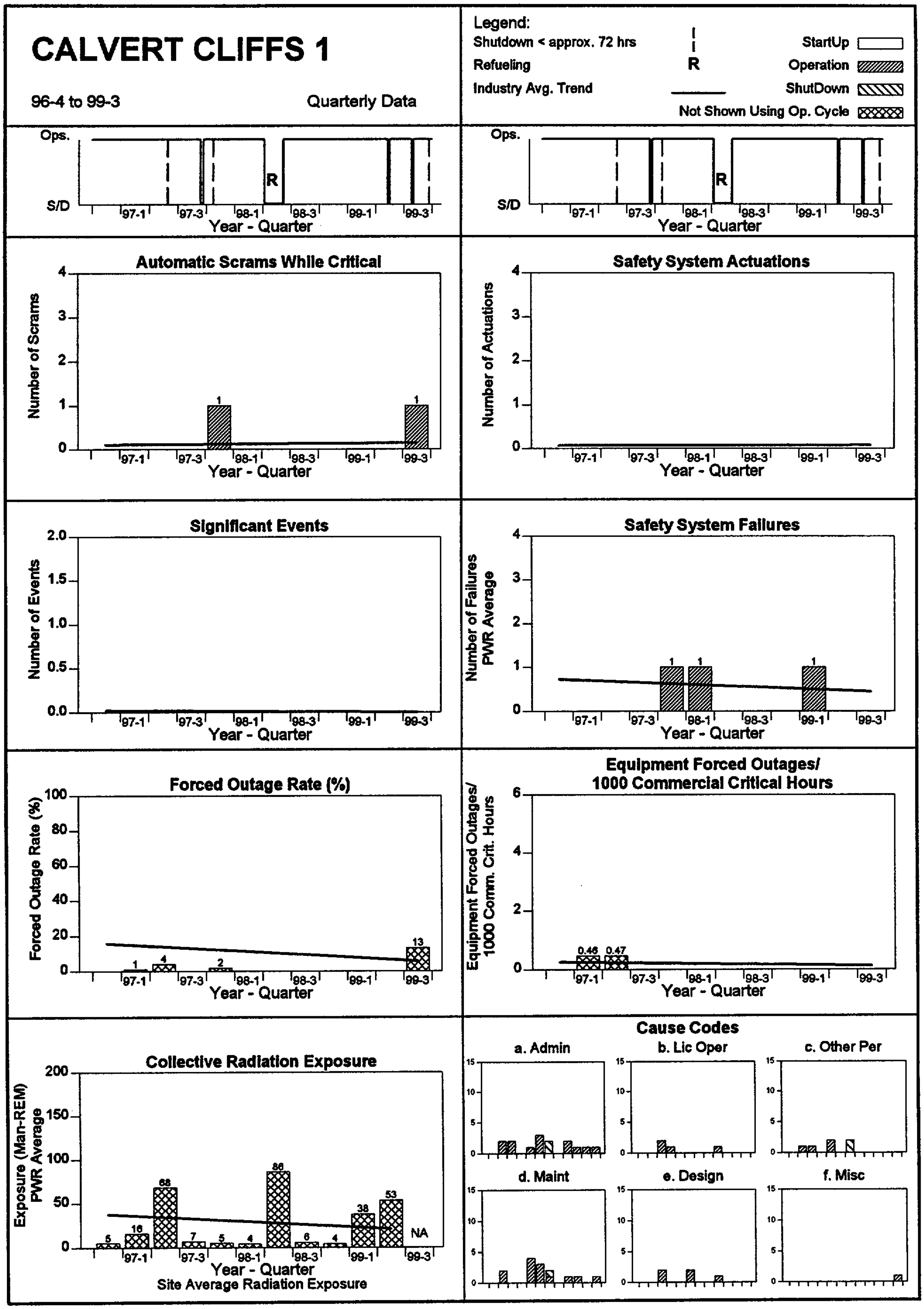

CALVERT CLIFFS 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
1
4
2
13
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.46
0.47
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
5
16
68
7
5
4
86
6
4
38
53
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.15b

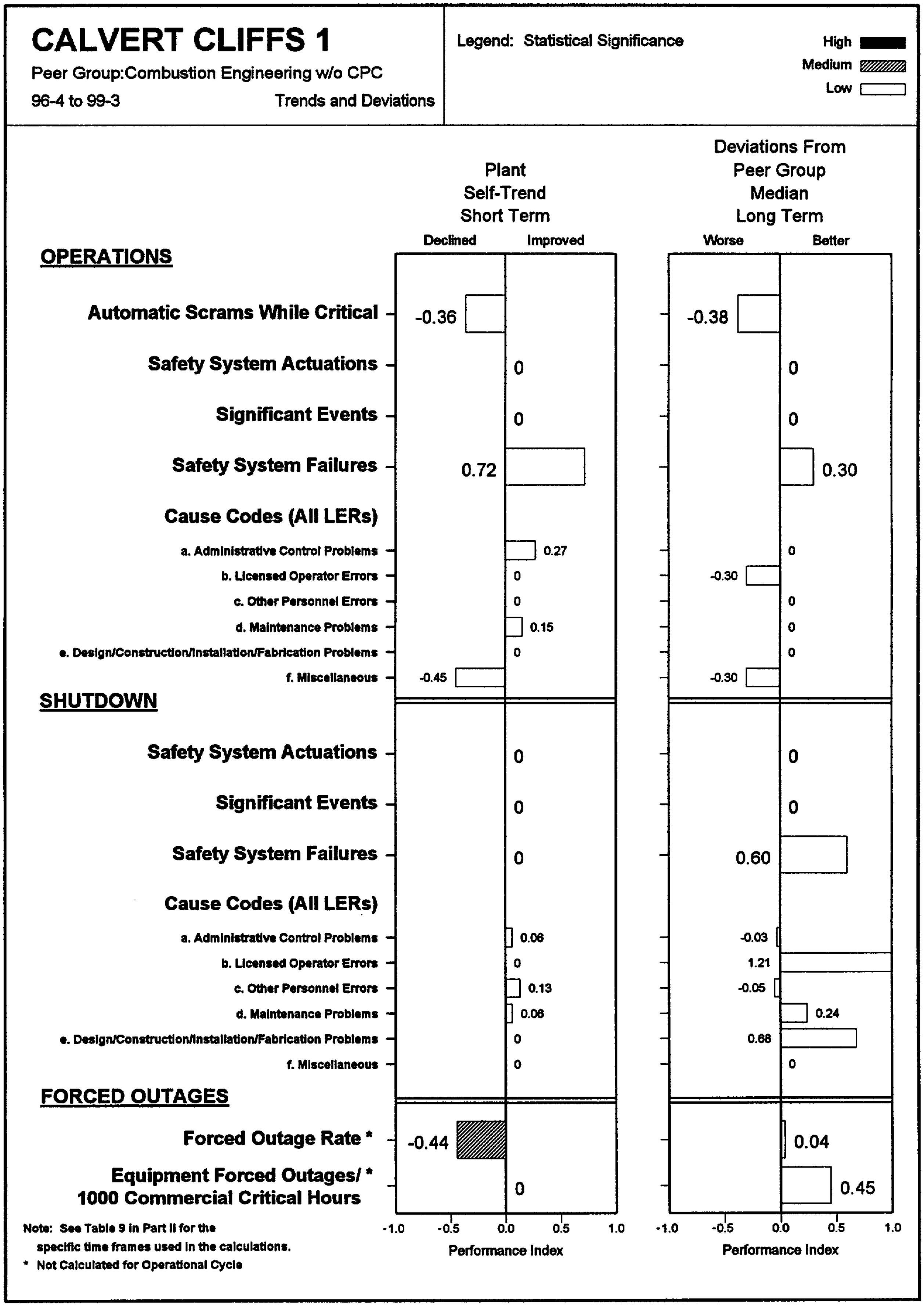

CALVERT CLIFFS 1
Peer Group:Combustion Engineering w/o CPC
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical -0.36 -0.38
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0.72 0.30
Cause Codes (All LERs)
a. Administrative Control Problems 0.27 0
b. Licensed Operator Errors 0 -0.30
c. Other Personnel Errors 0 0
d. Maintenance Problems 0.15 0
e. Design/Construction/Installation/Fabrication Problems 0 0
f. Miscellaneous -0.45 -0.30
SHUTDOWN
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 0.60
Cause Codes (All LERs)
a. Administrative Control Problems 0.06 -0.03
b. Licensed Operator Errors 0 1.21
c. Other Personnel Errors 0.13 -0.05
d. Maintenance Problems 0.06 0.24
e. Design/Construction/Installation/Fabrication Problems 0 0.68
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * -0.44 0.04
Equipment Forced Outages/ * 1000 Commercial Critical Hours 0 0.45
-1.0 -0.5 0.0 0.5 1.0
Performance Index
-1.0 -0.5 0.0 0.5 1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.16a

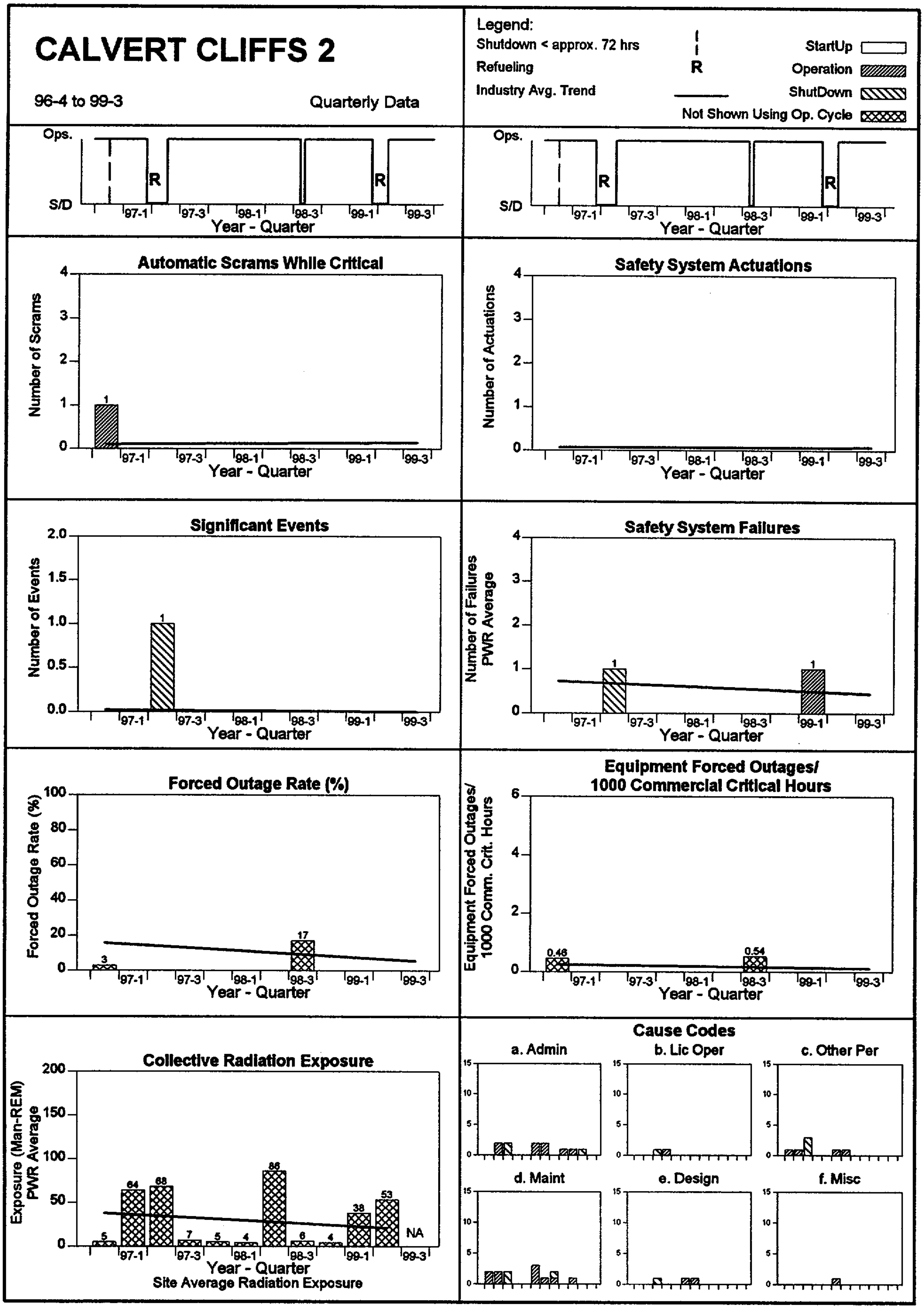

CALVERT CLIFFS 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling
R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
1
Safety System Failures
Number of Failures
PWR Average
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
3
17
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.46
0.54
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
5
64
68
7
5
4
86
6
4
38
53
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.16b

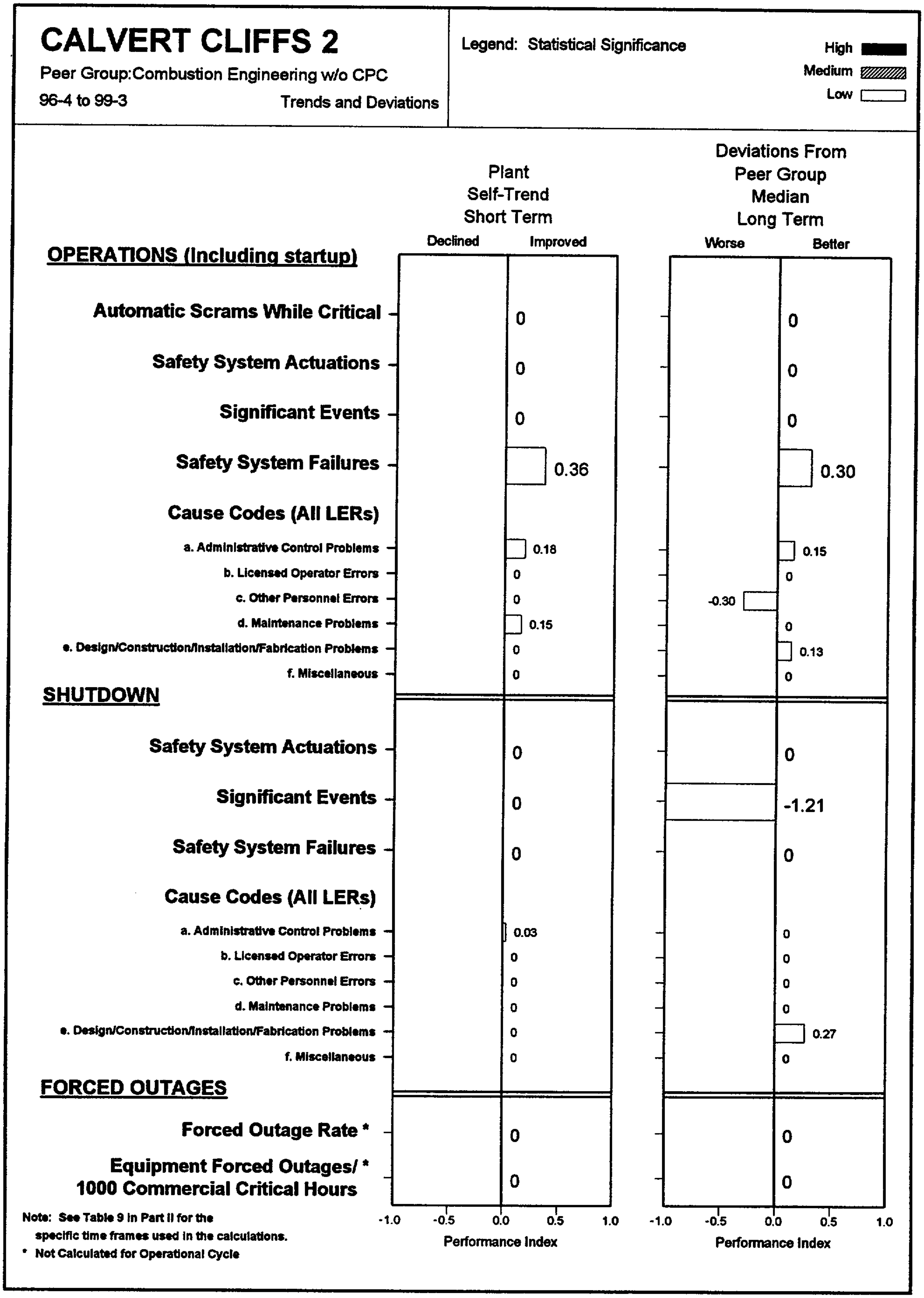

CALVERT CLIFFS 2
Peer Group:Combustion Engineering w/o CPC
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical
0
0
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0.36
0.30
Cause Codes (All LERs)
a. Administrative Control Problems
0.18
0.15
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
-0.30
d. Maintenance Problems
0.15
0
e. Design/Construction/Installation/Fabrication Problems
0
0.13
f. Miscellaneous
0
0
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
-1.21
Safety System Failures
0
0
Cause Codes (All LERs)
a. Administrative Control Problems
0.03
0
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
0
d. Maintenance Problems
0
0
e. Design/Construction/Installation/Fabrication Problems
0
0.27
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
0
0
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0
0
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.17a

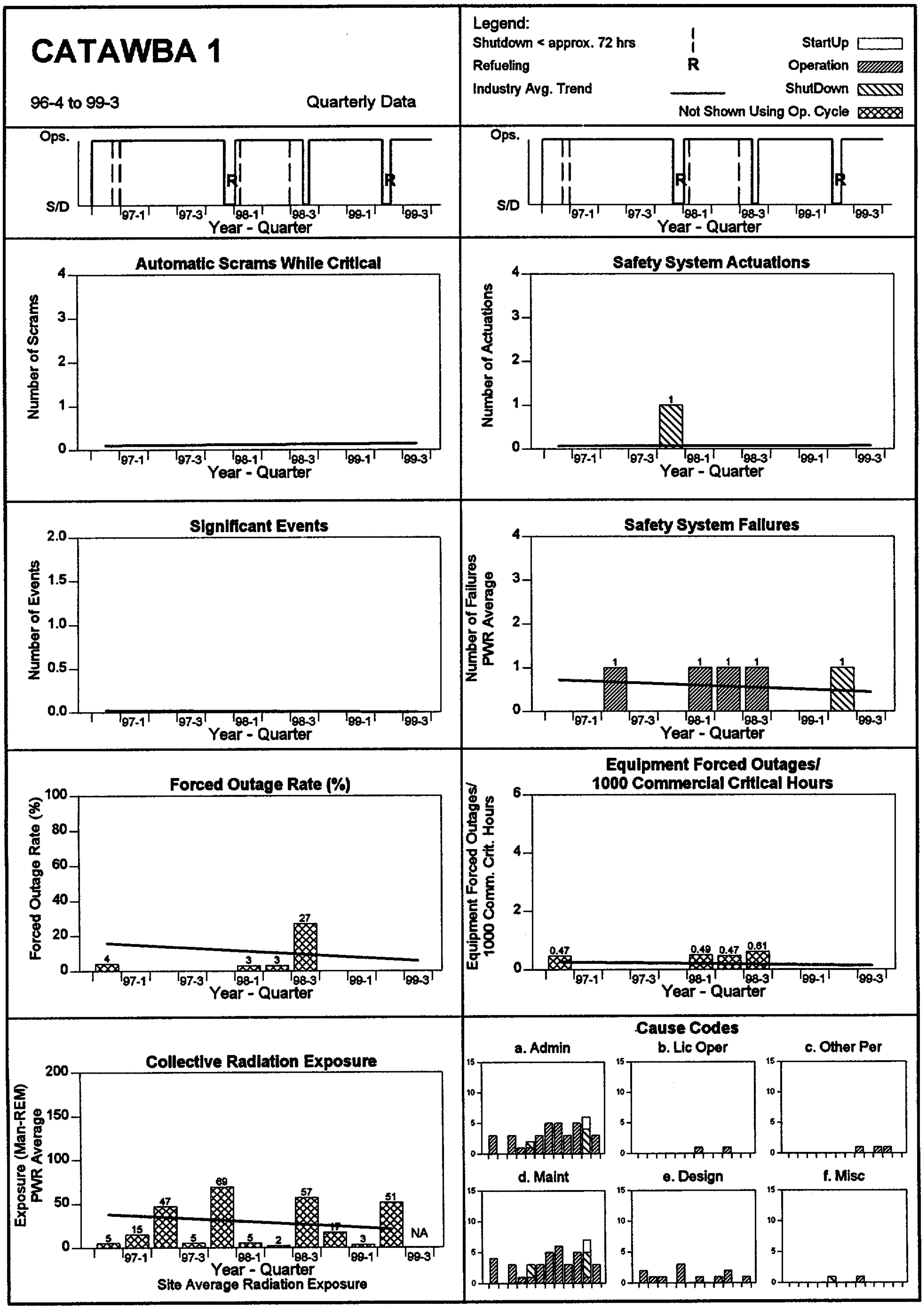

CATAWBA 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
4
3
2
1
0
Safety System Actuations
Number of Actuations
1
Significant Events
Number of Events
2.0
1.5
1.0
0.5
0.0
Safety System Failures
Number of Failures PWR Average
1
1
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
100
80
60
40
20
0
4
3
3
27
Equipment Forced Outages/ 1000 Commercial Critical Hours
Equipment Forced Outages/ 1000 Comm. Crit. Hours
6
4
2
0
0.47
0.49
0.47
0.61
Collective Radiation Exposure
Exposure (Man-REM) PWR Average
200
150
100
50
0
5
15
47
5
69
5
2
57
17
3
51
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
15
10
5
0

Figure 7.17b

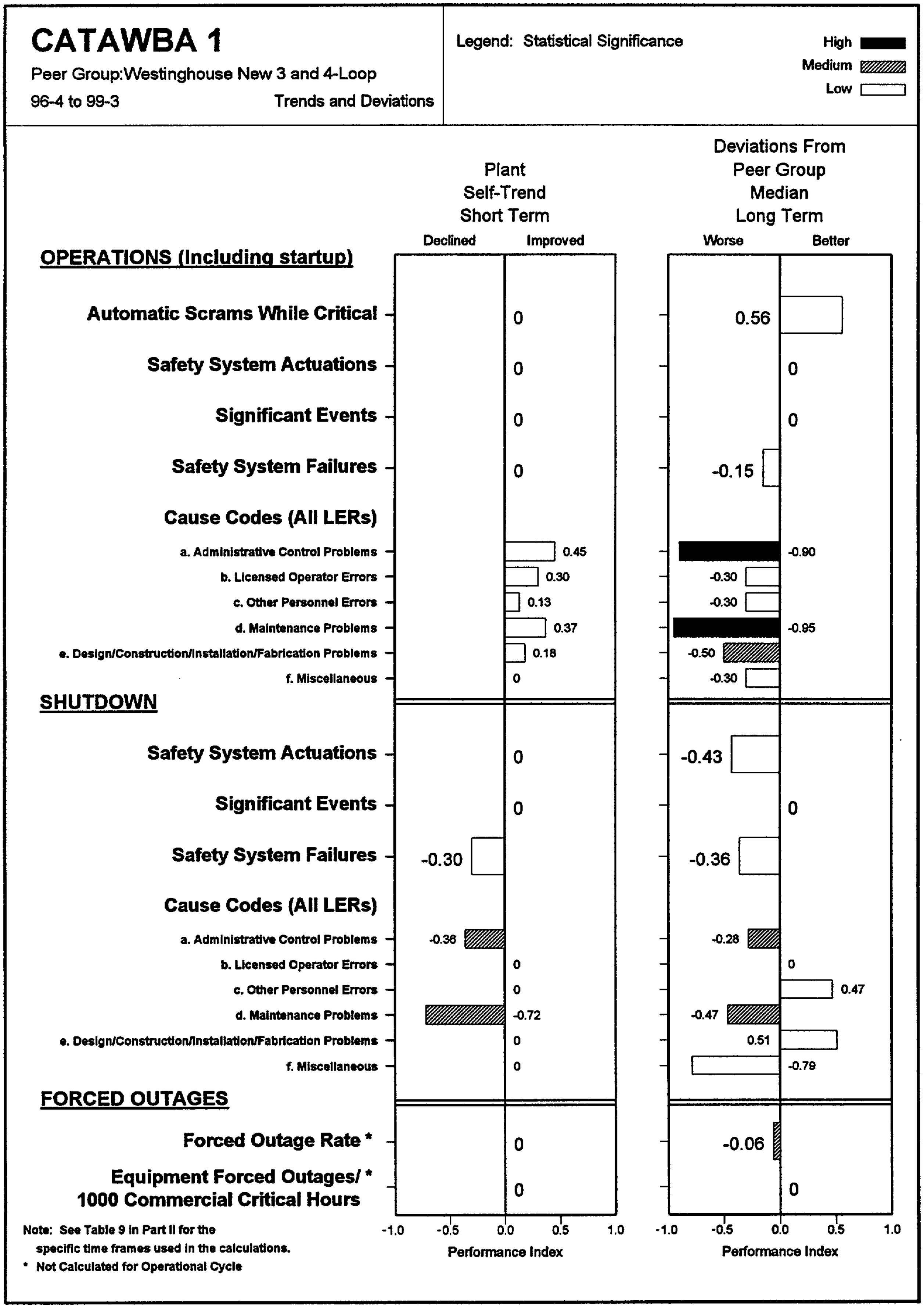

CATAWBA 1
Peer Group:Westinghouse New 3 and 4-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical
0
0.56
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
-0.15
Cause Codes (All LERs)
a. Administrative Control Problems
0.45
-0.90
b. Licensed Operator Errors
0.30
-0.30
c. Other Personnel Errors
0.13
-0.30
d. Maintenance Problems
0.37
-0.95
e. Design/Construction/Installation/Fabrication Problems
0.18
-0.50
f. Miscellaneous
0
-0.30
SHUTDOWN
Safety System Actuations
0
-0.43
Significant Events
0
0
Safety System Failures
-0.30
-0.36
Cause Codes (All LERs)
a. Administrative Control Problems
-0.36
-0.28
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
0.47
d. Maintenance Problems
-0.72
-0.47
e. Design/Construction/Installation/Fabrication Problems
0
0.51
f. Miscellaneous
0
-0.79
FORCED OUTAGES
Forced Outage Rate *
0
-0.06
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0
0
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.18a

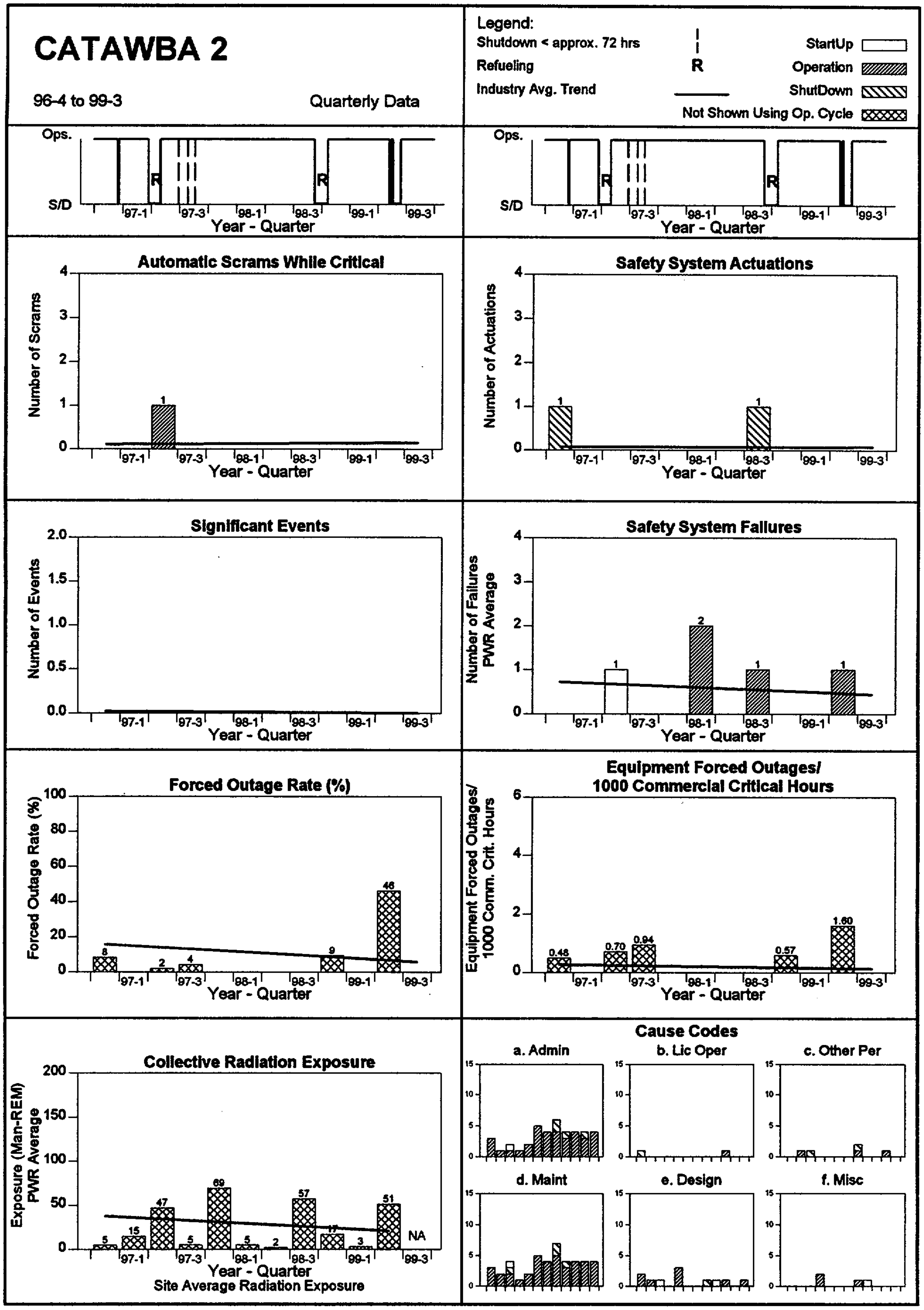

CATAWBA 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
Year - Quarter
97-1
97-3
98-1
98-3
99-1
99-3
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
Safety System Actuations
Number of Actuations
1
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
1
2
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
8
2
4
9
46
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.48
0.70
0.94
0.57
1.60
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
5
15
47
5
69
5
2
57
17
3
51
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.18b

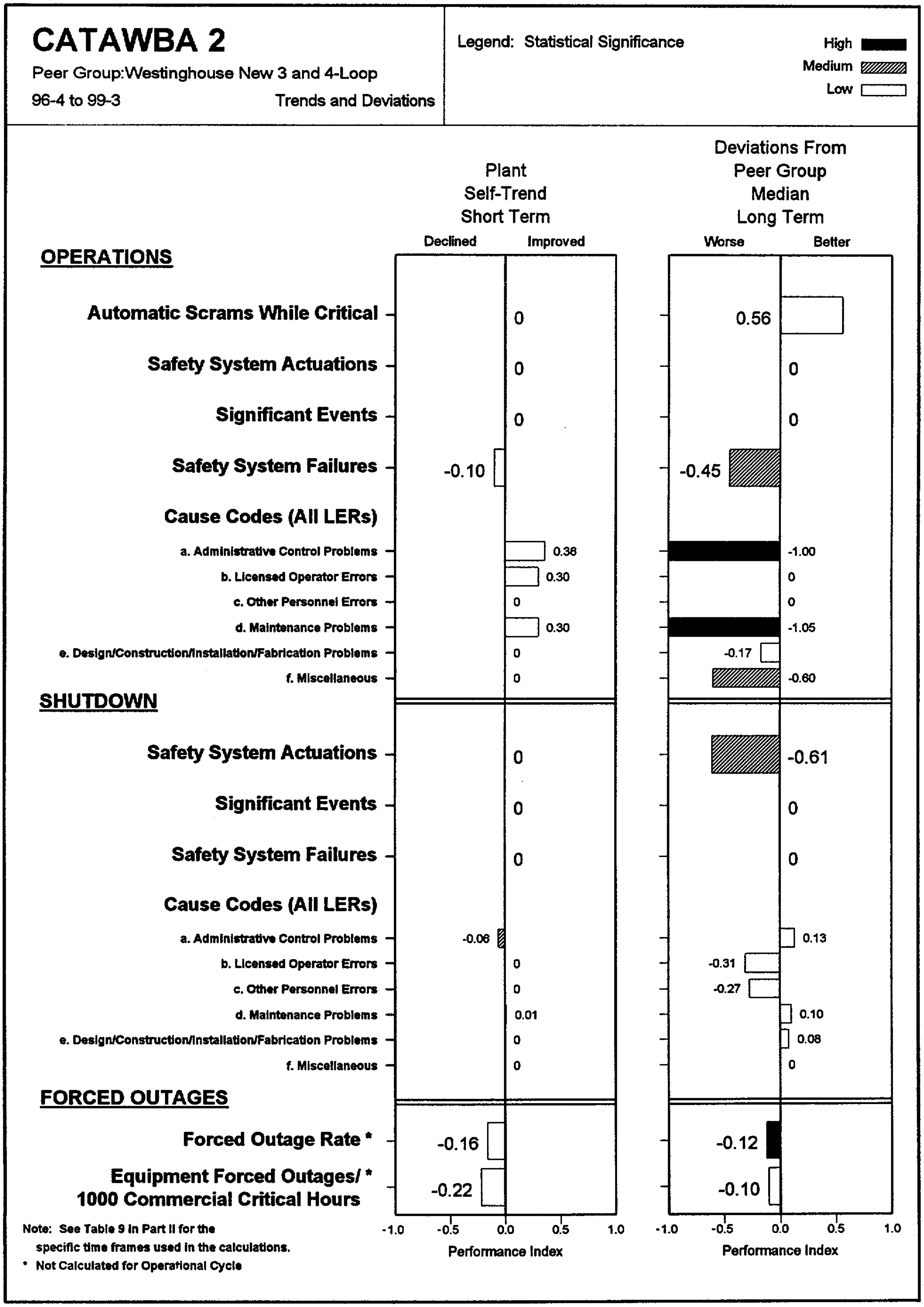

CATAWBA 2
Peer Group:Westinghouse New 3 and 4-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low ☐
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical 0 0.56
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures -0.10 -0.45
Cause Codes (All LERs)
a. Administrative Control Problems 0.36 -1.00
b. Licensed Operator Errors 0.30 0
c. Other Personnel Errors 0 0
d. Maintenance Problems 0.30 -1.05
e. Design/Construction/Installation/Fabrication Problems 0 -0.17
f. Miscellaneous 0 -0.60
SHUTDOWN
Safety System Actuations 0 -0.61
Significant Events 0 0
Safety System Failures 0 0
Cause Codes (All LERs)
a. Administrative Control Problems -0.06 0.13
b. Licensed Operator Errors 0 -0.31
c. Other Personnel Errors 0 -0.27
d. Maintenance Problems 0.01 0.10
e. Design/Construction/Installation/Fabrication Problems 0 0.08
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * -0.16 -0.12
Equipment Forced Outages/ * 1000 Commercial Critical Hours -0.22 -0.10
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.19a

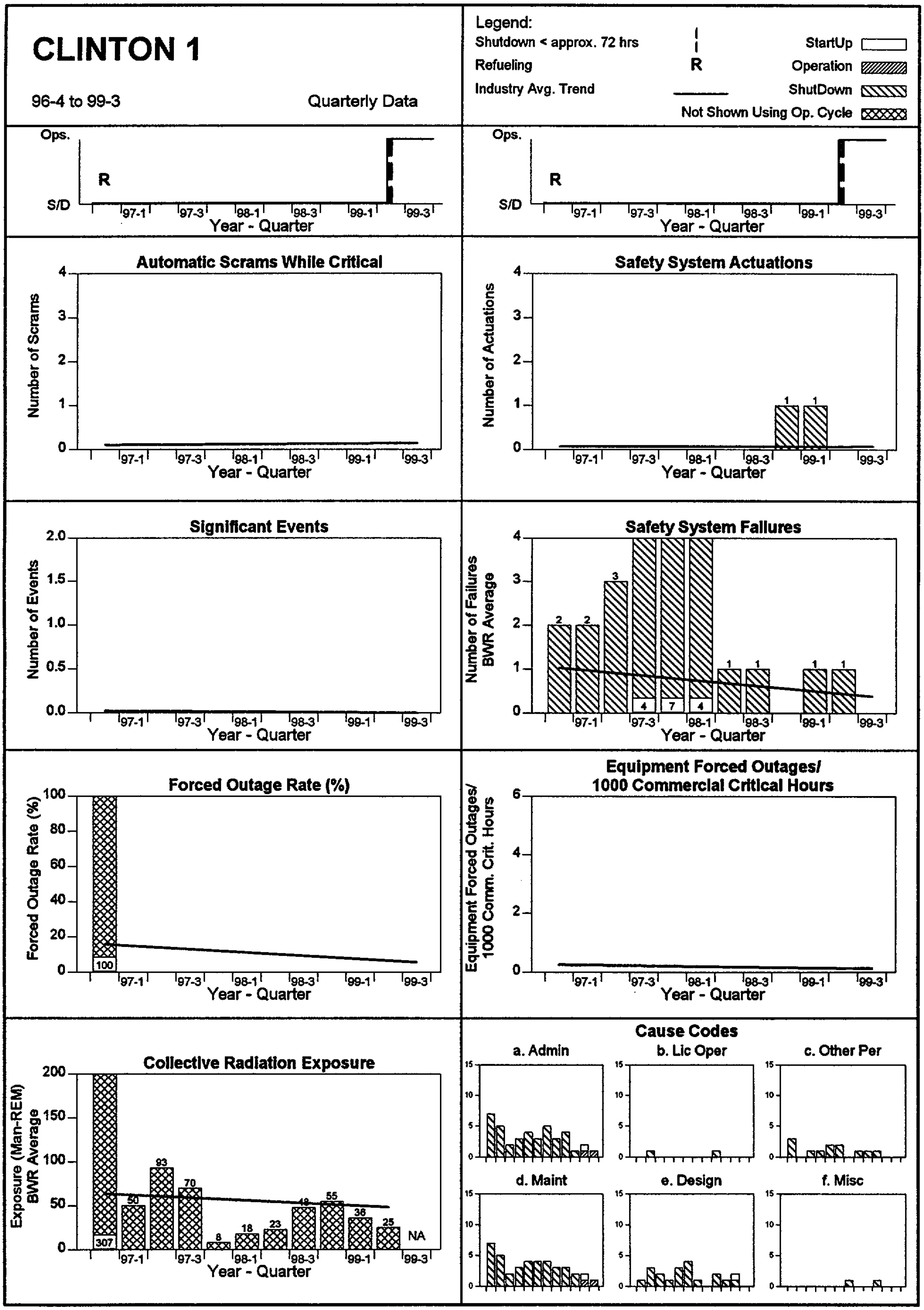

CLINTON 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
'97-1 '97-3 '98-1 '98-3 '99-1 '99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0 1 2 3 4
Safety System Actuations
Number of Actuations
1 1
Significant Events
Number of Events
0.0 0.5 1.0 1.5 2.0
Safety System Failures
Number of Failures
BWR Average
2 2 3 4 7 4 1 1 1 1
Forced Outage Rate (%)
Forced Outage Rate (%)
0 20 40 60 80 100
100
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0 2 4 6
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
0 50 100 150 200
307 50 93 70 8 18 23 48 55 36 25 NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0 5 10 15

Figure 7.19b

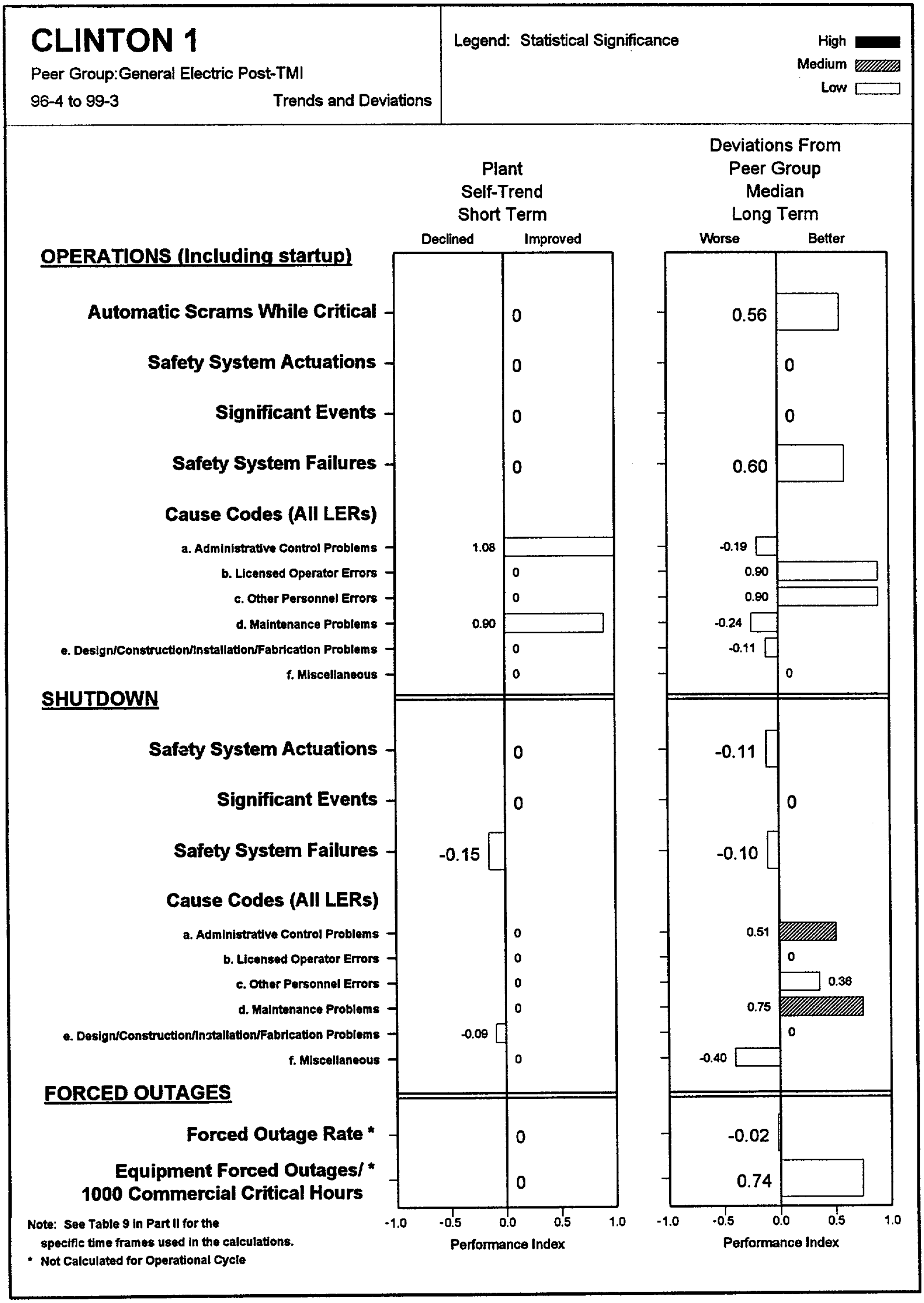

CLINTON 1
Peer Group: General Electric Post-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical
0
0.56
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0.60
Cause Codes (All LERs)
a. Administrative Control Problems
1.08
-0.19
b. Licensed Operator Errors
0
0.90
c. Other Personnel Errors
0
0.90
d. Maintenance Problems
0.90
-0.24
e. Design/Construction/Installation/Fabrication Problems
0
-0.11
f. Miscellaneous
0
0
SHUTDOWN
Safety System Actuations
0
-0.11
Significant Events
0
0
Safety System Failures
-0.15
-0.10
Cause Codes (All LERs)
a. Administrative Control Problems
0
0.51
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
0.36
d. Maintenance Problems
0
0.75
e. Design/Construction/Installation/Fabrication Problems
-0.09
0
f. Miscellaneous
0
-0.40
FORCED OUTAGES
Forced Outage Rate *
0
-0.02
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0
0.74
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.20a

COMANCHE PEAK 1

96-4 to 99-3

Quarterly Data

Legend:
Shutdown < approx. 72 hrs |
Refueling R
Industry Avg. Trend ——
StartUp □
Operation ▨
ShutDown ▧
Not Shown Using Op. Cycle ▩

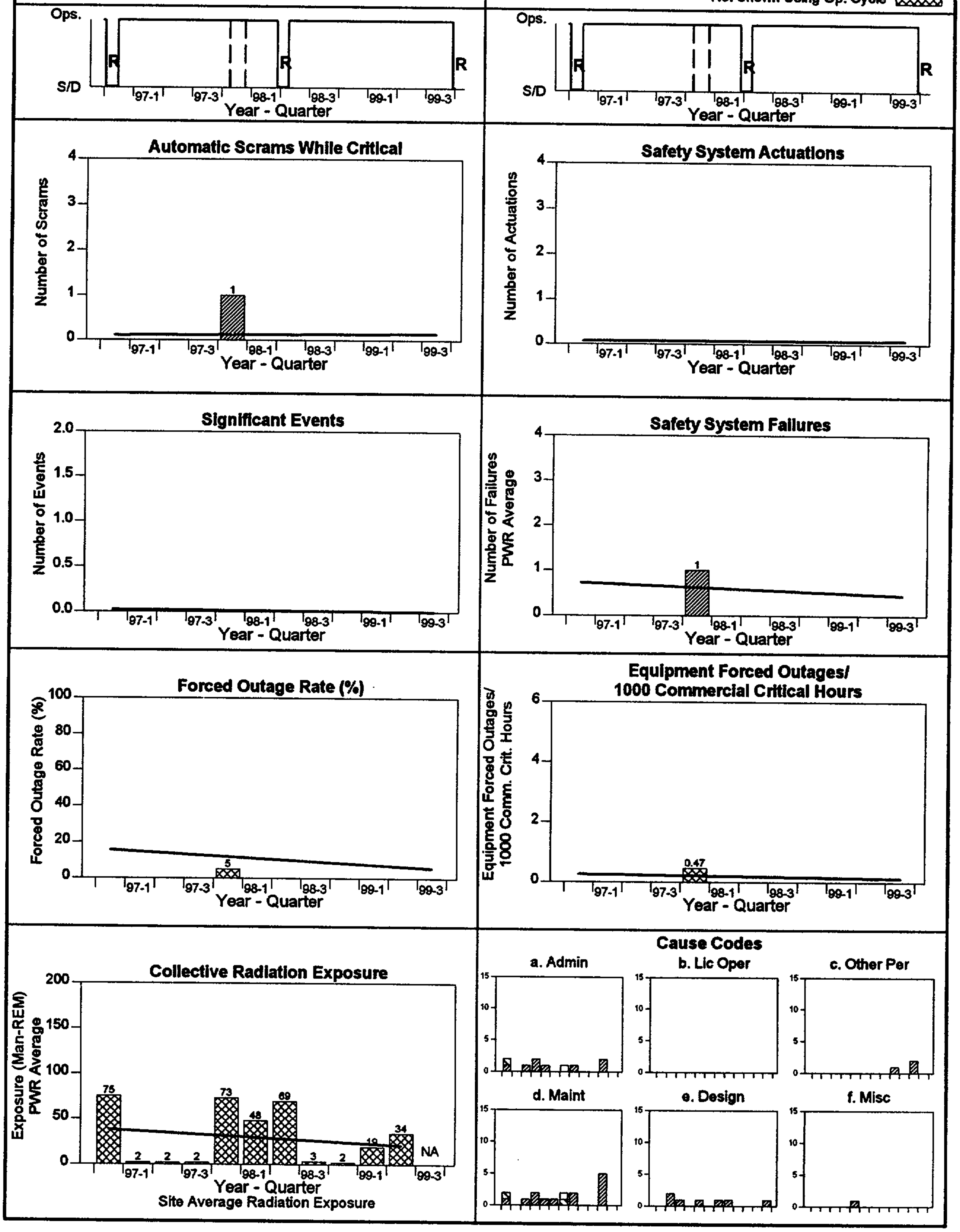


Figure 7.20b

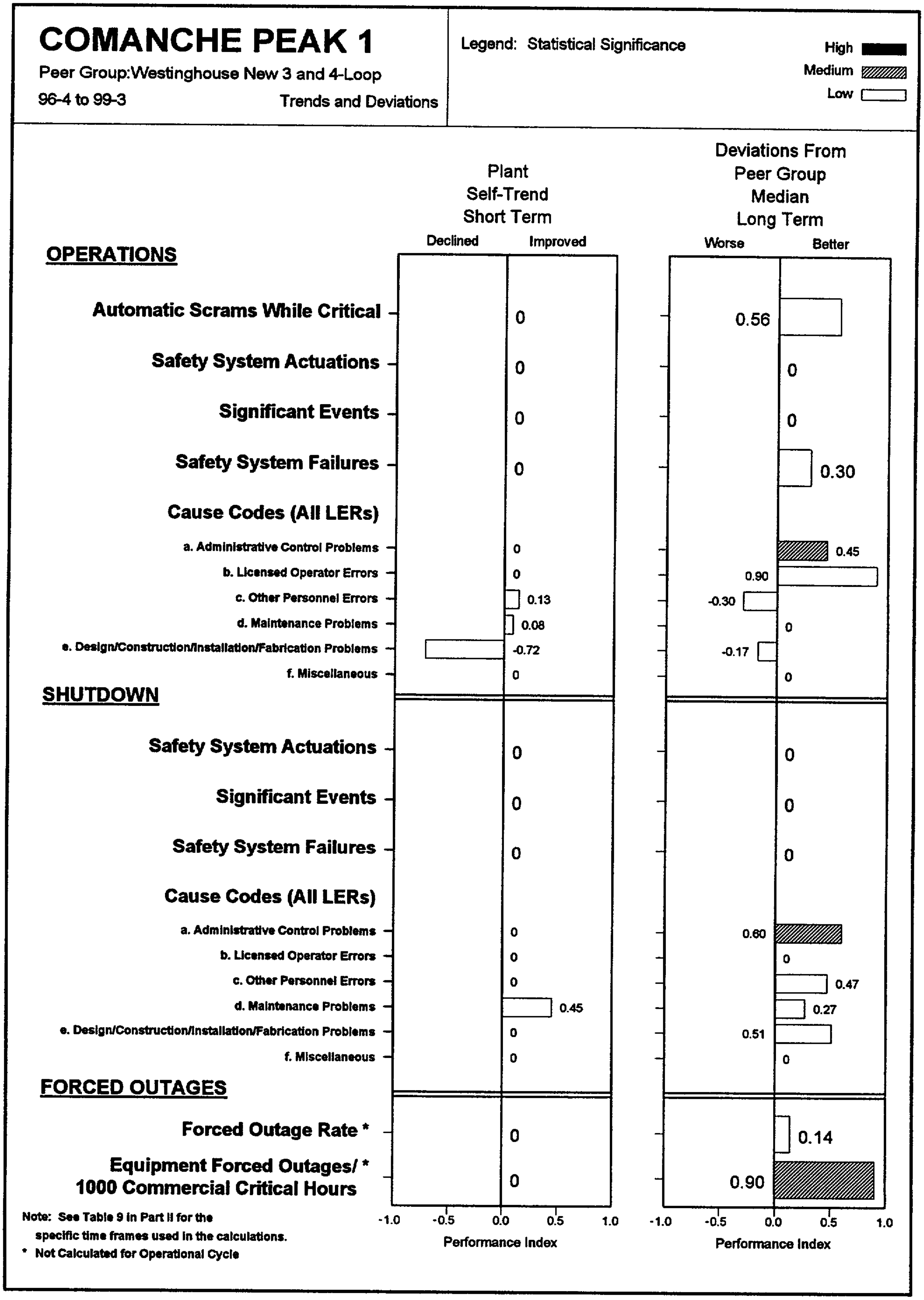

COMANCHE PEAK 1
Peer Group:Westinghouse New 3 and 4-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low ☐
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical
0
0.56
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0.30
Cause Codes (All LERs)
a. Administrative Control Problems
0
0.45
b. Licensed Operator Errors
0
0.90
c. Other Personnel Errors
0.13
-0.30
d. Maintenance Problems
0.08
0
e. Design/Construction/Installation/Fabrication Problems
-0.72
-0.17
f. Miscellaneous
0
0
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0
Cause Codes (All LERs)
a. Administrative Control Problems
0
0.60
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
0.47
d. Maintenance Problems
0.45
0.27
e. Design/Construction/Installation/Fabrication Problems
0
0.51
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
0
0.14
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0
0.90
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.21a

COMANCHE PEAK 2

96-4 to 99-3 Quarterly Data

Legend:

Shutdown < approx. 72 hrs	¦	StartUp	☐
Refueling	R	Operation	▨
Industry Avg. Trend	———	ShutDown	▧
		Not Shown Using Op. Cycle	▩

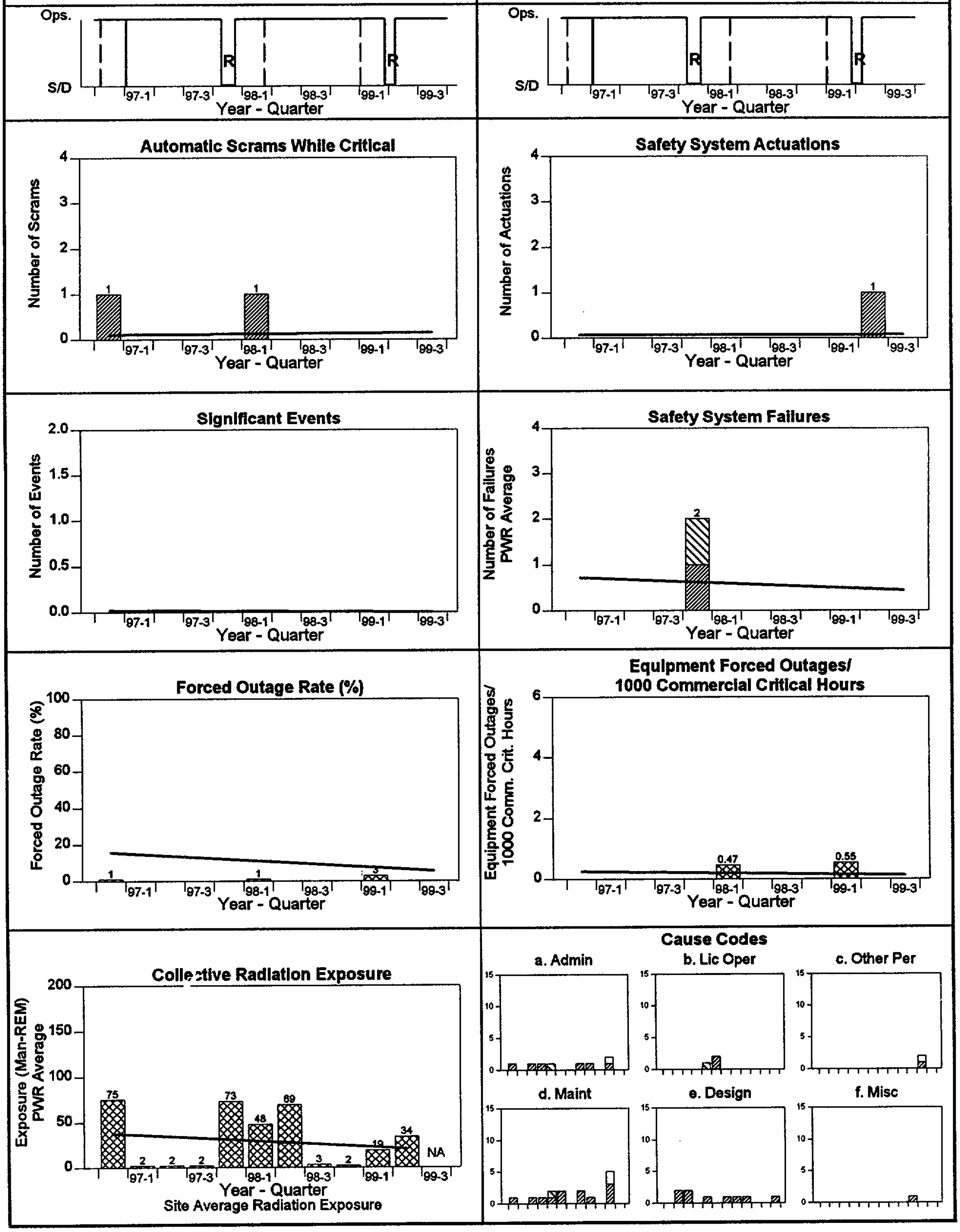


Figure 7.21b

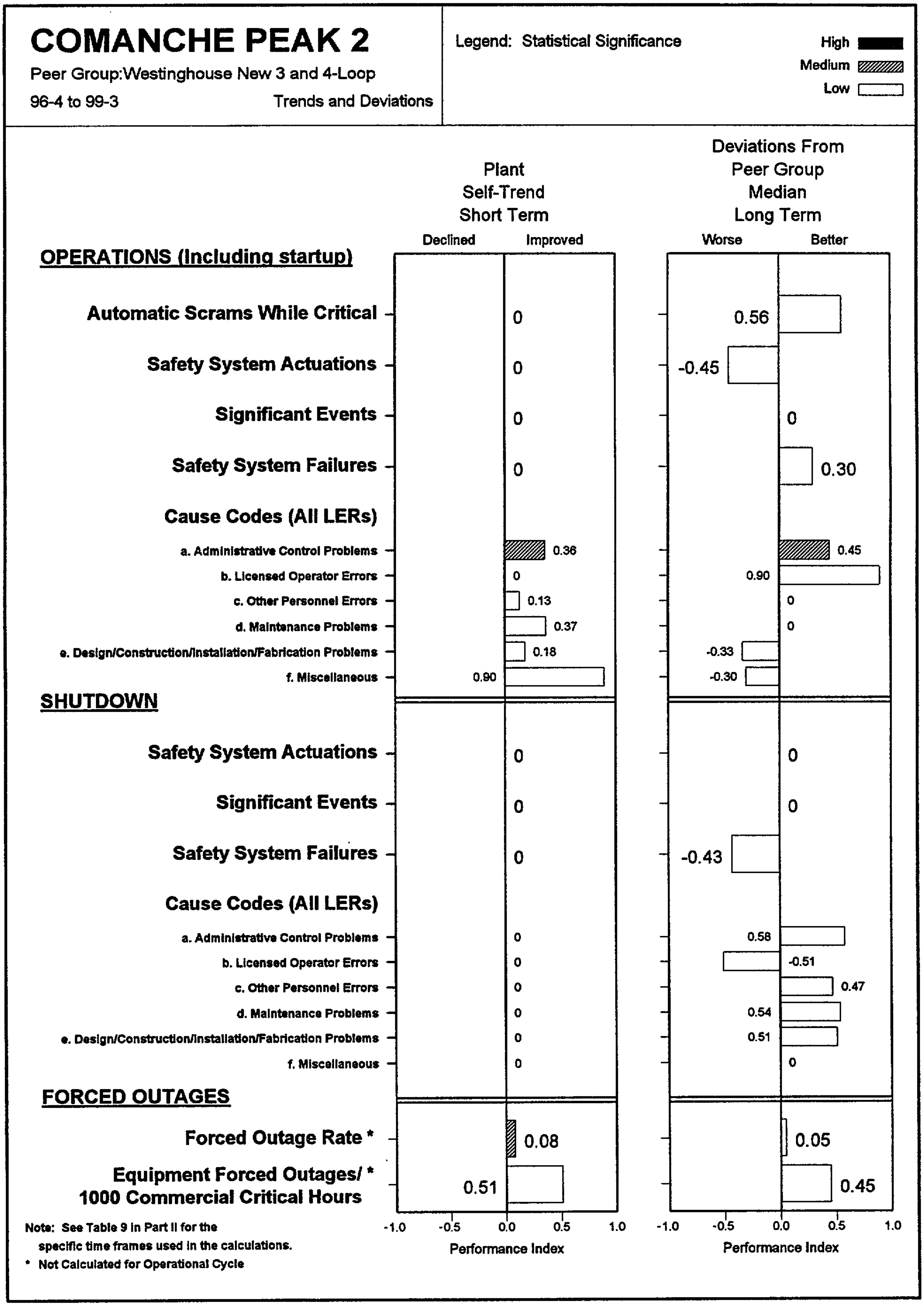

COMANCHE PEAK 2
Peer Group:Westinghouse New 3 and 4-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical
0
0.56
Safety System Actuations
0
-0.45
Significant Events
0
0
Safety System Failures
0
0.30
Cause Codes (All LERs)
a. Administrative Control Problems
0.36
0.45
b. Licensed Operator Errors
0
0.90
c. Other Personnel Errors
0.13
0
d. Maintenance Problems
0.37
0
e. Design/Construction/Installation/Fabrication Problems
0.18
-0.33
f. Miscellaneous
0.90
-0.30
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
-0.43
Cause Codes (All LERs)
a. Administrative Control Problems
0
0.58
b. Licensed Operator Errors
0
-0.51
c. Other Personnel Errors
0
0.47
d. Maintenance Problems
0
0.54
e. Design/Construction/Installation/Fabrication Problems
0
0.51
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
0.08
0.05
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0.51
0.45
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.22a

COOK 1

96-4 to 99-3 Quarterly Data

Legend:

Shutdown < approx. 72 hrs	|	StartUp	☐
Refueling	R	Operation	▨
Industry Avg. Trend	———	ShutDown	▧
		Not Shown Using Op. Cycle	▩

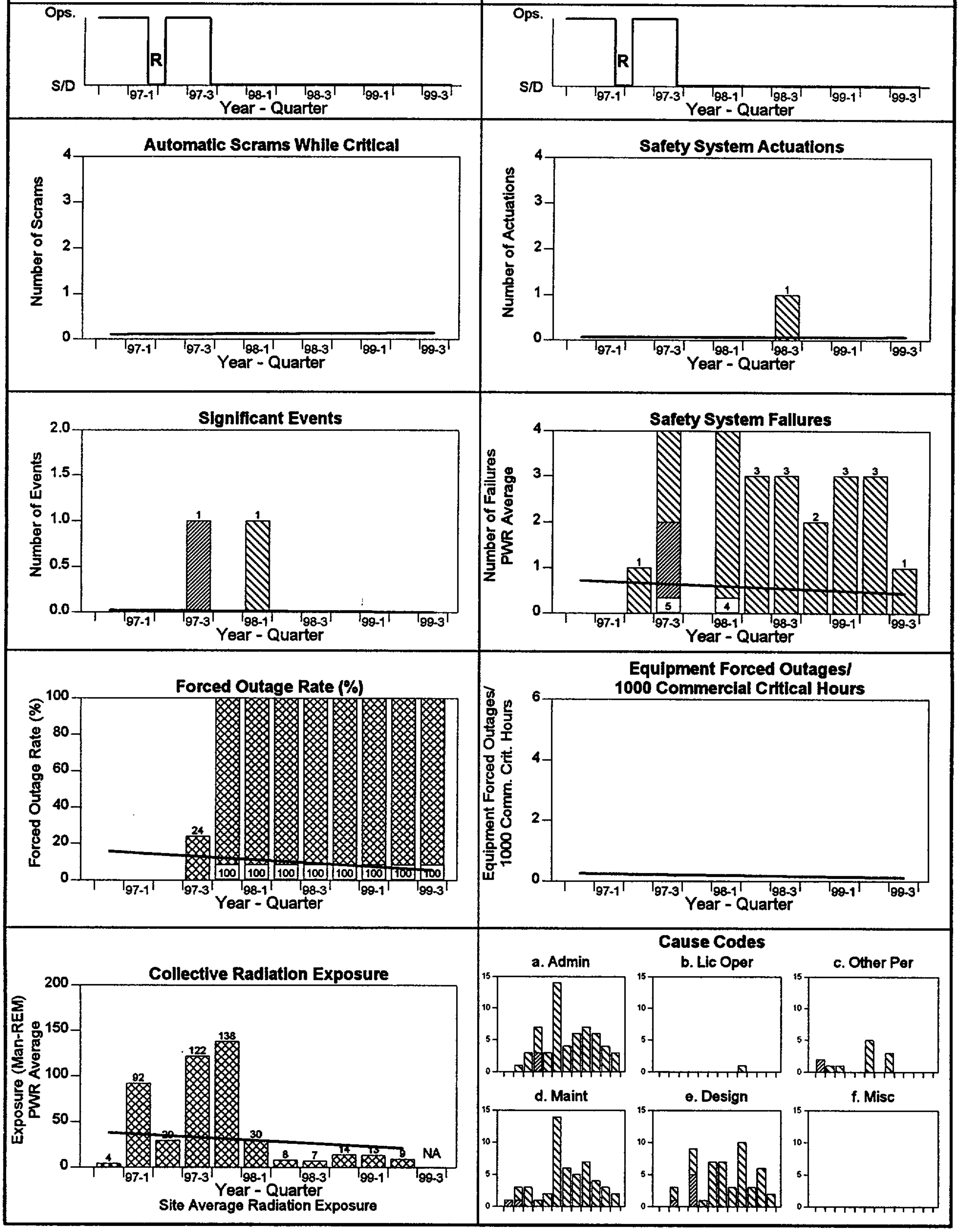
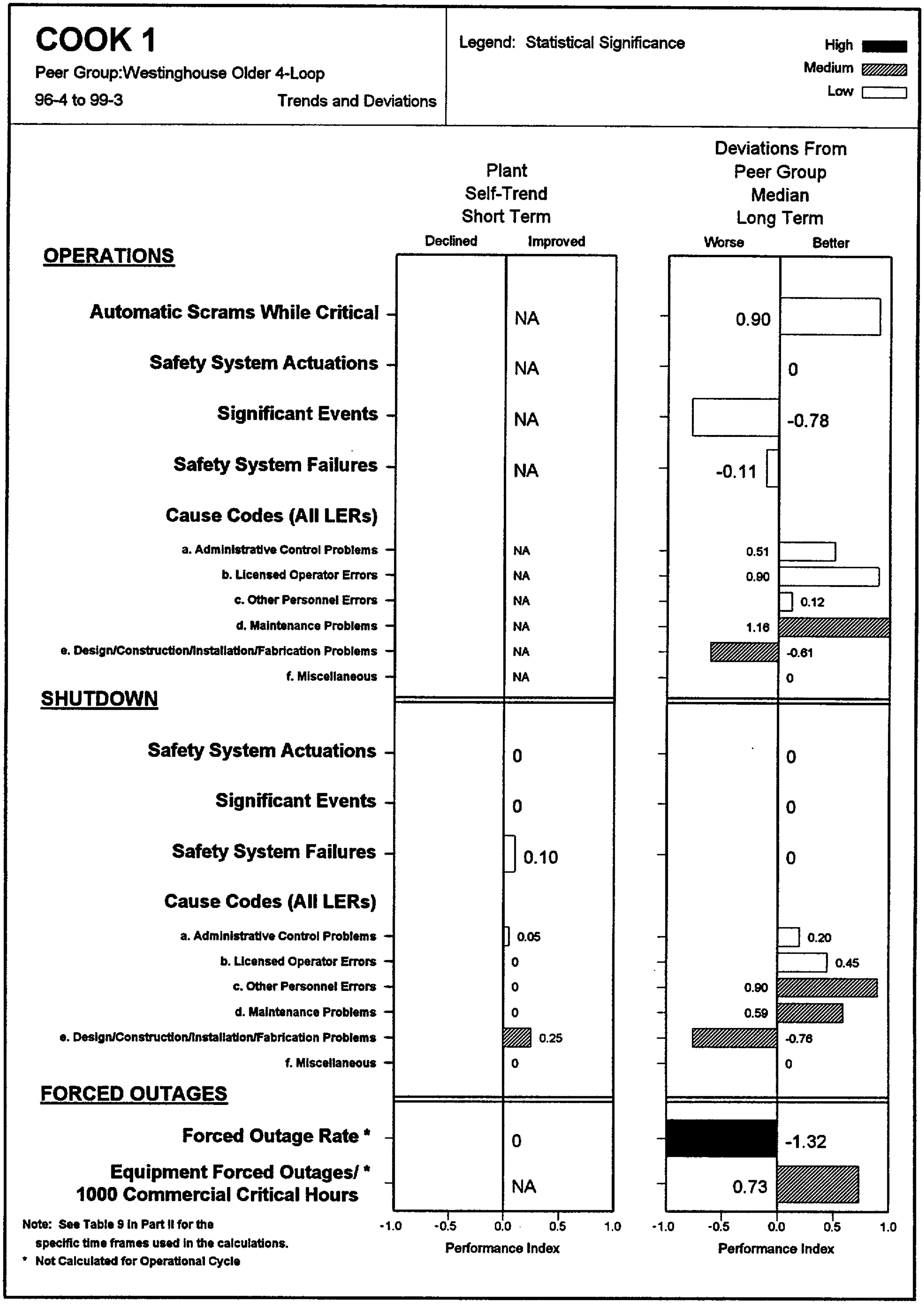


Figure 7.22b



Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.23a

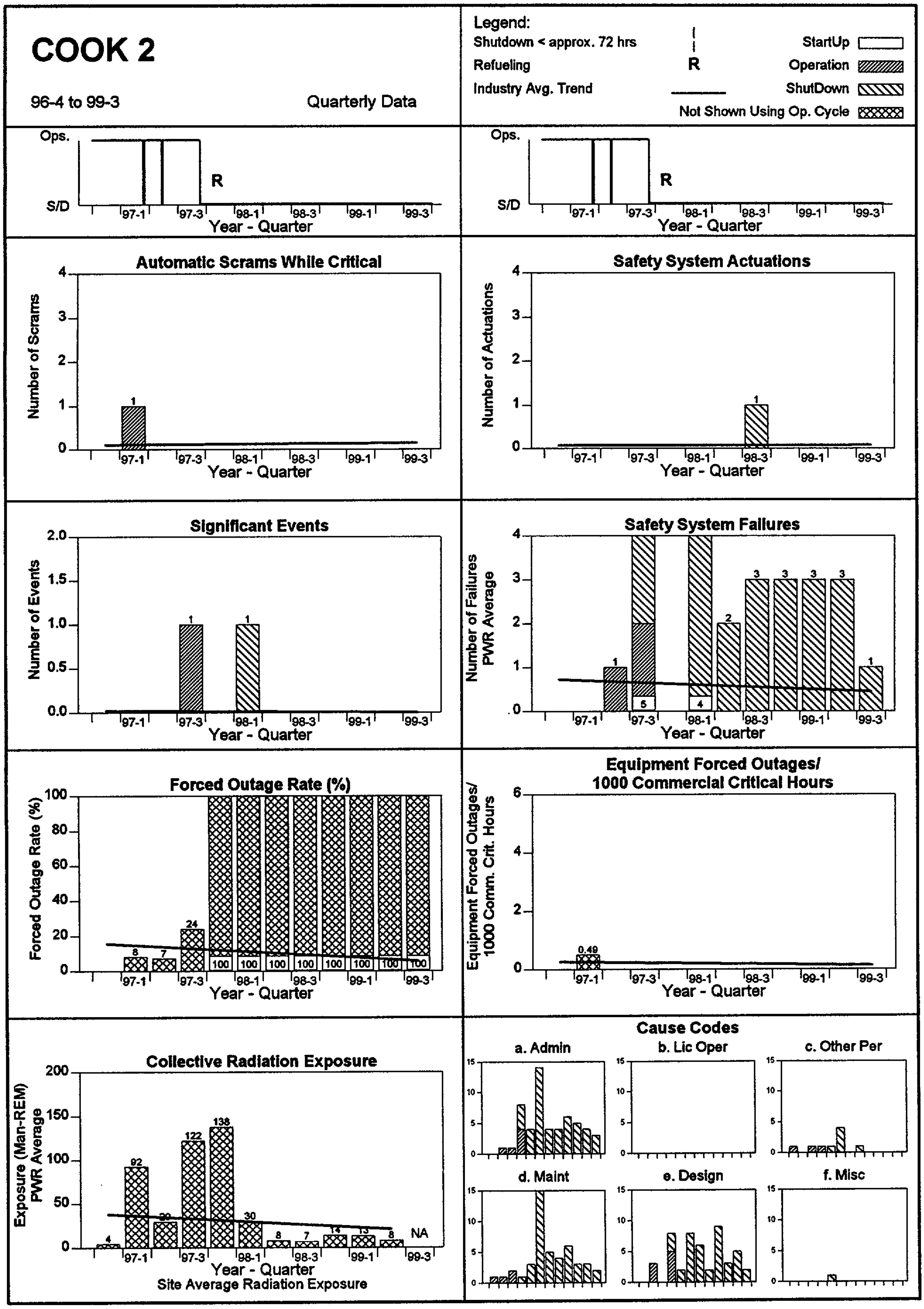

COOK 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
Safety System Actuations
Number of Actuations
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
1
1
Safety System Failures
Number of Failures PWR Average
1
5
4
2
3
3
3
3
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
8
7
24
100
100
100
100
100
100
100
100
Equipment Forced Outages/ 1000 Commercial Critical Hours
Equipment Forced Outages/ 1000 Comm. Crit. Hours
0
2
4
6
0.49
Collective Radiation Exposure
Exposure (Man-REM) PWR Average
0
50
100
150
200
4
92
30
122
138
30
8
7
14
13
8
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.23b

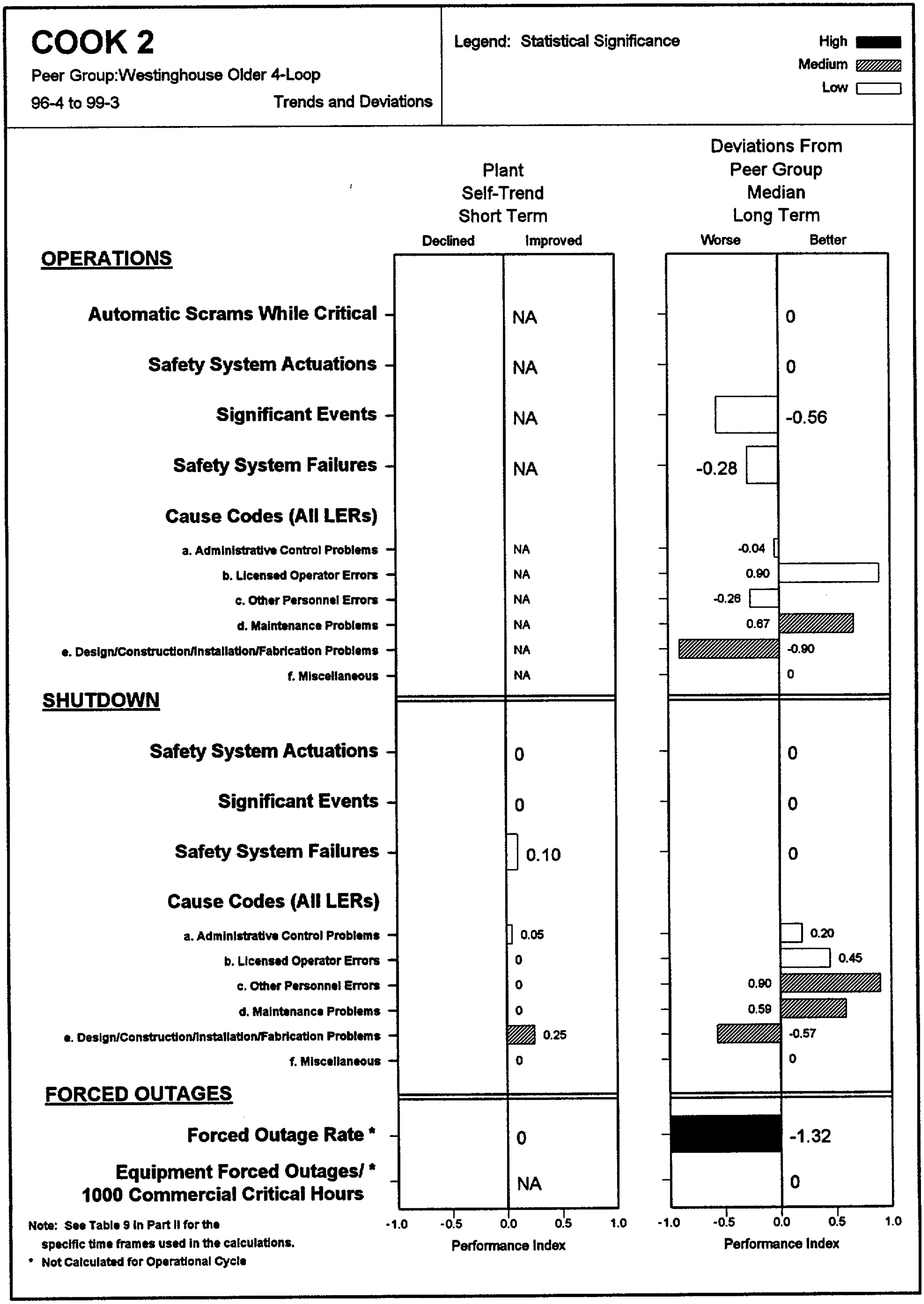

COOK 2
Peer Group:Westinghouse Older 4-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical
NA
0
Safety System Actuations
NA
0
Significant Events
NA
-0.56
Safety System Failures
NA
-0.28
Cause Codes (All LERs)
a. Administrative Control Problems
NA
-0.04
b. Licensed Operator Errors
NA
0.90
c. Other Personnel Errors
NA
-0.26
d. Maintenance Problems
NA
0.67
e. Design/Construction/Installation/Fabrication Problems
NA
-0.90
f. Miscellaneous
NA
0
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0.10
0
Cause Codes (All LERs)
a. Administrative Control Problems
0.05
0.20
b. Licensed Operator Errors
0
0.45
c. Other Personnel Errors
0
0.90
d. Maintenance Problems
0
0.59
e. Design/Construction/Installation/Fabrication Problems
0.25
-0.57
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
0
-1.32
Equipment Forced Outages/ * 1000 Commercial Critical Hours
NA
0
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.24a

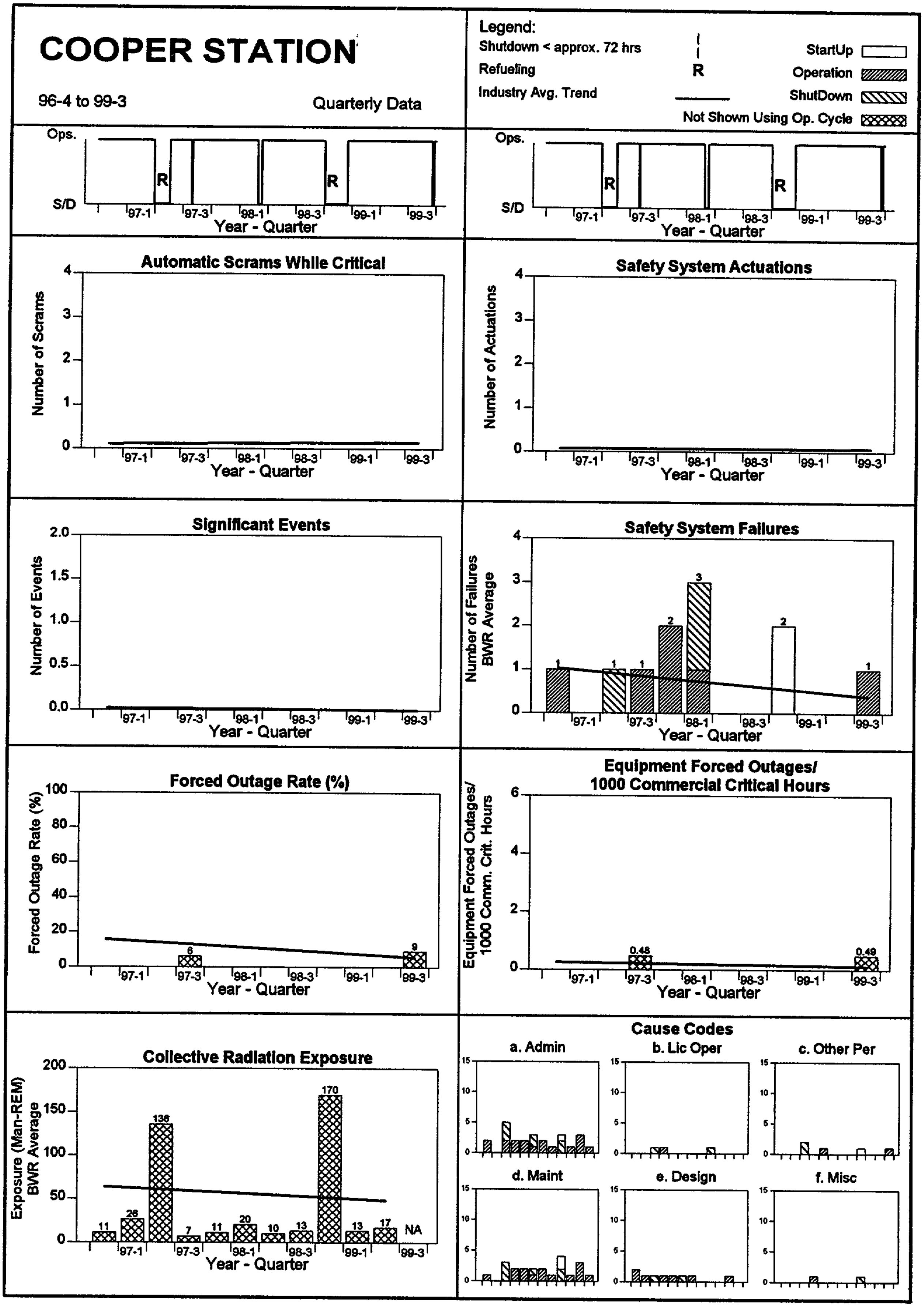
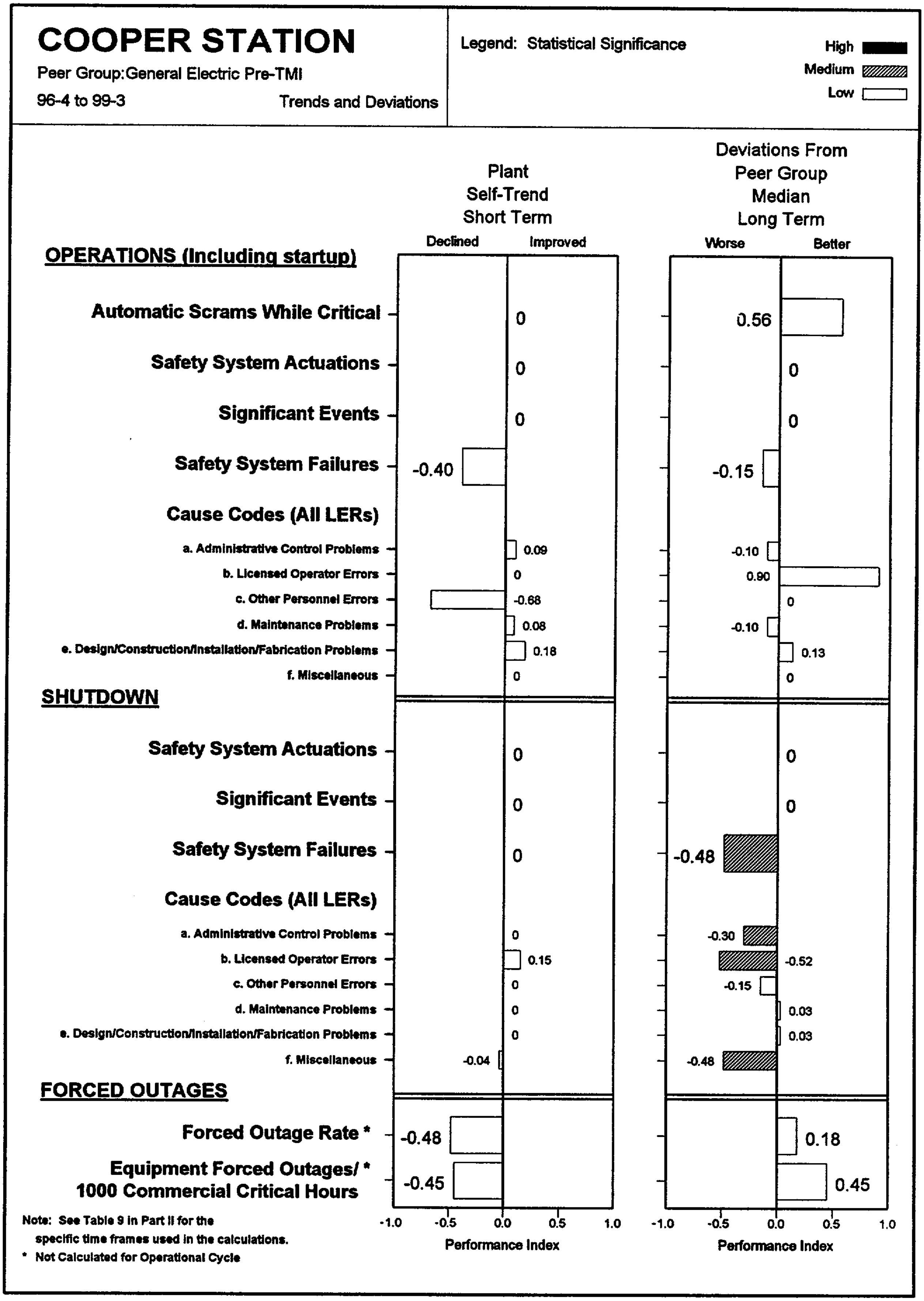

COOPER STATION
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling
R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
Safety System Failures
Number of Failures
BWR Average
1
1
1
2
3
2
1
Forced Outage Rate (%)
Forced Outage Rate (%)
6
9
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0.48
0.49
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
11
28
136
7
11
20
10
13
170
13
17
NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc

Figure 7.24b



Note: See Table 9 in Part II for the specific time frames used in the calculations.

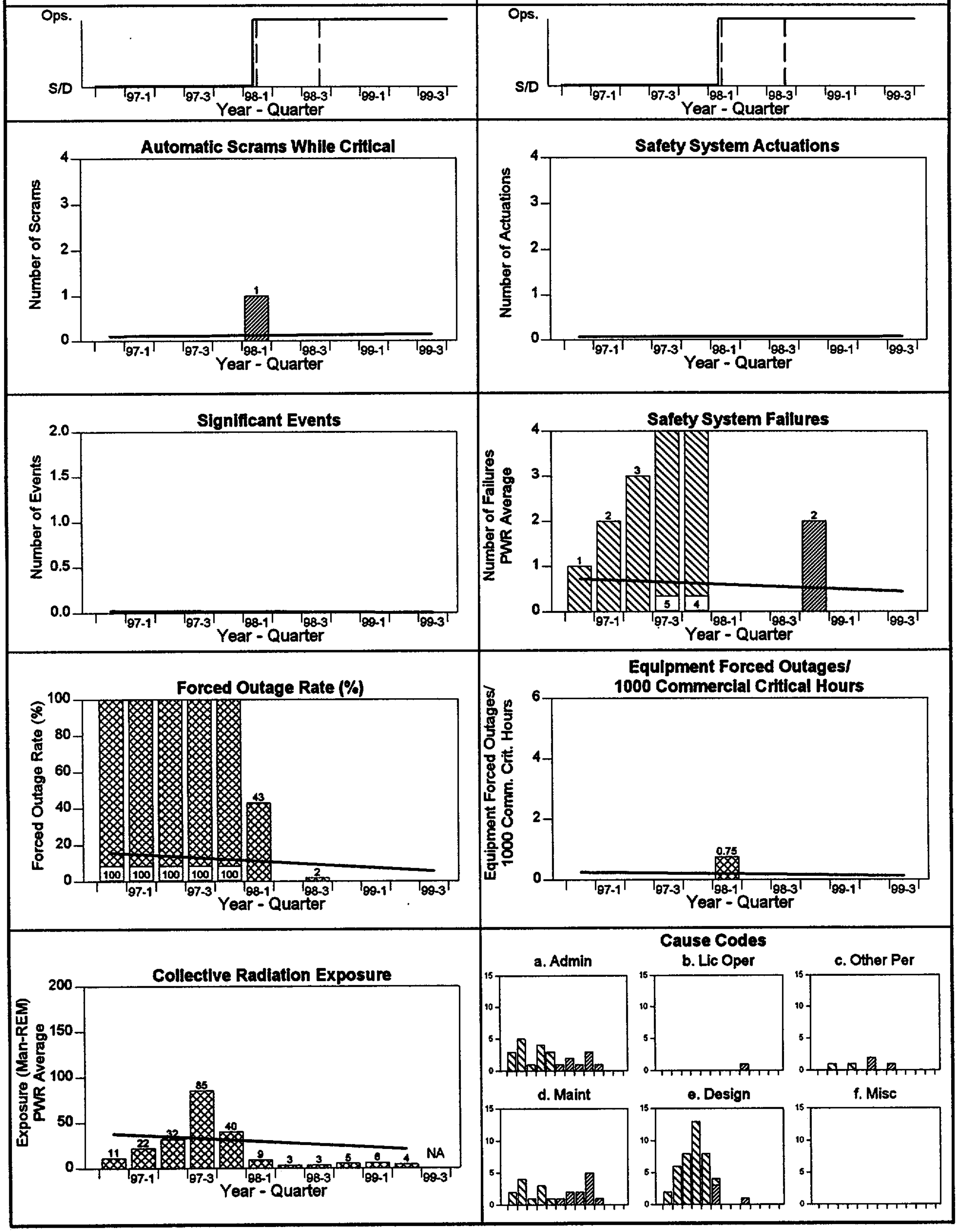
* Not Calculated for Operational Cycle

Figure 7.25a

CRYSTAL RIVER 3

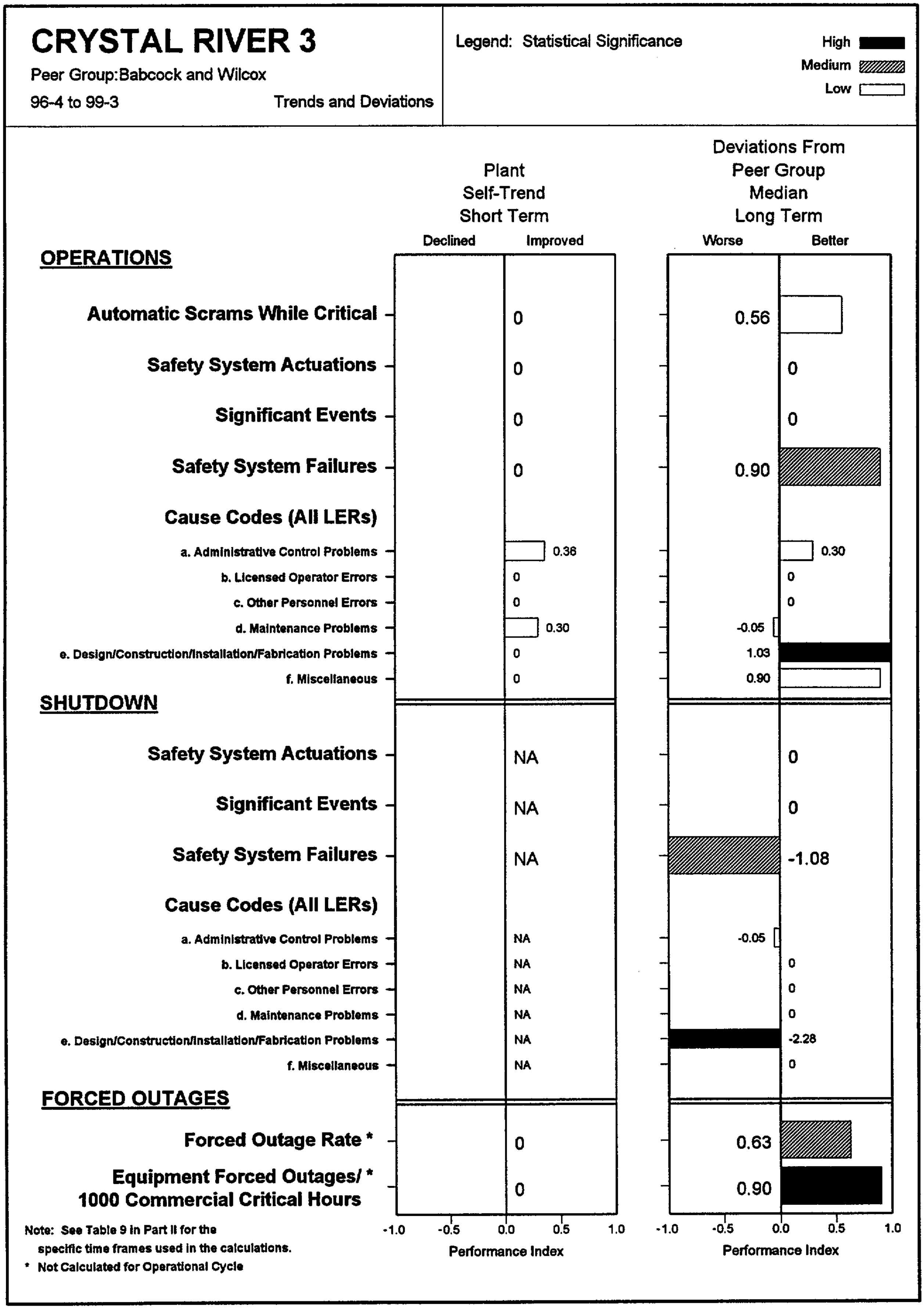
96-4 to 99-3 Quarterly Data

Legend:
Shutdown < approx. 72 hrs ¦ StartUp ☐
Refueling R Operation ▨
Industry Avg. Trend —— ShutDown ▧
Not Shown Using Op. Cycle ▩



66

Figure 7.25b



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.26a

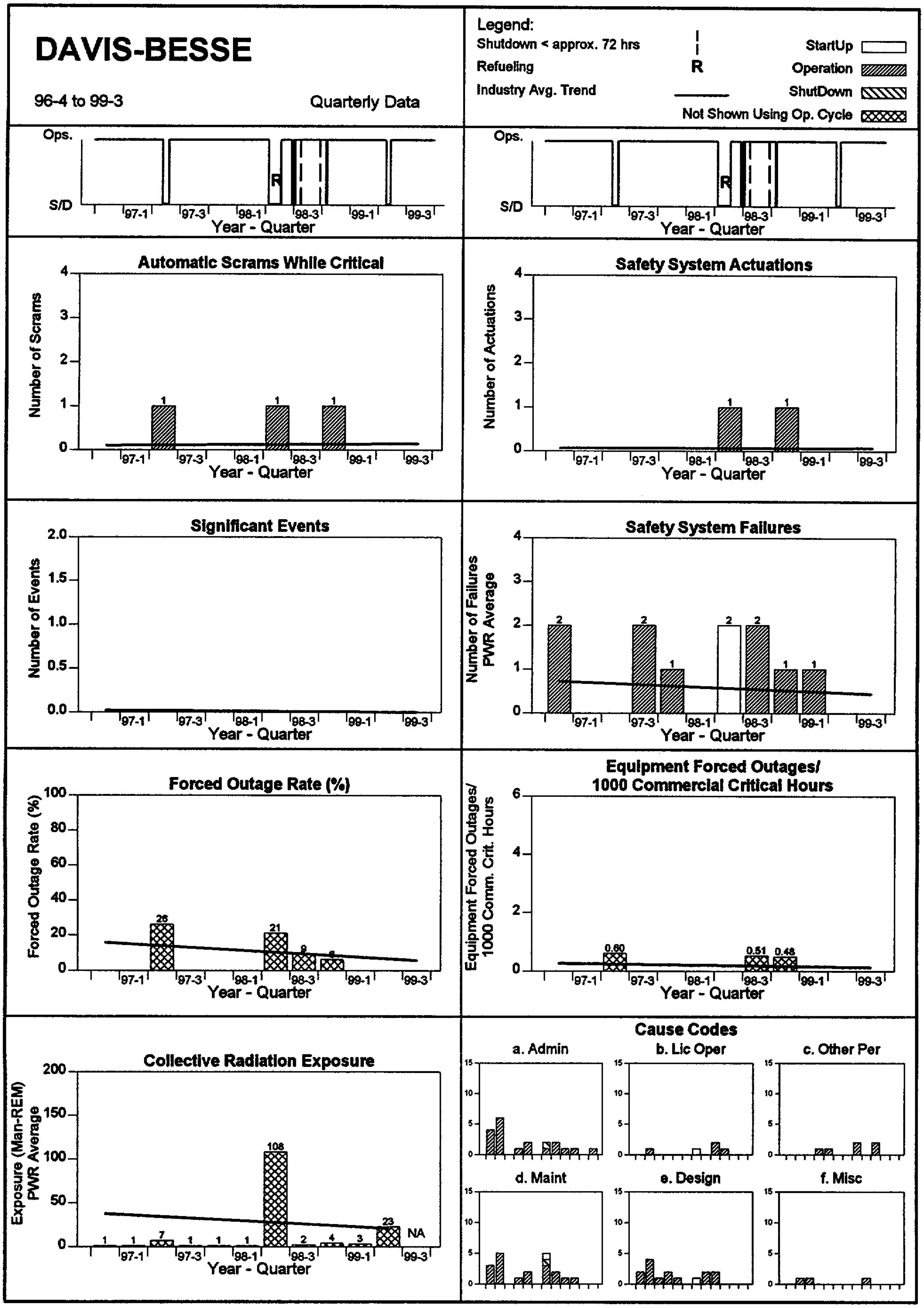

DAVIS-BESSE
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
1
1
Safety System Actuations
Number of Actuations
1
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
2
2
1
2
2
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
26
21
9
6
Equipment Forced Outages/ 1000 Commercial Critical Hours
Equipment Forced Outages/ 1000 Comm. Crit. Hours
0
2
4
6
0.60
0.51
0.48
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
1
1
7
1
1
1
108
2
4
3
23
NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.26b

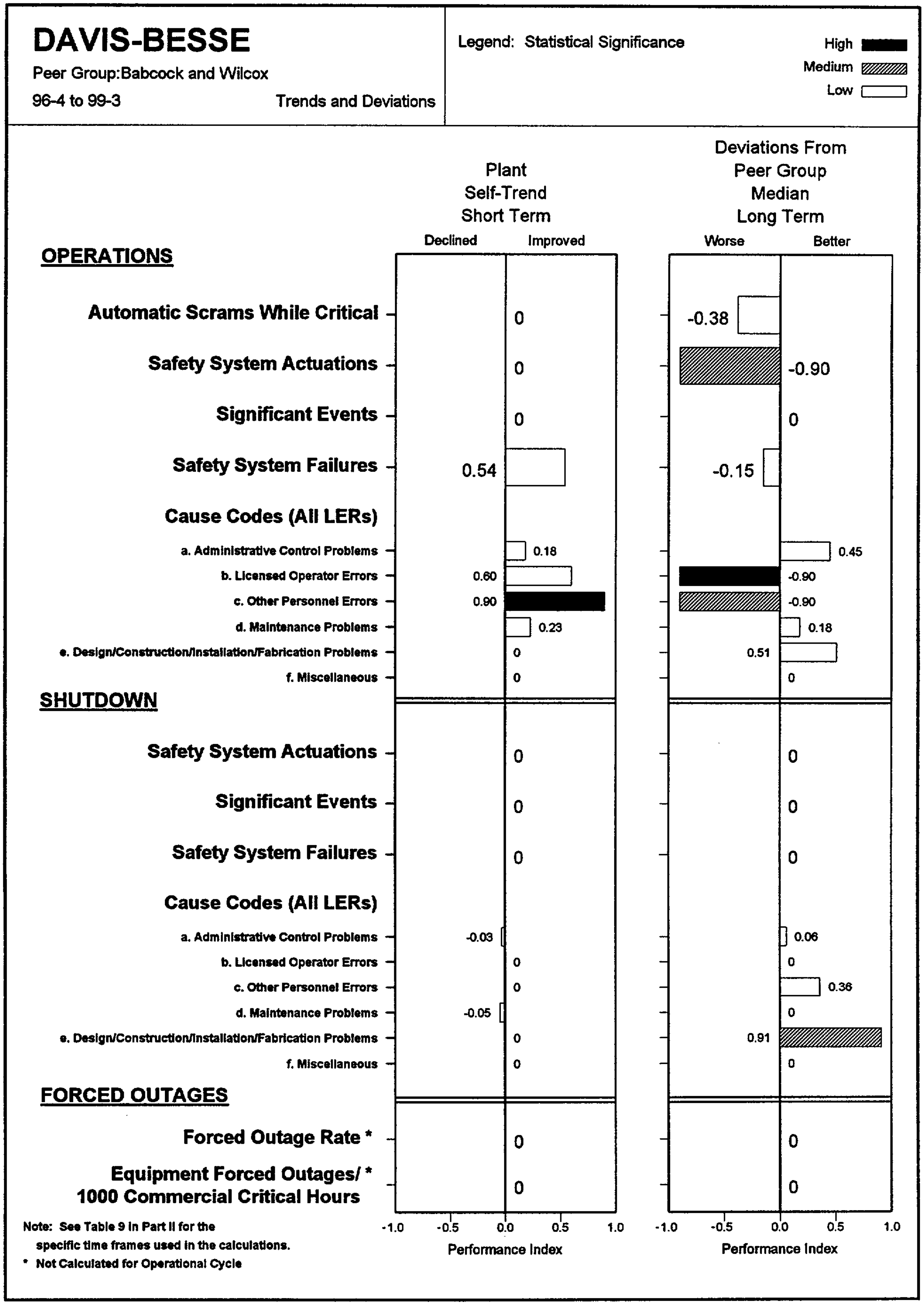

DAVIS-BESSE
Peer Group:Babcock and Wilcox
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical
0
-0.38
Safety System Actuations
0
-0.90
Significant Events
0
0
Safety System Failures
0.54
-0.15
Cause Codes (All LERs)
a. Administrative Control Problems
0.18
0.45
b. Licensed Operator Errors
0.60
-0.90
c. Other Personnel Errors
0.90
-0.90
d. Maintenance Problems
0.23
0.18
e. Design/Construction/Installation/Fabrication Problems
0
0.51
f. Miscellaneous
0
0
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0
Cause Codes (All LERs)
a. Administrative Control Problems
-0.03
0.06
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
0.36
d. Maintenance Problems
-0.05
0
e. Design/Construction/Installation/Fabrication Problems
0
0.91
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
0
0
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0
0
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.27a

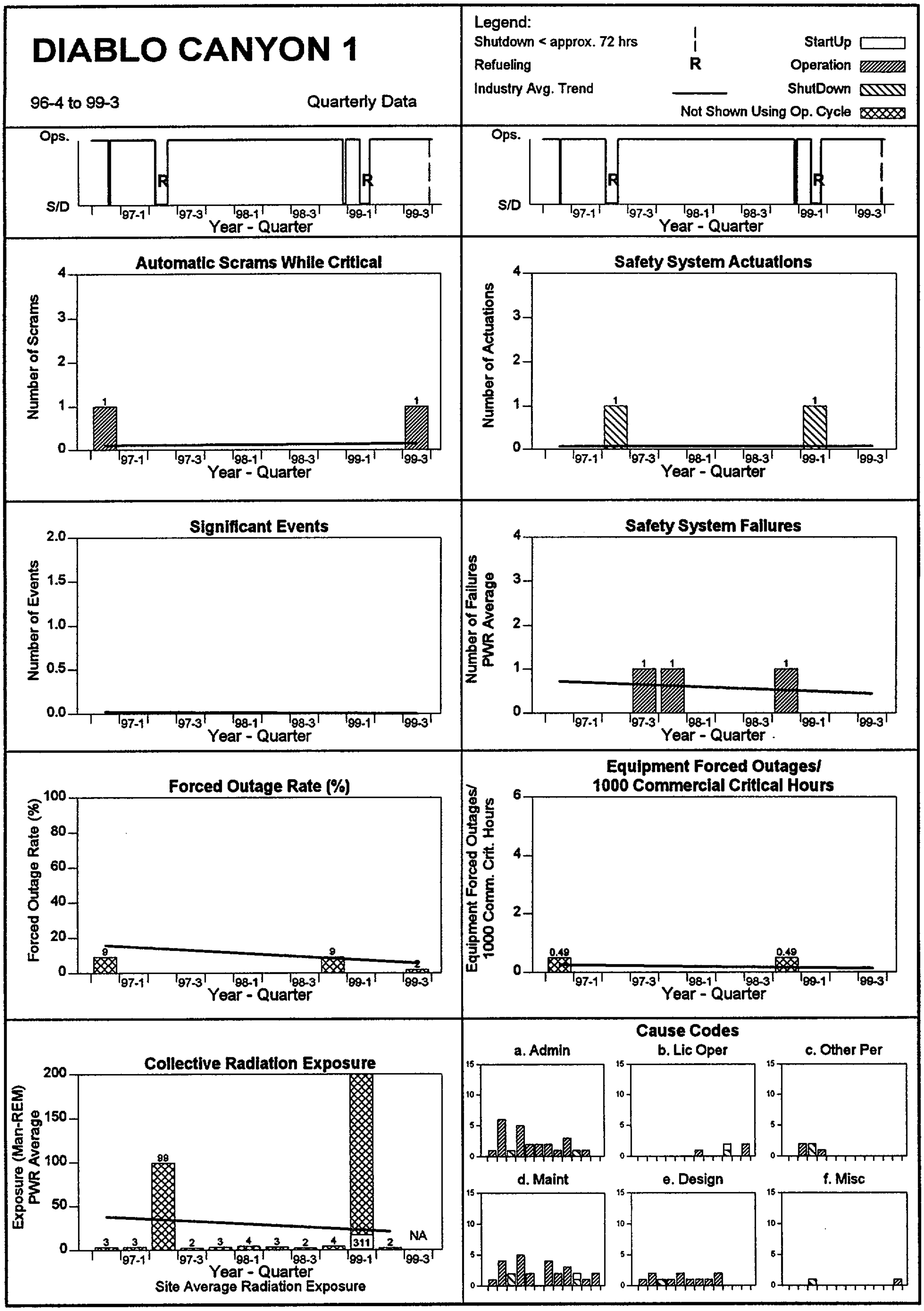

DIABLO CANYON 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
1
Safety System Actuations
Number of Actuations
1
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
9
9
2
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.49
0.49
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
3
3
99
2
3
4
3
2
4
311
2
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.27b

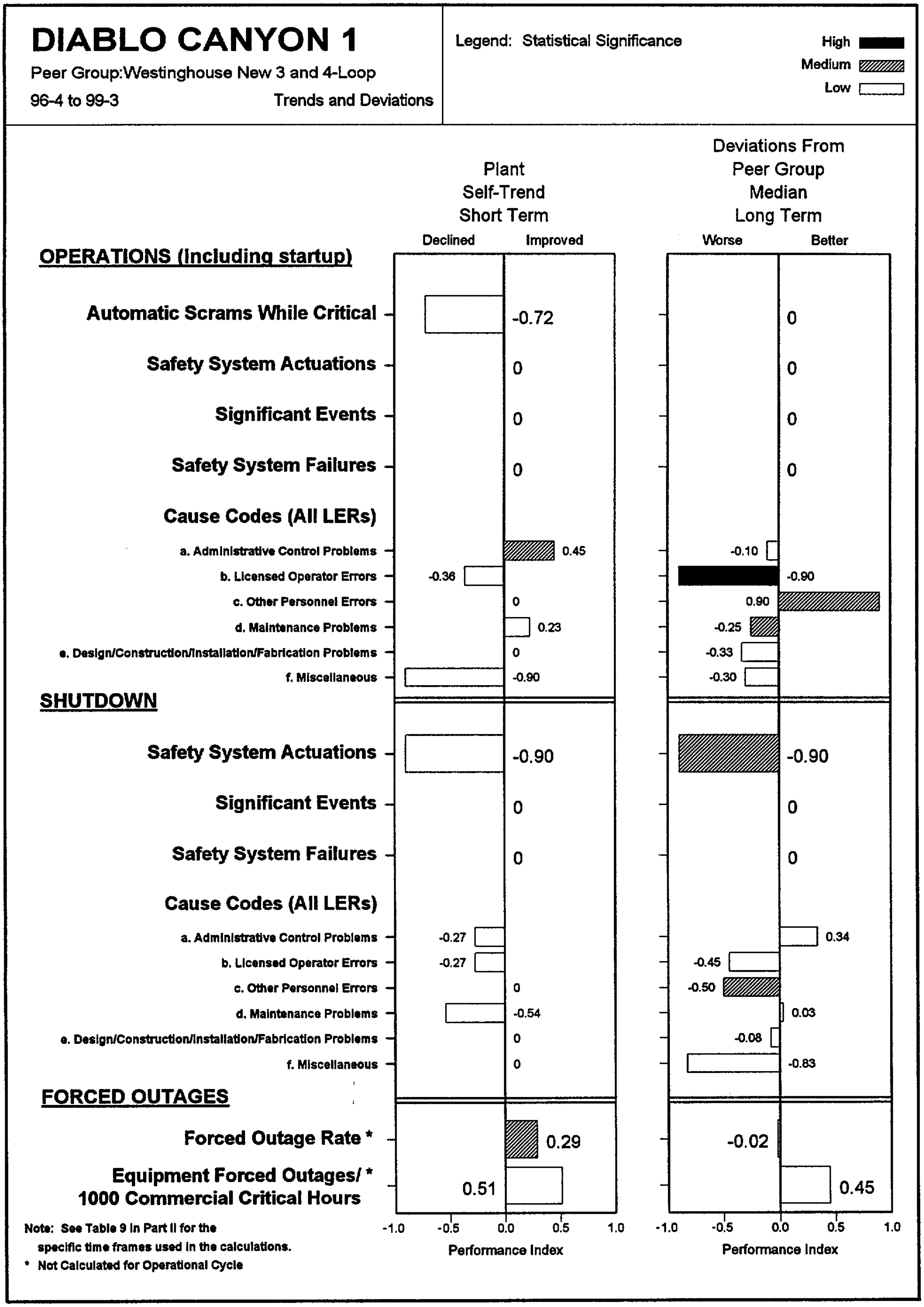

DIABLO CANYON 1
Peer Group:Westinghouse New 3 and 4-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical
-0.72
0
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0
Cause Codes (All LERs)
a. Administrative Control Problems
0.45
-0.10
b. Licensed Operator Errors
-0.36
-0.90
c. Other Personnel Errors
0
0.90
d. Maintenance Problems
0.23
-0.25
e. Design/Construction/Installation/Fabrication Problems
0
-0.33
f. Miscellaneous
-0.90
-0.30
SHUTDOWN
Safety System Actuations
-0.90
-0.90
Significant Events
0
0
Safety System Failures
0
0
Cause Codes (All LERs)
a. Administrative Control Problems
-0.27
0.34
b. Licensed Operator Errors
-0.27
-0.45
c. Other Personnel Errors
0
-0.50
d. Maintenance Problems
-0.54
0.03
e. Design/Construction/Installation/Fabrication Problems
0
-0.08
f. Miscellaneous
0
-0.83
FORCED OUTAGES
Forced Outage Rate *
0.29
-0.02
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0.51
0.45
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.28a

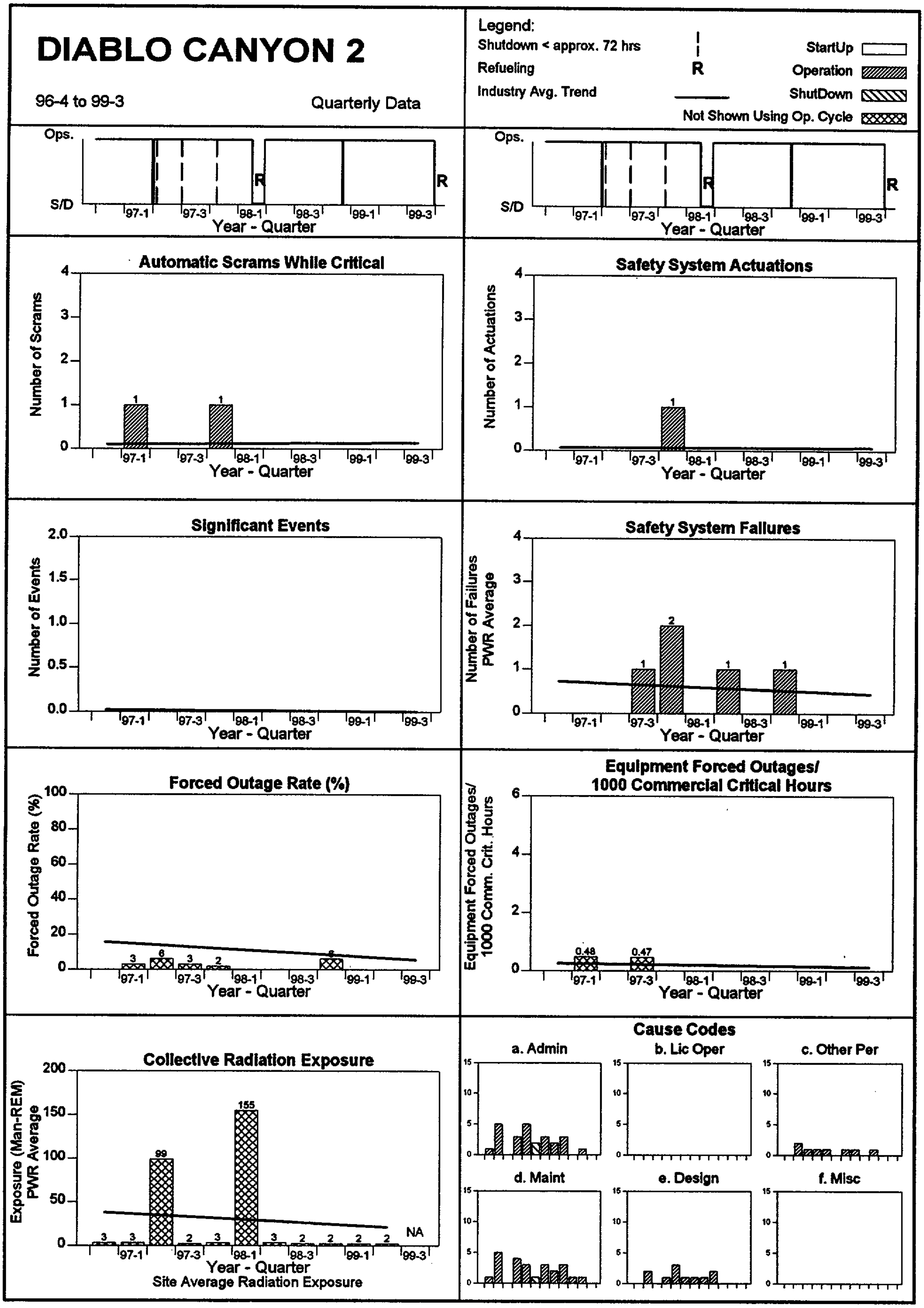

DIABLO CANYON 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
1
Safety System Actuations
Number of Actuations
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
1
2
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
3
6
3
2
6
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.48
0.47
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
3
3
99
2
3
155
3
2
2
2
2
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.28b

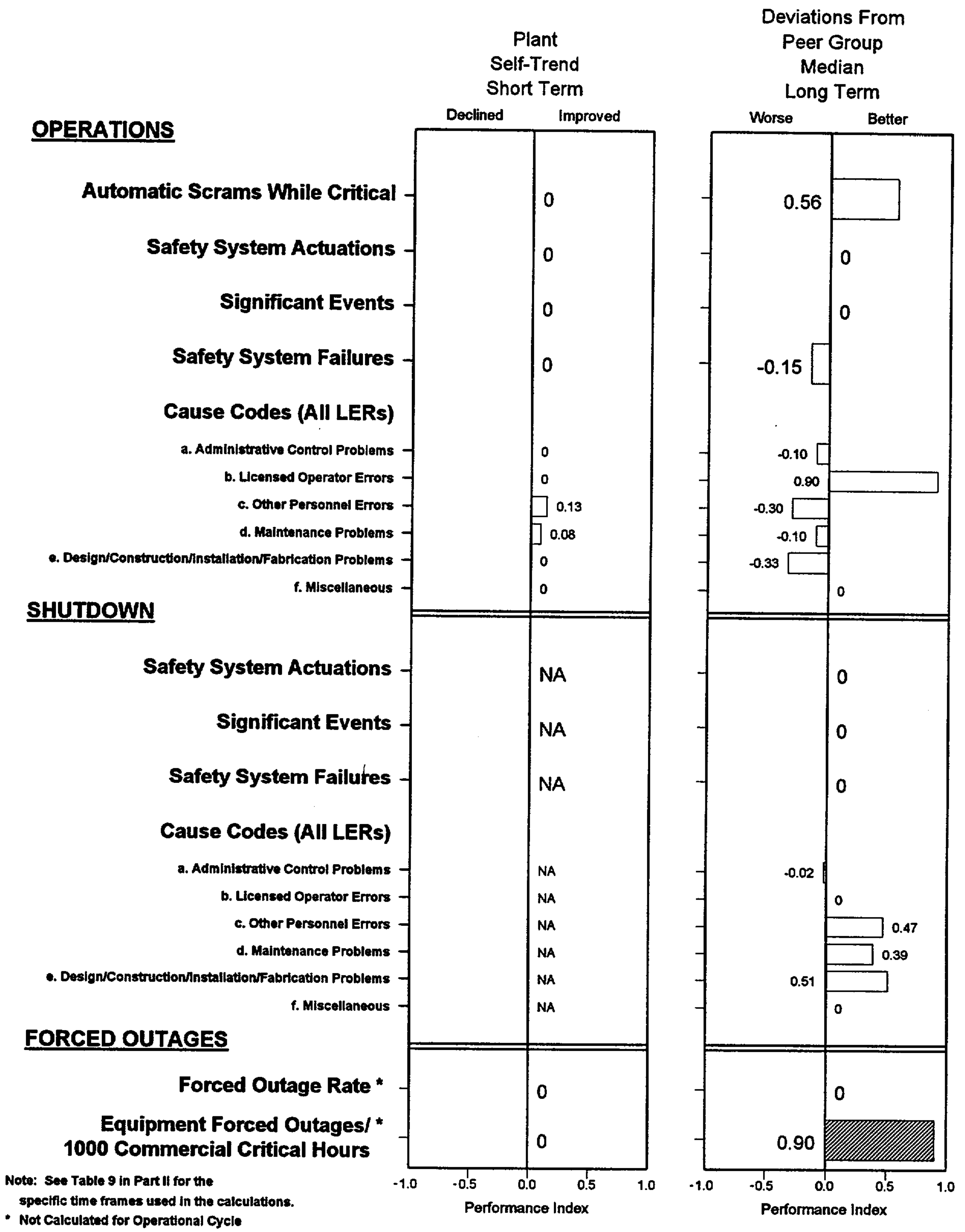
DIABLO CANYON 2

Peer Group:Westinghouse New 3 and 4-Loop

96-4 to 99-3 Trends and Deviations

Legend: Statistical Significance

High ■
Medium ▨
Low ☐



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.29a

DRESDEN 2

96-4 to 99-3 Quarterly Data

Legend:

Shutdown < approx. 72 hrs | StartUp ☐

Refueling R Operation ▨

Industry Avg. Trend ——— ShutDown ▧

Not Shown Using Op. Cycle ▦

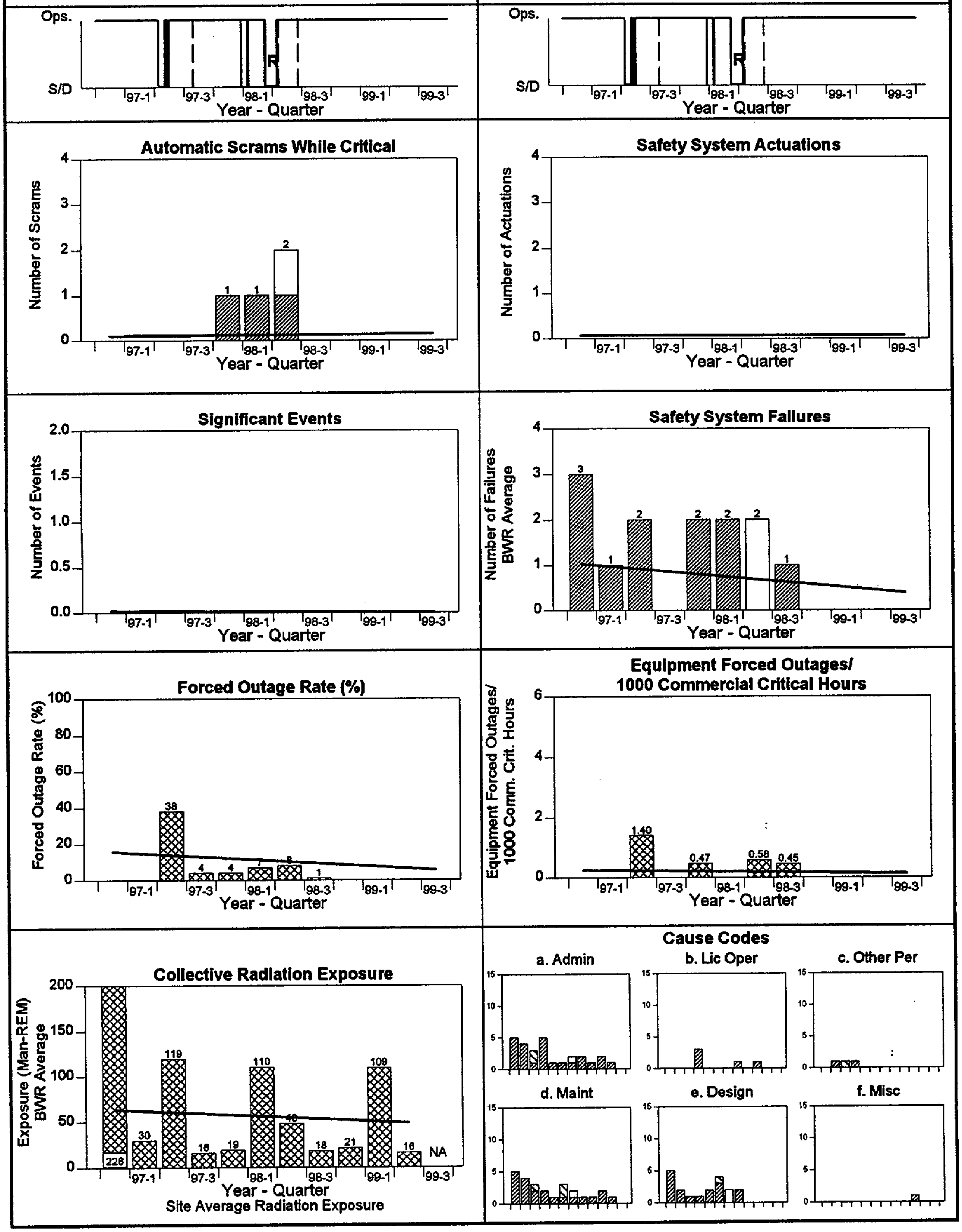


Figure 7.29b

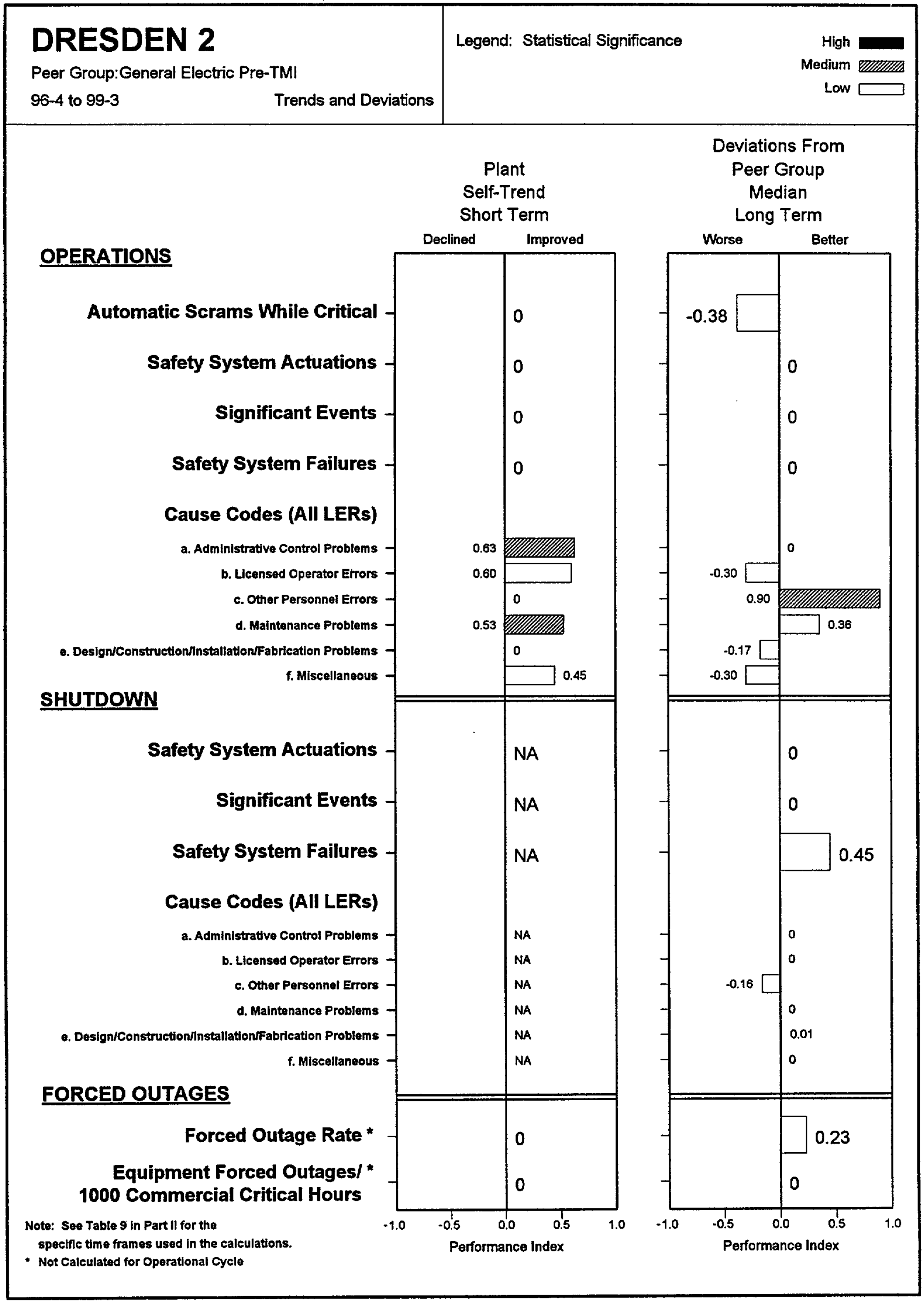

DRESDEN 2
Peer Group:General Electric Pre-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low ☐
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical 0 -0.38
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 0
Cause Codes (All LERs)
a. Administrative Control Problems 0.63 0
b. Licensed Operator Errors 0.60 -0.30
c. Other Personnel Errors 0 0.90
d. Maintenance Problems 0.53 0.36
e. Design/Construction/Installation/Fabrication Problems 0 -0.17
f. Miscellaneous 0.45 -0.30
SHUTDOWN
Safety System Actuations NA 0
Significant Events NA 0
Safety System Failures NA 0.45
Cause Codes (All LERs)
a. Administrative Control Problems NA 0
b. Licensed Operator Errors NA 0
c. Other Personnel Errors NA -0.16
d. Maintenance Problems NA 0
e. Design/Construction/Installation/Fabrication Problems NA 0.01
f. Miscellaneous NA 0
FORCED OUTAGES
Forced Outage Rate * 0 0.23
Equipment Forced Outages/ * 1000 Commercial Critical Hours 0 0
-1.0 -0.5 0.0 0.5 1.0
Performance Index
-1.0 -0.5 0.0 0.5 1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.30a

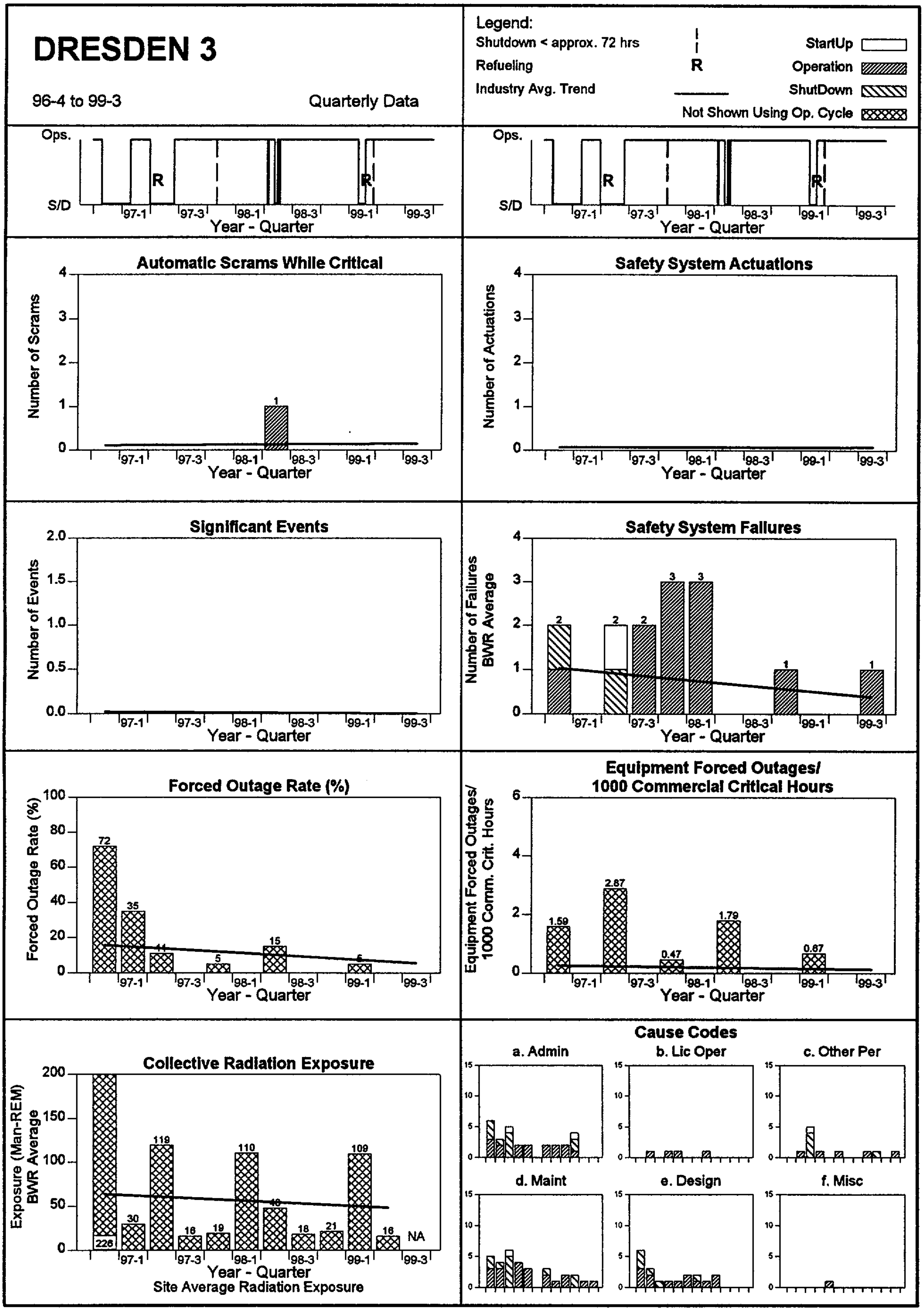

DRESDEN 3
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
Year - Quarter
97-1
97-3
98-1
98-3
99-1
99-3
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
BWR Average
2
2
2
3
3
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
72
35
11
5
15
5
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
6
1.59
2.87
0.47
1.79
0.67
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
50
100
150
200
226
30
119
16
19
110
48
18
21
109
16
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.30b

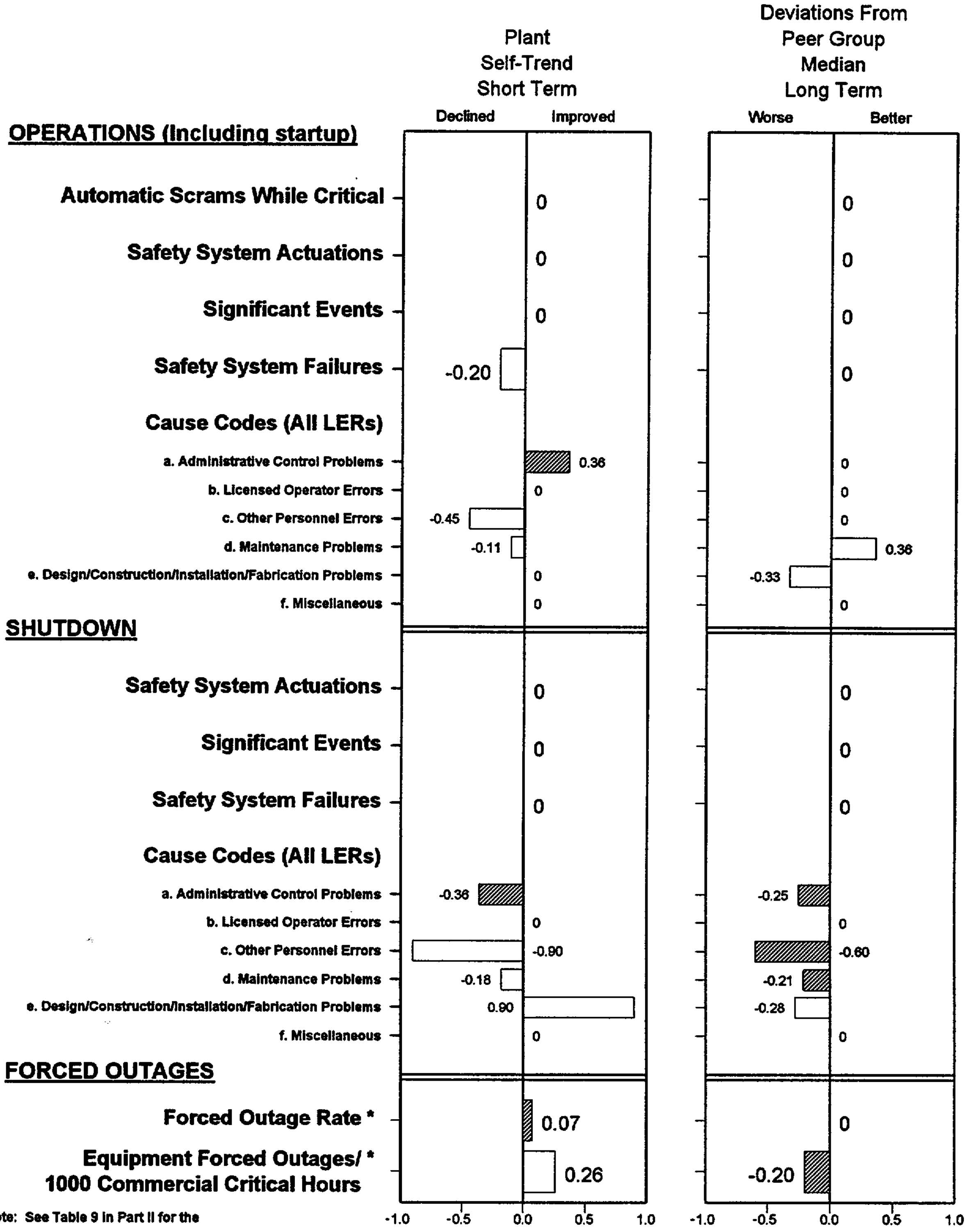
DRESDEN 3

Peer Group:General Electric Pre-TMI

96-4 to 99-3 Trends and Deviations

Legend: Statistical Significance

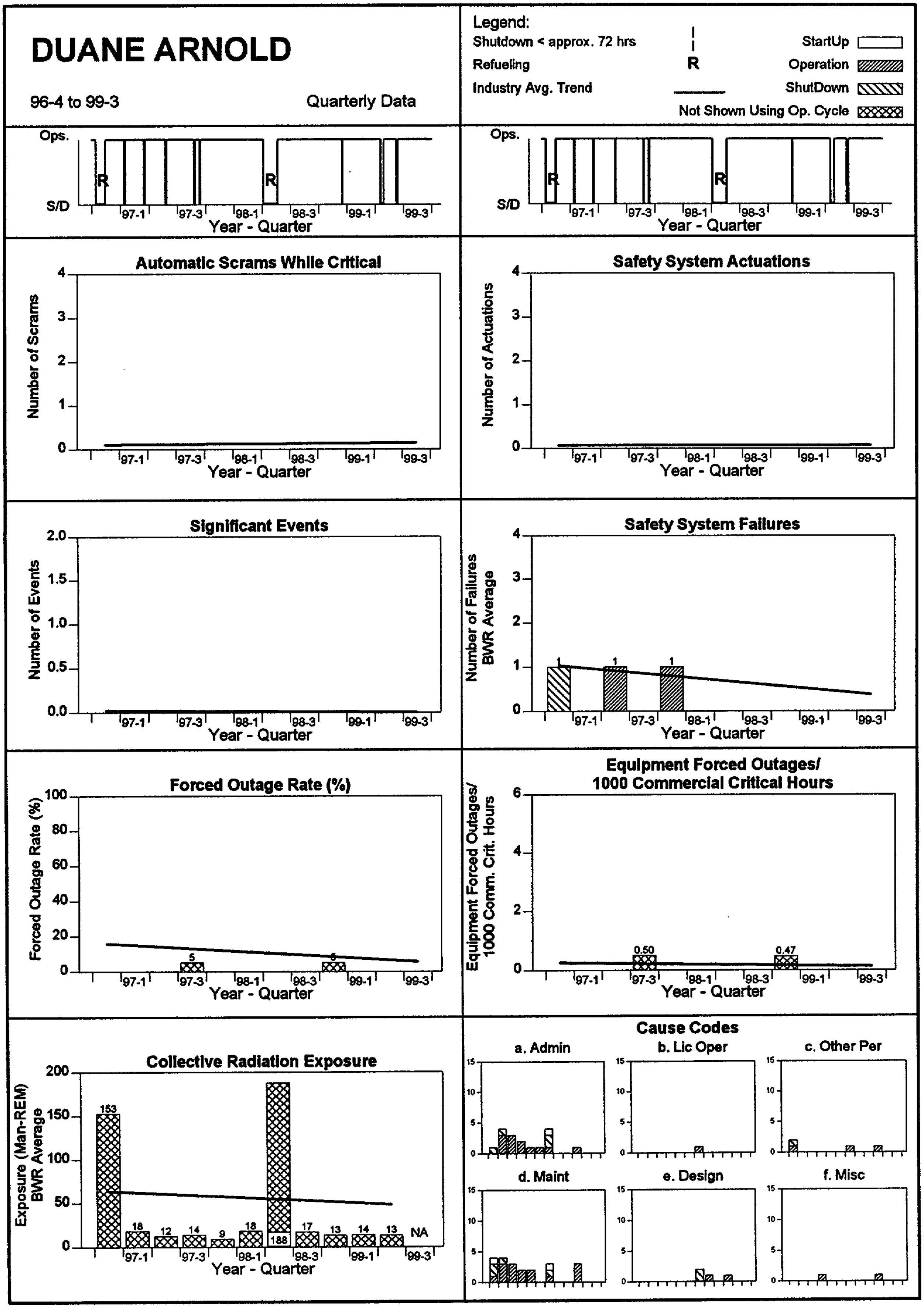
High ■
Medium ▨
Low □



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.31a



DUANE ARNOLD
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
BWR Average
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
5
5
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.50
0.47
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
0
50
100
150
200
153
18
12
14
9
18
188
17
13
14
13
NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.31b

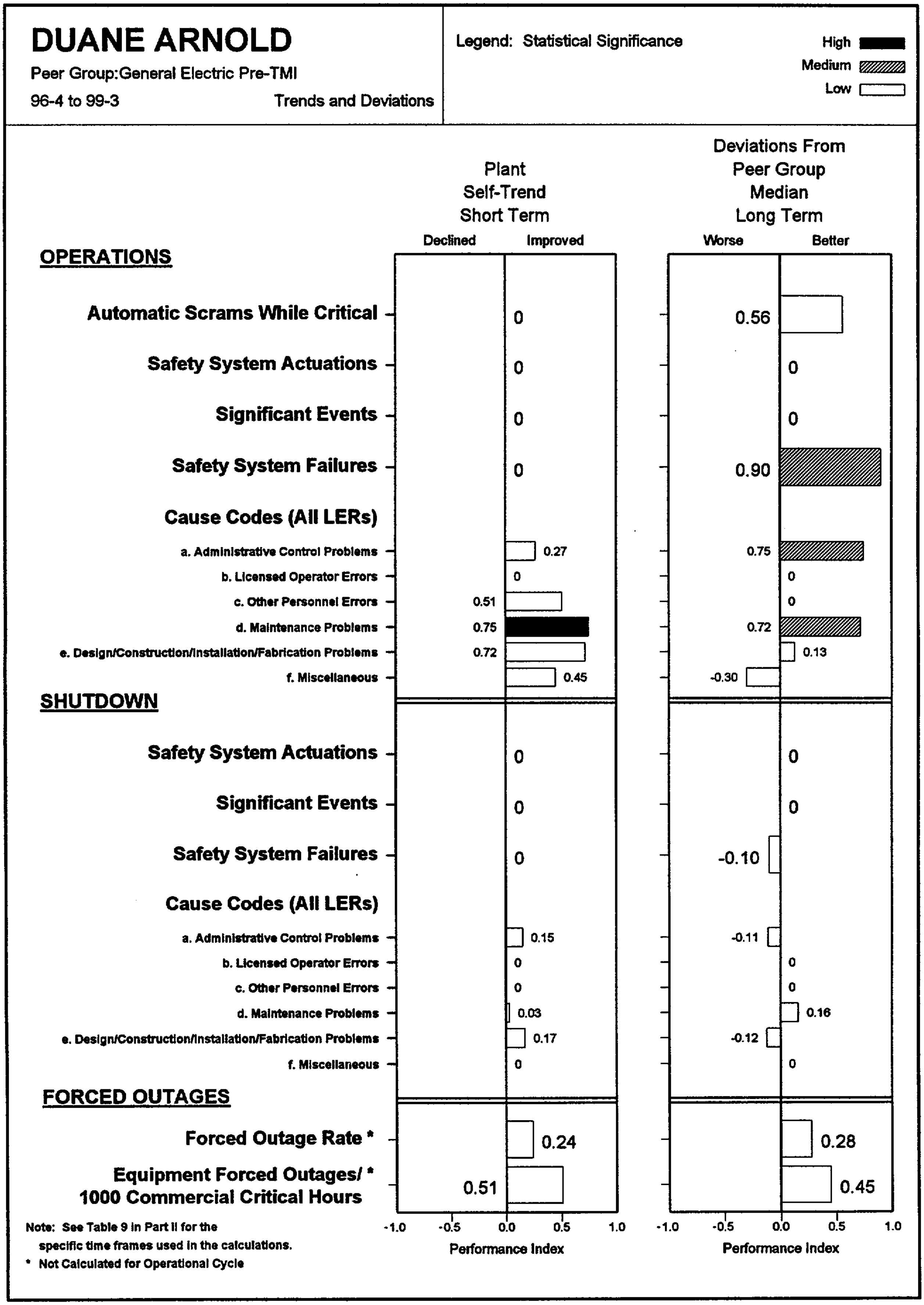
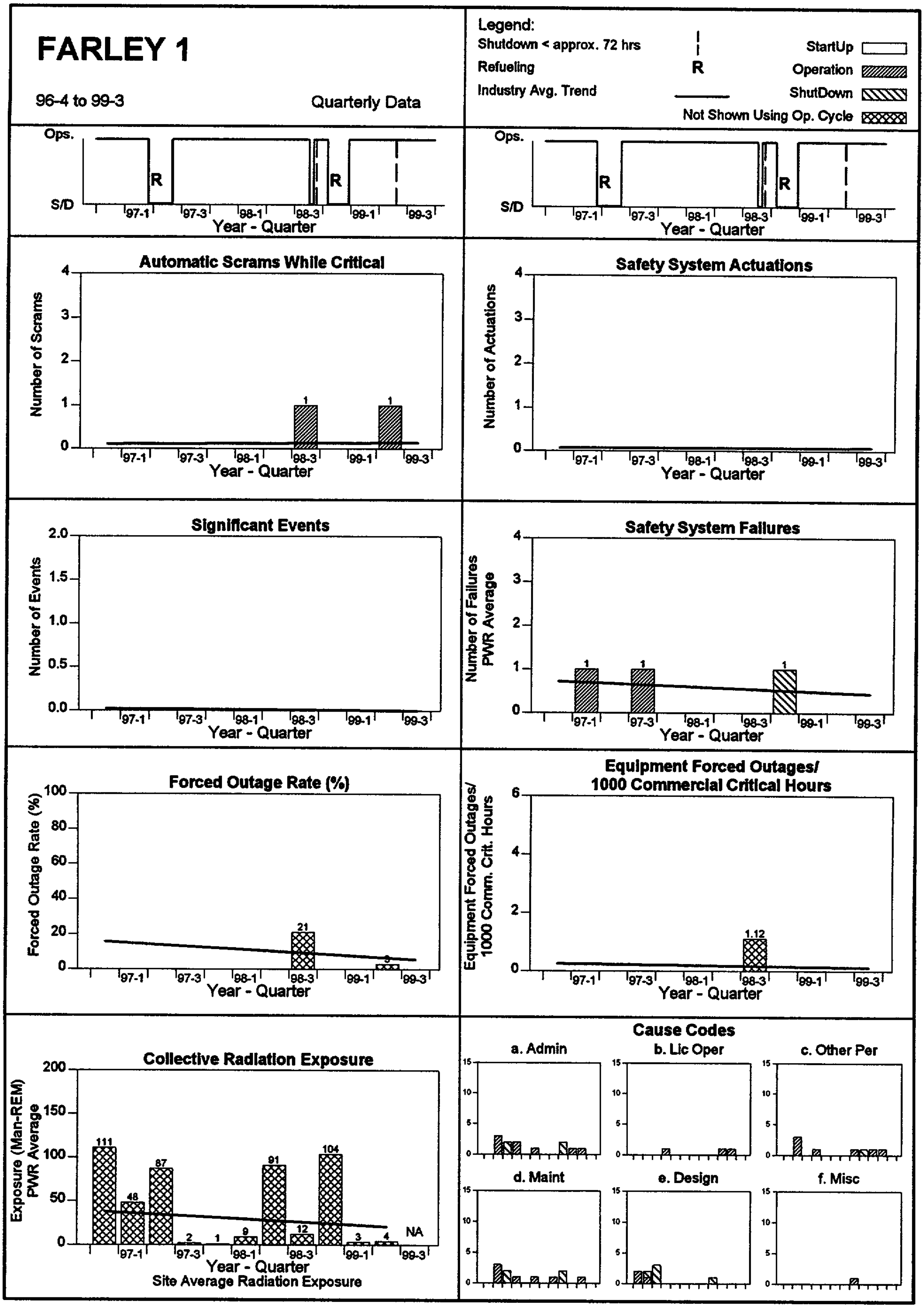

DUANE ARNOLD
Peer Group:General Electric Pre-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical
0
0.56
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0.90
Cause Codes (All LERs)
a. Administrative Control Problems
0.27
0.75
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0.51
0
d. Maintenance Problems
0.75
0.72
e. Design/Construction/Installation/Fabrication Problems
0.72
0.13
f. Miscellaneous
0.45
-0.30
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
-0.10
Cause Codes (All LERs)
a. Administrative Control Problems
0.15
-0.11
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
0
d. Maintenance Problems
0.03
0.16
e. Design/Construction/Installation/Fabrication Problems
0.17
-0.12
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
0.24
0.28
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0.51
0.45
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.32a



FARLEY 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
21
3
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
1.12
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
111
48
87
2
1
9
91
12
104
3
4
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.32b

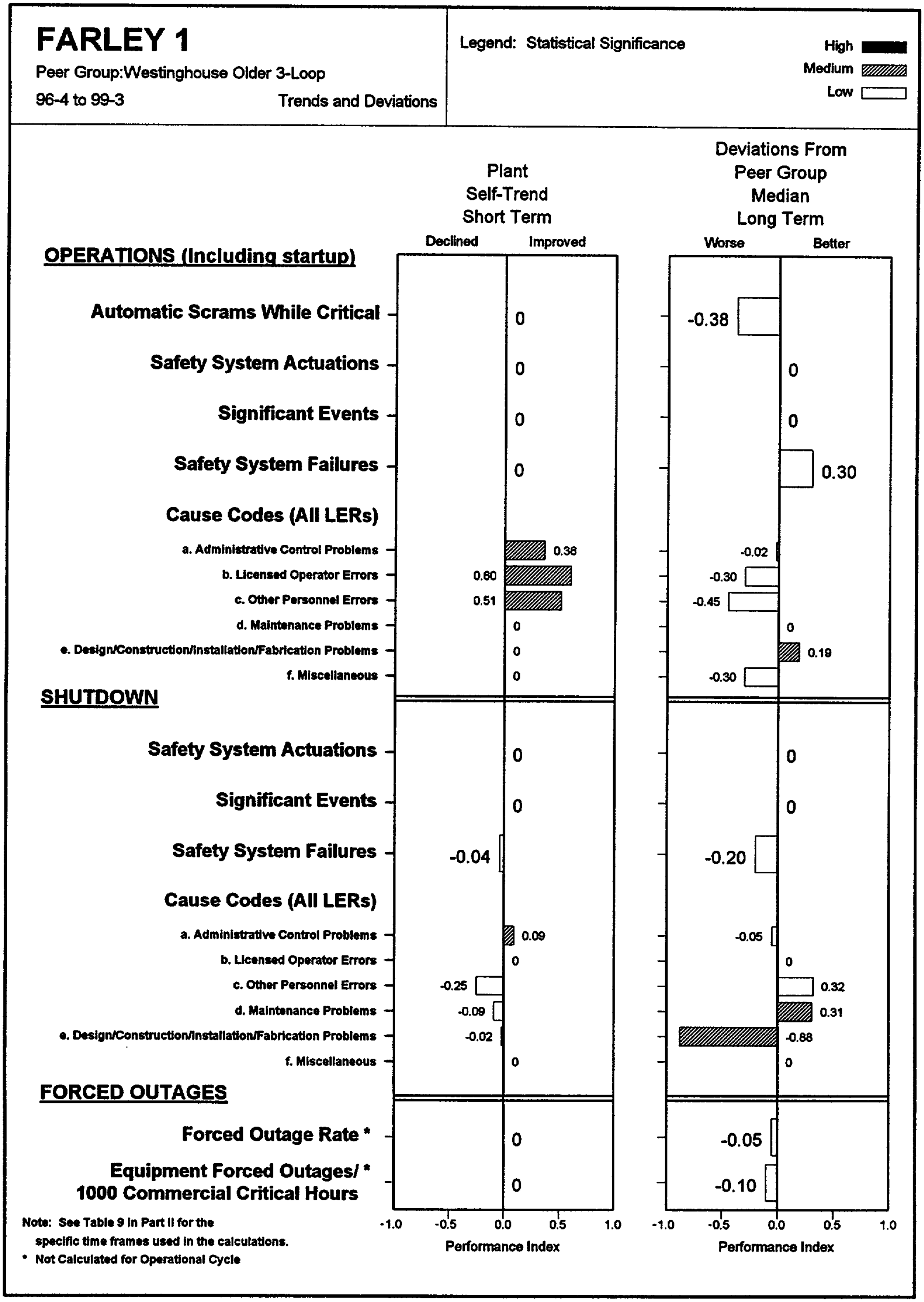

FARLEY 1
Peer Group:Westinghouse Older 3-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical
0
-0.38
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0.30
Cause Codes (All LERs)
a. Administrative Control Problems
0.38
-0.02
b. Licensed Operator Errors
0.60
-0.30
c. Other Personnel Errors
0.51
-0.45
d. Maintenance Problems
0
0
e. Design/Construction/Installation/Fabrication Problems
0
0.19
f. Miscellaneous
0
-0.30
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
-0.04
-0.20
Cause Codes (All LERs)
a. Administrative Control Problems
0.09
-0.05
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
-0.25
0.32
d. Maintenance Problems
-0.09
0.31
e. Design/Construction/Installation/Fabrication Problems
-0.02
-0.88
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
0
-0.05
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0
-0.10
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.33a

FARLEY 2

96-4 to 99-3 Quarterly Data

Legend:

Shutdown < approx. 72 hrs ¦

Refueling R

Industry Avg. Trend ———

StartUp ☐

Operation ▨

ShutDown ▧

Not Shown Using Op. Cycle ▩

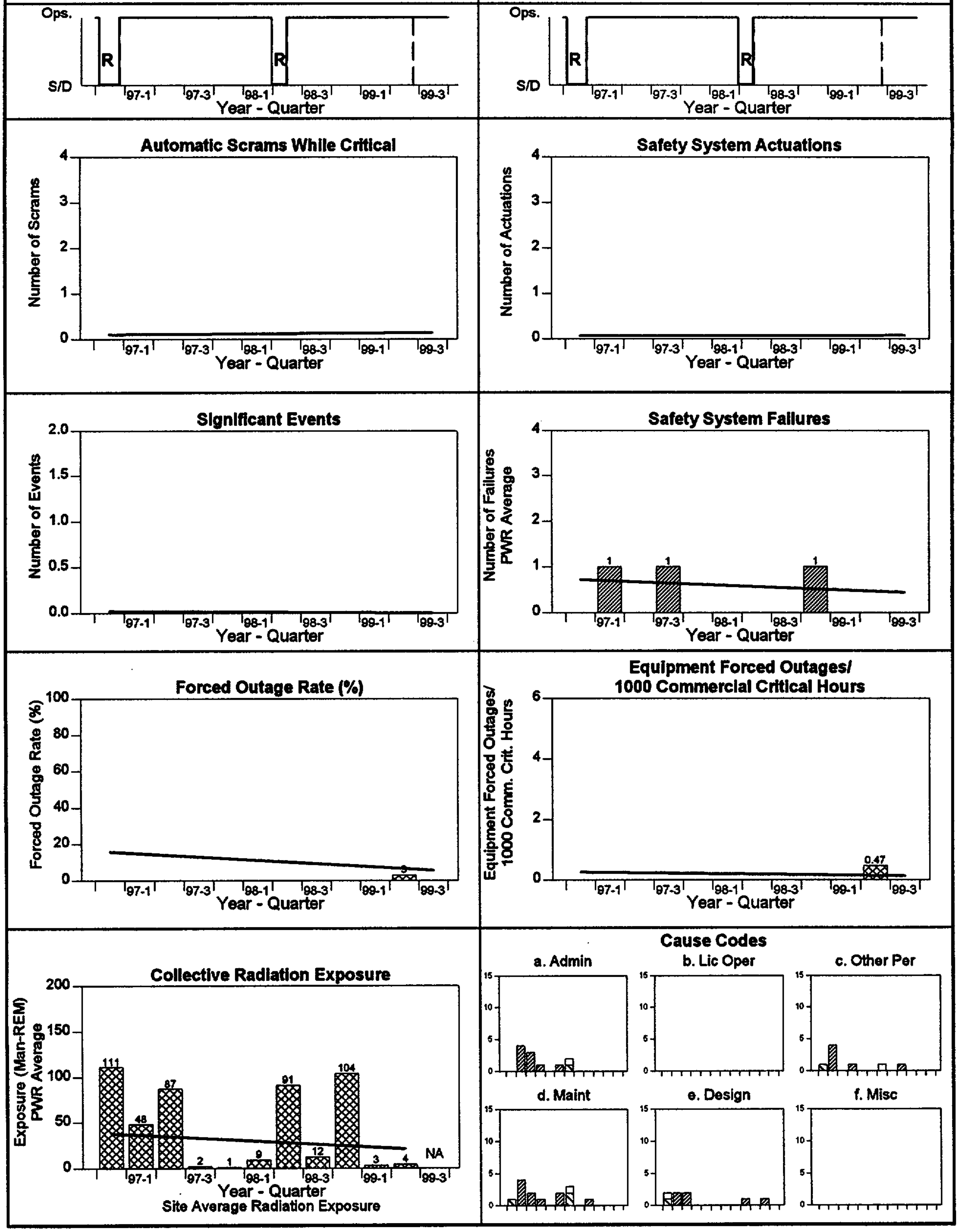


Figure 7.33b

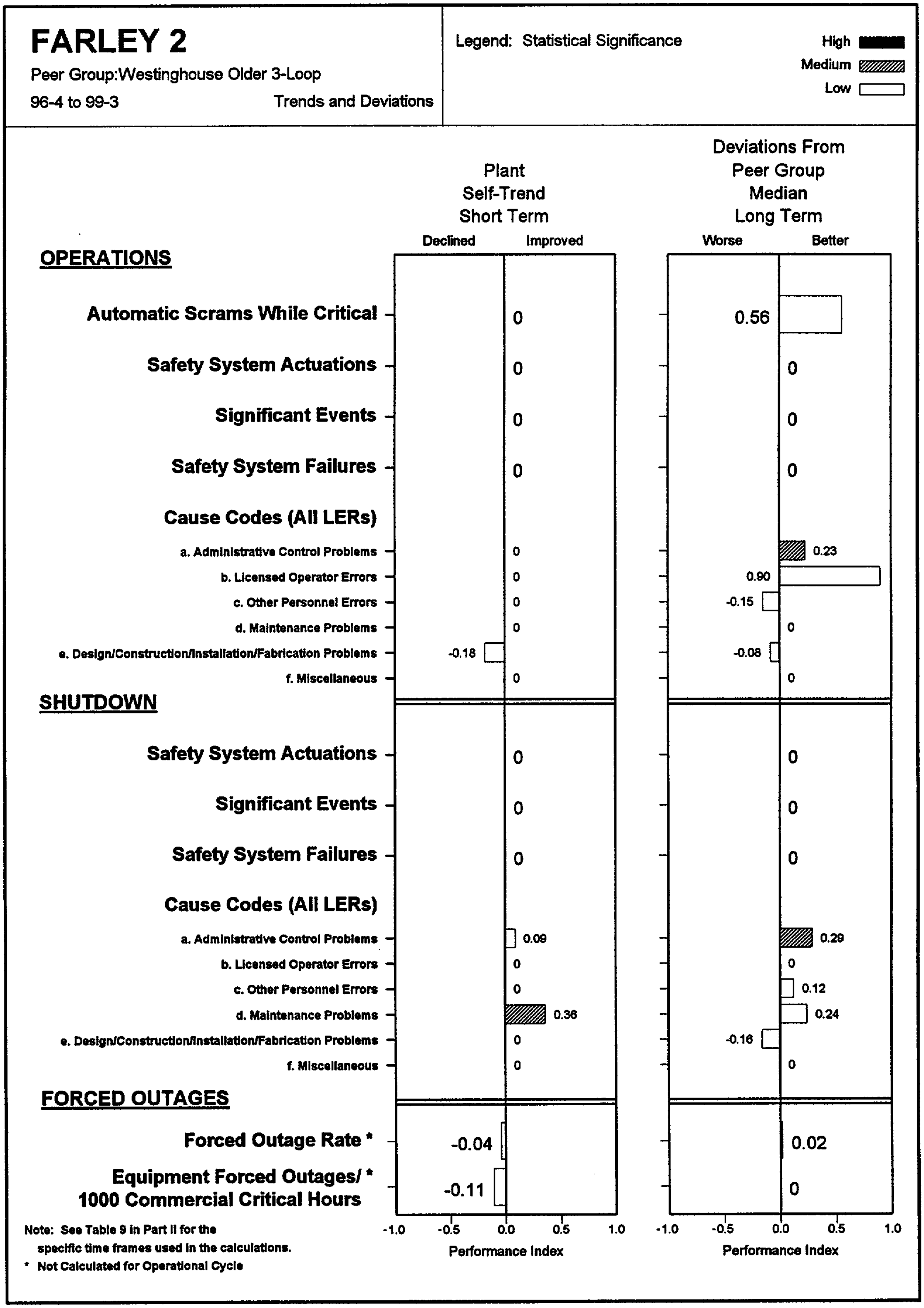

FARLEY 2
Peer Group:Westinghouse Older 3-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical
0
0.56
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0
Cause Codes (All LERs)
a. Administrative Control Problems
0
0.23
b. Licensed Operator Errors
0
0.90
c. Other Personnel Errors
0
-0.15
d. Maintenance Problems
0
0
e. Design/Construction/Installation/Fabrication Problems
-0.18
-0.08
f. Miscellaneous
0
0
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0
Cause Codes (All LERs)
a. Administrative Control Problems
0.09
0.29
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
0.12
d. Maintenance Problems
0.36
0.24
e. Design/Construction/Installation/Fabrication Problems
0
-0.16
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
-0.04
0.02
Equipment Forced Outages/ * 1000 Commercial Critical Hours
-0.11
0
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.34a

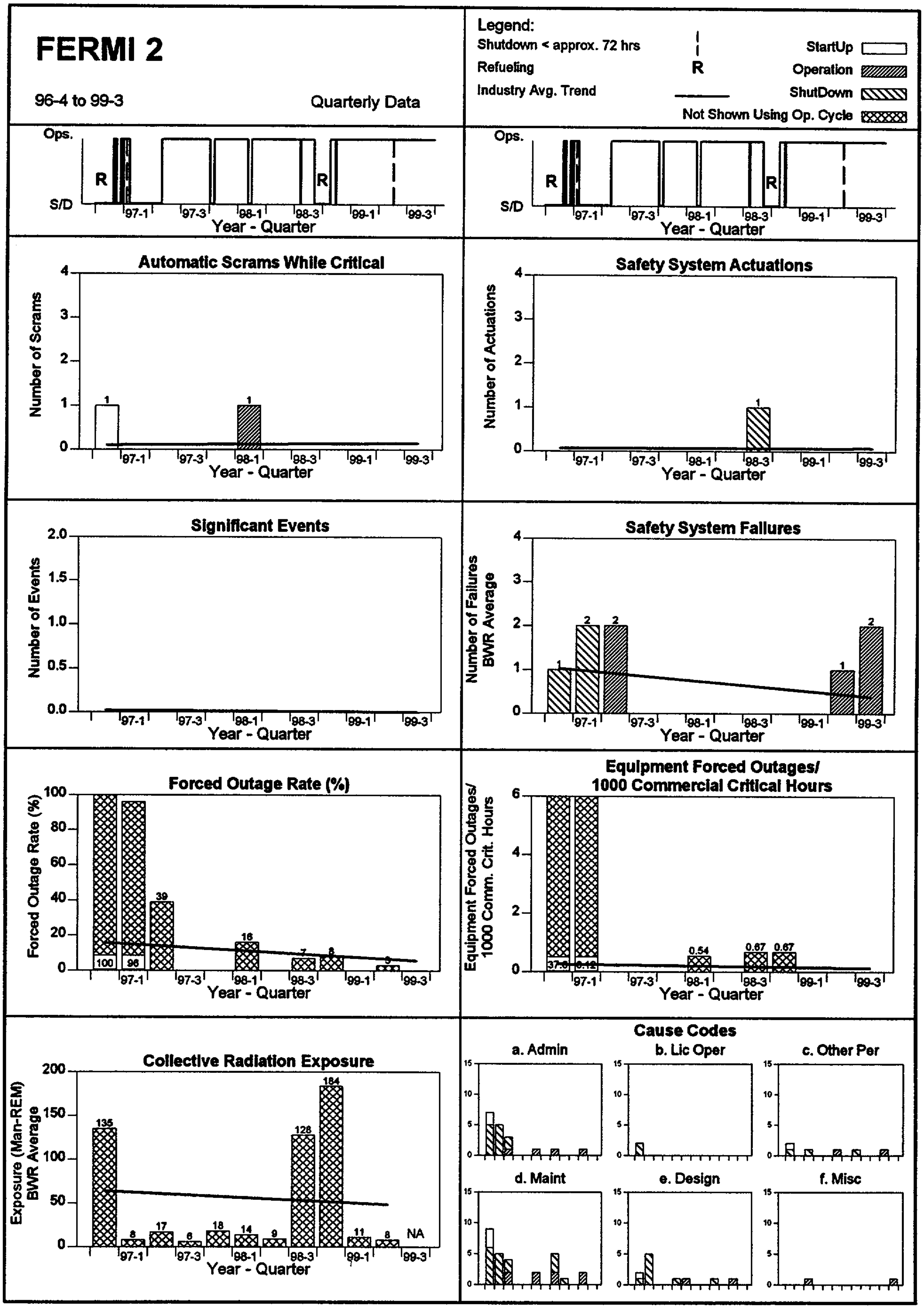
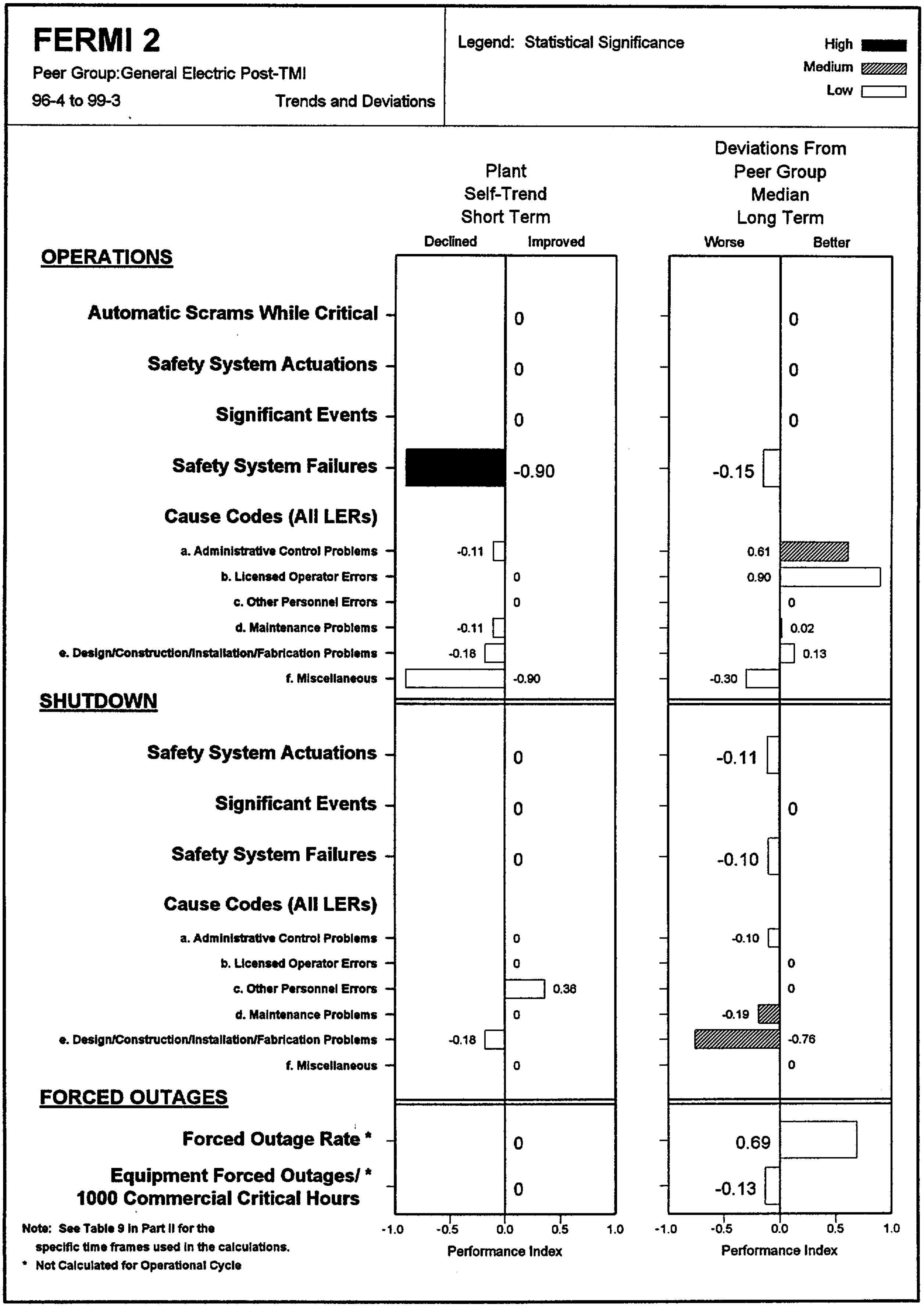

FERMI 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1 97-3 98-1 98-3 99-1 99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0 1 2 3 4
1
1
Safety System Actuations
Number of Actuations
1
Significant Events
Number of Events
0.0 0.5 1.0 1.5 2.0
Safety System Failures
Number of Failures BWR Average
1 2 2 1 2
Forced Outage Rate (%)
Forced Outage Rate (%)
0 20 40 60 80 100
100 96 39 16 7 8 3
Equipment Forced Outages/ 1000 Commercial Critical Hours
Equipment Forced Outages/ 1000 Comm. Crit. Hours
0 2 4 6
37.6 6.12 0.54 0.67 0.67
Collective Radiation Exposure
Exposure (Man-REM) BWR Average
0 50 100 150 200
135 8 17 6 18 14 9 128 184 11 8 NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0 5 10 15

Figure 7.34b



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.35a

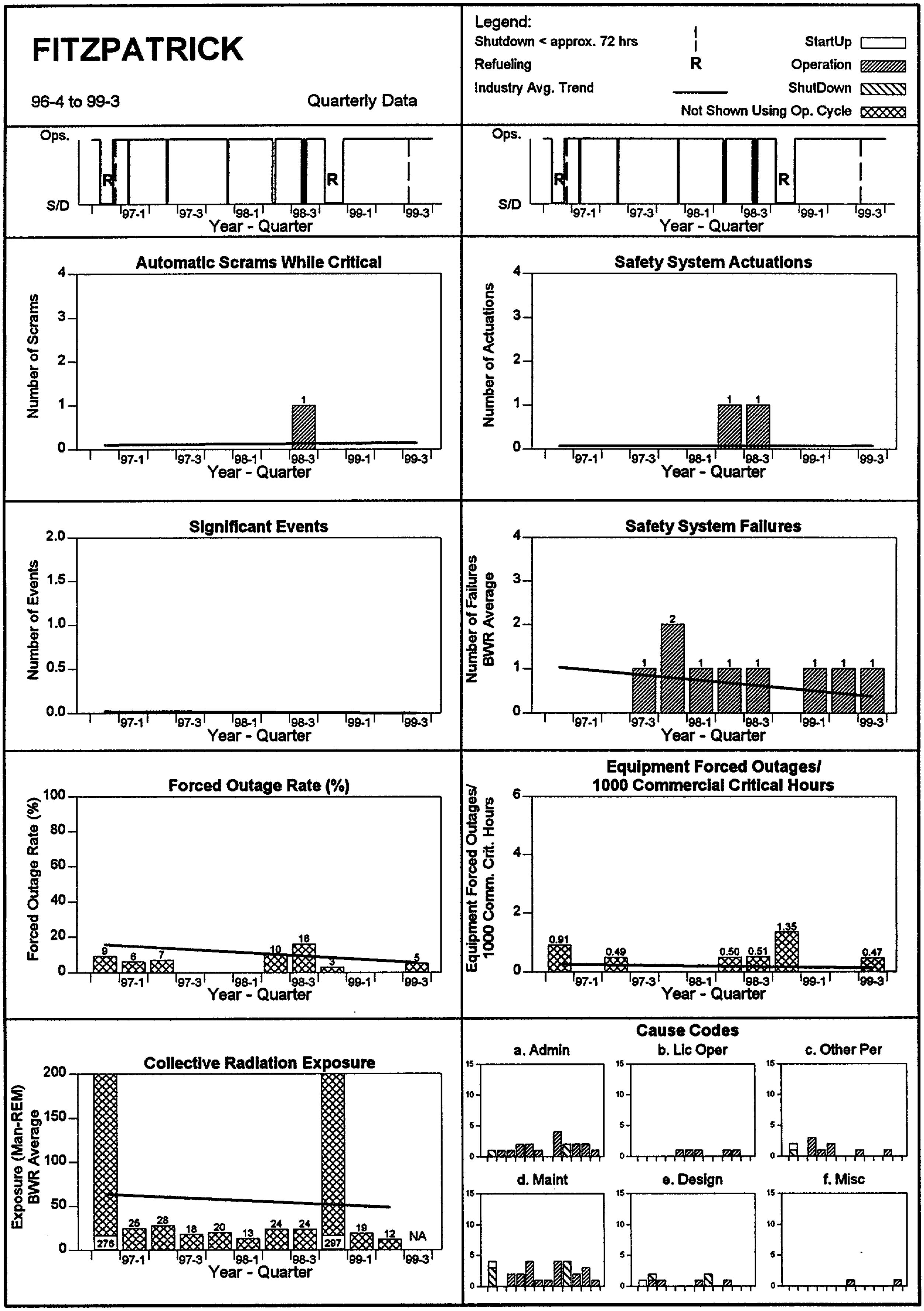
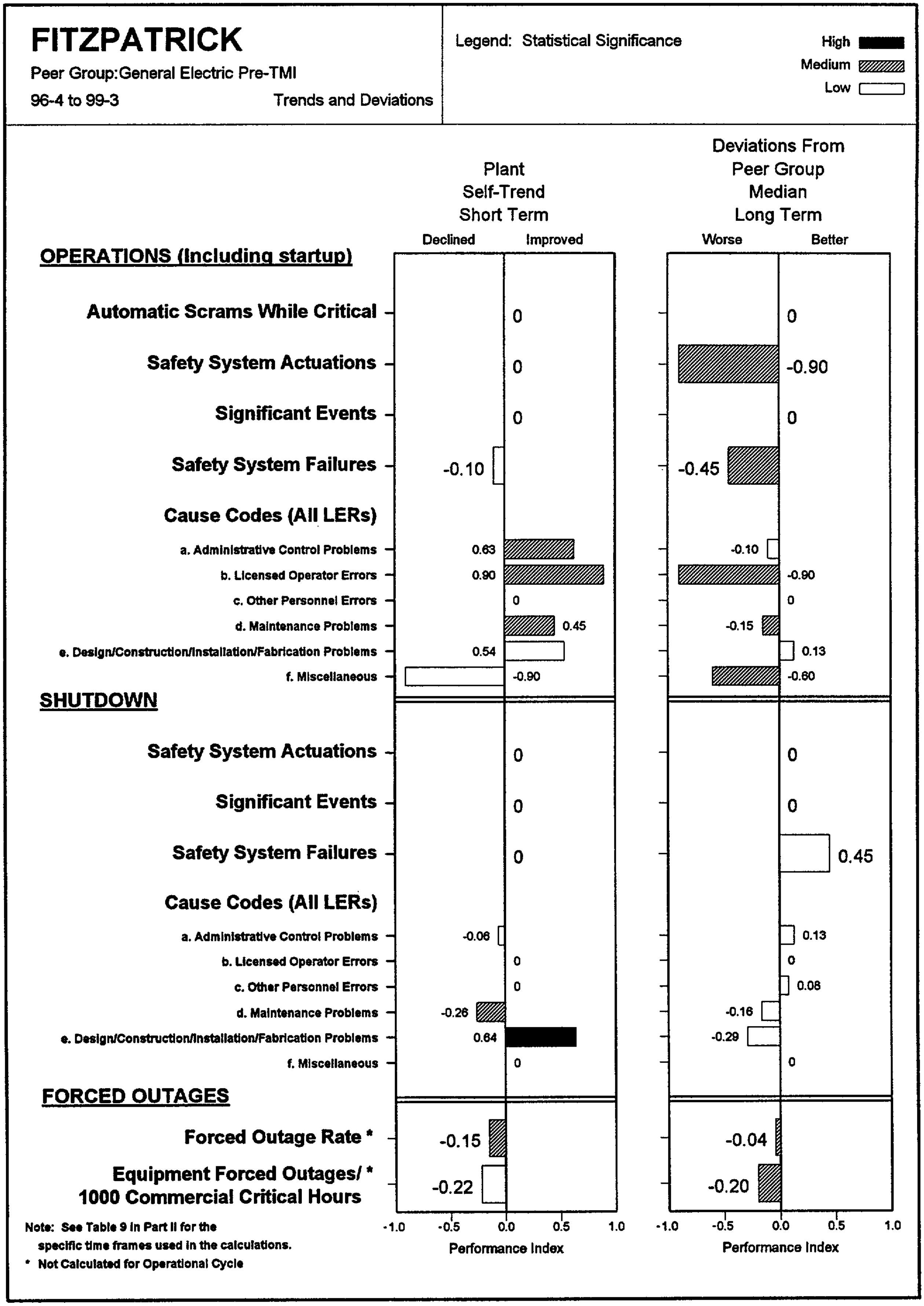

FITZPATRICK
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
1
Safety System Actuations
Number of Actuations
1
1
Significant Events
Number of Events
2.0
1.5
1.0
0.5
0.0
Safety System Failures
Number of Failures
BWR Average
1
2
1
1
1
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
9
6
7
10
16
3
5
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0.91
0.49
0.50
0.51
1.35
0.47
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
278
25
28
18
20
13
24
24
297
19
12
NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc

Figure 7.35b



Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.36a

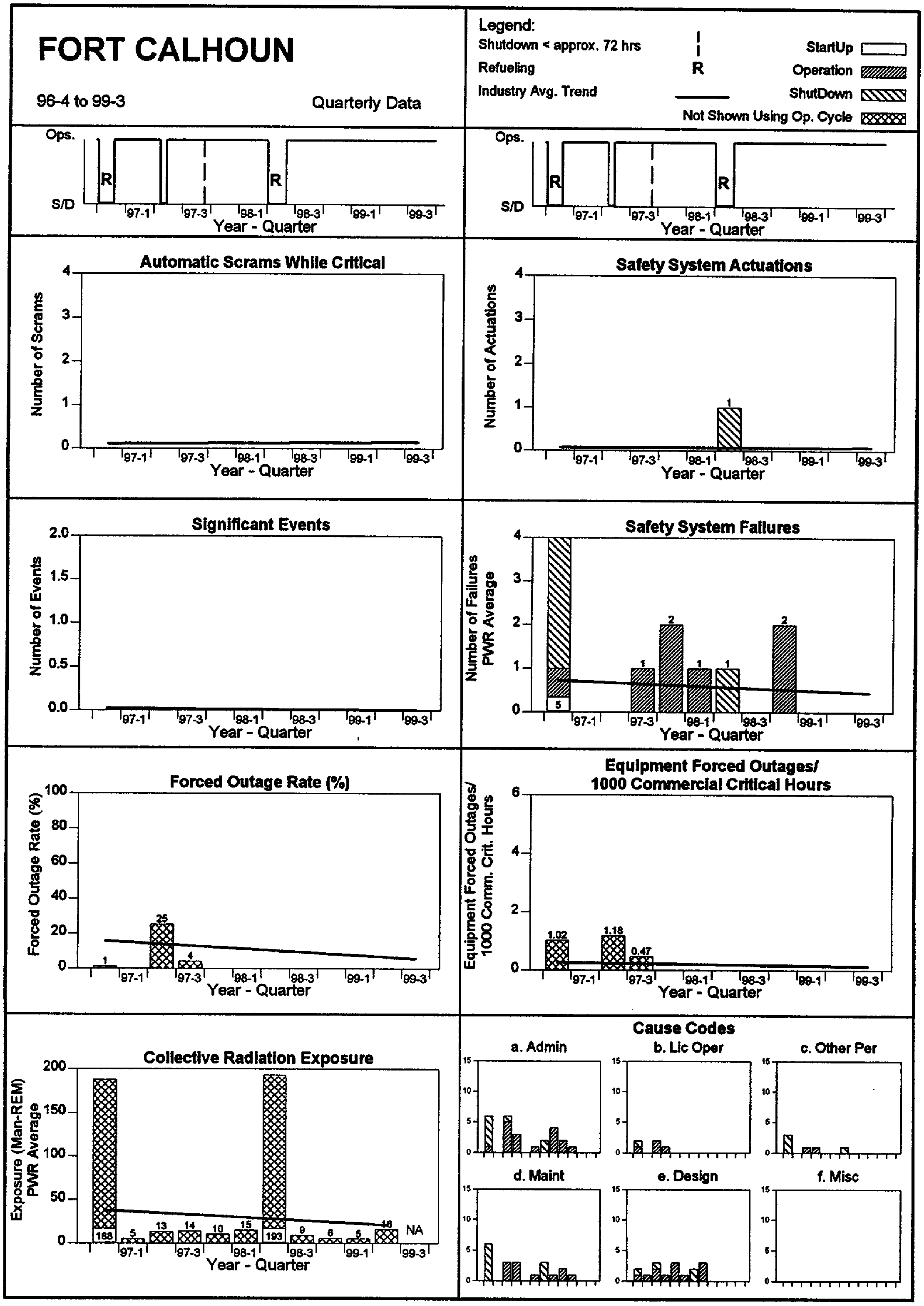

FORT CALHOUN
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
4
3
2
1
0
Safety System Actuations
Number of Actuations
1
Significant Events
Number of Events
2.0
1.5
1.0
0.5
0.0
Safety System Failures
Number of Failures
PWR Average
5
1
2
1
1
2
Forced Outage Rate (%)
Forced Outage Rate (%)
100
80
60
40
20
0
1
25
4
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
6
4
2
0
1.02
1.18
0.47
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
200
150
100
50
0
188
5
13
14
10
15
193
9
6
5
16
NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
15
10
5
0

Figure 7.36b

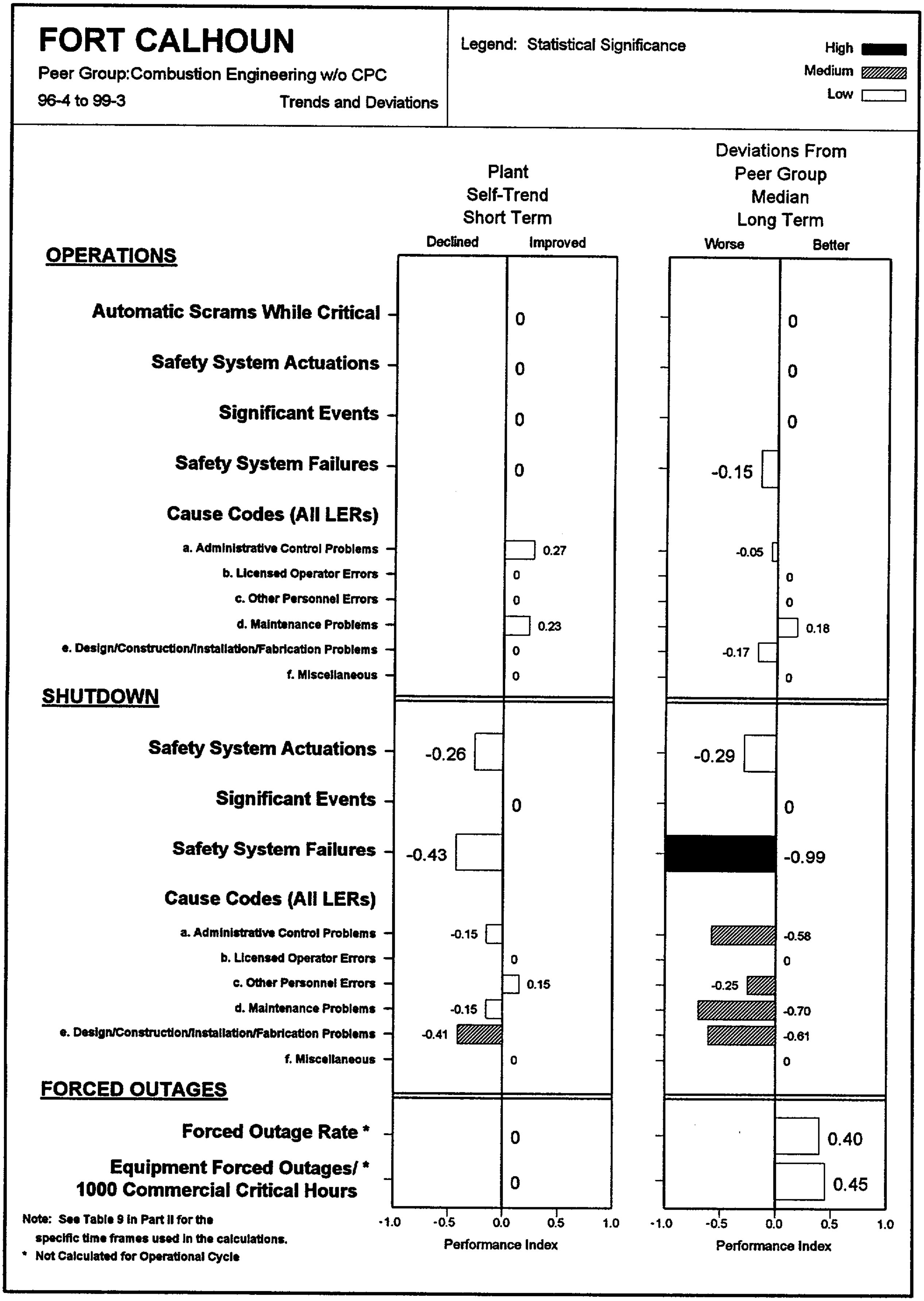

FORT CALHOUN
Peer Group: Combustion Engineering w/o CPC
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical
0
0
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
-0.15
Cause Codes (All LERs)
a. Administrative Control Problems
0.27
-0.05
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
0
d. Maintenance Problems
0.23
0.18
e. Design/Construction/Installation/Fabrication Problems
0
-0.17
f. Miscellaneous
0
0
SHUTDOWN
Safety System Actuations
-0.26
-0.29
Significant Events
0
0
Safety System Failures
-0.43
-0.99
Cause Codes (All LERs)
a. Administrative Control Problems
-0.15
-0.58
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0.15
-0.25
d. Maintenance Problems
-0.15
-0.70
e. Design/Construction/Installation/Fabrication Problems
-0.41
-0.61
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
0
0.40
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0
0.45
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.37a

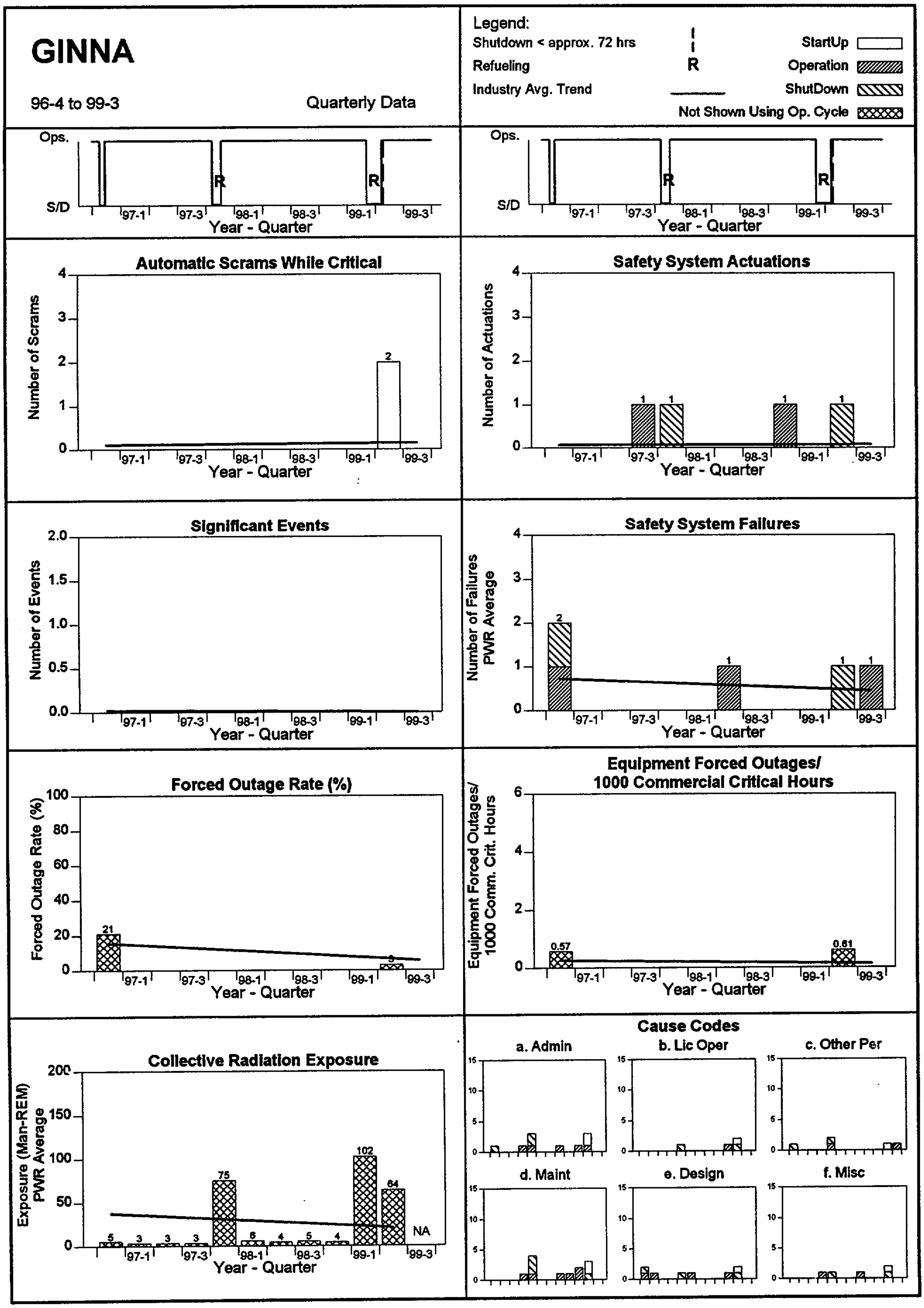

GINNA
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
2
Safety System Actuations
Number of Actuations
1
1
1
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
2
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
21
3
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.57
0.61
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
5
3
3
3
75
6
4
5
4
102
64
NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.37b

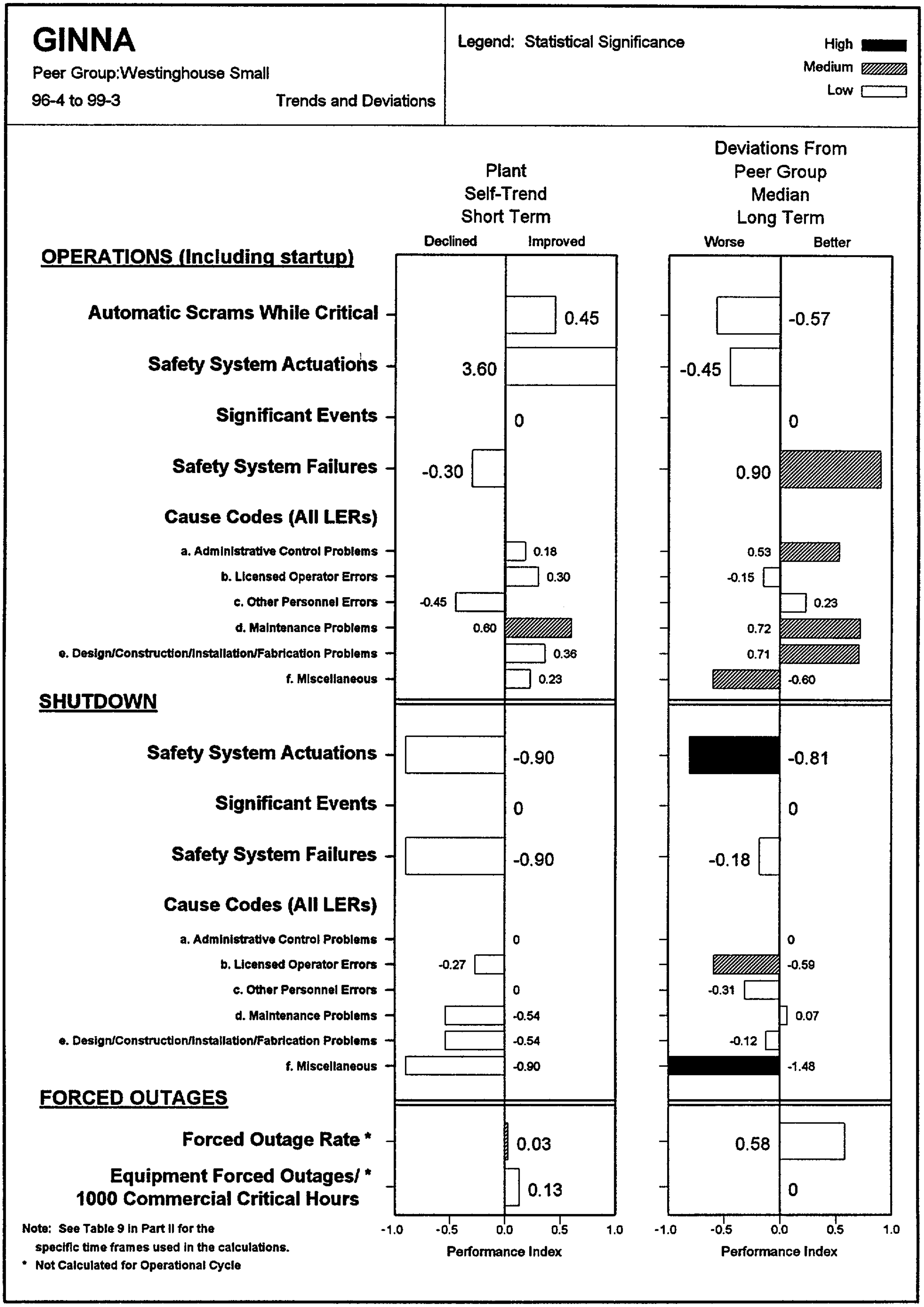

GINNA
Peer Group:Westinghouse Small
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low ☐
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical
0.45
-0.57
Safety System Actuations
3.60
-0.45
Significant Events
0
0
Safety System Failures
-0.30
0.90
Cause Codes (All LERs)
a. Administrative Control Problems
0.18
0.53
b. Licensed Operator Errors
0.30
-0.15
c. Other Personnel Errors
-0.45
0.23
d. Maintenance Problems
0.60
0.72
e. Design/Construction/Installation/Fabrication Problems
0.36
0.71
f. Miscellaneous
0.23
-0.60
SHUTDOWN
Safety System Actuations
-0.90
-0.81
Significant Events
0
0
Safety System Failures
-0.90
-0.18
Cause Codes (All LERs)
a. Administrative Control Problems
0
0
b. Licensed Operator Errors
-0.27
-0.59
c. Other Personnel Errors
0
-0.31
d. Maintenance Problems
-0.54
0.07
e. Design/Construction/Installation/Fabrication Problems
-0.54
-0.12
f. Miscellaneous
-0.90
-1.48
FORCED OUTAGES
Forced Outage Rate *
0.03
0.58
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0.13
0
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.38a

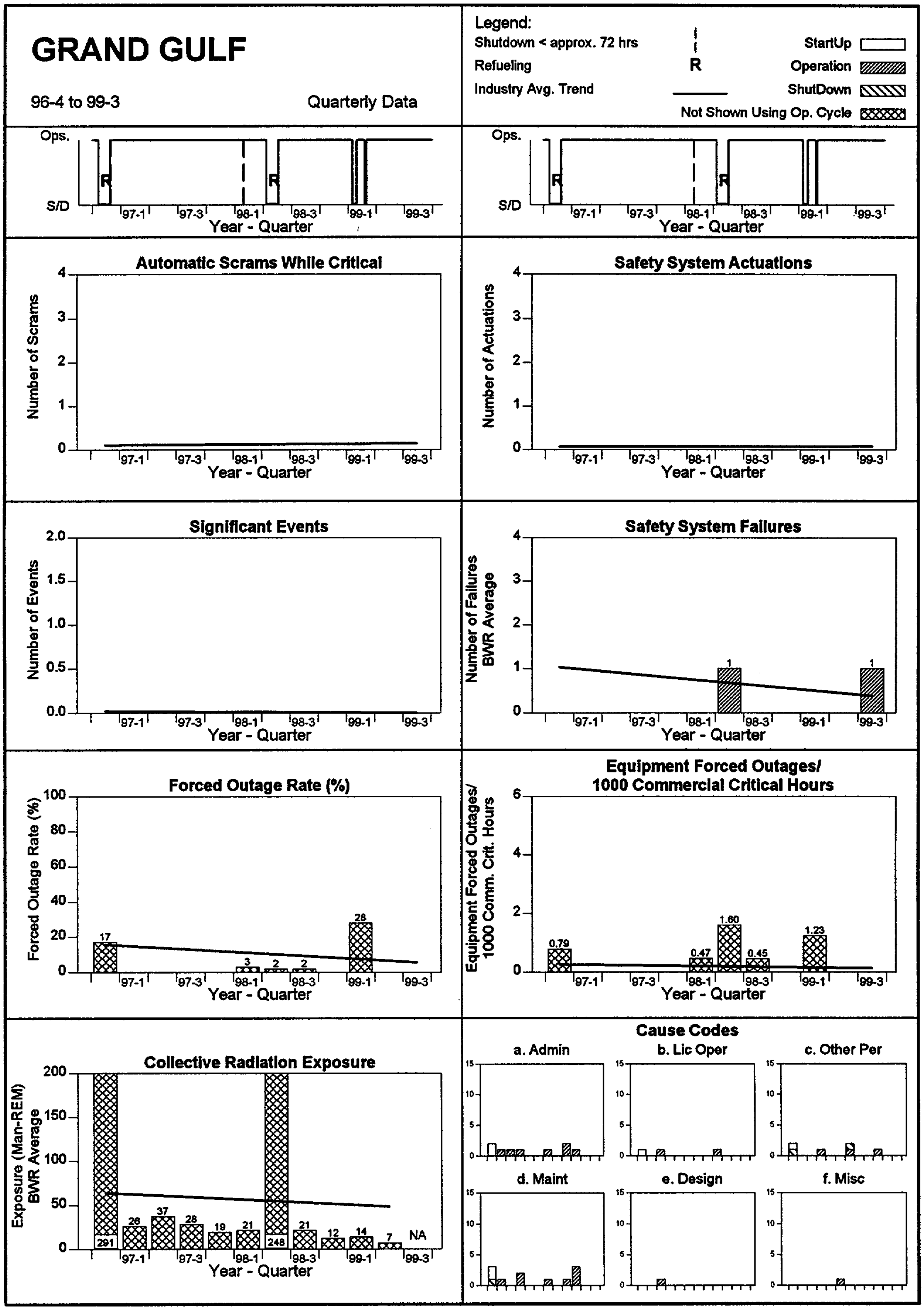

GRAND GULF
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp ☐
Operation ▨
ShutDown ▧
Not Shown Using Op. Cycle ▩
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
BWR Average
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
17
3
2
2
28
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.79
0.47
1.60
0.45
1.23
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
0
50
100
150
200
291
26
37
28
19
21
248
21
12
14
7
NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.38b

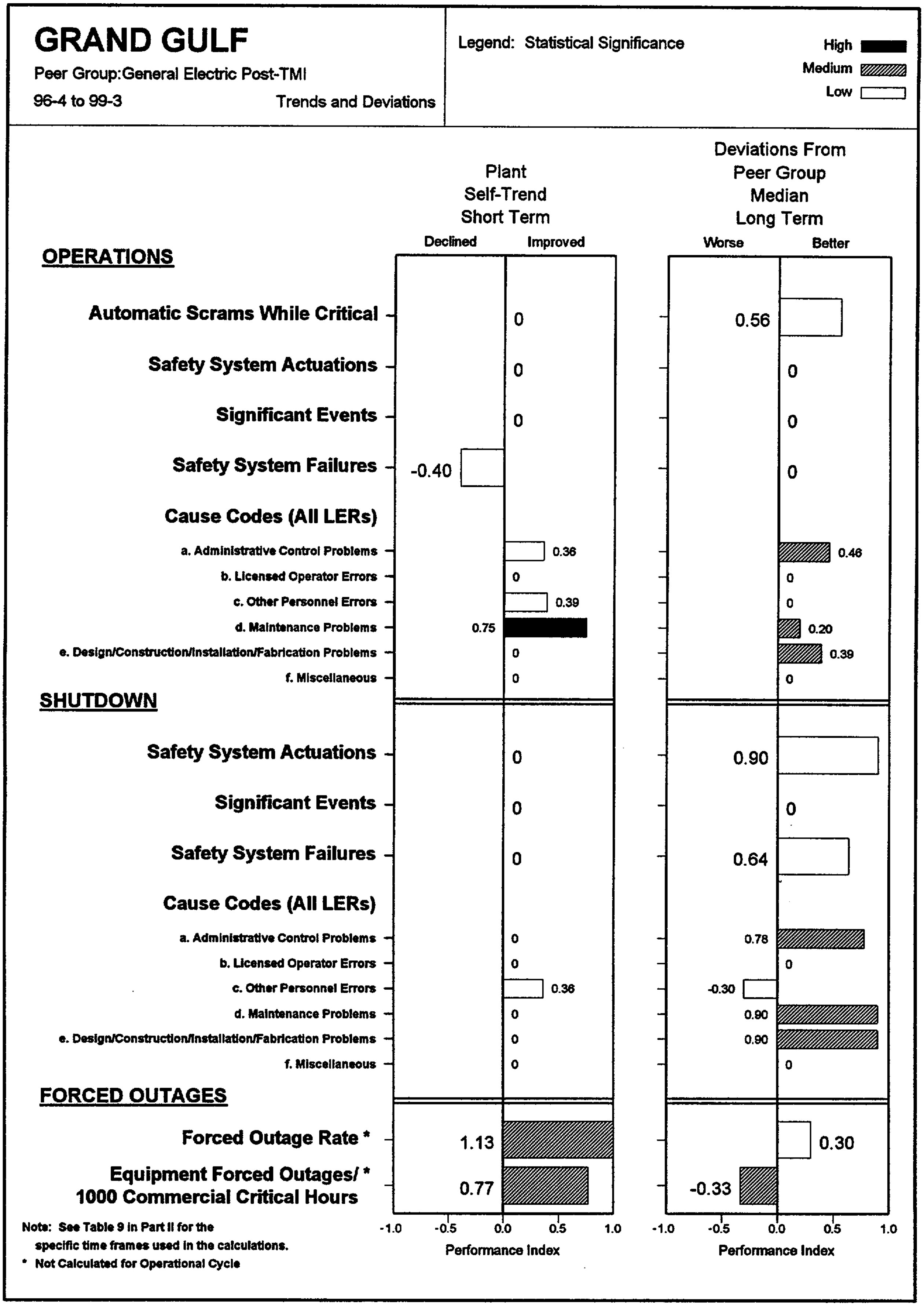
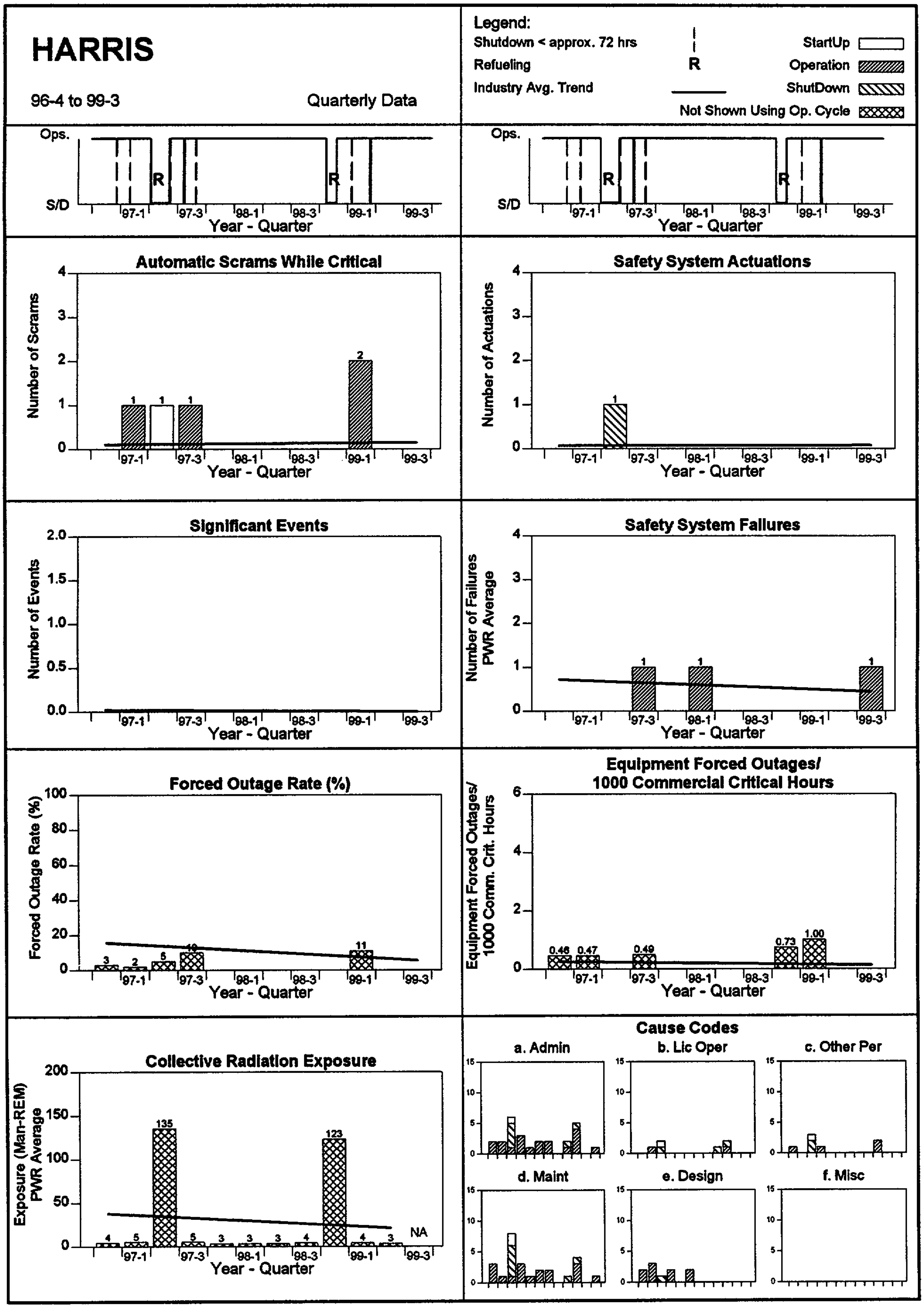

GRAND GULF
Peer Group:General Electric Post-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical
0
0.56
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
-0.40
0
Cause Codes (All LERs)
a. Administrative Control Problems
0.36
0.46
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0.39
0
d. Maintenance Problems
0.75
0.20
e. Design/Construction/Installation/Fabrication Problems
0
0.39
f. Miscellaneous
0
0
SHUTDOWN
Safety System Actuations
0
0.90
Significant Events
0
0
Safety System Failures
0
0.64
Cause Codes (All LERs)
a. Administrative Control Problems
0
0.78
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0.36
-0.30
d. Maintenance Problems
0
0.90
e. Design/Construction/Installation/Fabrication Problems
0
0.90
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
1.13
0.30
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0.77
-0.33
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.39a


HARRIS
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
1
1
2
Safety System Actuations
Number of Actuations
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
3
2
5
10
11
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.46
0.47
0.49
0.73
1.00
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
4
5
135
5
3
3
3
4
123
4
3
NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

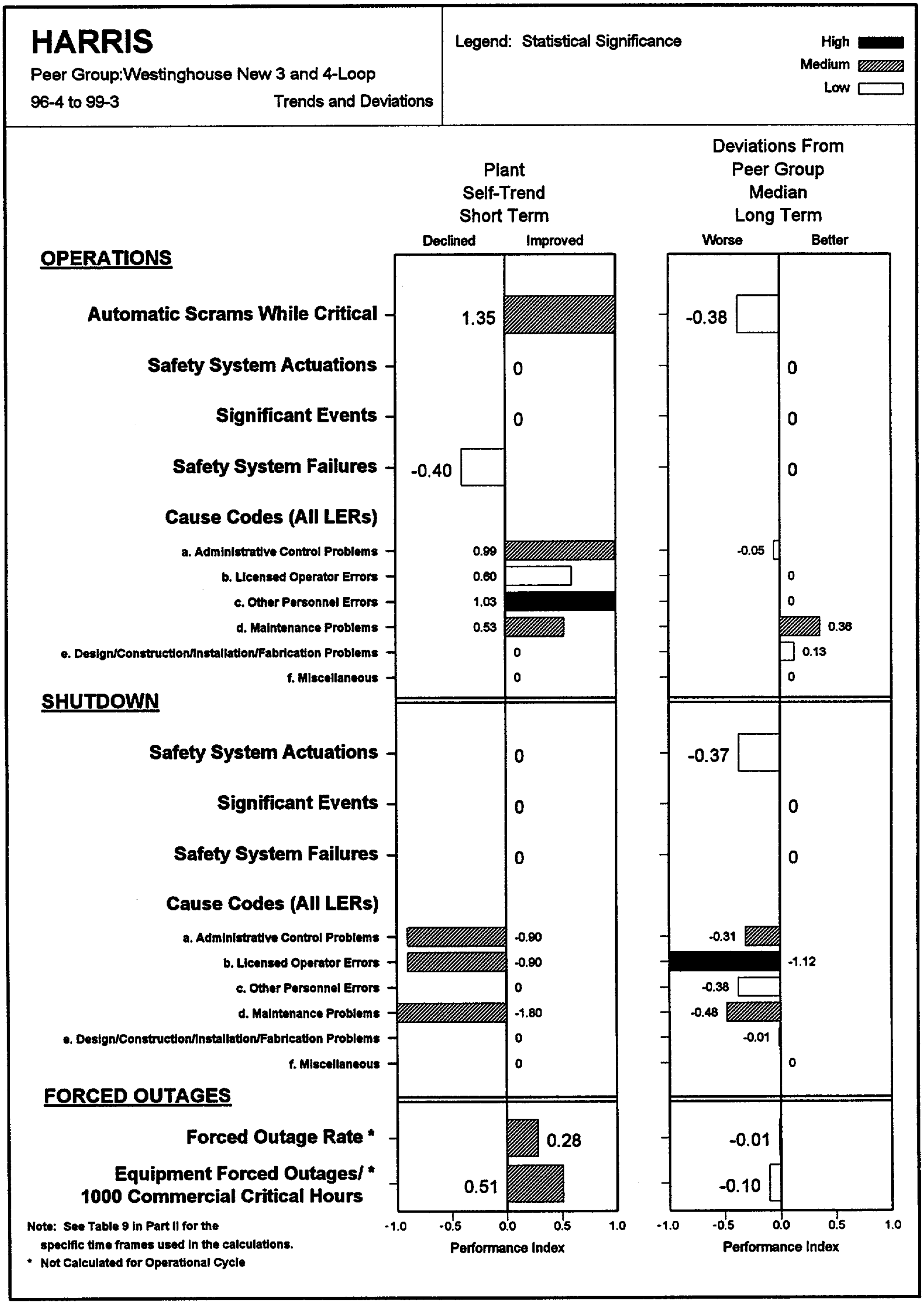


Figure 7.39b

Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.40a

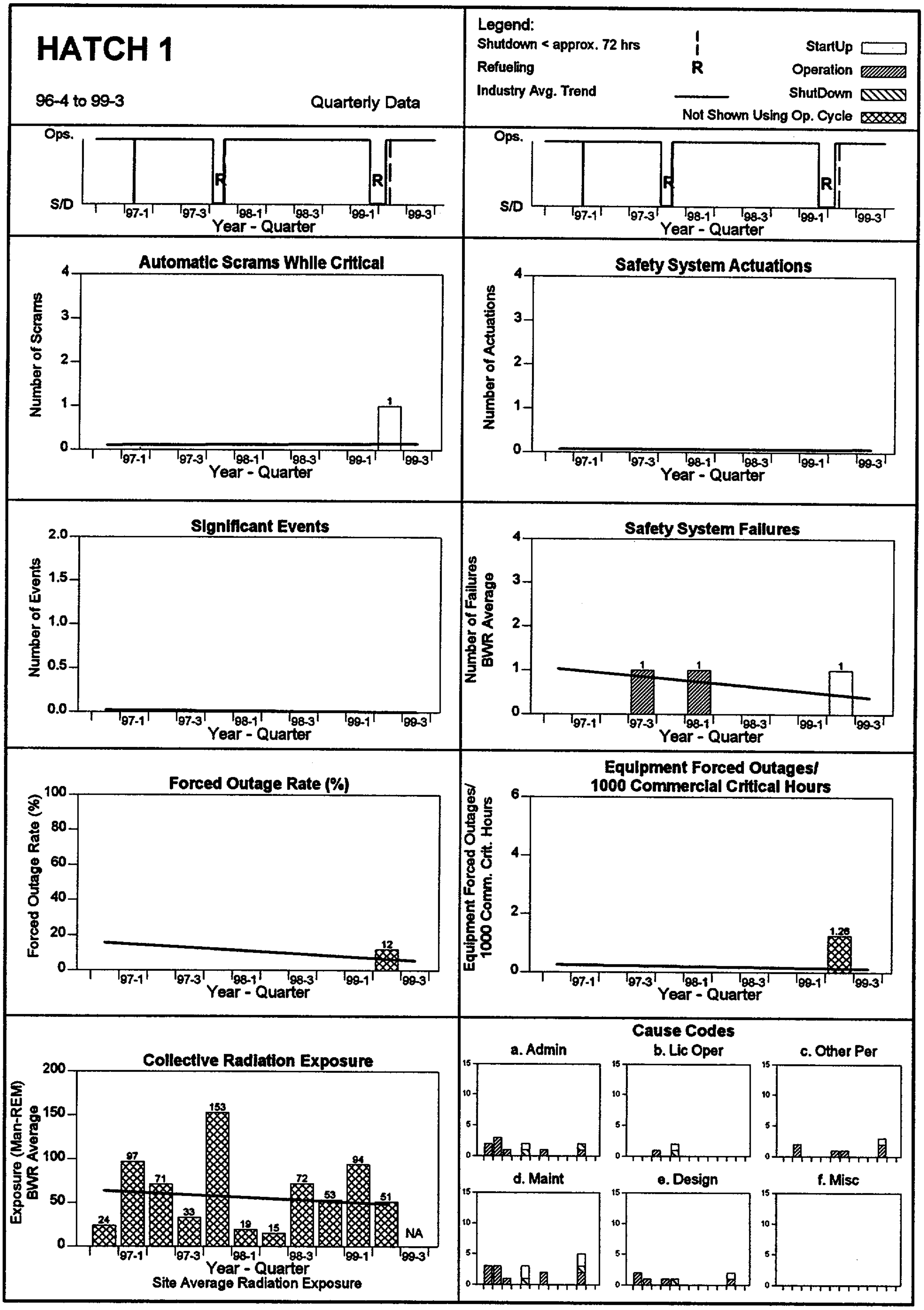

HATCH 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
4
3
2
1
0
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
2.0
1.5
1.0
0.5
0.0
Safety System Failures
Number of Failures
BWR Average
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
100
80
60
40
20
0
12
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
6
4
2
0
1.26
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
200
150
100
50
0
24
97
71
33
153
19
15
72
53
94
51
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
15
10
5
0

Figure 7.40b

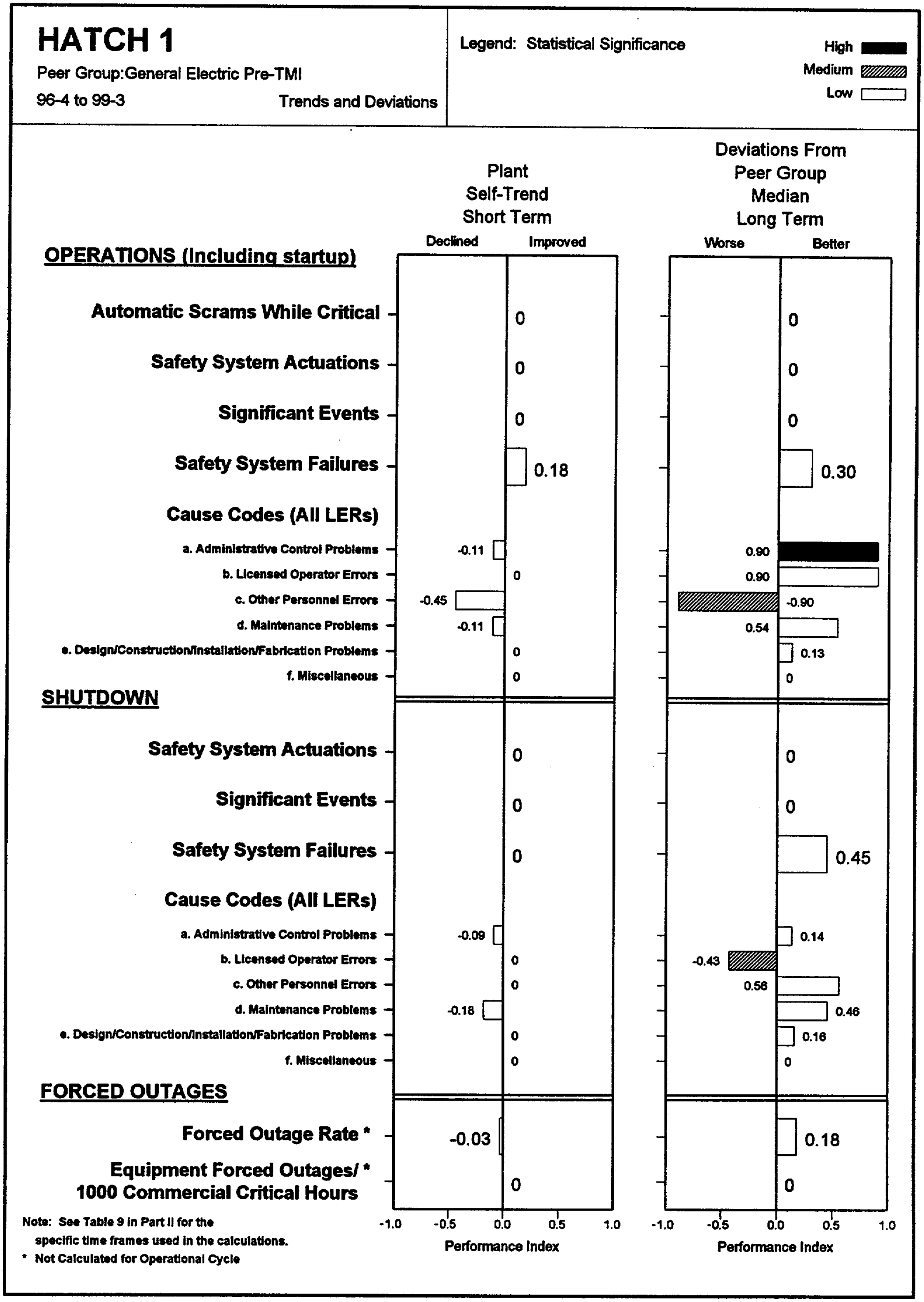

HATCH 1
Peer Group:General Electric Pre-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical 0 0
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0.18 0.30
Cause Codes (All LERs)
a. Administrative Control Problems -0.11 0.90
b. Licensed Operator Errors 0 0.90
c. Other Personnel Errors -0.45 -0.90
d. Maintenance Problems -0.11 0.54
e. Design/Construction/Installation/Fabrication Problems 0 0.13
f. Miscellaneous 0 0
SHUTDOWN
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 0.45
Cause Codes (All LERs)
a. Administrative Control Problems -0.09 0.14
b. Licensed Operator Errors 0 -0.43
c. Other Personnel Errors 0 0.56
d. Maintenance Problems -0.18 0.46
e. Design/Construction/Installation/Fabrication Problems 0 0.16
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * -0.03 0.18
Equipment Forced Outages/ * 1000 Commercial Critical Hours 0 0
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.41a

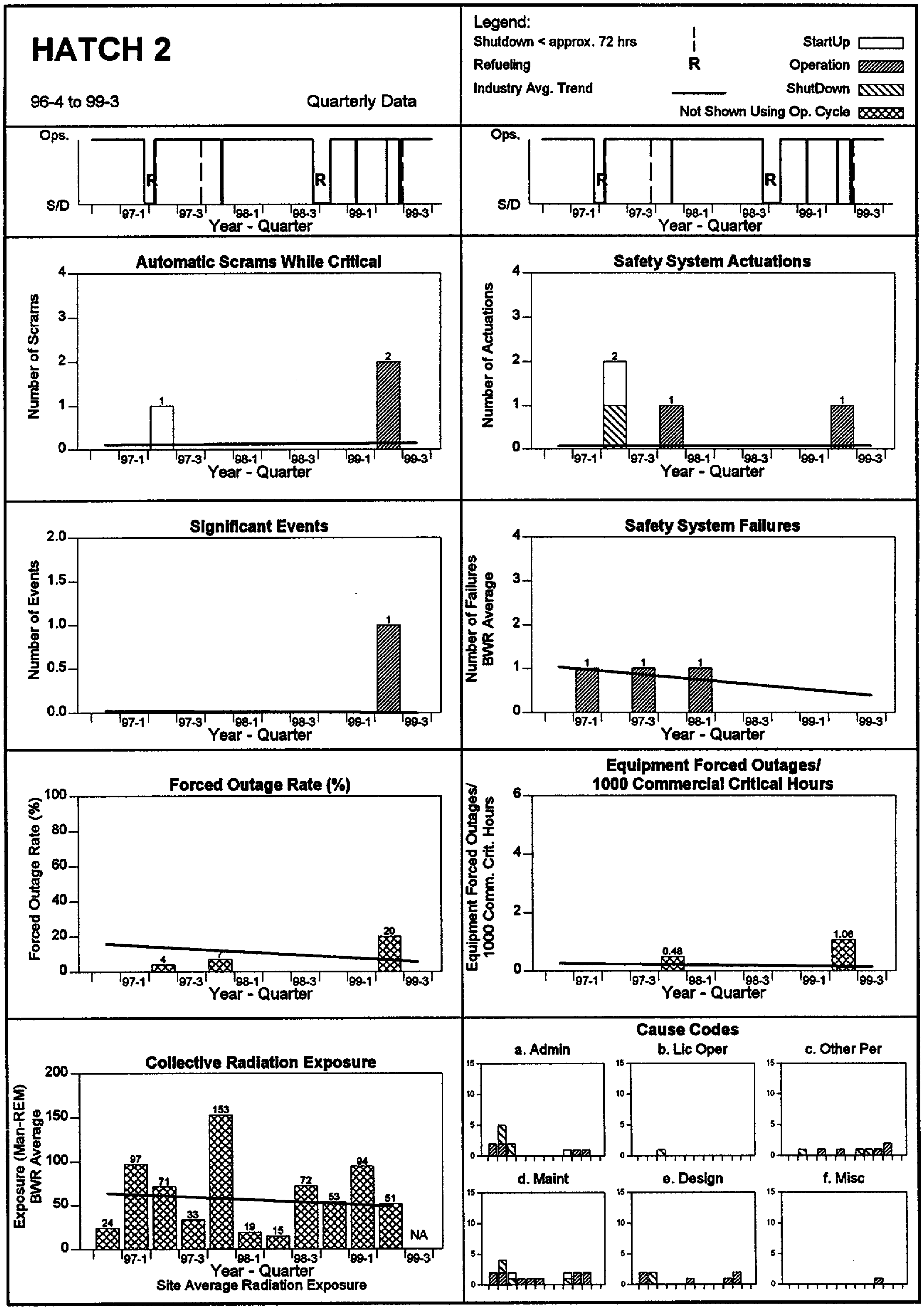

HATCH 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
Year - Quarter
97-1
97-3
98-1
98-3
99-1
99-3
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
BWR Average
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
4
7
20
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
6
0.48
1.06
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
50
150
200
24
97
71
33
153
19
15
72
53
94
51
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
5
10
15

Figure 7.41b

HATCH 2

Peer Group:General Electric Pre-TMI

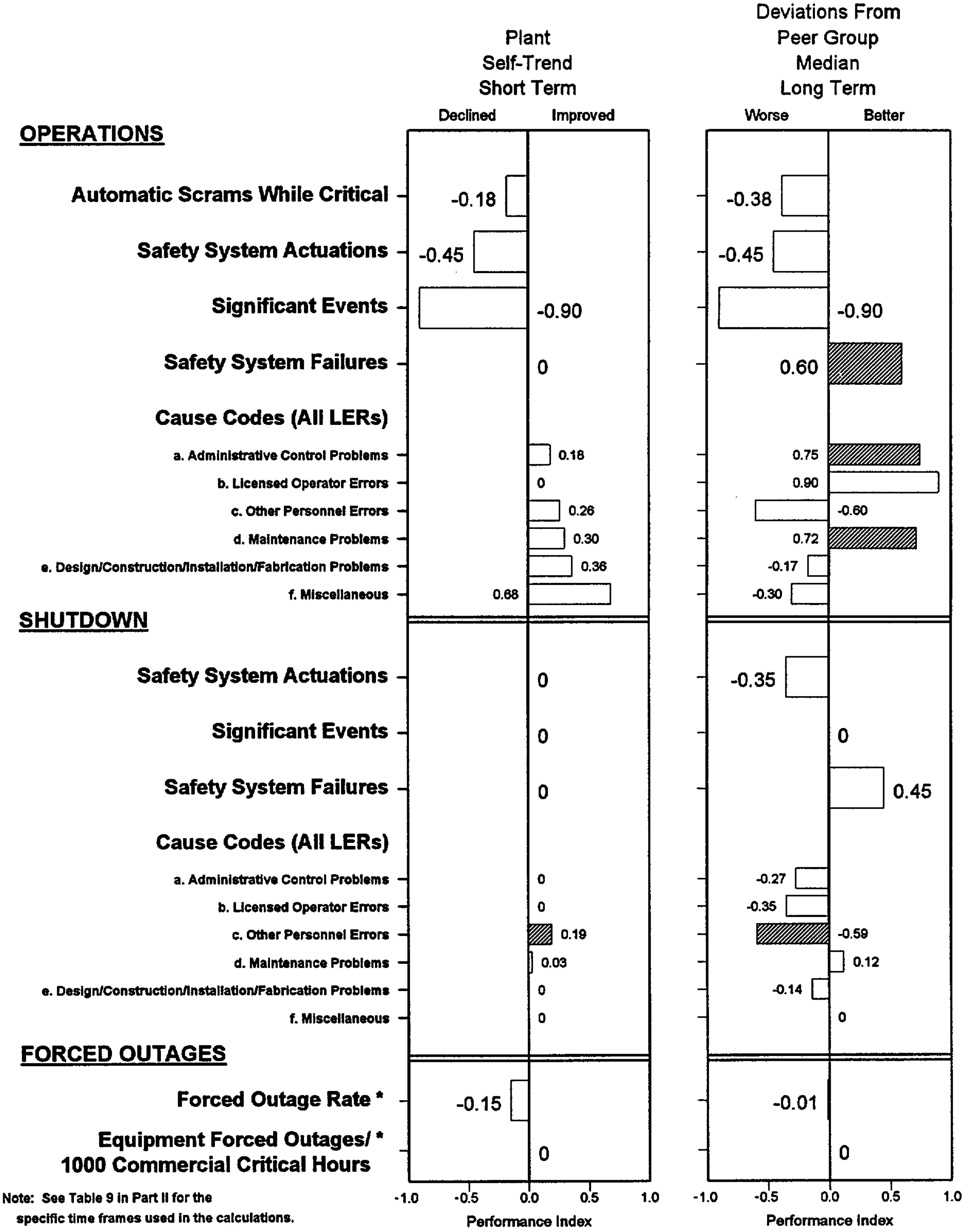
96-4 to 99-3 Trends and Deviations

Legend: Statistical Significance

High ■

Medium ▨

Low □



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.42a

HOPE CREEK

96-4 to 99-3 Quarterly Data

Legend:
Shutdown < approx. 72 hrs ┆
Refueling R
Industry Avg. Trend ——
StartUp □
Operation ▨
ShutDown ▧
Not Shown Using Op. Cycle ▩

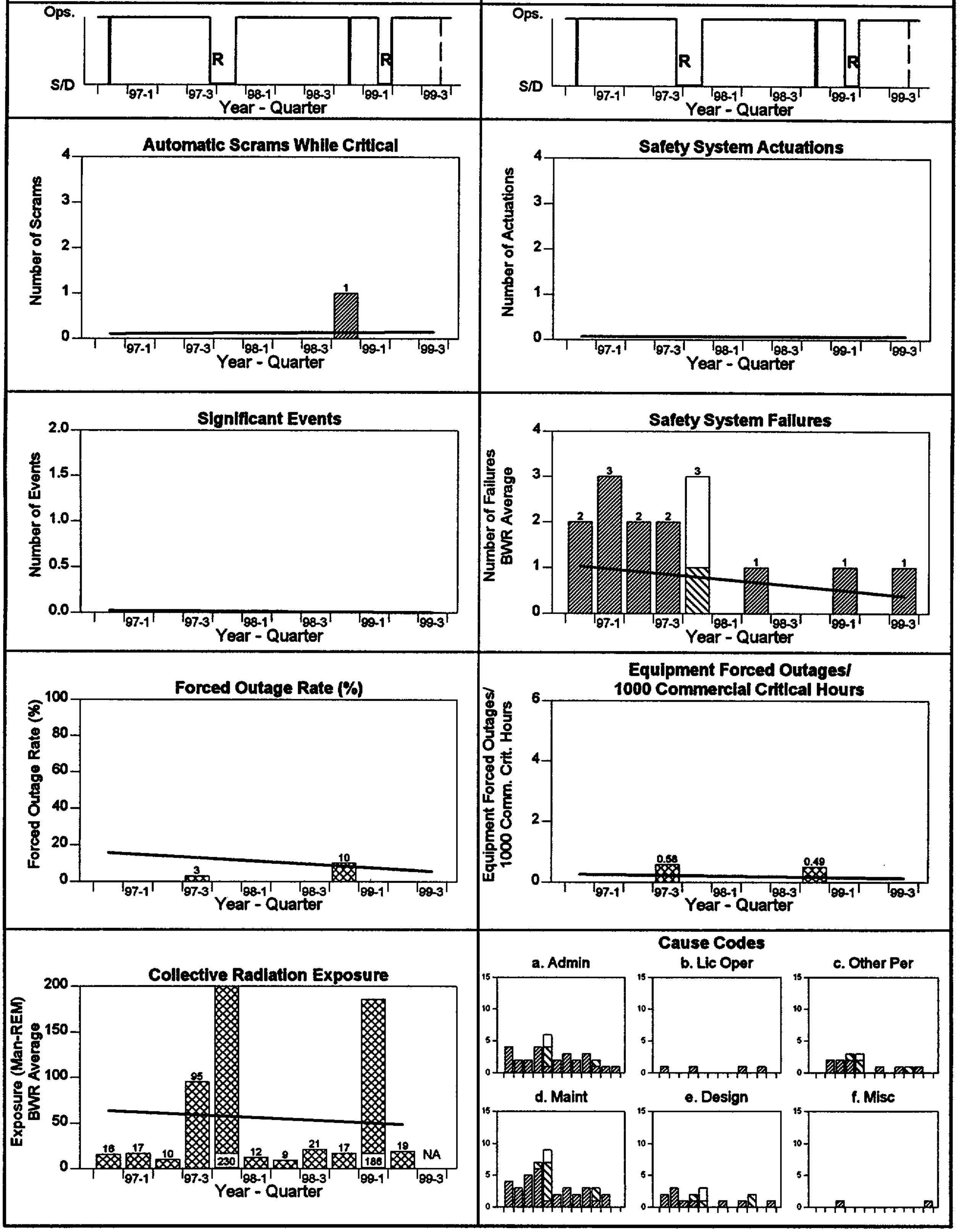


Figure 7.42b

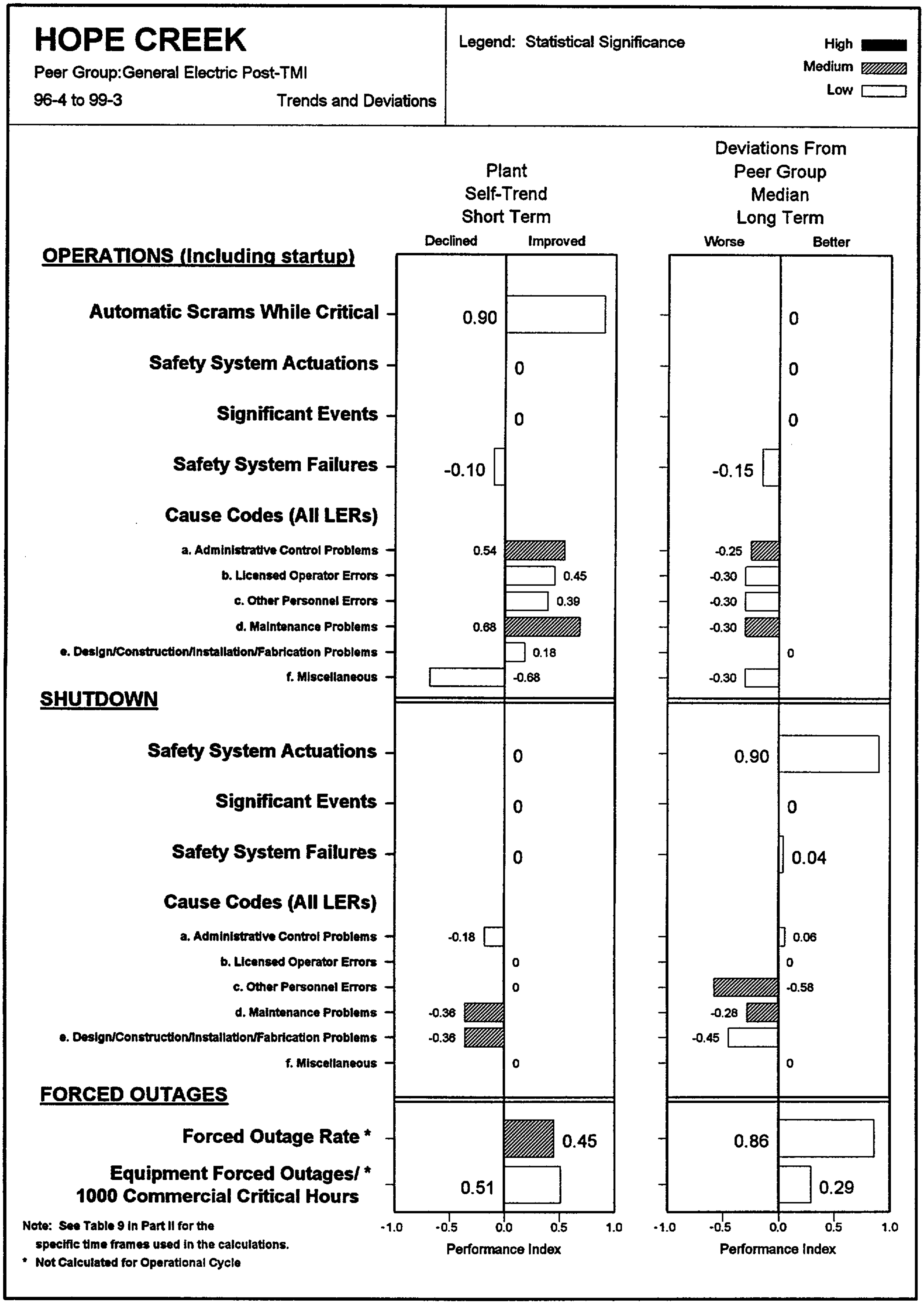

HOPE CREEK
Peer Group:General Electric Post-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low ☐
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical 0.90 0
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures -0.10 -0.15
Cause Codes (All LERs)
a. Administrative Control Problems 0.54 -0.25
b. Licensed Operator Errors 0.45 -0.30
c. Other Personnel Errors 0.39 -0.30
d. Maintenance Problems 0.68 -0.30
e. Design/Construction/Installation/Fabrication Problems 0.18 0
f. Miscellaneous -0.68 -0.30
SHUTDOWN
Safety System Actuations 0 0.90
Significant Events 0 0
Safety System Failures 0 0.04
Cause Codes (All LERs)
a. Administrative Control Problems -0.18 0.06
b. Licensed Operator Errors 0 0
c. Other Personnel Errors 0 -0.58
d. Maintenance Problems -0.36 -0.28
e. Design/Construction/Installation/Fabrication Problems -0.36 -0.45
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * 0.45 0.86
Equipment Forced Outages/ * 1000 Commercial Critical Hours 0.51 0.29
-1.0 -0.5 0.0 0.5 1.0
Performance Index
-1.0 -0.5 0.0 0.5 1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.43a

INDIAN POINT 2

96-4 to 99-3 Quarterly Data

Legend:

Shutdown < approx. 72 hrs |
Refueling R
Industry Avg. Trend ——
StartUp ☐
Operation ▨
ShutDown ▧
Not Shown Using Op. Cycle ▩

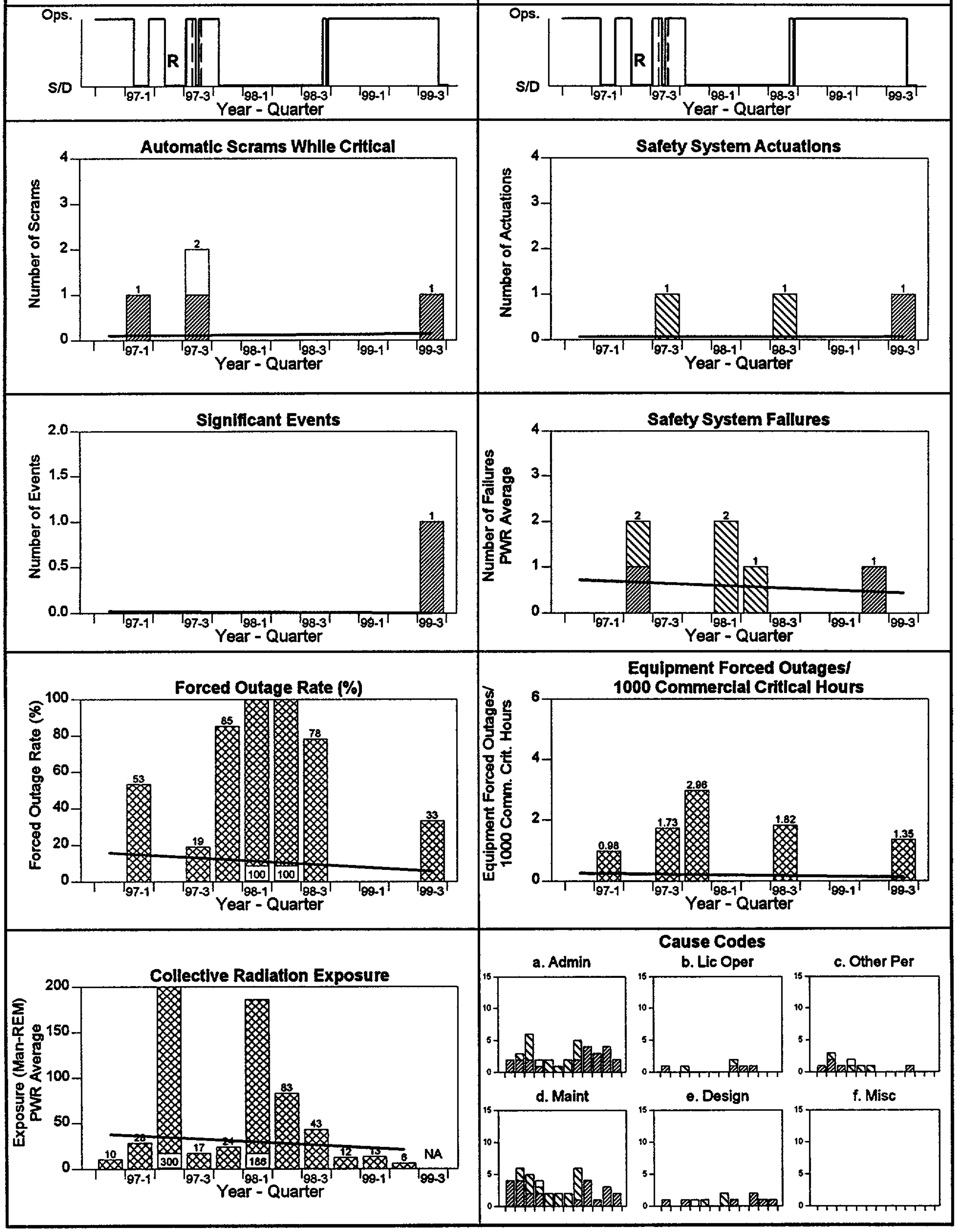


Figure 7.43b

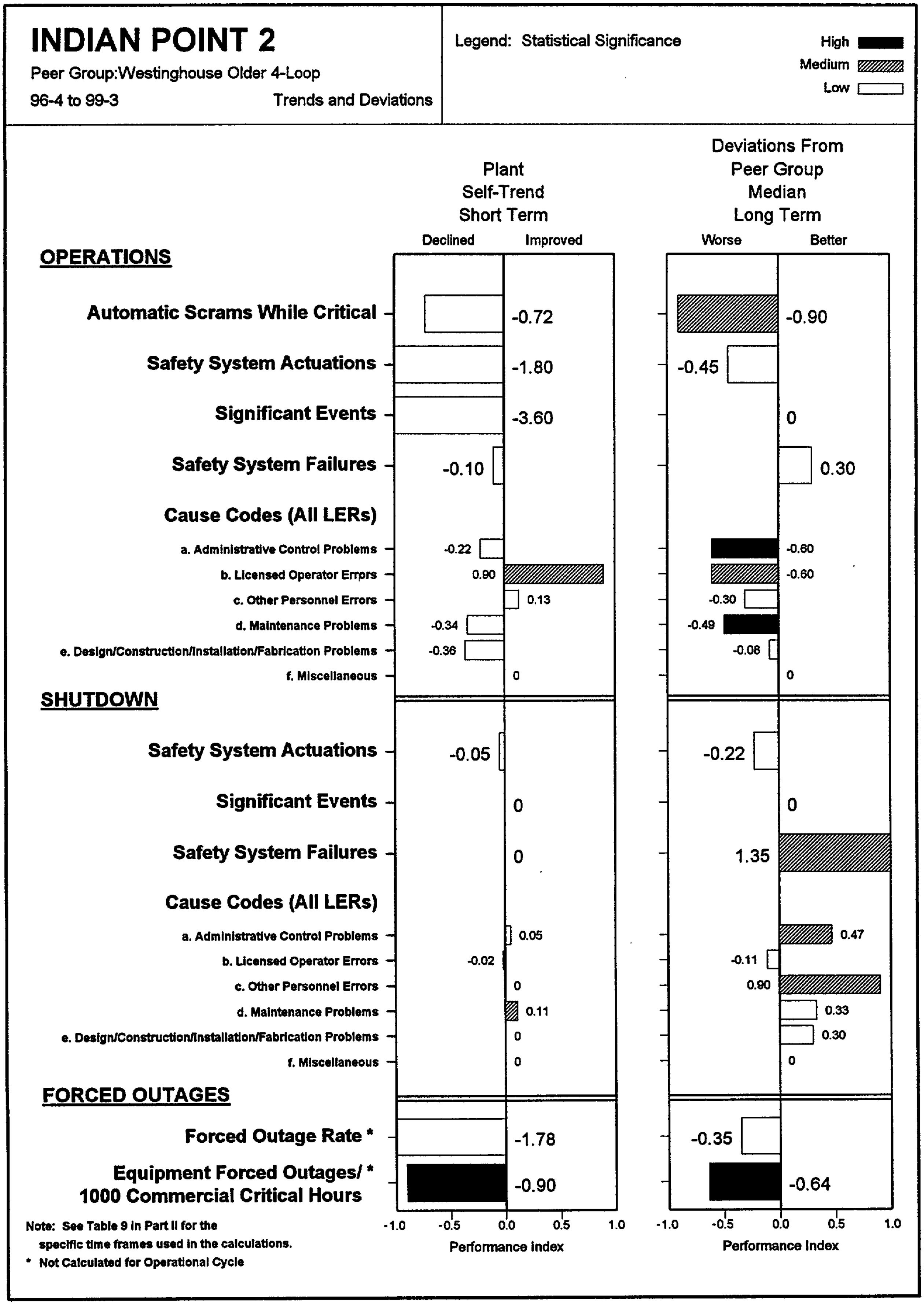

INDIAN POINT 2
Peer Group:Westinghouse Older 4-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical -0.72 -0.90
Safety System Actuations -1.80 -0.45
Significant Events -3.60 0
Safety System Failures -0.10 0.30
Cause Codes (All LERs)
a. Administrative Control Problems -0.22 -0.60
b. Licensed Operator Errprs 0.90 -0.60
c. Other Personnel Errors 0.13 -0.30
d. Maintenance Problems -0.34 -0.49
e. Design/Construction/Installation/Fabrication Problems -0.36 -0.08
f. Miscellaneous 0 0
SHUTDOWN
Safety System Actuations -0.05 -0.22
Significant Events 0 0
Safety System Failures 0 1.35
Cause Codes (All LERs)
a. Administrative Control Problems 0.05 0.47
b. Licensed Operator Errors -0.02 -0.11
c. Other Personnel Errors 0 0.90
d. Maintenance Problems 0.11 0.33
e. Design/Construction/Installation/Fabrication Problems 0 0.30
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * -1.78 -0.35
Equipment Forced Outages/ * 1000 Commercial Critical Hours -0.90 -0.64
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.44a

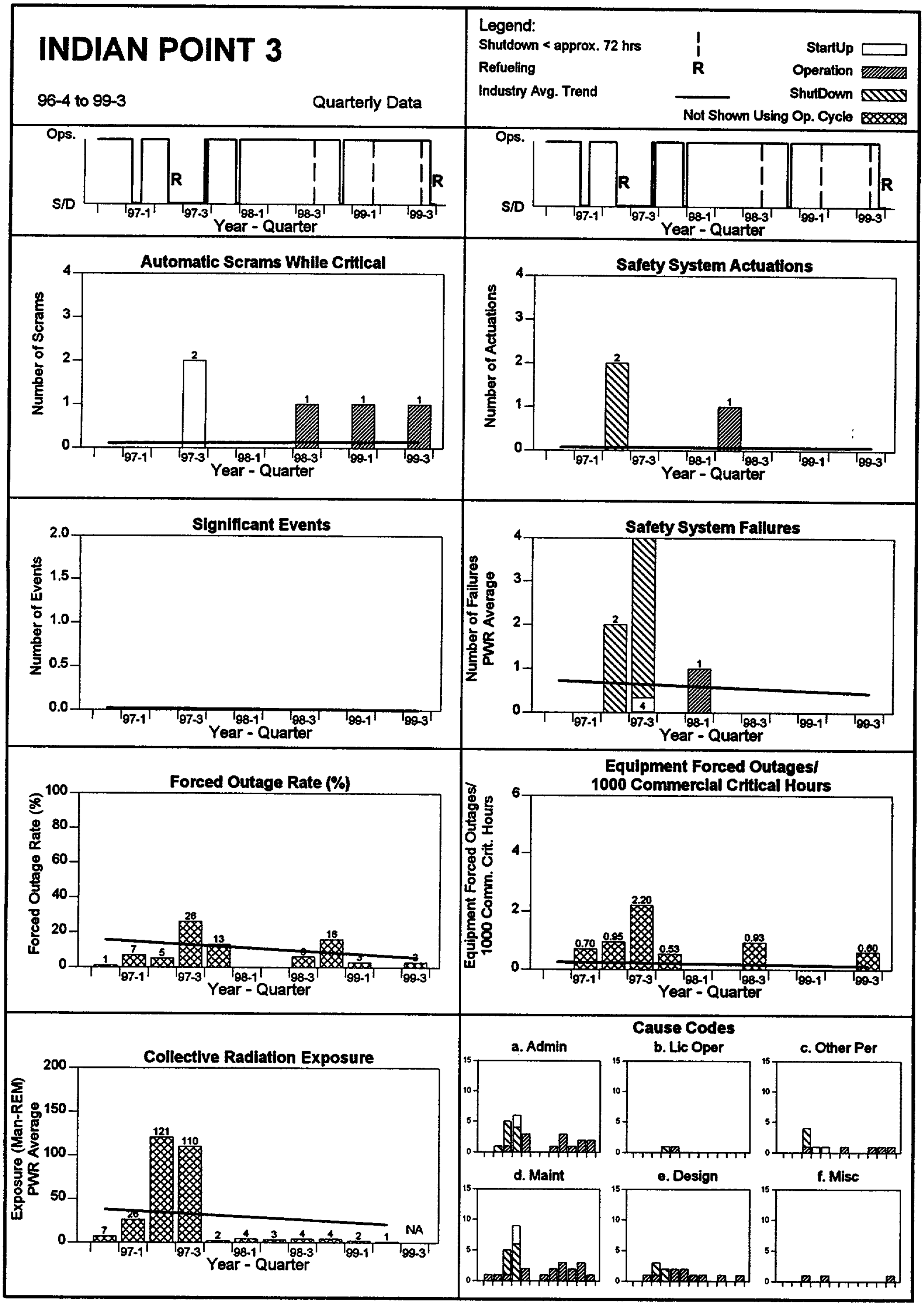
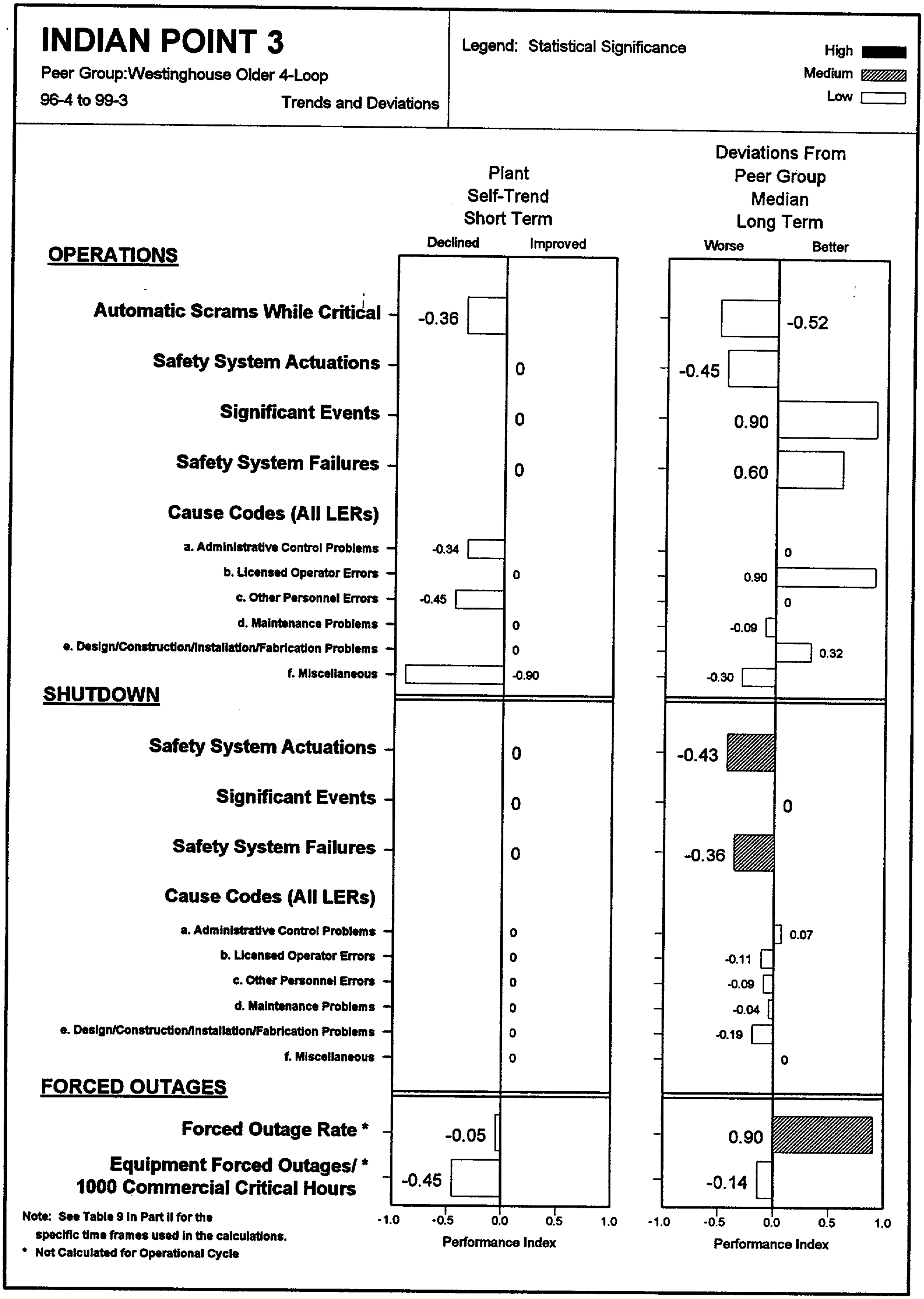

INDIAN POINT 3
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
2
1
1
1
Safety System Actuations
Number of Actuations
2
1
Significant Events
Number of Events
Safety System Failures
Number of Failures
PWR Average
2
4
1
Forced Outage Rate (%)
Forced Outage Rate (%)
1
7
5
26
13
6
16
3
3
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0.70
0.95
2.20
0.53
0.93
0.60
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
7
26
121
110
2
4
3
4
4
2
1
NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc

Figure 7.44b



Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.45a

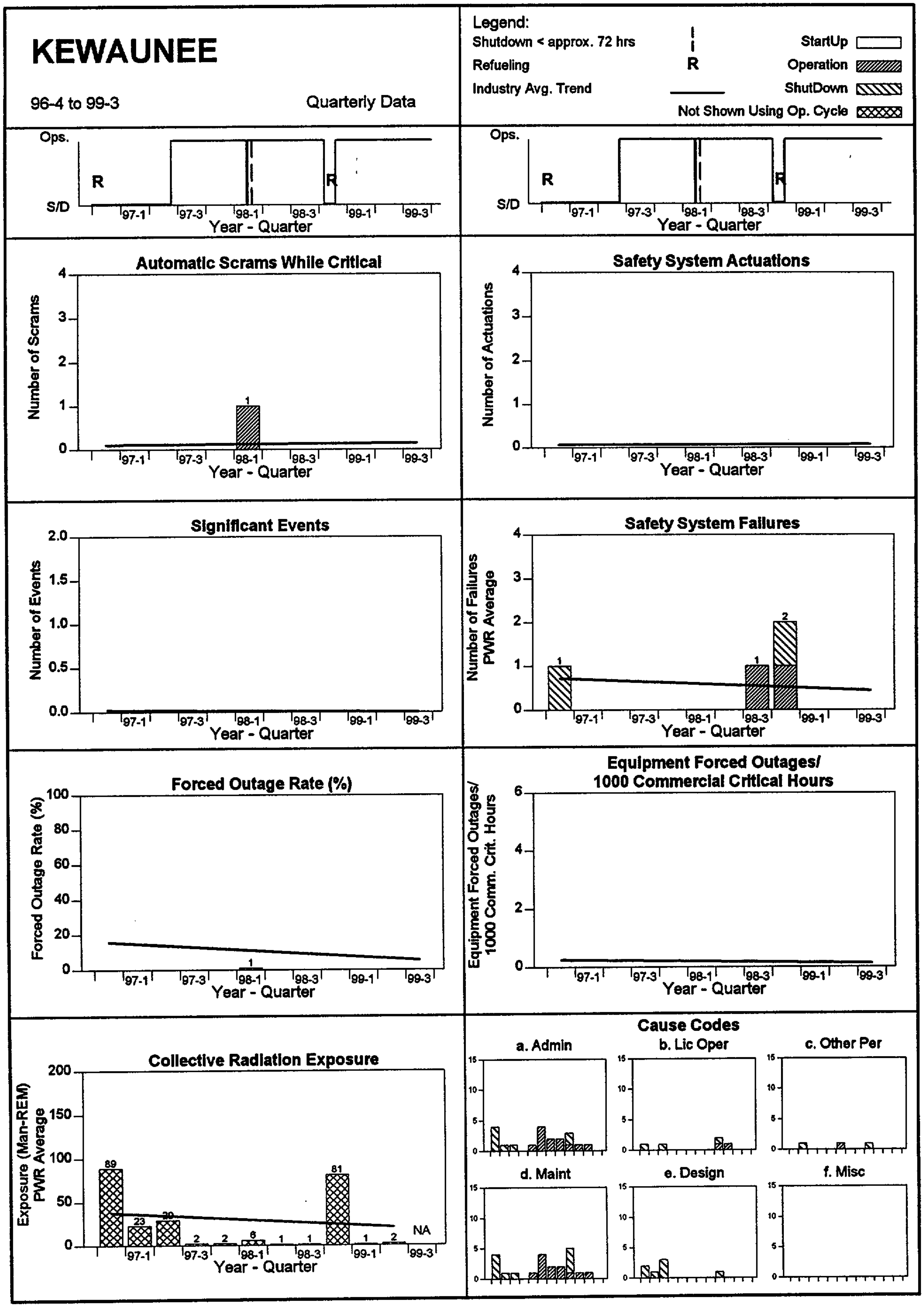

KEWAUNEE
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
Year - Quarter
97-1
97-3
98-1
98-3
99-1
99-3
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
1
1
2
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
1
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
89
23
30
2
2
6
1
1
81
1
2
NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.45b

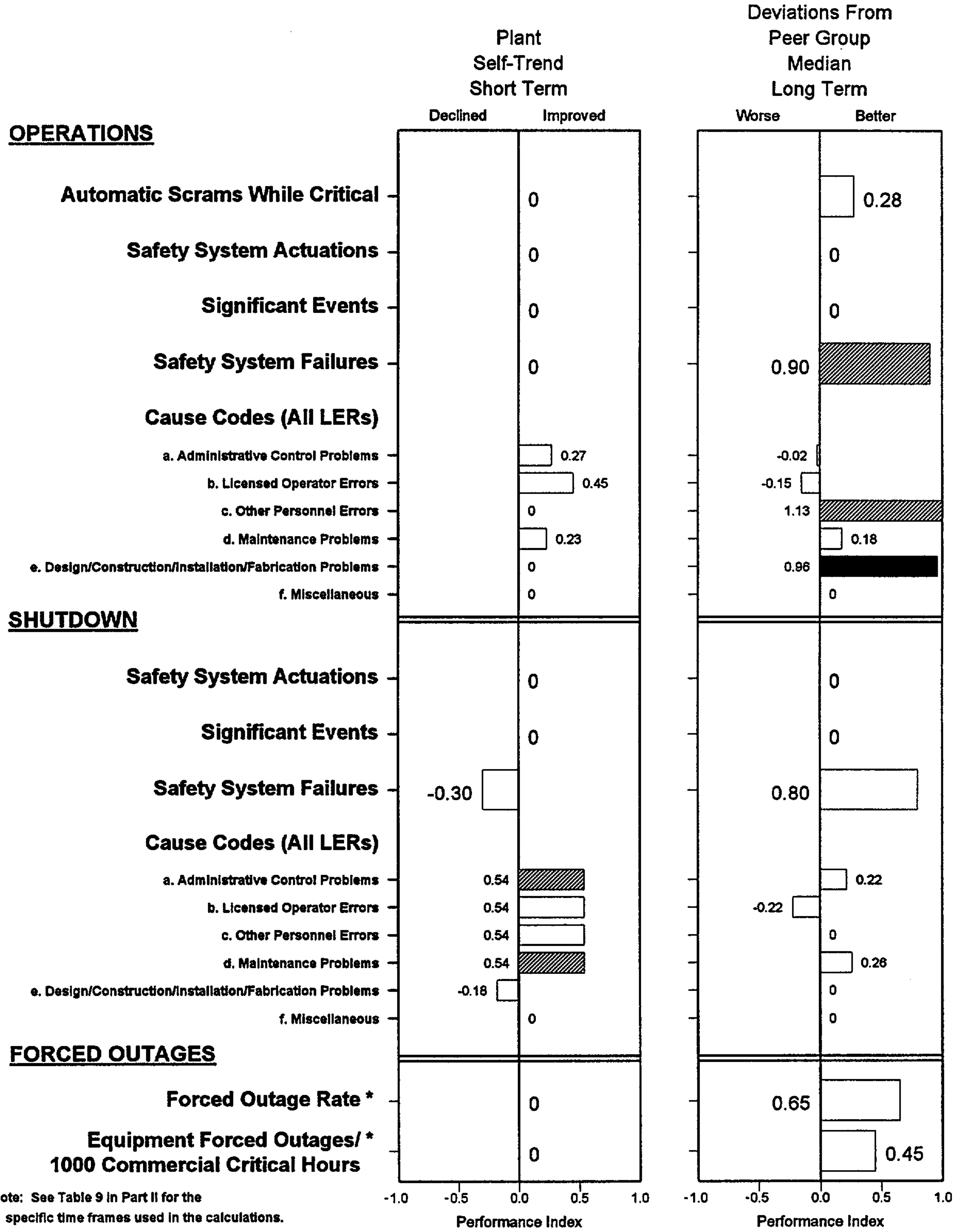
KEWAUNEE

Peer Group:Westinghouse Small

96-4 to 99-3 Trends and Deviations

Legend: Statistical Significance

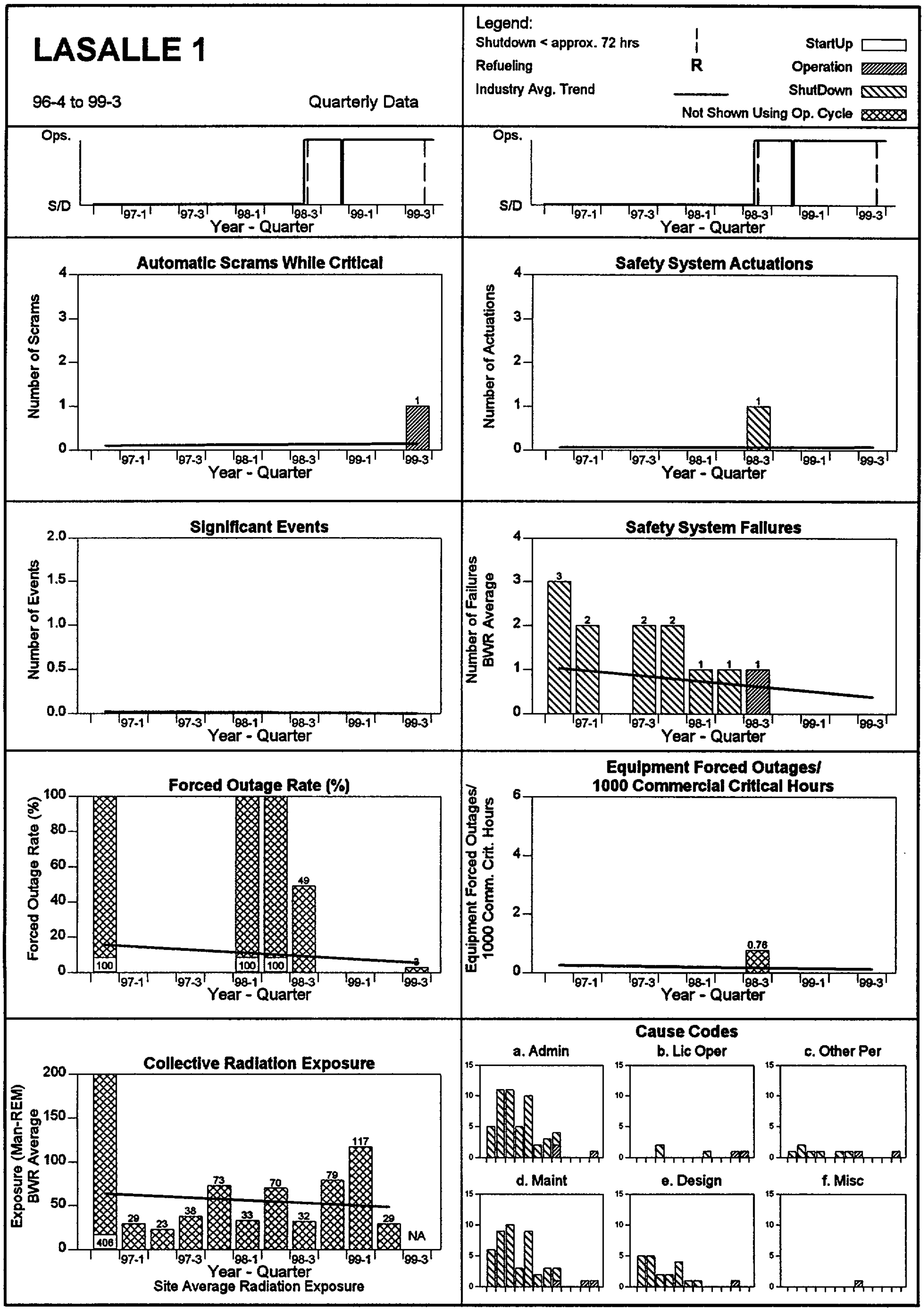
High ■
Medium ▨
Low ☐



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.46a



LASALLE 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling
R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
4
3
2
1
0
1
Safety System Actuations
Number of Actuations
1
Significant Events
Number of Events
2.0
1.5
1.0
0.5
0.0
Safety System Failures
Number of Failures
BWR Average
3
2
2
2
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
100
80
60
40
20
0
100
100
100
49
3
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
6
4
2
0
0.76
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
200
150
100
50
0
406
29
23
38
73
33
70
32
79
117
29
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
15
10
5
0

Figure 7.46b

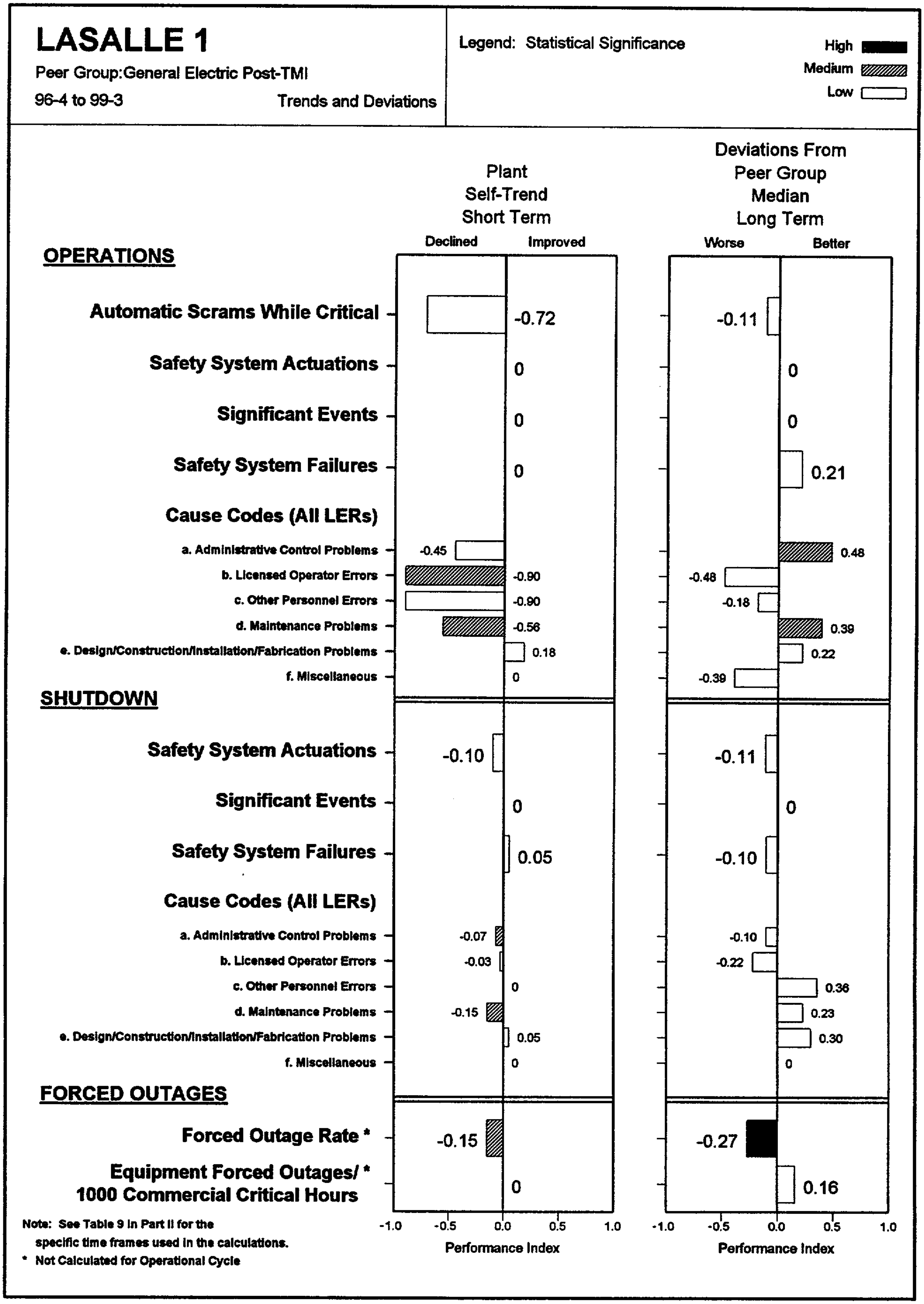

LASALLE 1
Peer Group:General Electric Post-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical -0.72 -0.11
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 0.21
Cause Codes (All LERs)
a. Administrative Control Problems -0.45 0.48
b. Licensed Operator Errors -0.90 -0.48
c. Other Personnel Errors -0.90 -0.18
d. Maintenance Problems -0.56 0.39
e. Design/Construction/Installation/Fabrication Problems 0.18 0.22
f. Miscellaneous 0 -0.39
SHUTDOWN
Safety System Actuations -0.10 -0.11
Significant Events 0 0
Safety System Failures 0.05 -0.10
Cause Codes (All LERs)
a. Administrative Control Problems -0.07 -0.10
b. Licensed Operator Errors -0.03 -0.22
c. Other Personnel Errors 0 0.36
d. Maintenance Problems -0.15 0.23
e. Design/Construction/Installation/Fabrication Problems 0.05 0.30
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * -0.15 -0.27
Equipment Forced Outages/ * 1000 Commercial Critical Hours 0 0.16
-1.0 -0.5 0.0 0.5 1.0
Performance Index
-1.0 -0.5 0.0 0.5 1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.47a

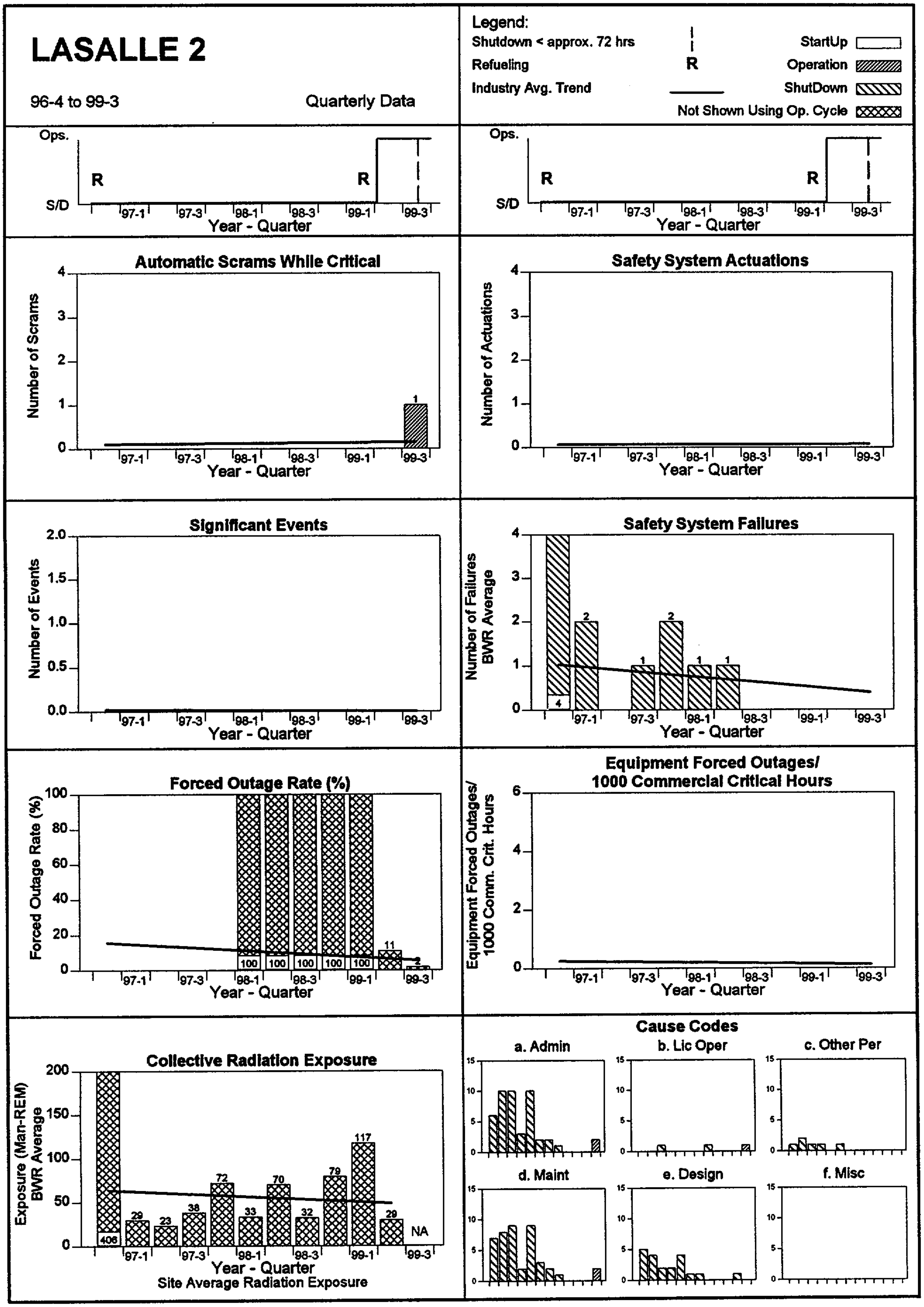
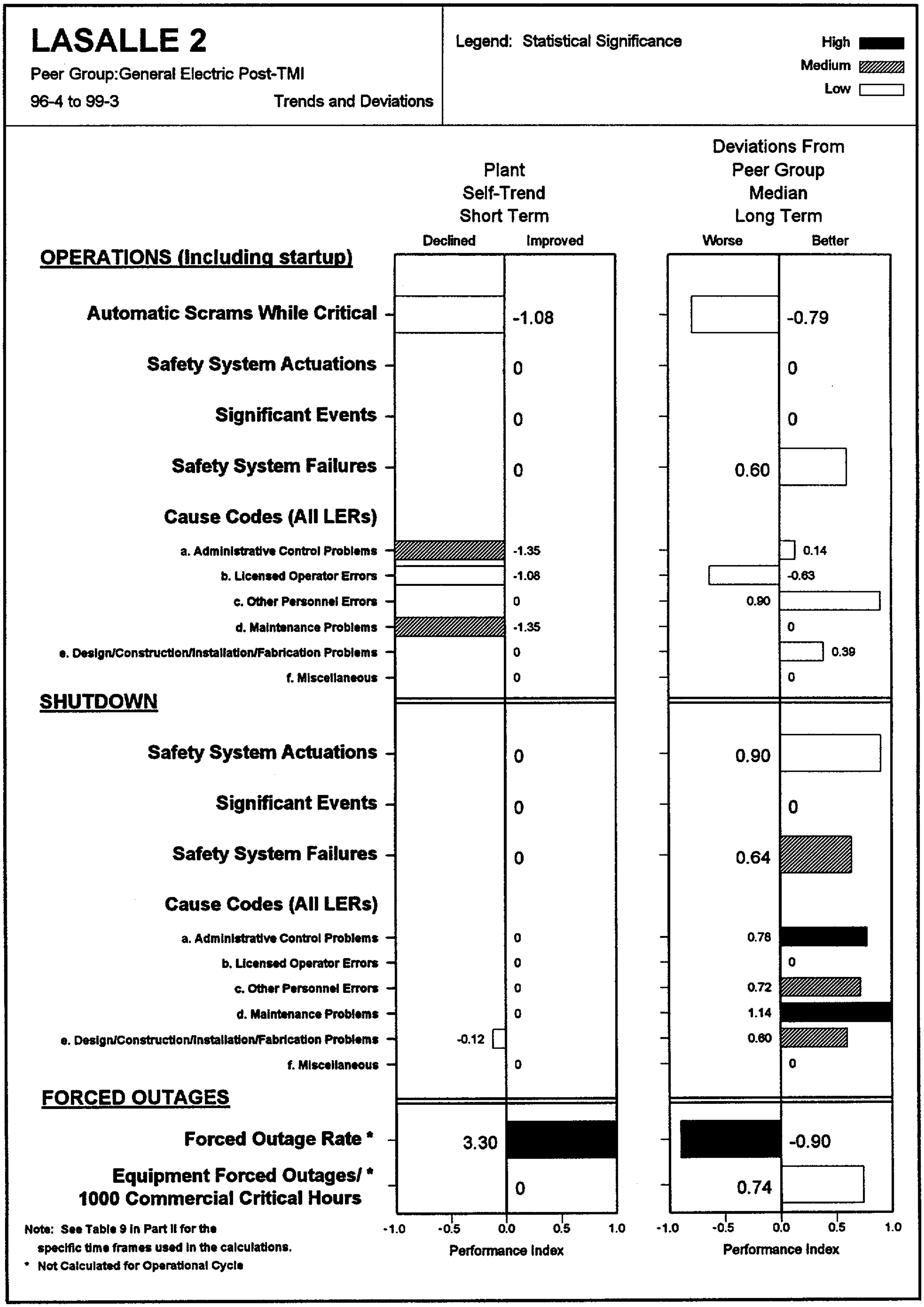

LASALLE 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
4
3
2
1
0
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
2.0
1.5
1.0
0.5
0.0
Safety System Failures
Number of Failures
BWR Average
4
2
1
2
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
100
80
60
40
20
0
100
100
100
100
100
11
2
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
6
4
2
0
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
200
150
100
50
0
406
29
23
38
72
33
70
32
79
117
29
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
15
10
5
0

Figure 7.47b



LASALLE 2
Peer Group:General Electric Post-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical -1.08 -0.79
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 0.60
Cause Codes (All LERs)
a. Administrative Control Problems -1.35 0.14
b. Licensed Operator Errors -1.08 -0.63
c. Other Personnel Errors 0 0.90
d. Maintenance Problems -1.35 0
e. Design/Construction/Installation/Fabrication Problems 0 0.39
f. Miscellaneous 0 0
SHUTDOWN
Safety System Actuations 0 0.90
Significant Events 0 0
Safety System Failures 0 0.64
Cause Codes (All LERs)
a. Administrative Control Problems 0 0.78
b. Licensed Operator Errors 0 0
c. Other Personnel Errors 0 0.72
d. Maintenance Problems 0 1.14
e. Design/Construction/Installation/Fabrication Problems -0.12 0.60
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * 3.30 -0.90
Equipment Forced Outages/ * 1000 Commercial Critical Hours 0 0.74
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.48a

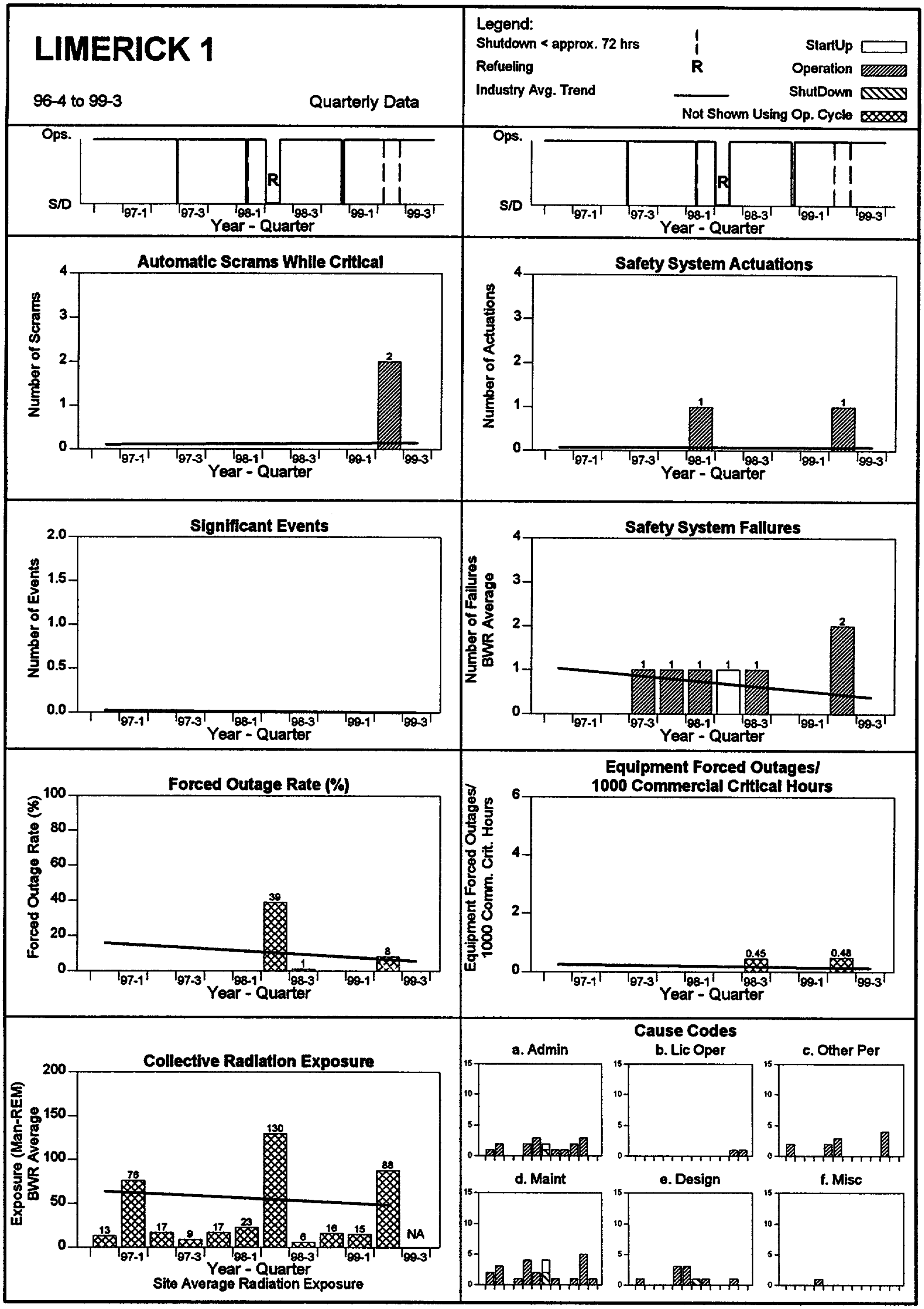
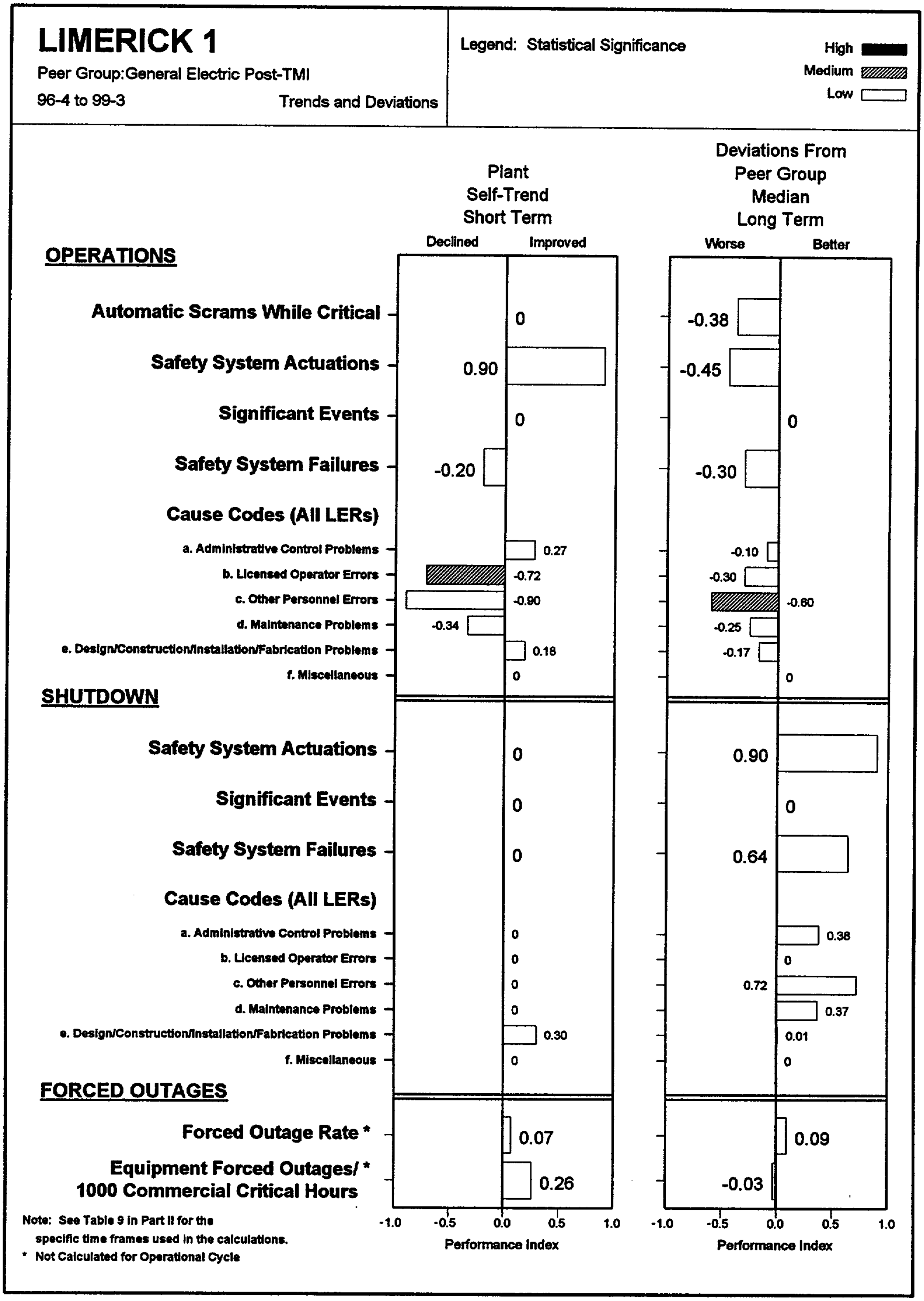

LIMERICK 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
2
Safety System Actuations
Number of Actuations
1
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
BWR Average
1
1
1
1
1
2
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
39
1
8
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.45
0.48
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
0
50
100
150
200
13
76
17
9
17
23
130
6
16
15
88
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.48b



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.49a

LIMERICK 2

96-4 to 99-3 Quarterly Data

Legend:
Shutdown < approx. 72 hrs ¦ StartUp ▭
Refueling R Operation ▨
Industry Avg. Trend —— ShutDown ▧
Not Shown Using Op. Cycle ▦

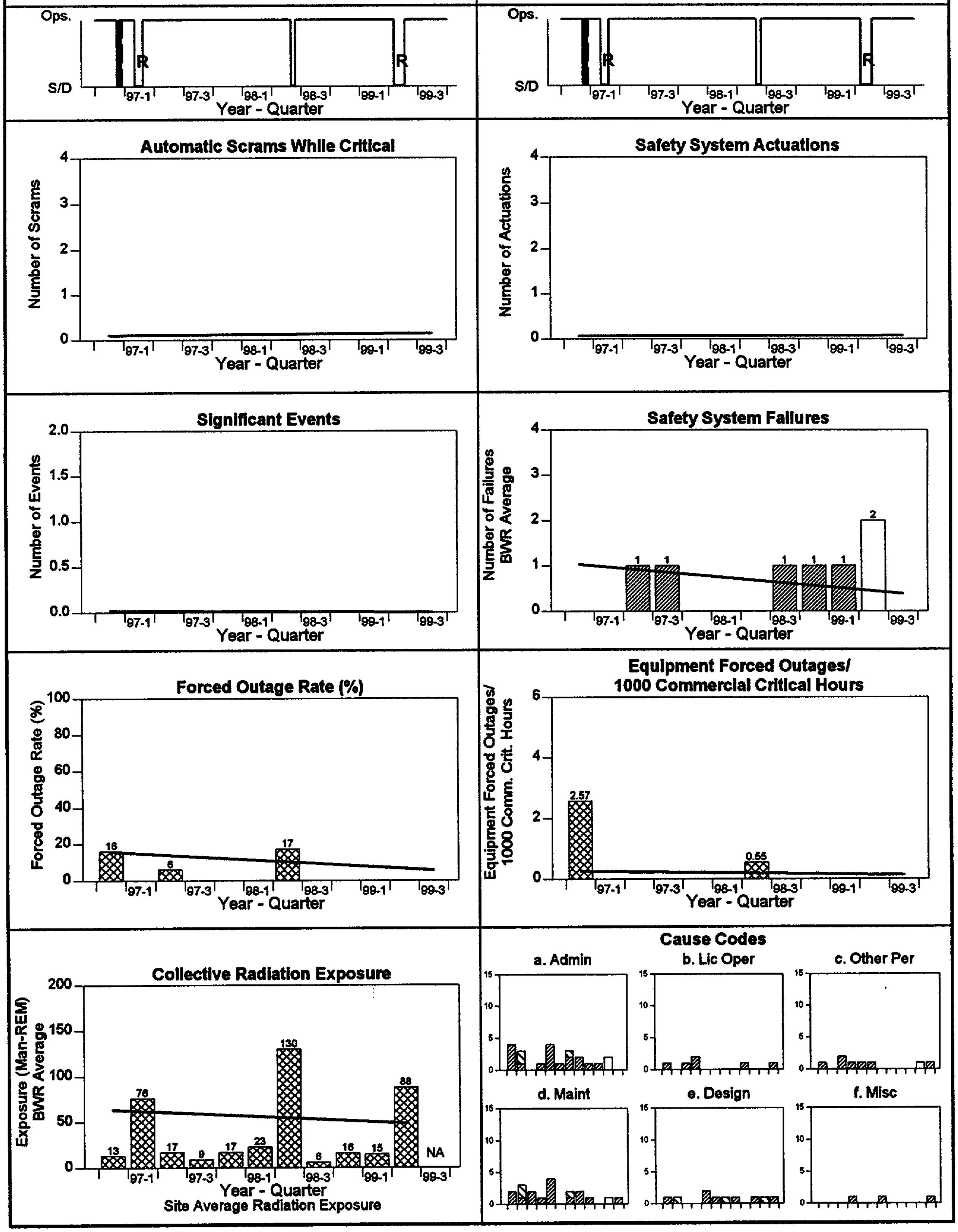


Figure 7.49b

LIMERICK 2

Peer Group:General Electric Post-TMI

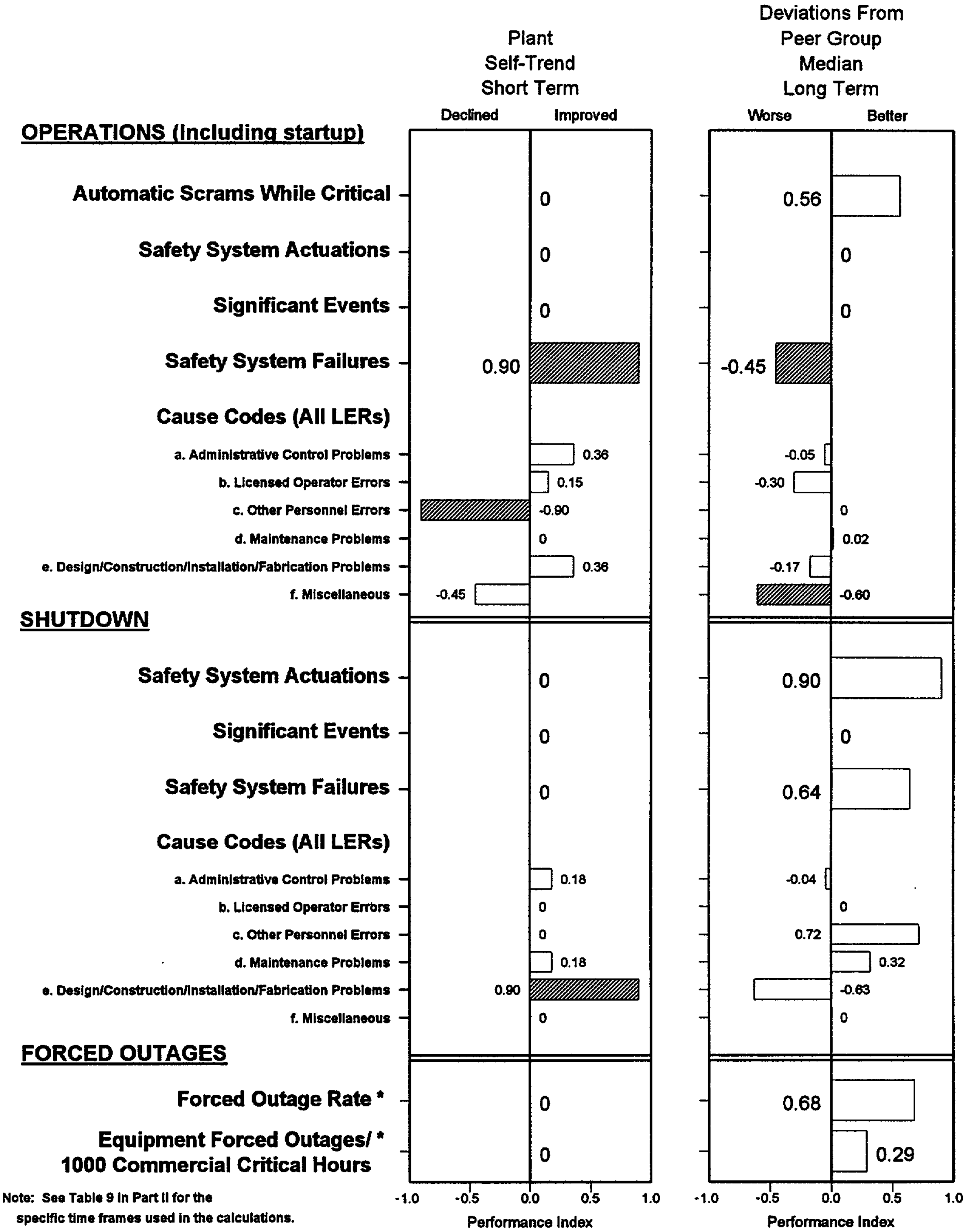
96-4 to 99-3 Trends and Deviations

Legend: Statistical Significance

High ■

Medium ▨

Low ☐



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.50a

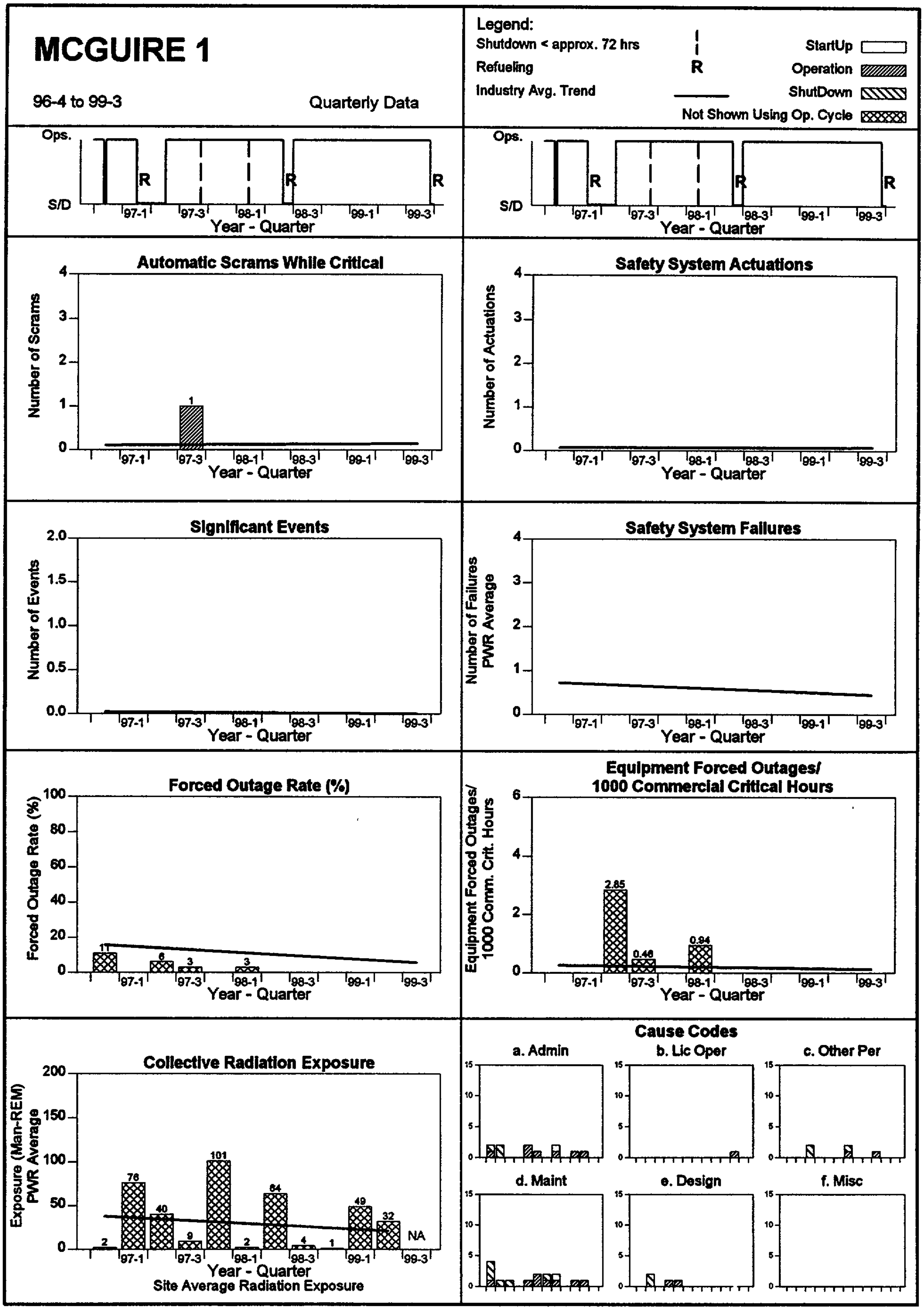

MCGUIRE 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
11
6
3
3
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
2.85
0.46
0.94
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
2
76
40
9
101
2
64
4
1
49
32
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.50b

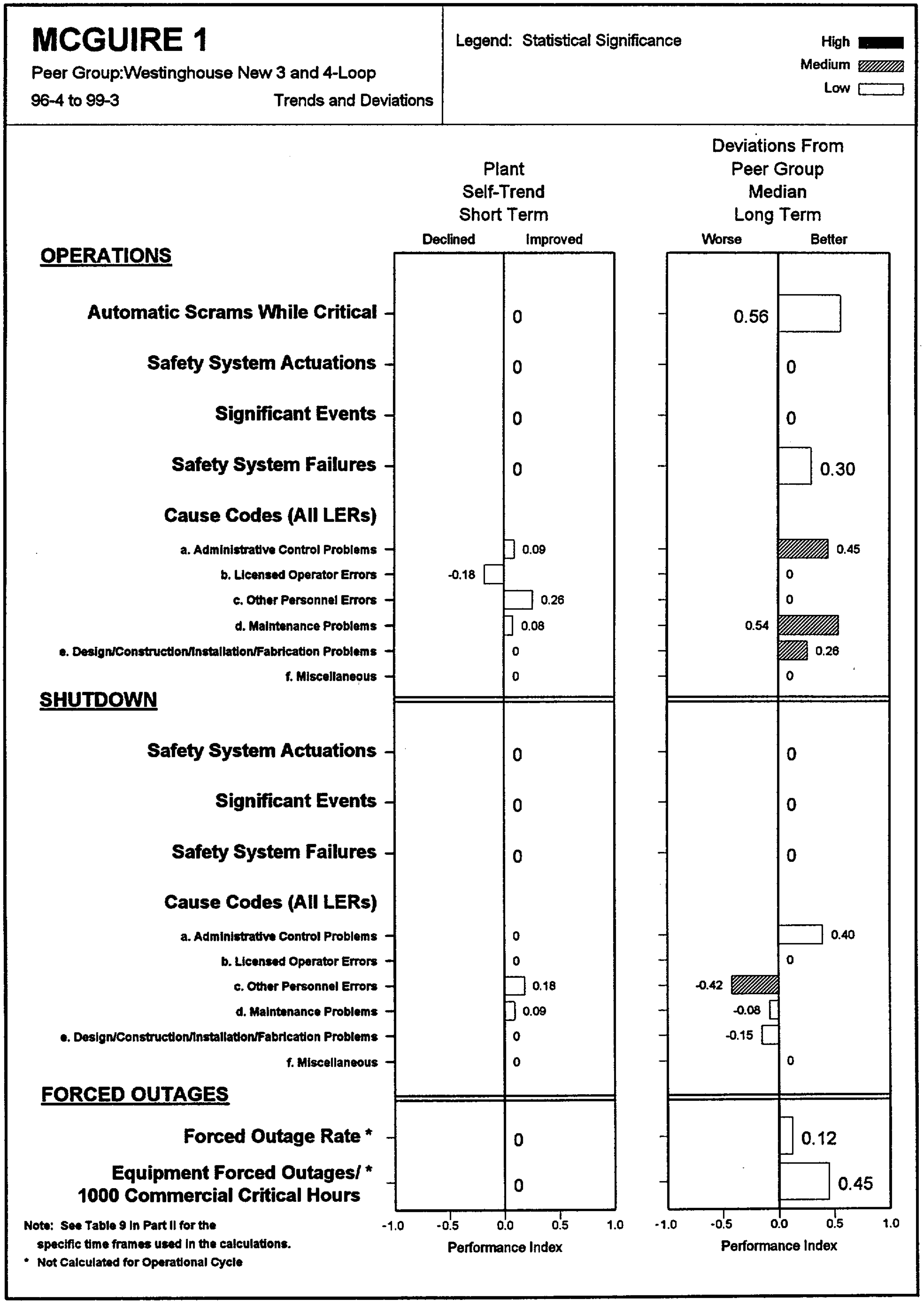

MCGUIRE 1
Peer Group:Westinghouse New 3 and 4-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low ☐
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical 0 0.56
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 0.30
Cause Codes (All LERs)
a. Administrative Control Problems 0.09 0.45
b. Licensed Operator Errors -0.18 0
c. Other Personnel Errors 0.26 0
d. Maintenance Problems 0.08 0.54
e. Design/Construction/Installation/Fabrication Problems 0 0.26
f. Miscellaneous 0 0
SHUTDOWN
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 0
Cause Codes (All LERs)
a. Administrative Control Problems 0 0.40
b. Licensed Operator Errors 0 0
c. Other Personnel Errors 0.18 -0.42
d. Maintenance Problems 0.09 -0.08
e. Design/Construction/Installation/Fabrication Problems 0 -0.15
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * 0 0.12
Equipment Forced Outages/ * 1000 Commercial Critical Hours 0 0.45
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.51a

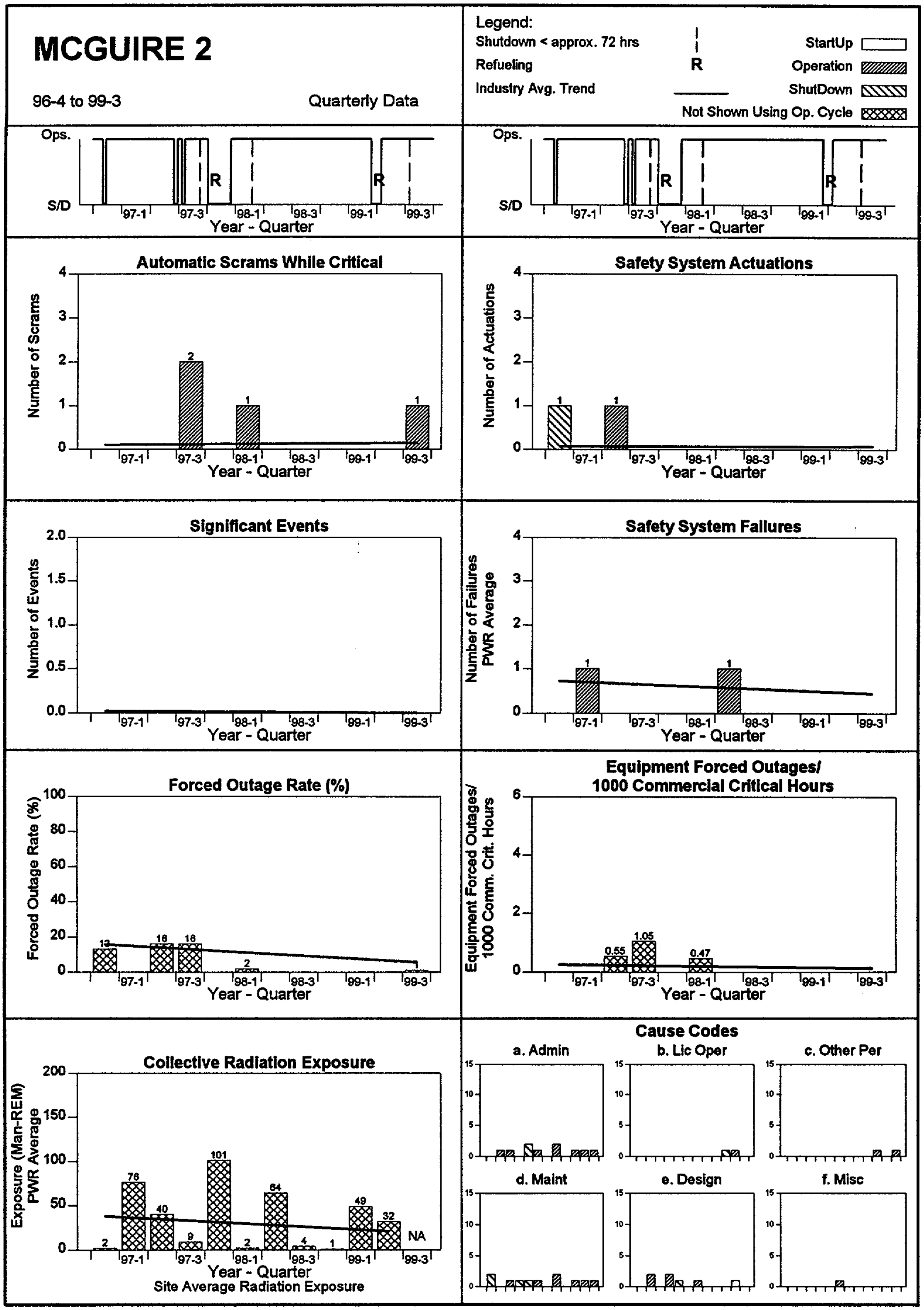

MCGUIRE 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs |
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
2
1
1
Safety System Actuations
Number of Actuations
1
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
13
16
16
2
1
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.55
1.05
0.47
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
2
76
40
9
101
2
64
4
1
49
32
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.51b

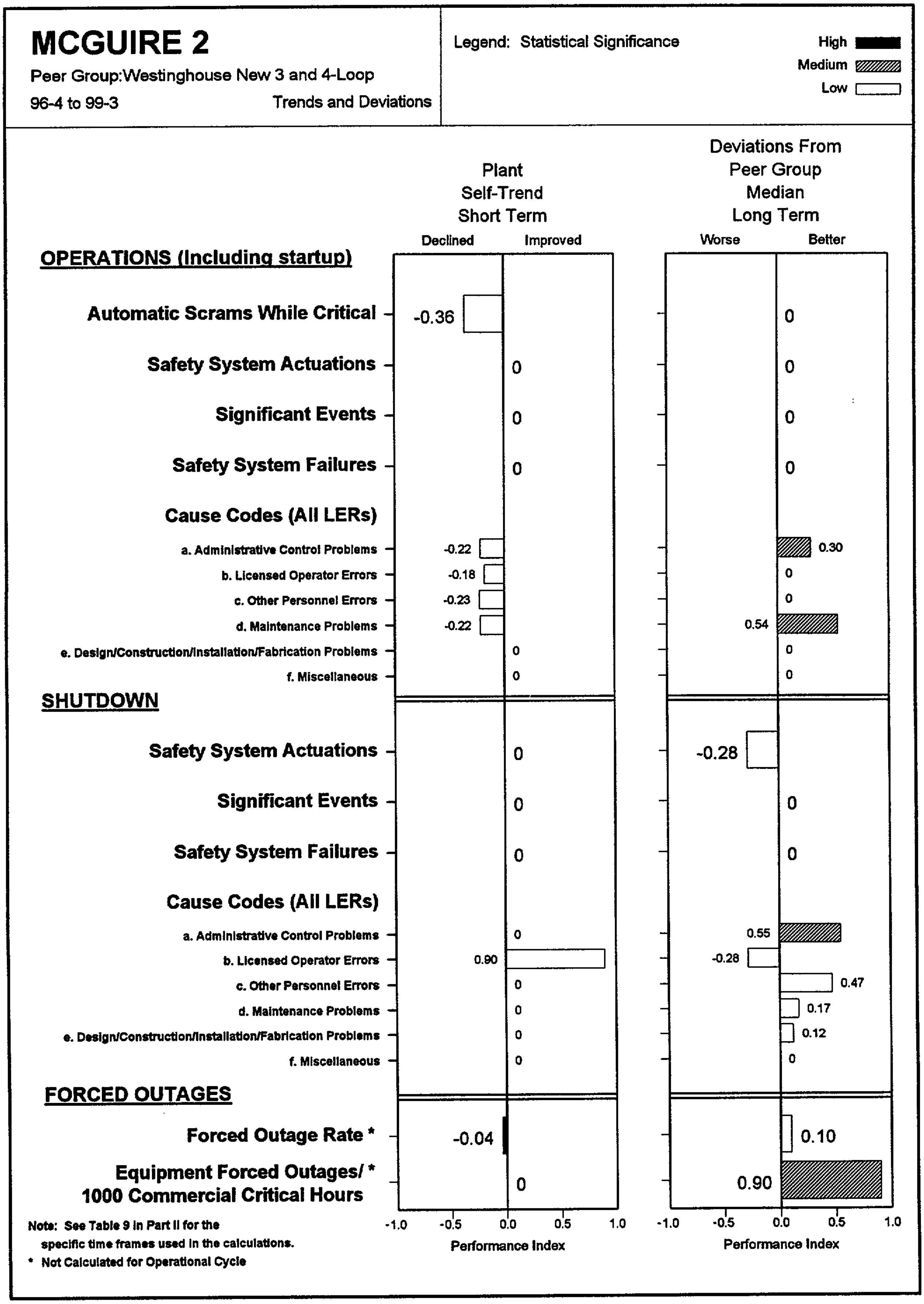

MCGUIRE 2
Peer Group:Westinghouse New 3 and 4-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical -0.36 0
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 0
Cause Codes (All LERs)
a. Administrative Control Problems -0.22 0.30
b. Licensed Operator Errors -0.18 0
c. Other Personnel Errors -0.23 0
d. Maintenance Problems -0.22 0.54
e. Design/Construction/Installation/Fabrication Problems 0 0
f. Miscellaneous 0 0
SHUTDOWN
Safety System Actuations 0 -0.28
Significant Events 0 0
Safety System Failures 0 0
Cause Codes (All LERs)
a. Administrative Control Problems 0 0.55
b. Licensed Operator Errors 0.90 -0.28
c. Other Personnel Errors 0 0.47
d. Maintenance Problems 0 0.17
e. Design/Construction/Installation/Fabrication Problems 0 0.12
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * -0.04 0.10
Equipment Forced Outages/ * 1000 Commercial Critical Hours 0 0.90
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.52a

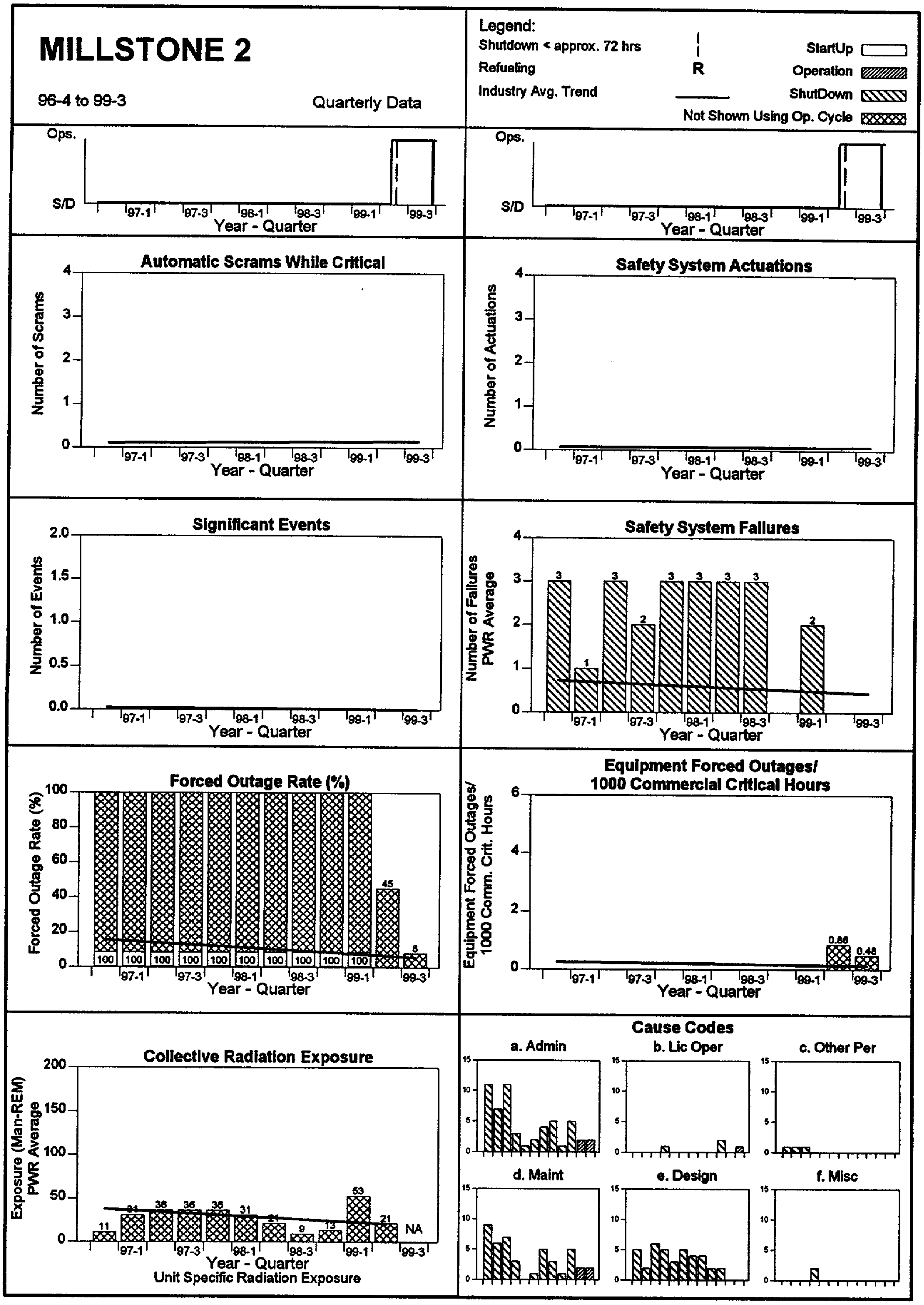
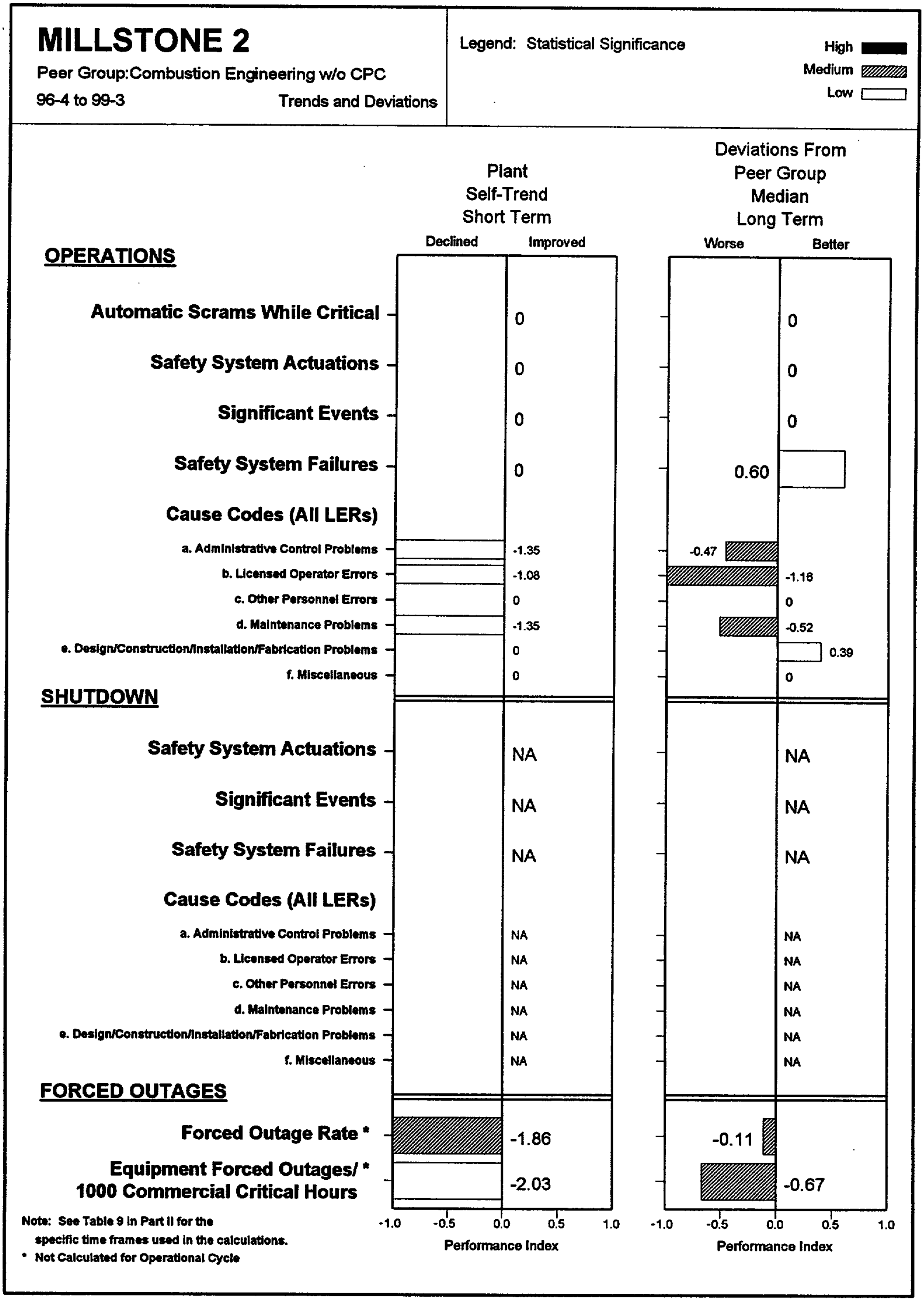

MILLSTONE 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
4
3
2
1
0
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
2.0
1.5
1.0
0.5
0.0
Safety System Failures
Number of Failures PWR Average
3
1
3
2
3
3
3
3
2
Forced Outage Rate (%)
Forced Outage Rate (%)
100
80
60
40
20
0
100
100
100
100
100
100
100
100
100
100
45
8
Equipment Forced Outages/ 1000 Commercial Critical Hours
Equipment Forced Outages/ 1000 Comm. Crit. Hours
6
4
2
0
0.86
0.48
Collective Radiation Exposure
Exposure (Man-REM) PWR Average
200
150
100
50
0
11
31
36
36
36
31
21
9
13
53
21
NA
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
15
10
5
0

Figure 7.52b



Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.53a

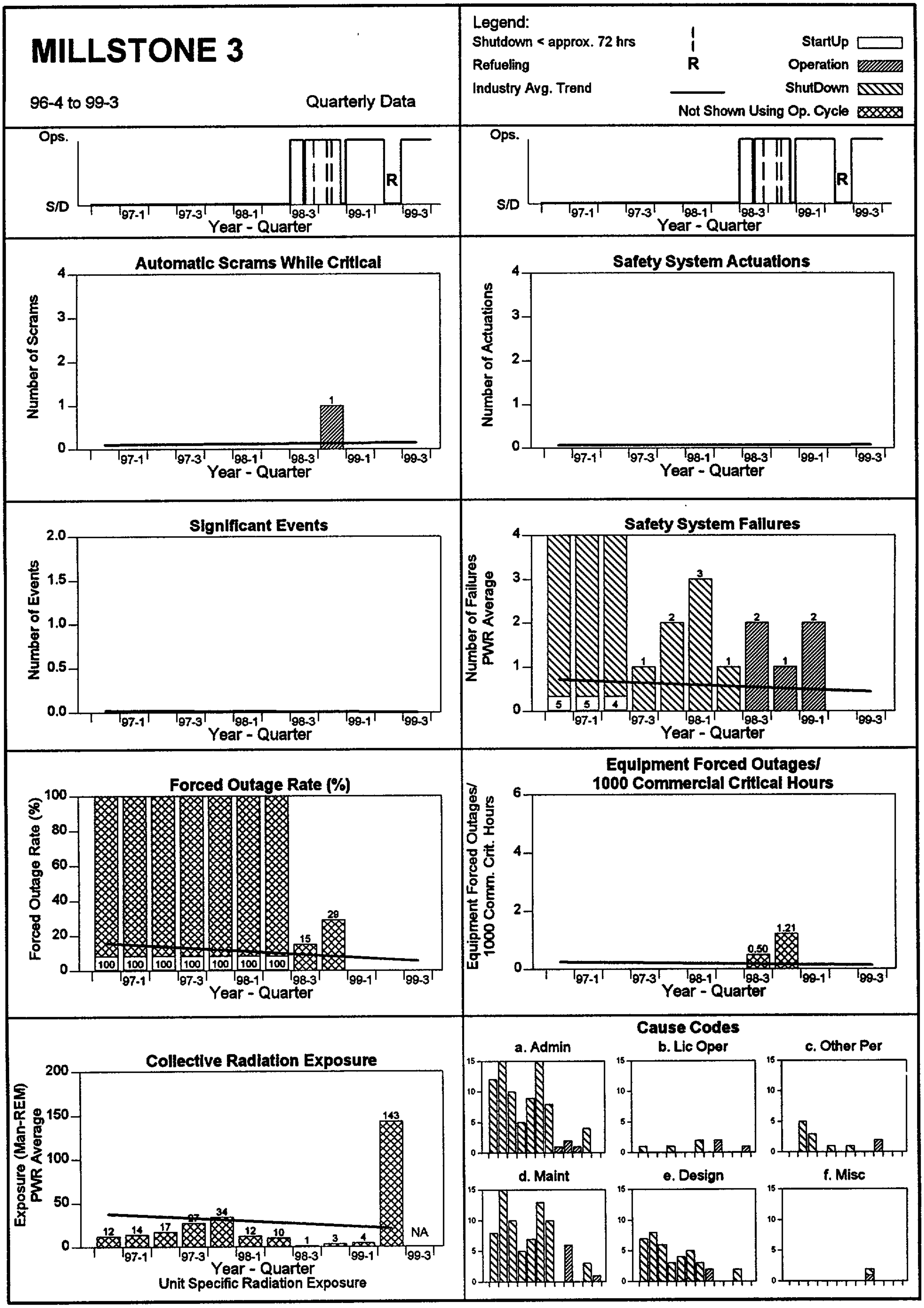

MILLSTONE 3
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures PWR Average
5
5
4
1
2
3
1
2
1
2
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
100
100
100
100
100
100
100
15
29
Equipment Forced Outages/ 1000 Commercial Critical Hours
Equipment Forced Outages/ 1000 Comm. Crit. Hours
0
2
4
6
0.50
1.21
Collective Radiation Exposure
Exposure (Man-REM) PWR Average
0
50
100
150
200
12
14
17
27
34
12
10
1
3
4
143
NA
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.53b

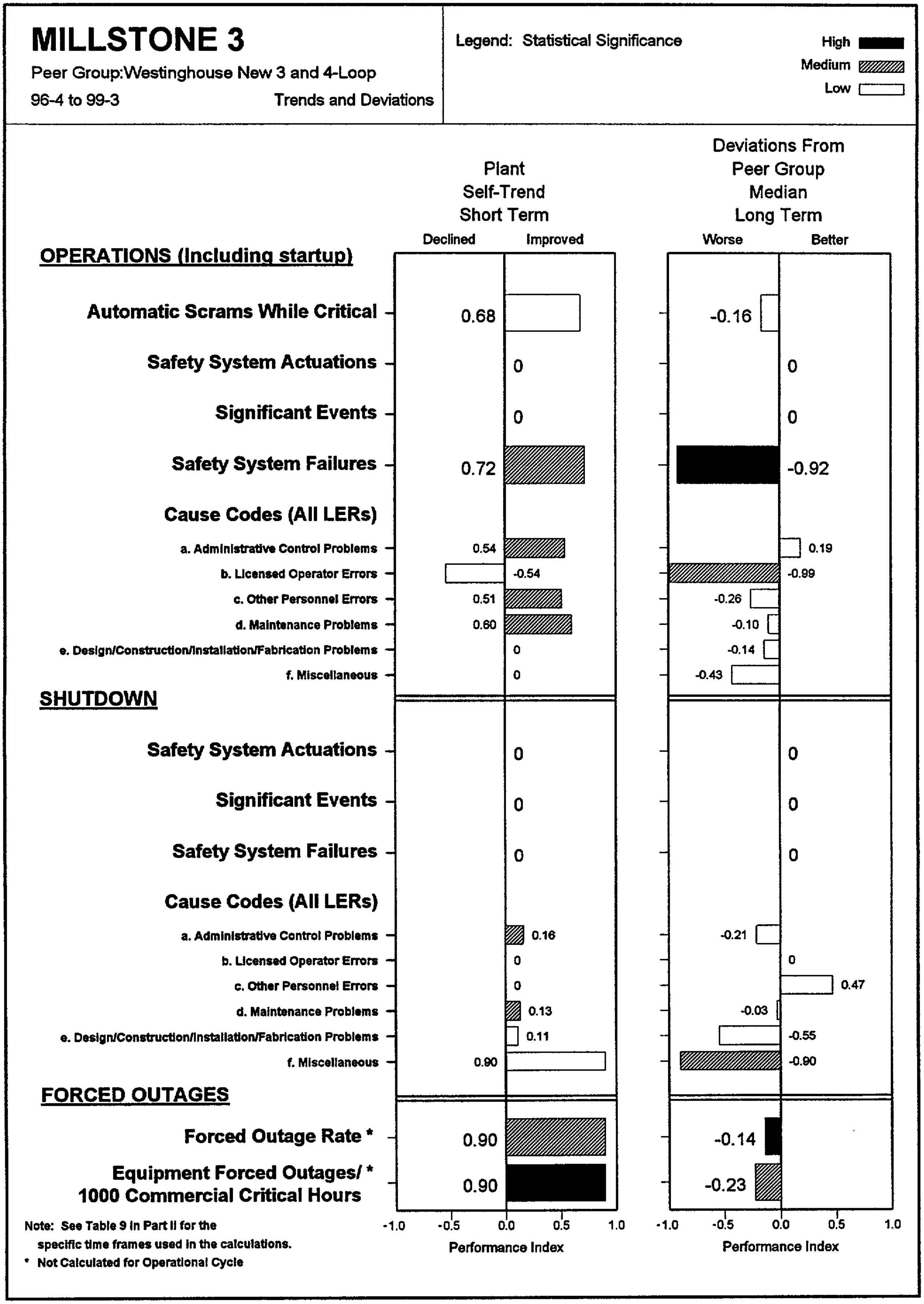

MILLSTONE 3
Peer Group:Westinghouse New 3 and 4-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low ☐
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical
0.68
-0.16
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0.72
-0.92
Cause Codes (All LERs)
a. Administrative Control Problems
0.54
0.19
b. Licensed Operator Errors
-0.54
-0.99
c. Other Personnel Errors
0.51
-0.26
d. Maintenance Problems
0.60
-0.10
e. Design/Construction/Installation/Fabrication Problems
0
-0.14
f. Miscellaneous
0
-0.43
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0
Cause Codes (All LERs)
a. Administrative Control Problems
0.16
-0.21
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
0.47
d. Maintenance Problems
0.13
-0.03
e. Design/Construction/Installation/Fabrication Problems
0.11
-0.55
f. Miscellaneous
0.90
-0.90
FORCED OUTAGES
Forced Outage Rate *
0.90
-0.14
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0.90
-0.23
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.54a

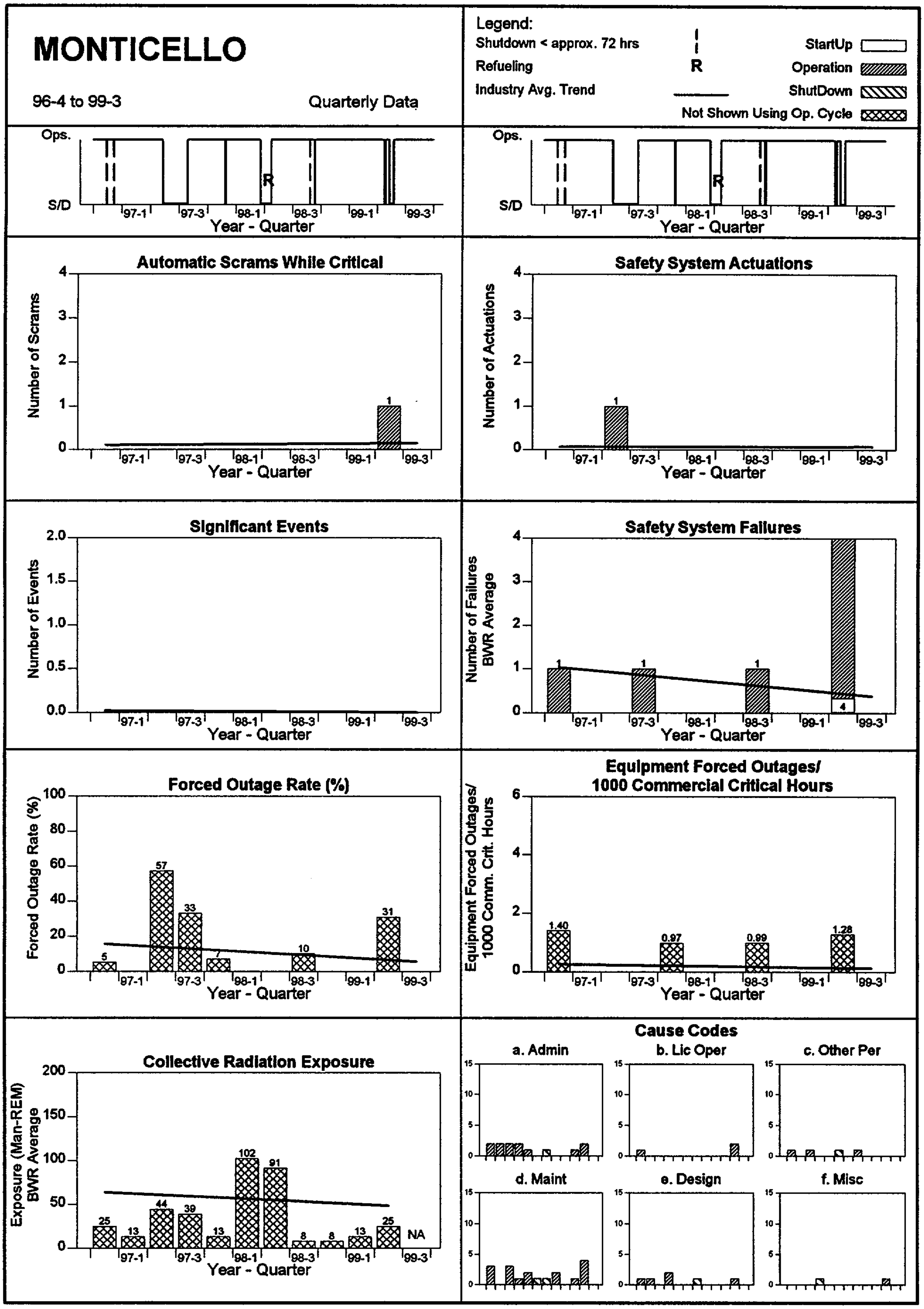

MONTICELLO
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling
R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
Safety System Actuations
Number of Actuations
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
BWR Average
1
1
1
4
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
5
57
33
7
10
31
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
1.40
0.97
0.99
1.28
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
0
50
100
150
200
25
13
44
39
13
102
91
8
8
13
25
NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.54b

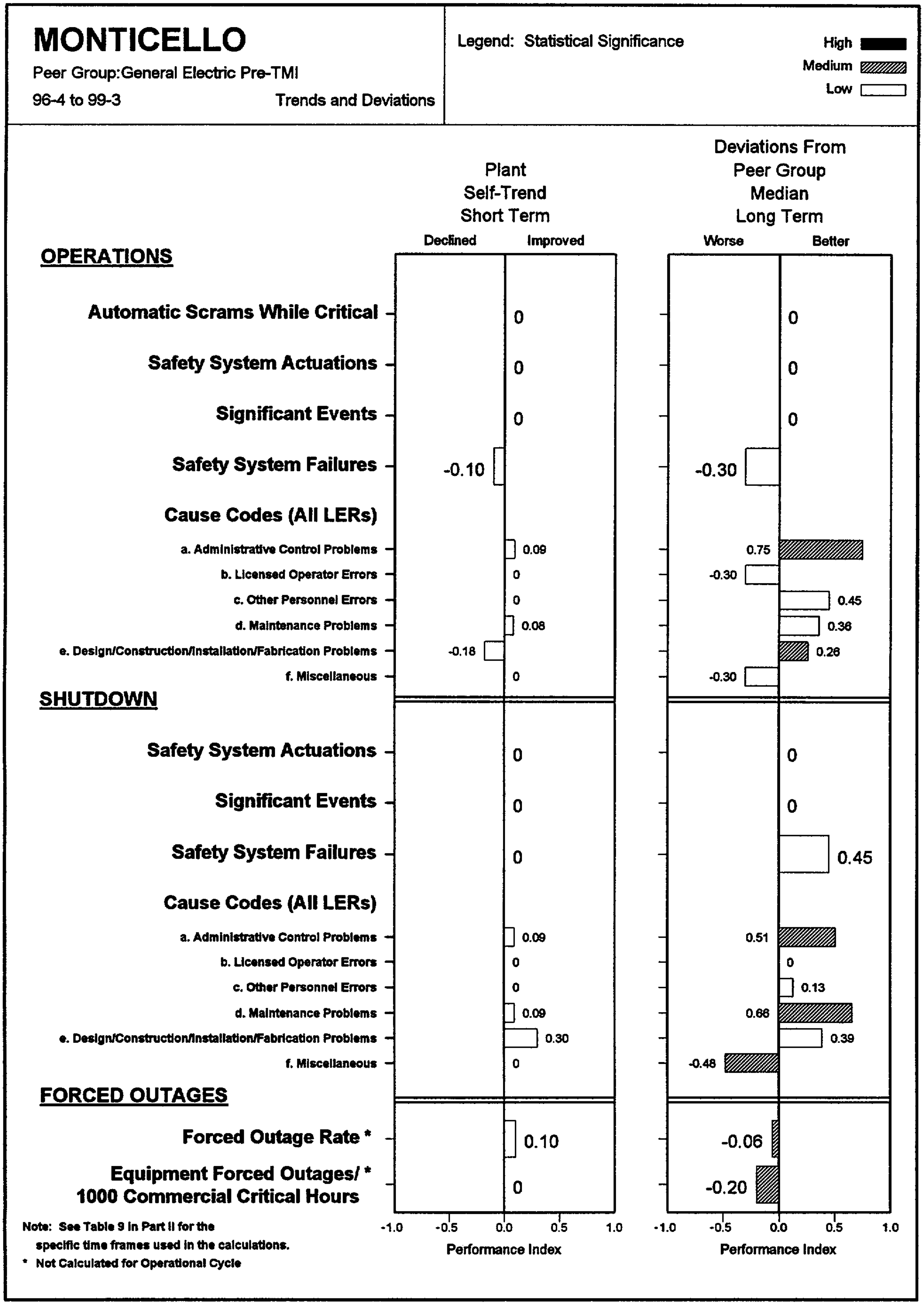

MONTICELLO
Peer Group:General Electric Pre-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical 0 0
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures -0.10 -0.30
Cause Codes (All LERs)
a. Administrative Control Problems 0.09 0.75
b. Licensed Operator Errors 0 -0.30
c. Other Personnel Errors 0 0.45
d. Maintenance Problems 0.08 0.36
e. Design/Construction/Installation/Fabrication Problems -0.18 0.26
f. Miscellaneous 0 -0.30
SHUTDOWN
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 0.45
Cause Codes (All LERs)
a. Administrative Control Problems 0.09 0.51
b. Licensed Operator Errors 0 0
c. Other Personnel Errors 0 0.13
d. Maintenance Problems 0.09 0.66
e. Design/Construction/Installation/Fabrication Problems 0.30 0.39
f. Miscellaneous 0 -0.48
FORCED OUTAGES
Forced Outage Rate * 0.10 -0.06
Equipment Forced Outages/ * 1000 Commercial Critical Hours 0 -0.20
-1.0 -0.5 0.0 0.5 1.0
Performance Index
-1.0 -0.5 0.0 0.5 1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.55a

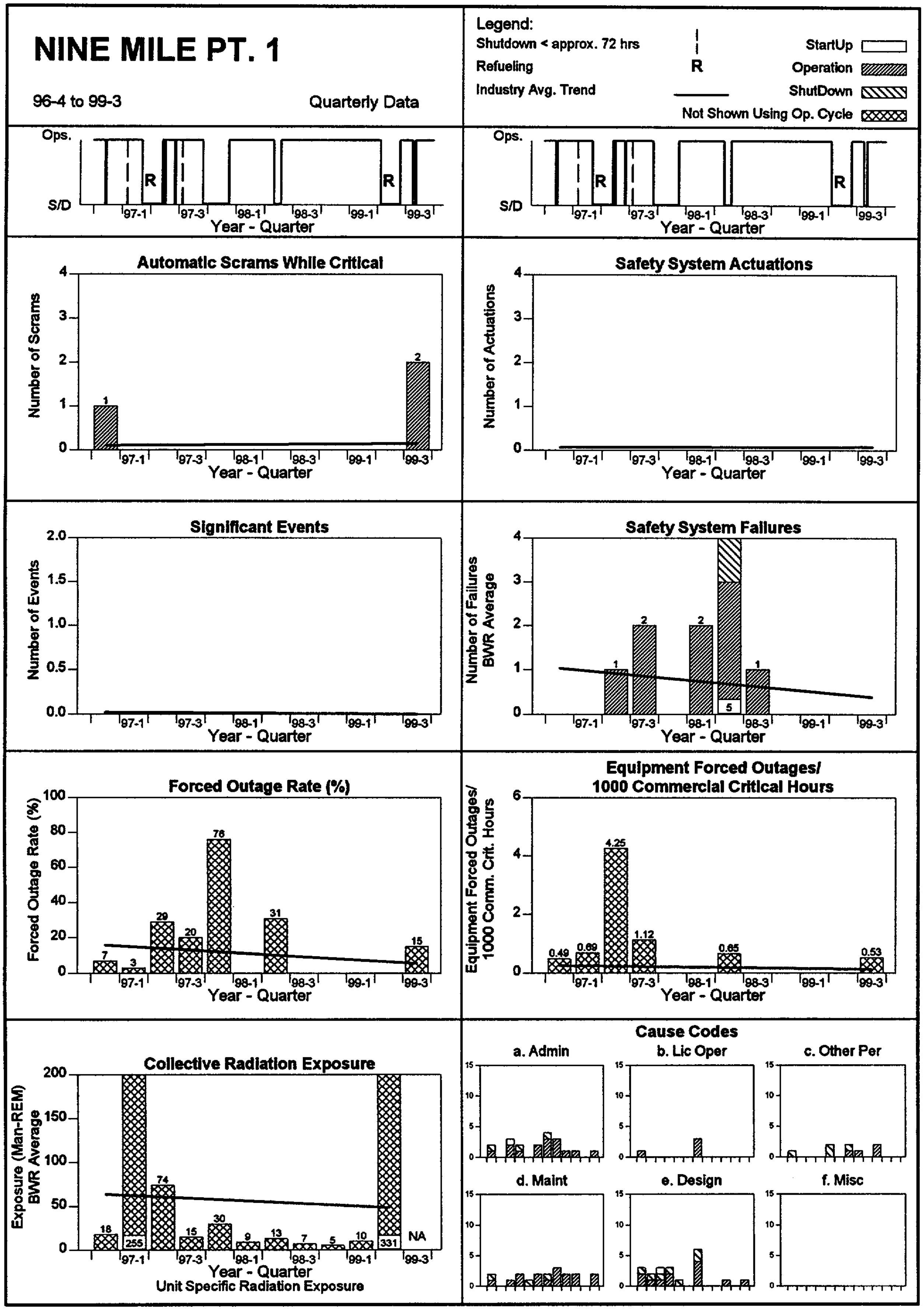
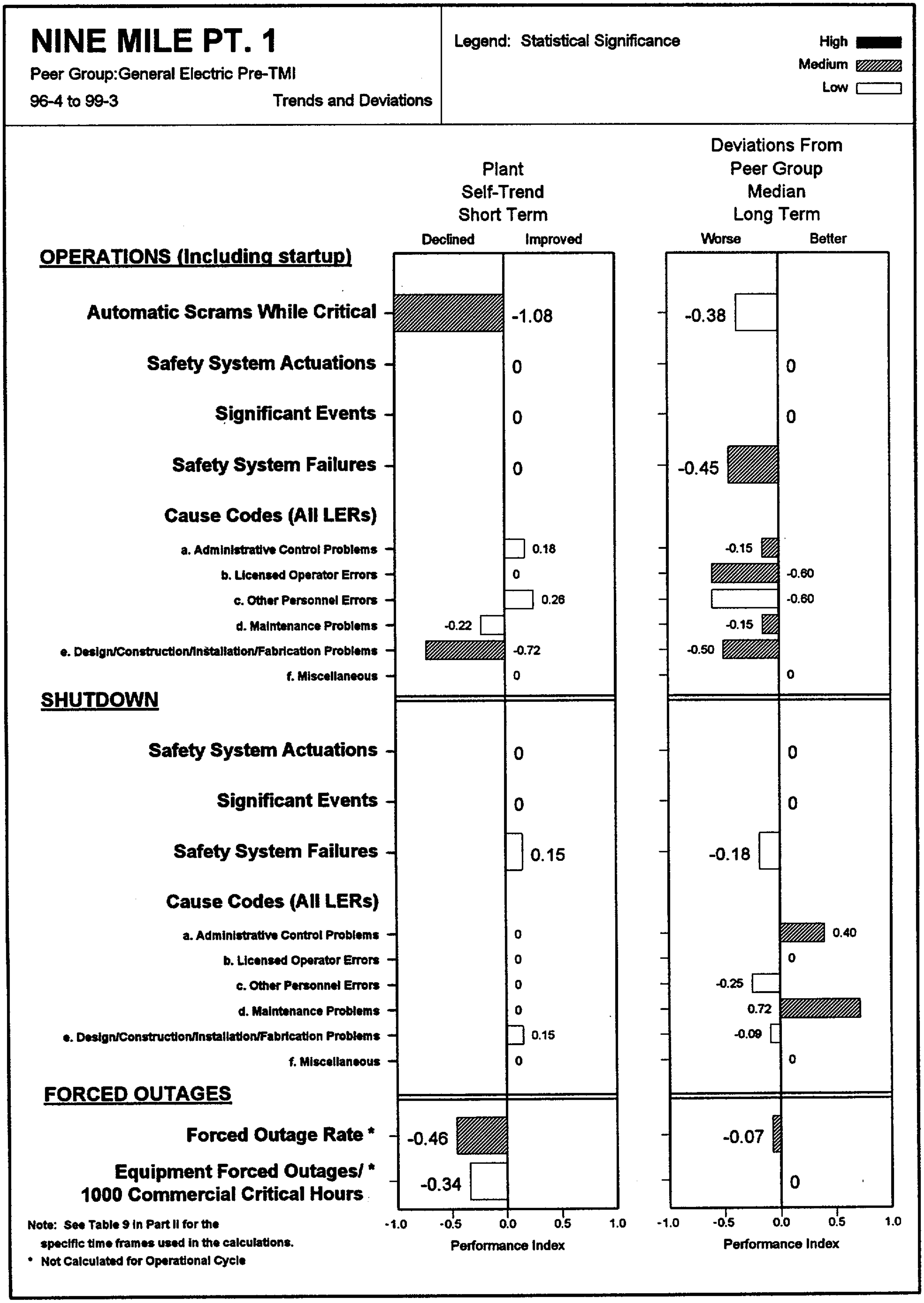

NINE MILE PT. 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling
R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
4
3
2
1
0
1
2
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
2.0
1.5
1.0
0.5
0.0
Safety System Failures
Number of Failures
BWR Average
1
2
2
5
1
Forced Outage Rate (%)
Forced Outage Rate (%)
100
80
60
40
20
0
7
3
29
20
76
31
15
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
6
4
2
0
0.49
0.69
4.25
1.12
0.65
0.53
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
200
150
100
50
0
18
255
74
15
30
9
13
7
5
10
331
NA
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
15
10
5
0

Figure 7.55b



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.56a

NINE MILE PT. 2

96-4 to 99-3 Quarterly Data

Legend:

Shutdown < approx. 72 hrs ¦
Refueling R
Industry Avg. Trend ———
StartUp ☐
Operation ▨
ShutDown ▧
Not Shown Using Op. Cycle ▩

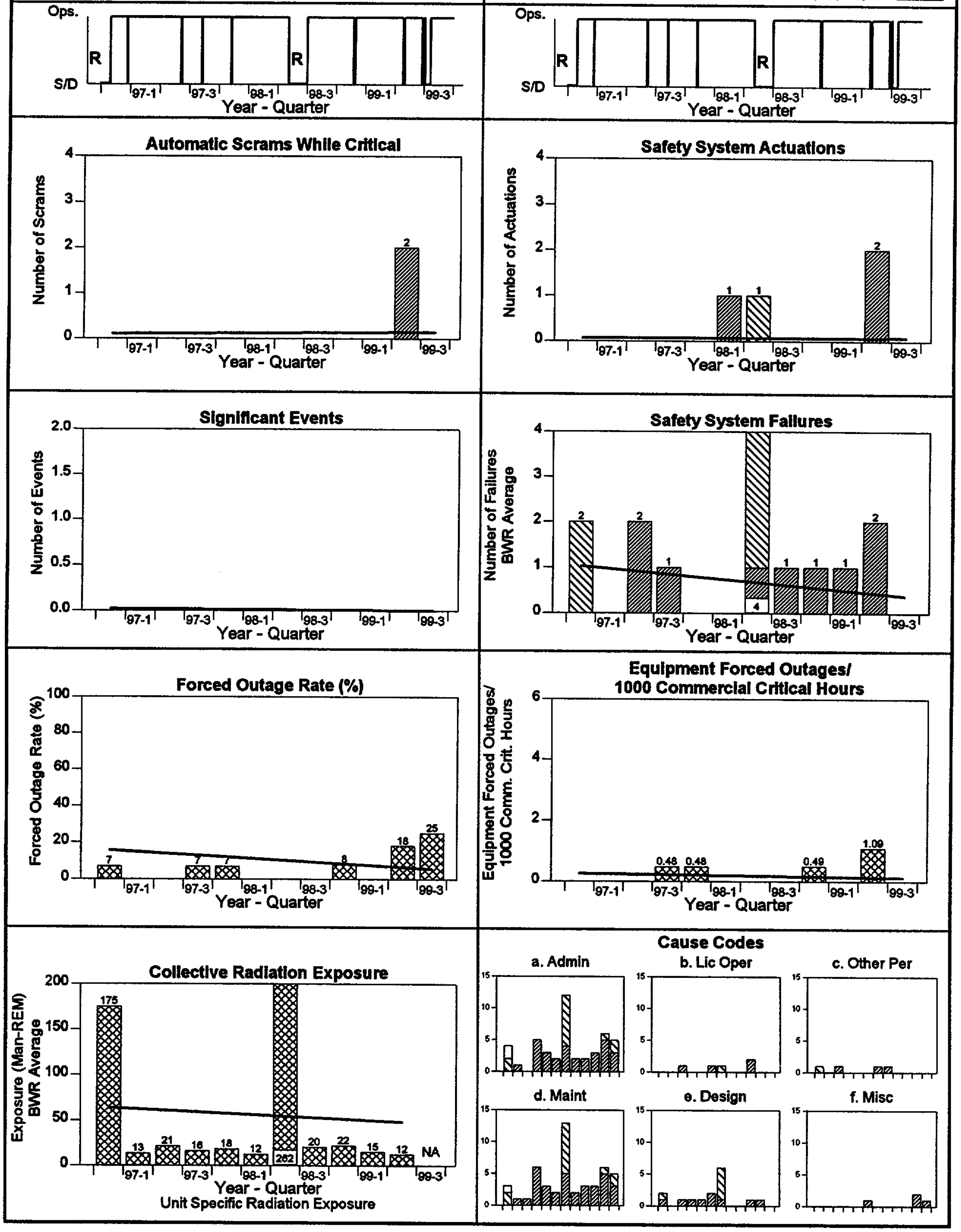


Figure 7.56b

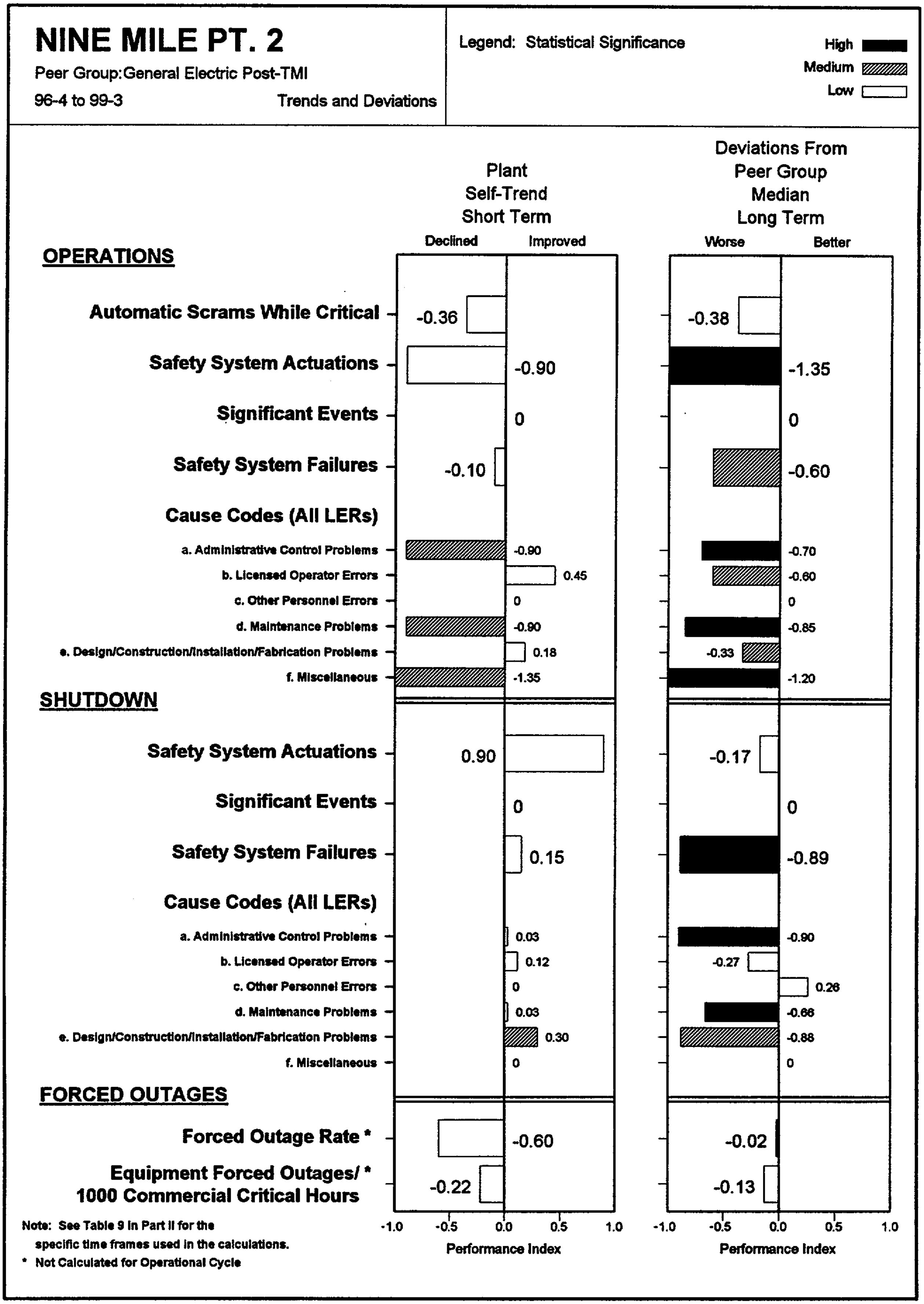

NINE MILE PT. 2
Peer Group:General Electric Post-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical
-0.36
-0.38
Safety System Actuations
-0.90
-1.35
Significant Events
0
0
Safety System Failures
-0.10
-0.60
Cause Codes (All LERs)
a. Administrative Control Problems
-0.90
-0.70
b. Licensed Operator Errors
0.45
-0.60
c. Other Personnel Errors
0
0
d. Maintenance Problems
-0.90
-0.85
e. Design/Construction/Installation/Fabrication Problems
0.18
-0.33
f. Miscellaneous
-1.35
-1.20
SHUTDOWN
Safety System Actuations
0.90
-0.17
Significant Events
0
0
Safety System Failures
0.15
-0.89
Cause Codes (All LERs)
a. Administrative Control Problems
0.03
-0.90
b. Licensed Operator Errors
0.12
-0.27
c. Other Personnel Errors
0
0.26
d. Maintenance Problems
0.03
-0.66
e. Design/Construction/Installation/Fabrication Problems
0.30
-0.88
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
-0.60
-0.02
Equipment Forced Outages/ * 1000 Commercial Critical Hours
-0.22
-0.13
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.57a

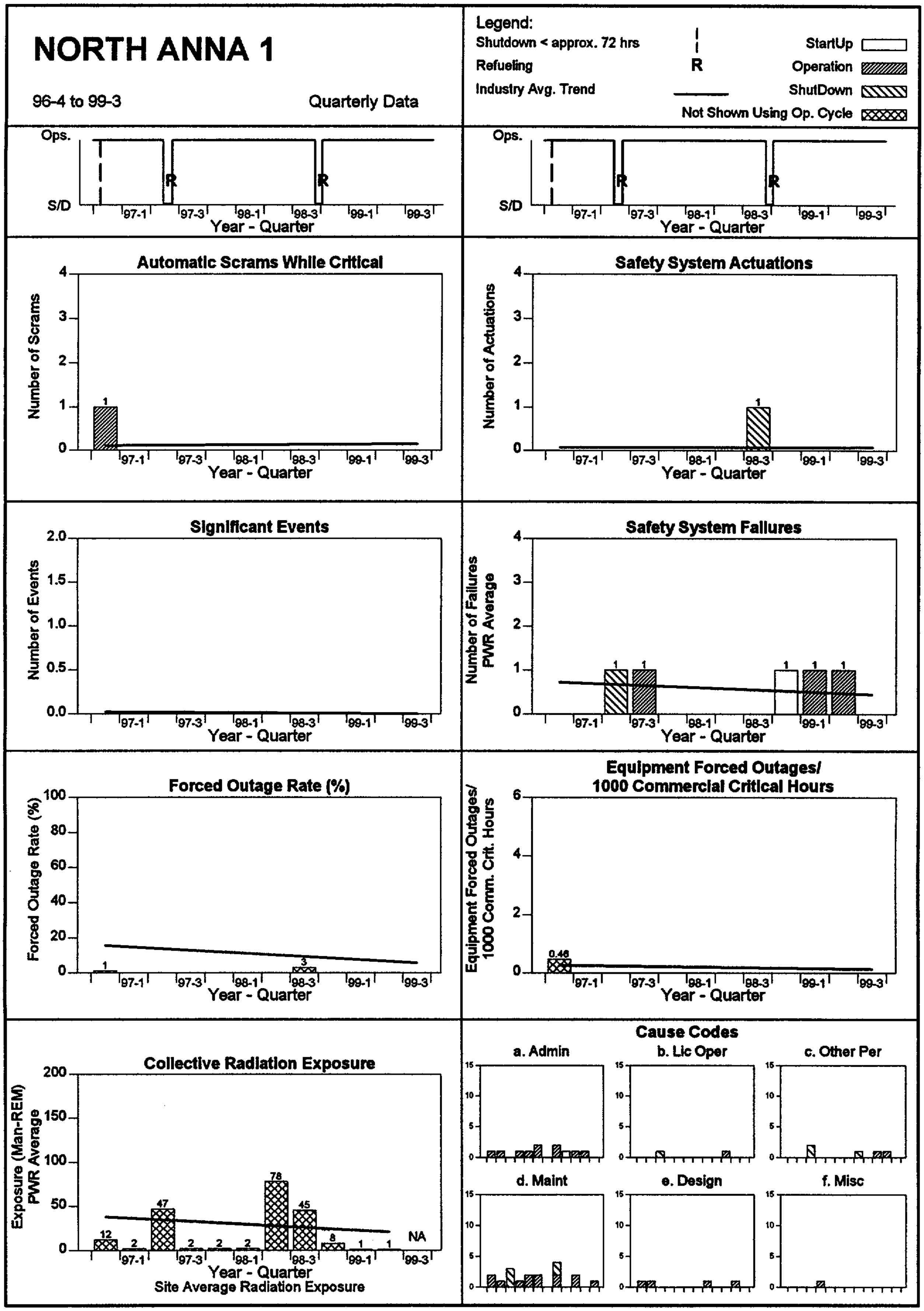
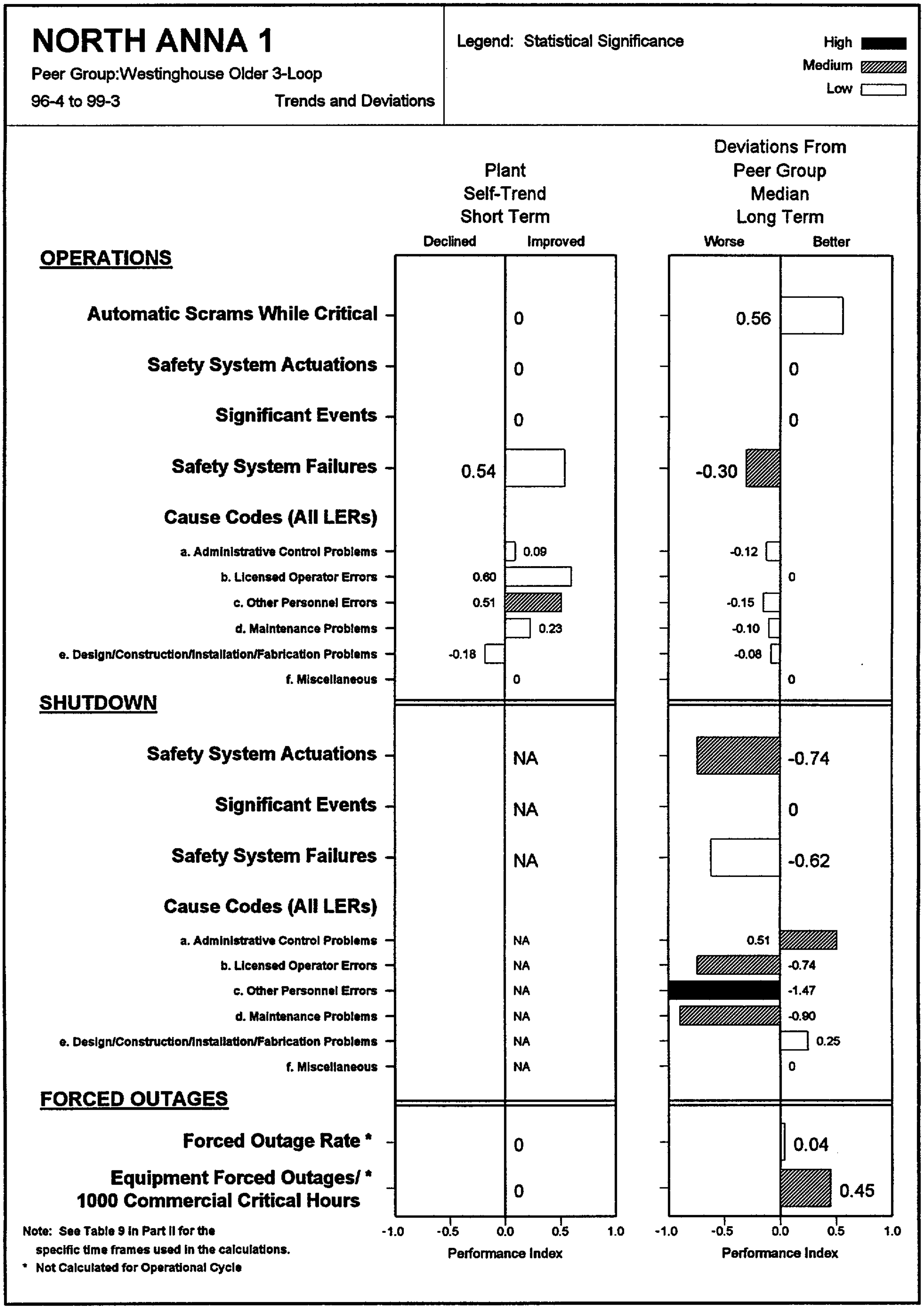

NORTH ANNA 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
4
3
2
1
0
1
Safety System Actuations
Number of Actuations
1
Significant Events
Number of Events
2.0
1.5
1.0
0.5
0.0
Safety System Failures
Number of Failures
PWR Average
1
1
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
100
80
60
40
20
0
1
3
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
6
4
2
0
0.46
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
200
150
100
50
0
12
2
47
2
2
2
78
45
8
1
1
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
15
10
5
0

Figure 7.57b



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.58a

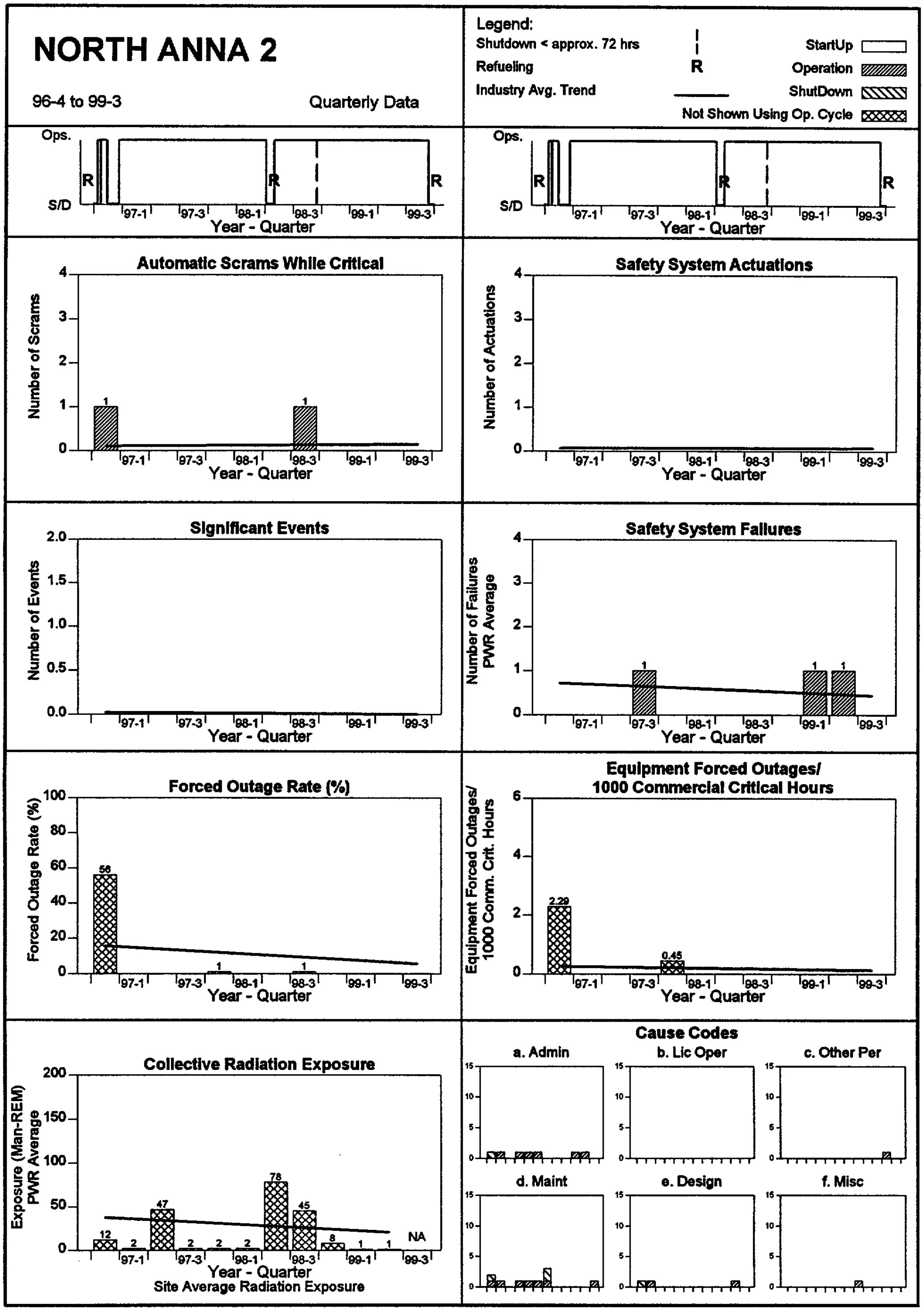

NORTH ANNA 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
4
3
2
1
0
1
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
2.0
1.5
1.0
0.5
0.0
Safety System Failures
Number of Failures
PWR Average
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
100
80
60
40
20
0
56
1
1
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
6
4
2
0
2.29
0.45
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
200
150
100
50
0
12
2
47
2
2
2
78
45
8
1
1
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
15
10
5
0

Figure 7.58b

NORTH ANNA 2

Peer Group:Westinghouse Older 3-Loop

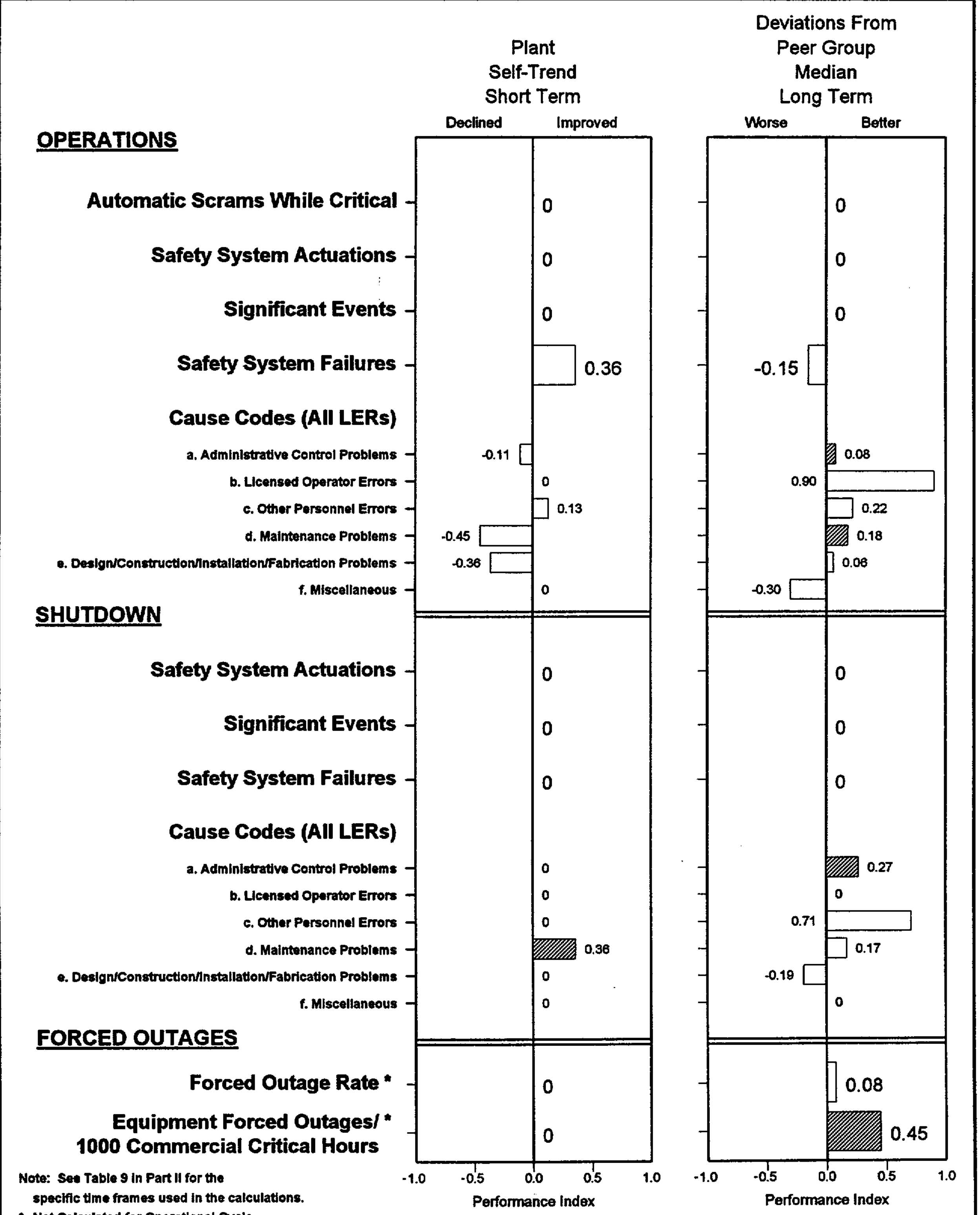
96-4 to 99-3 Trends and Deviations

Legend: Statistical Significance

High ■

Medium ▨

Low ☐



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.59a

OCONEE 1

96-4 to 99-3 Quarterly Data

Legend:

Shutdown < approx. 72 hrs	¦	StartUp	☐
Refueling	R	Operation	▨
Industry Avg. Trend	———	ShutDown	▧
		Not Shown Using Op. Cycle	▩

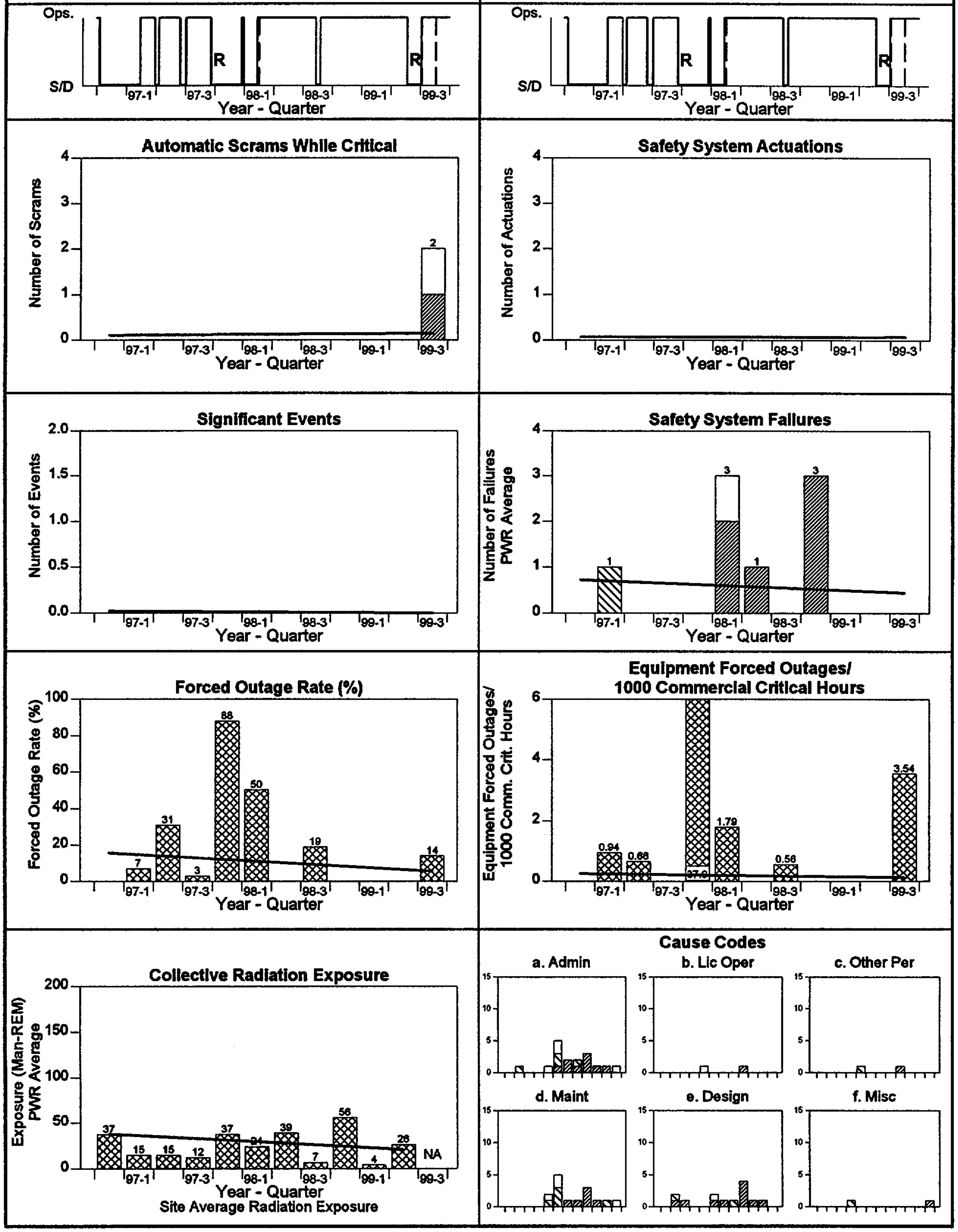
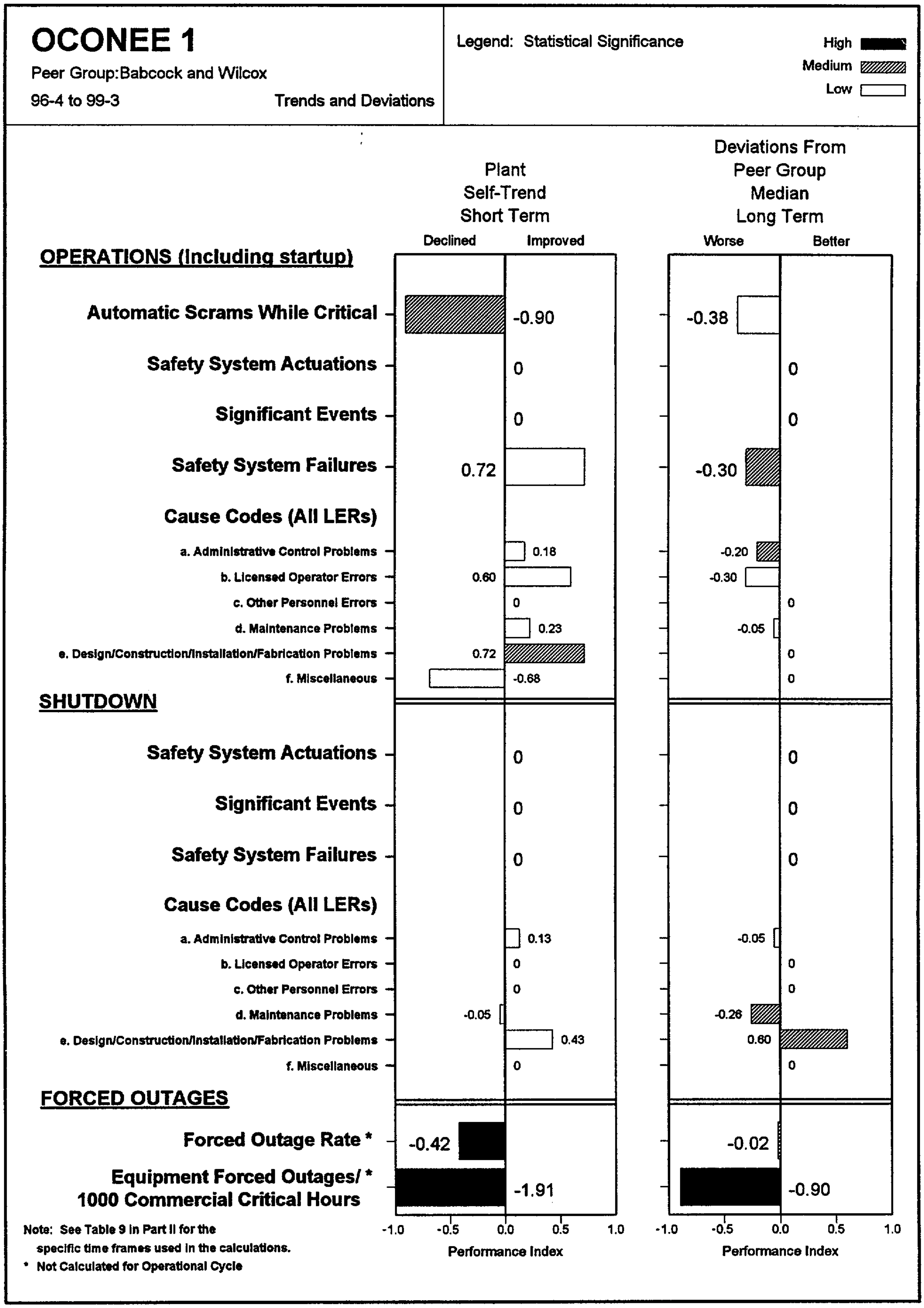


Figure 7.59b



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.60a

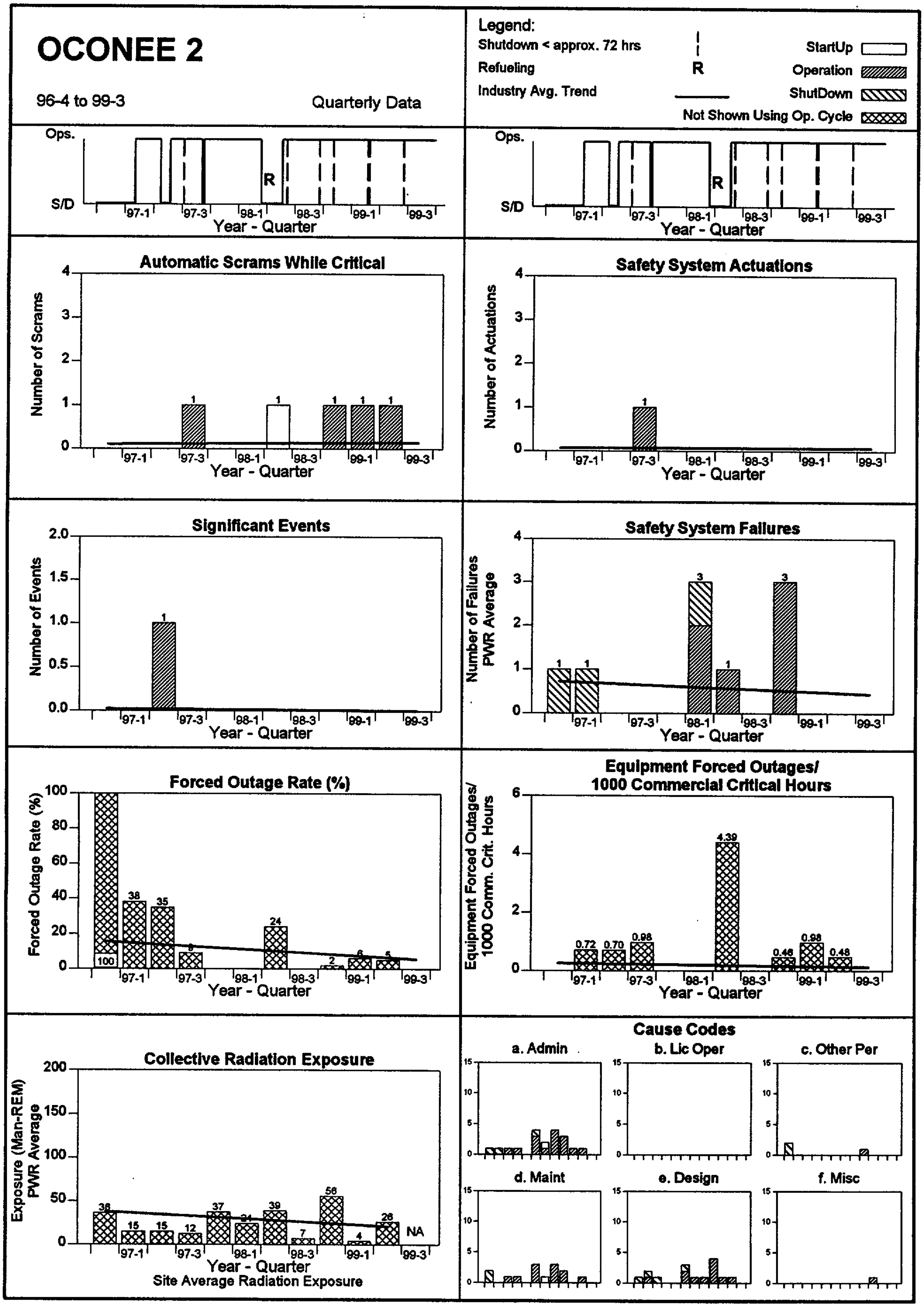
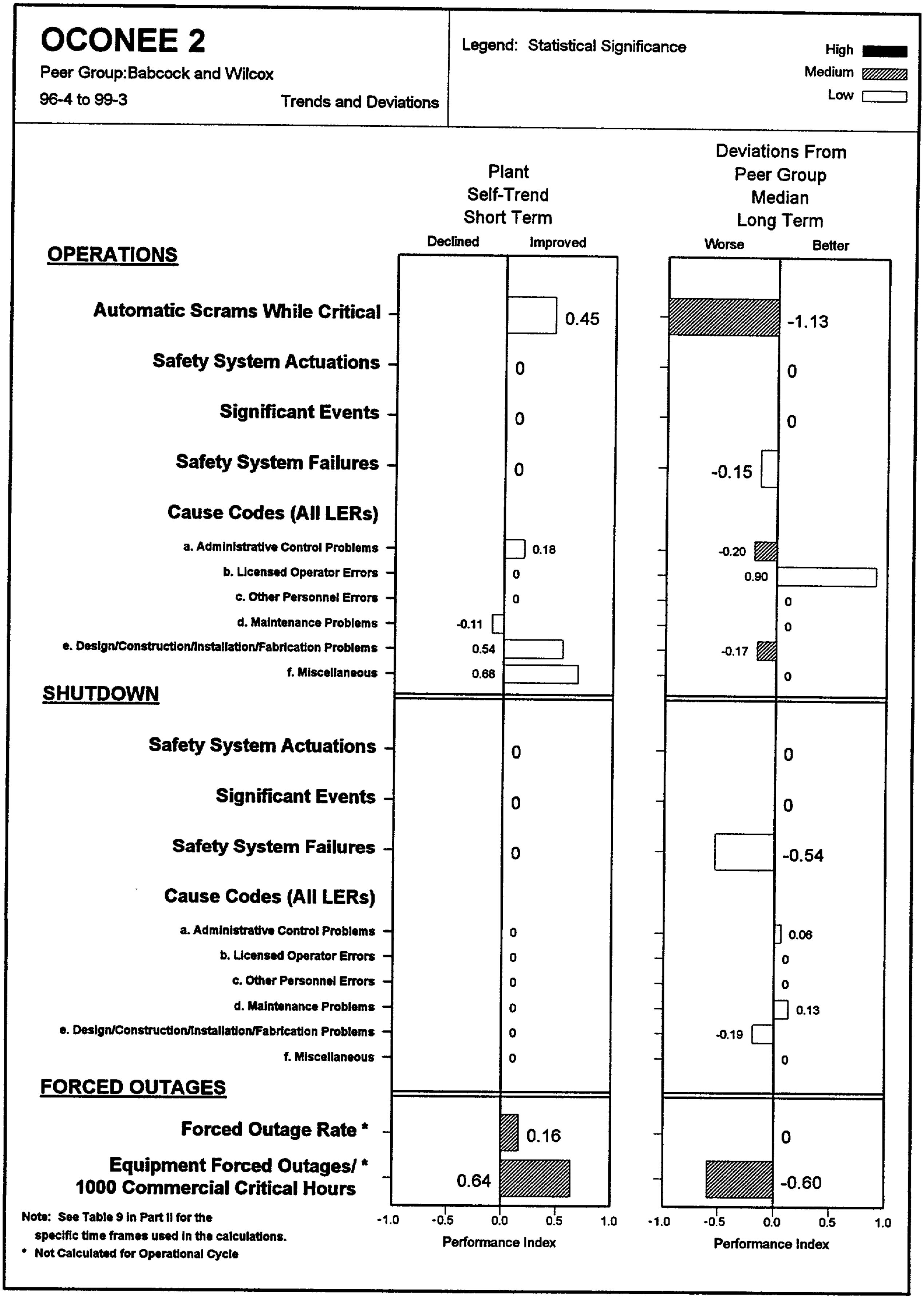

OCONEE 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1 97-3 98-1 98-3 99-1 99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0 1 2 3 4
1 1 1 1 1
Safety System Actuations
Number of Actuations
0 1 2 3 4
1
Significant Events
Number of Events
0.0 0.5 1.0 1.5 2.0
1
Safety System Failures
Number of Failures PWR Average
0 1 2 3 4
1 1 3 1 3
Forced Outage Rate (%)
Forced Outage Rate (%)
0 20 40 60 80 100
100 38 35 9 24 2 6 5
Equipment Forced Outages/ 1000 Commercial Critical Hours
Equipment Forced Outages/ 1000 Comm. Crit. Hours
0 2 4 6
0.72 0.70 0.98 4.39 0.46 0.98 0.48
Collective Radiation Exposure
Exposure (Man-REM) PWR Average
0 50 100 150 200
38 15 15 12 37 24 39 7 56 4 26 NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0 5 10 15

Figure 7.60b



Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.61a

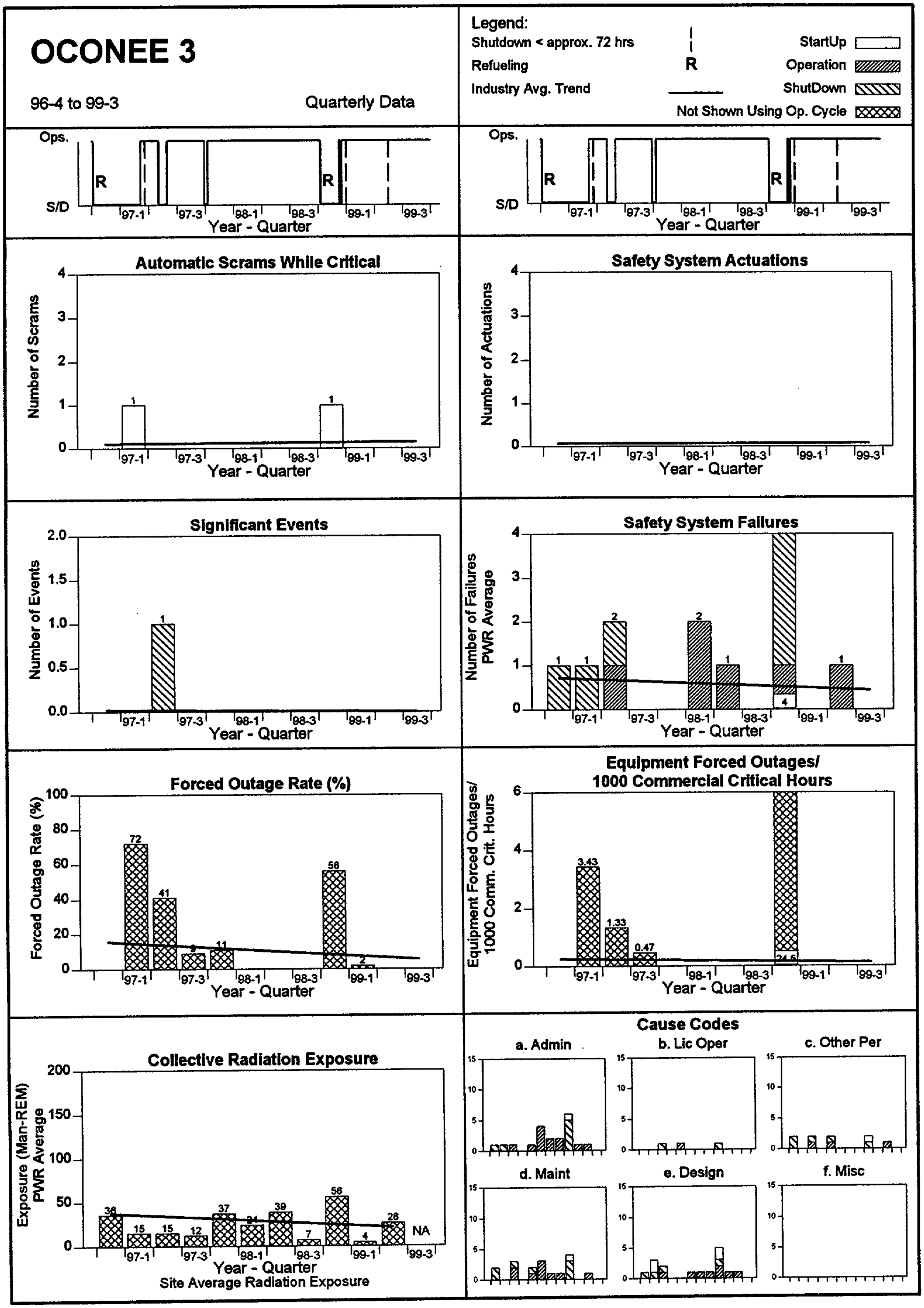
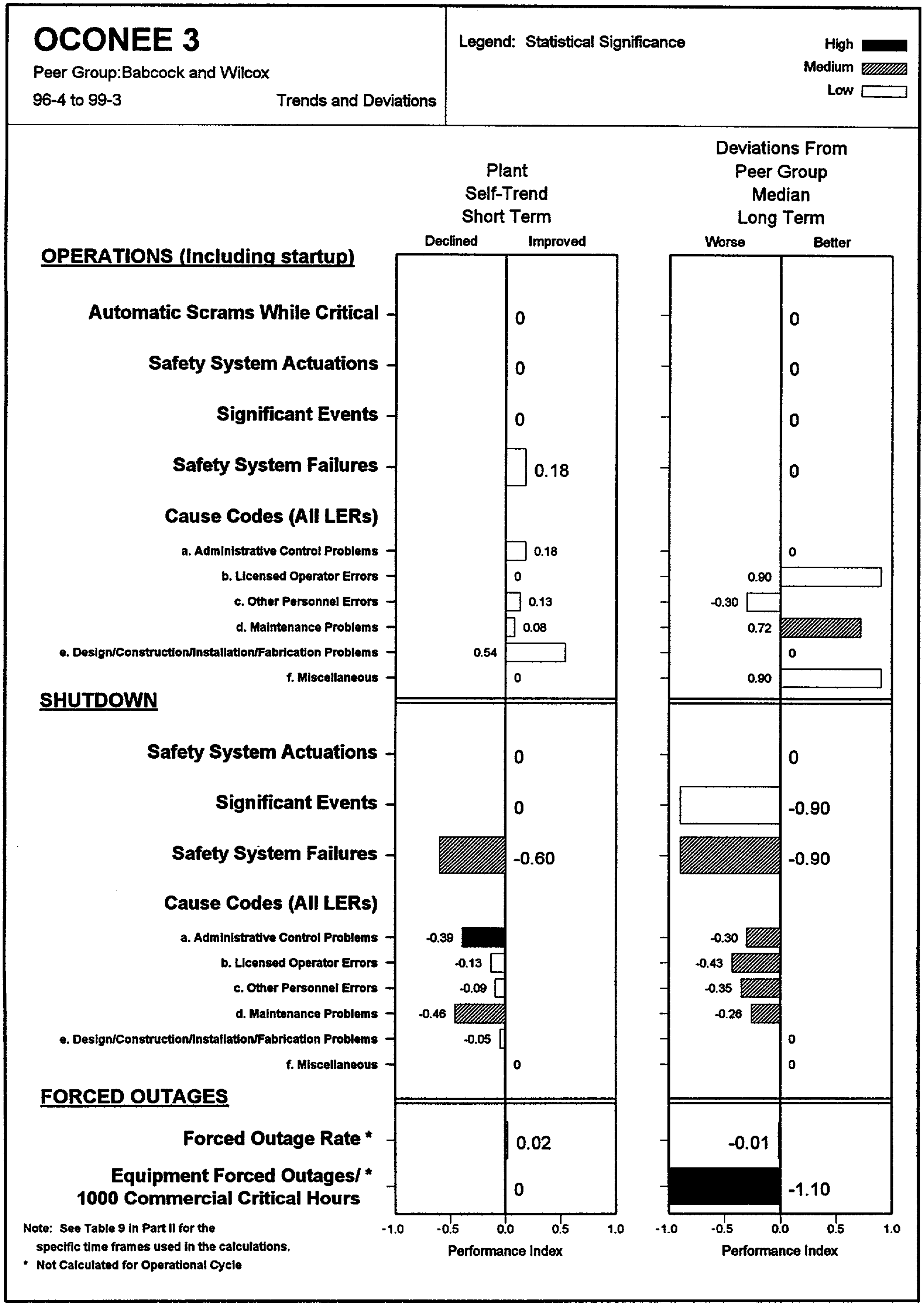

OCONEE 3
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
Year - Quarter
97-1
97-3
98-1
98-3
99-1
99-3
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
1
Safety System Failures
Number of Failures PWR Average
1
1
2
2
1
4
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
72
41
9
11
56
2
Equipment Forced Outages/ 1000 Commercial Critical Hours
Equipment Forced Outages/ 1000 Comm. Crit. Hours
0
2
4
6
3.43
1.33
0.47
24.5
Collective Radiation Exposure
Exposure (Man-REM) PWR Average
0
50
100
150
200
36
15
15
12
37
24
39
7
58
4
28
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.61b



Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.62a

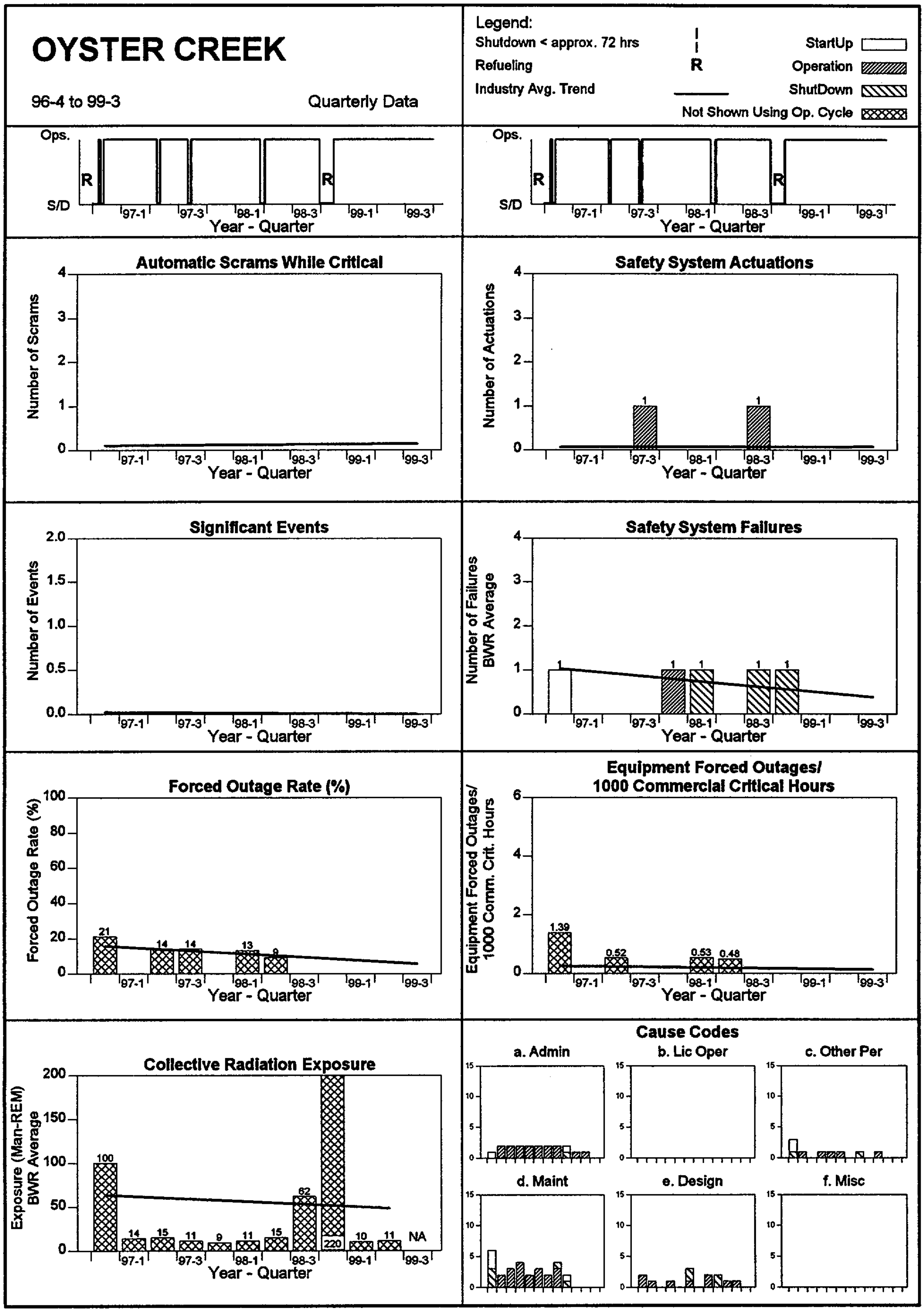

OYSTER CREEK
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
Safety System Actuations
Number of Actuations
1
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
BWR Average
1
1
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
21
14
14
13
9
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
1.39
0.52
0.53
0.48
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
0
50
100
150
200
100
14
15
11
9
11
15
62
220
10
11
NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.62b

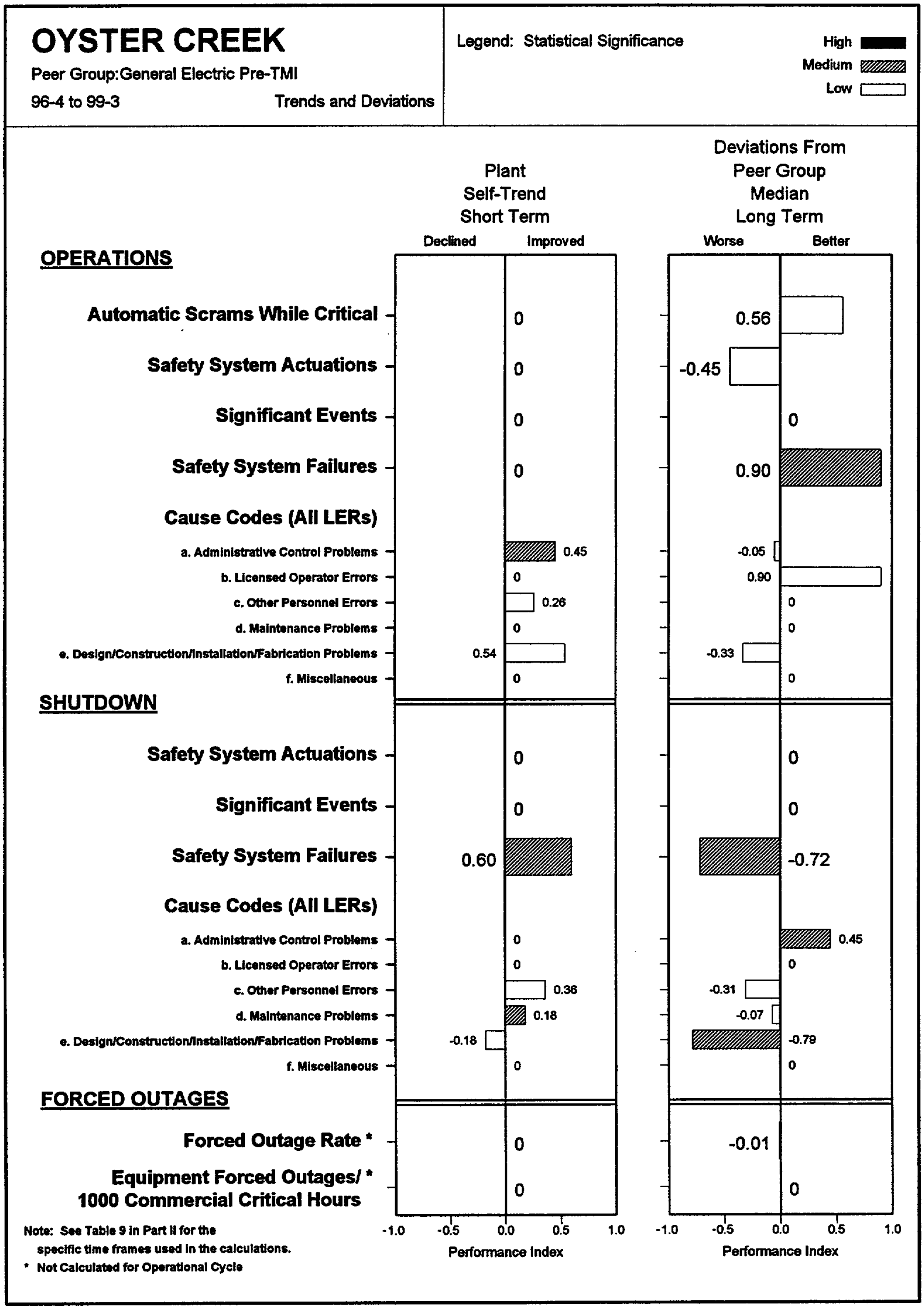

OYSTER CREEK
Peer Group:General Electric Pre-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low ☐
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical 0 0.56
Safety System Actuations 0 -0.45
Significant Events 0 0
Safety System Failures 0 0.90
Cause Codes (All LERs)
a. Administrative Control Problems 0.45 -0.05
b. Licensed Operator Errors 0 0.90
c. Other Personnel Errors 0.26 0
d. Maintenance Problems 0 0
e. Design/Construction/Installation/Fabrication Problems 0.54 -0.33
f. Miscellaneous 0 0
SHUTDOWN
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0.60 -0.72
Cause Codes (All LERs)
a. Administrative Control Problems 0 0.45
b. Licensed Operator Errors 0 0
c. Other Personnel Errors 0.36 -0.31
d. Maintenance Problems 0.18 -0.07
e. Design/Construction/Installation/Fabrication Problems -0.18 -0.79
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * 0 -0.01
Equipment Forced Outages/ * 1000 Commercial Critical Hours 0 0
-1.0 -0.5 0.0 0.5 1.0
Performance Index
-1.0 -0.5 0.0 0.5 1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.63a

PALISADES

96-4 to 99-3 Quarterly Data

Legend:

Shutdown < approx. 72 hrs	|	StartUp	☐
Refueling	R	Operation	▨
Industry Avg. Trend	——	ShutDown	▧
		Not Shown Using Op. Cycle	▩

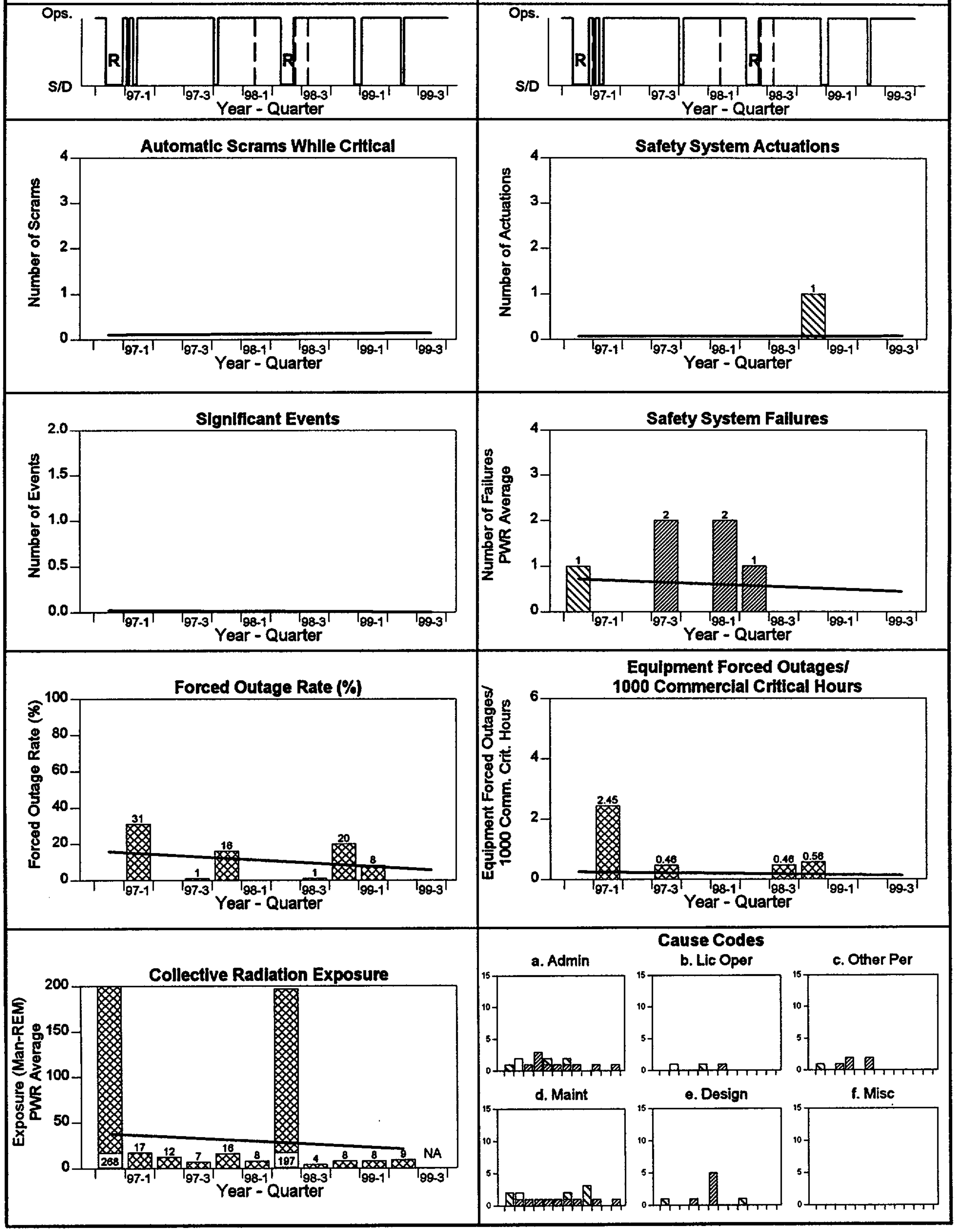


Figure 7.63b

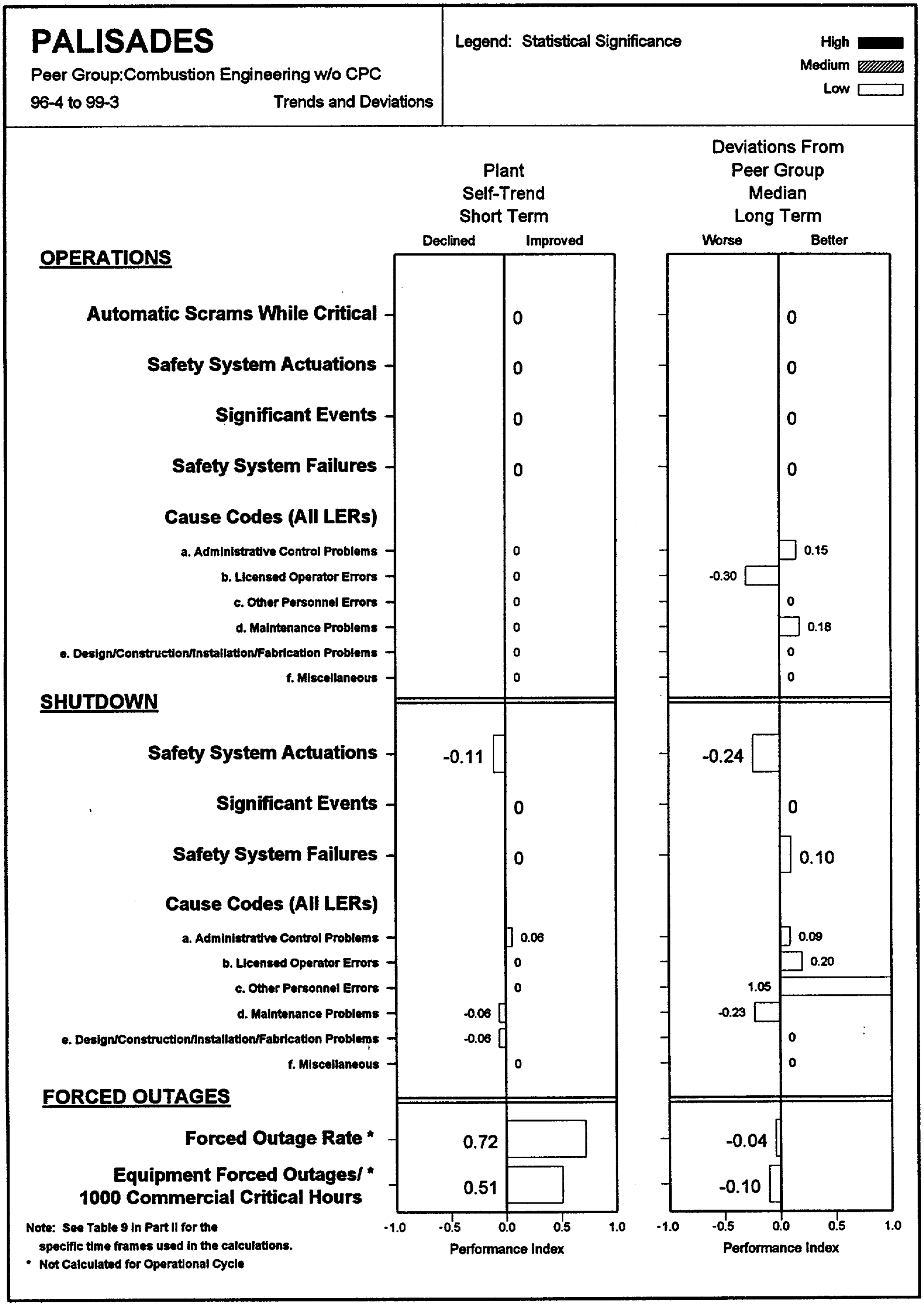

PALISADES
Peer Group:Combustion Engineering w/o CPC
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical
0
0
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0
Cause Codes (All LERs)
a. Administrative Control Problems
0
0.15
b. Licensed Operator Errors
0
-0.30
c. Other Personnel Errors
0
0
d. Maintenance Problems
0
0.18
e. Design/Construction/Installation/Fabrication Problems
0
0
f. Miscellaneous
0
0
SHUTDOWN
Safety System Actuations
-0.11
-0.24
Significant Events
0
0
Safety System Failures
0
0.10
Cause Codes (All LERs)
a. Administrative Control Problems
0.06
0.09
b. Licensed Operator Errors
0
0.20
c. Other Personnel Errors
0
1.05
d. Maintenance Problems
-0.06
-0.23
e. Design/Construction/Installation/Fabrication Problems
-0.06
0
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
0.72
-0.04
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0.51
-0.10
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.64a

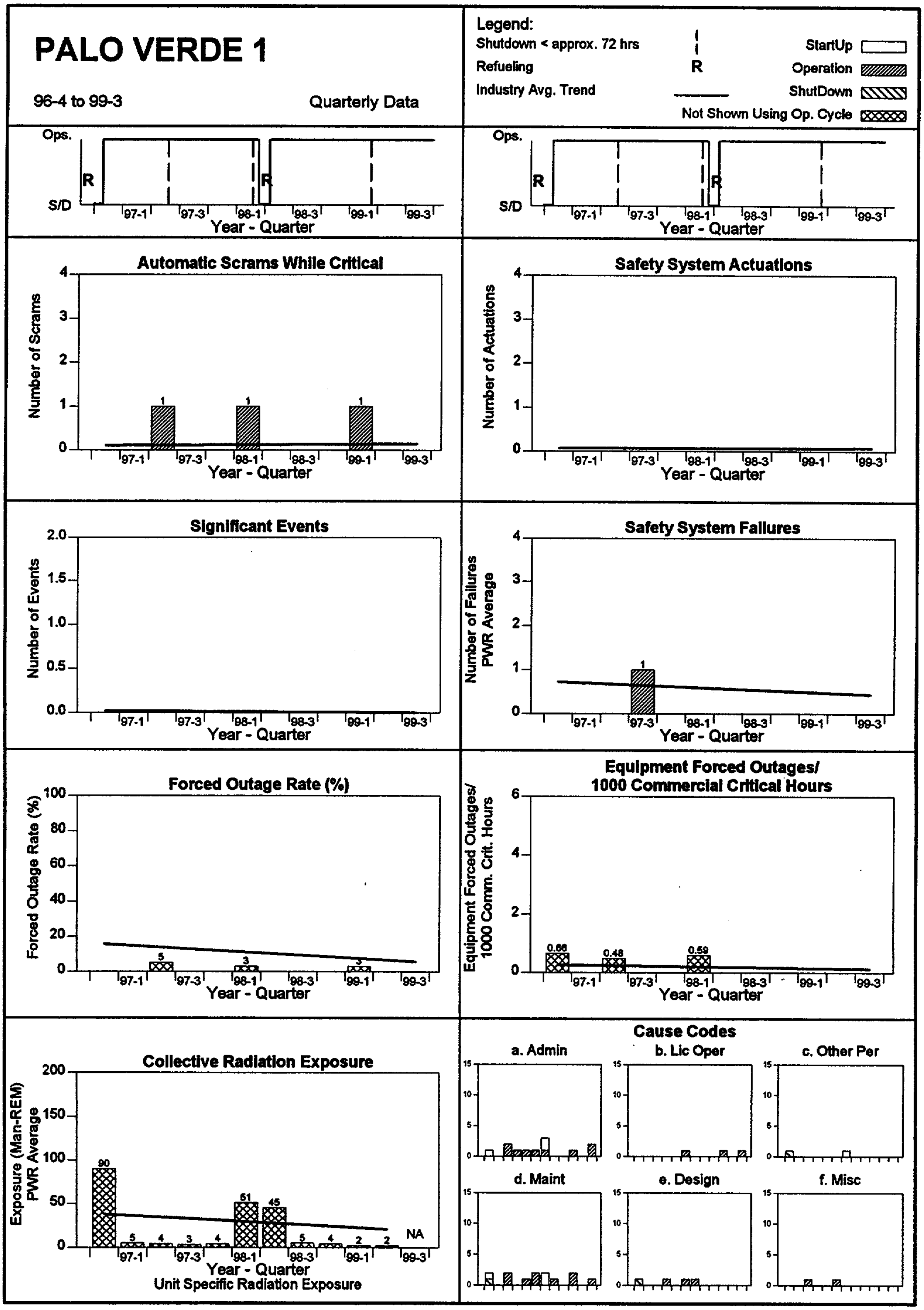

PALO VERDE 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
4
3
2
1
0
1
1
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
2.0
1.5
1.0
0.5
0.0
Safety System Failures
Number of Failures
PWR Average
1
Forced Outage Rate (%)
Forced Outage Rate (%)
100
80
60
40
20
0
5
3
3
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
6
4
2
0
0.66
0.48
0.59
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
200
150
100
50
0
90
5
4
3
4
51
45
5
4
2
2
NA
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
15
10
5
0

Figure 7.64b

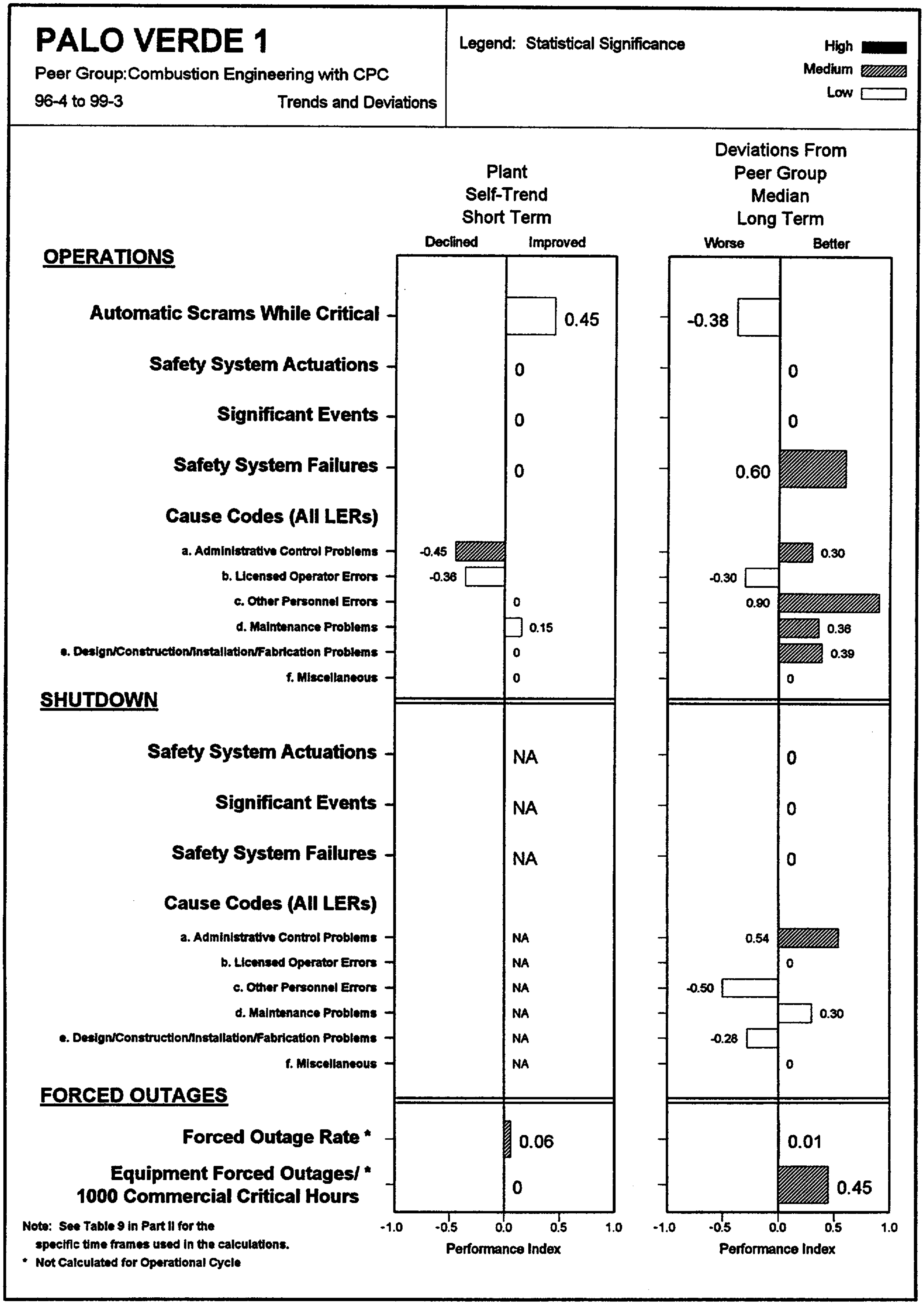

PALO VERDE 1
Peer Group:Combustion Engineering with CPC
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical
0.45
-0.38
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0.60
Cause Codes (All LERs)
a. Administrative Control Problems
-0.45
0.30
b. Licensed Operator Errors
-0.36
-0.30
c. Other Personnel Errors
0
0.90
d. Maintenance Problems
0.15
0.36
e. Design/Construction/Installation/Fabrication Problems
0
0.39
f. Miscellaneous
0
0
SHUTDOWN
Safety System Actuations
NA
0
Significant Events
NA
0
Safety System Failures
NA
0
Cause Codes (All LERs)
a. Administrative Control Problems
NA
0.54
b. Licensed Operator Errors
NA
0
c. Other Personnel Errors
NA
-0.50
d. Maintenance Problems
NA
0.30
e. Design/Construction/Installation/Fabrication Problems
NA
-0.28
f. Miscellaneous
NA
0
FORCED OUTAGES
Forced Outage Rate *
0.06
0.01
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0
0.45
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.65a

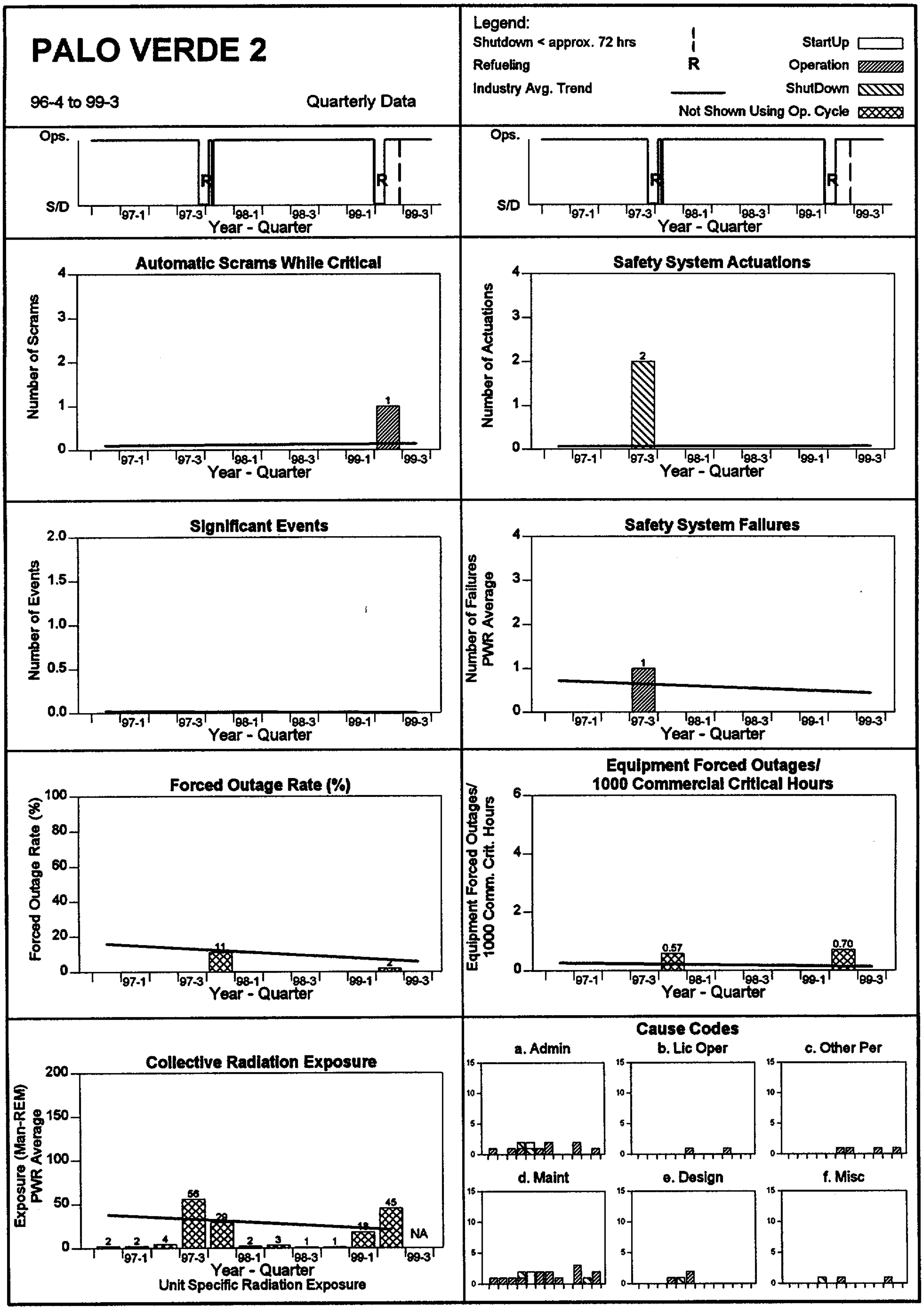

PALO VERDE 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp ☐
Operation ▨
ShutDown ▧
Not Shown Using Op. Cycle ☒
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
4
3
2
1
0
1
Safety System Actuations
Number of Actuations
2
Significant Events
Number of Events
2.0
1.5
1.0
0.5
0.0
Safety System Failures
Number of Failures
PWR Average
1
Forced Outage Rate (%)
Forced Outage Rate (%)
100
80
60
40
20
0
11
2
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
6
4
2
0
0.57
0.70
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
200
150
100
50
0
2
2
4
56
29
2
3
1
1
19
45
NA
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
15
10
5
0

Figure 7.65b

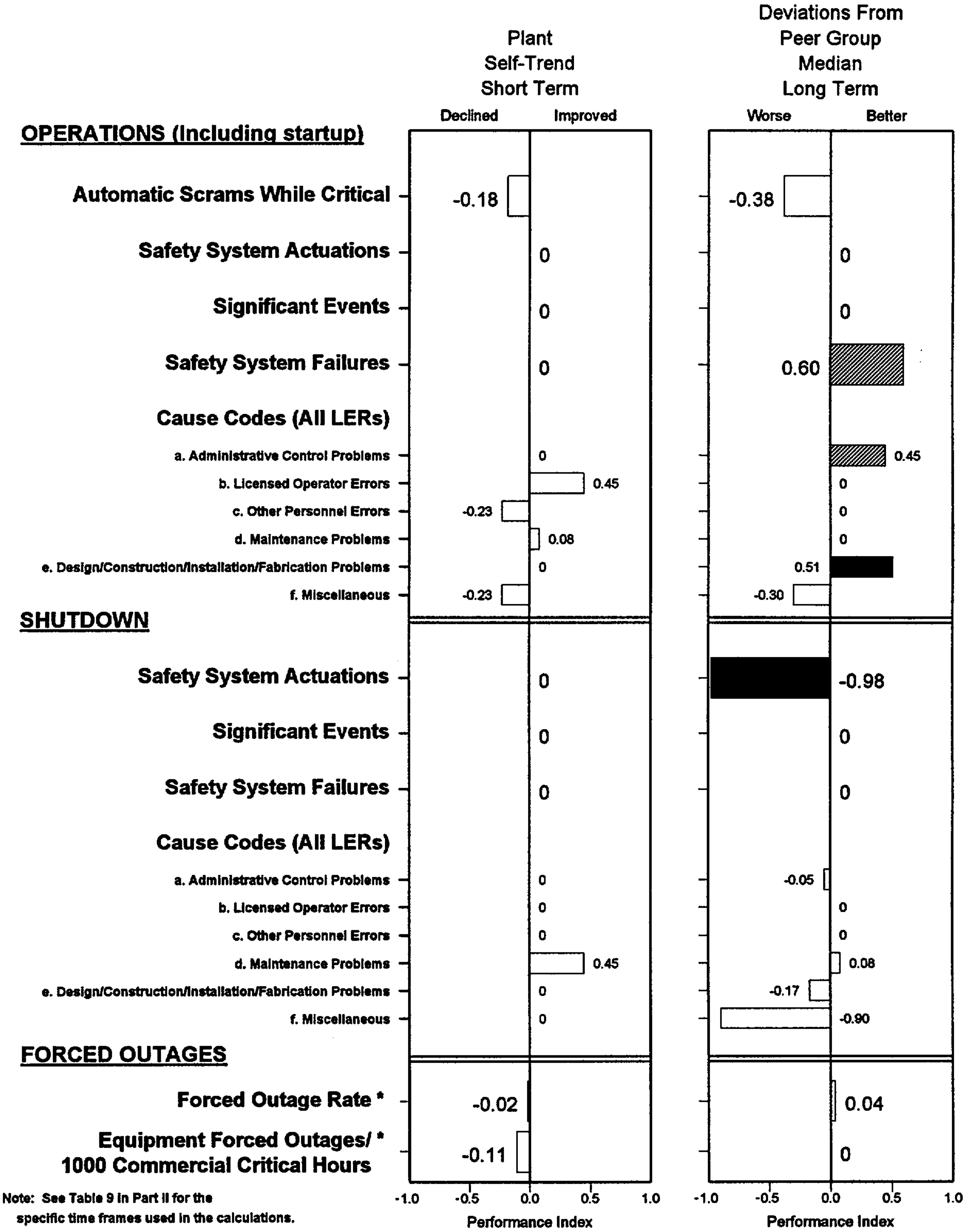
PALO VERDE 2

Peer Group:Combustion Engineering with CPC

96-4 to 99-3 Trends and Deviations

Legend: Statistical Significance

High ■
Medium ▨
Low ☐



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.66a

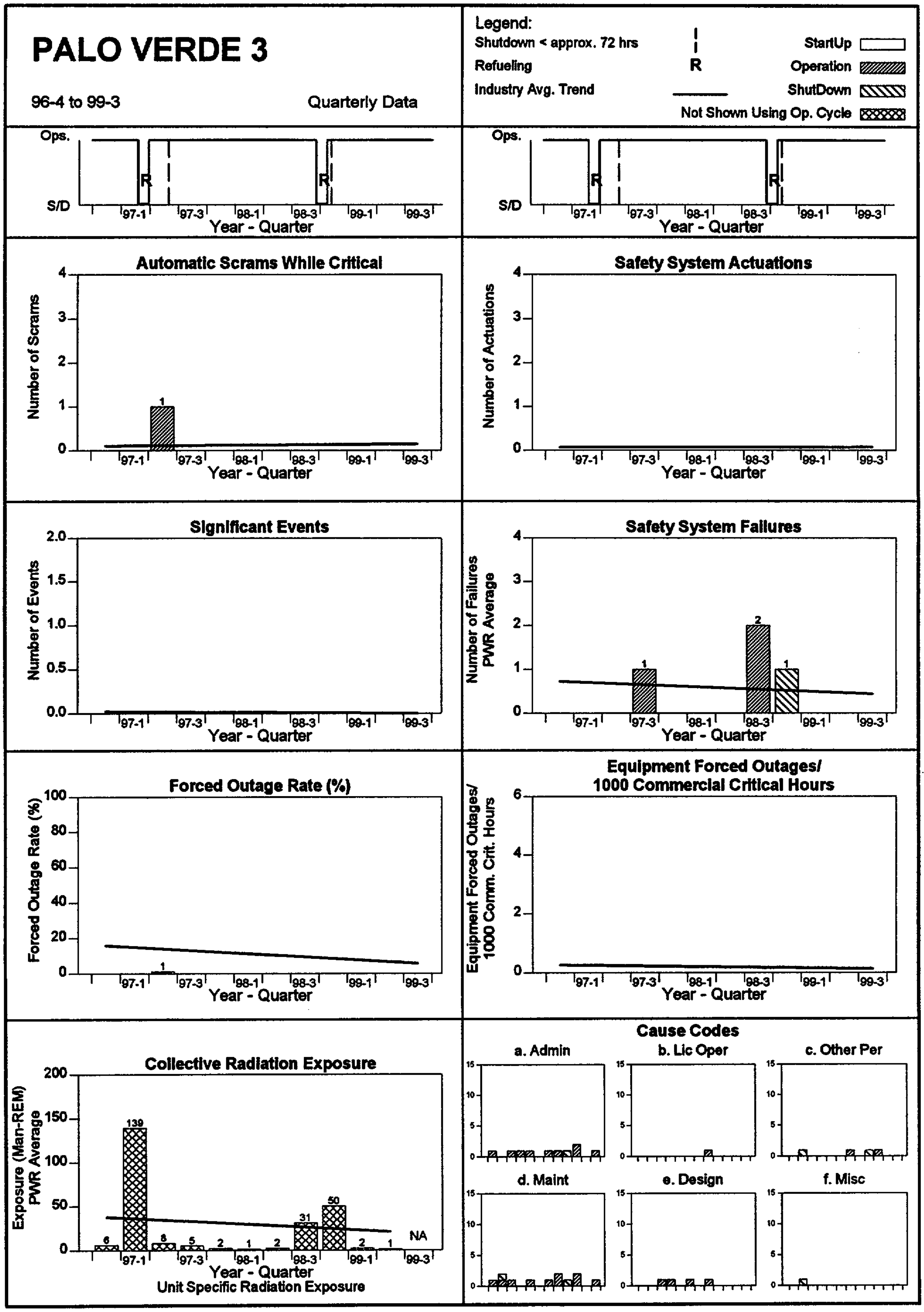

PALO VERDE 3
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures PWR Average
1
2
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
1
Equipment Forced Outages/ 1000 Commercial Critical Hours
Equipment Forced Outages/ 1000 Comm. Crit. Hours
0
2
4
6
Collective Radiation Exposure
Exposure (Man-REM) PWR Average
0
50
100
150
200
6
139
8
5
2
1
2
31
50
2
1
NA
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

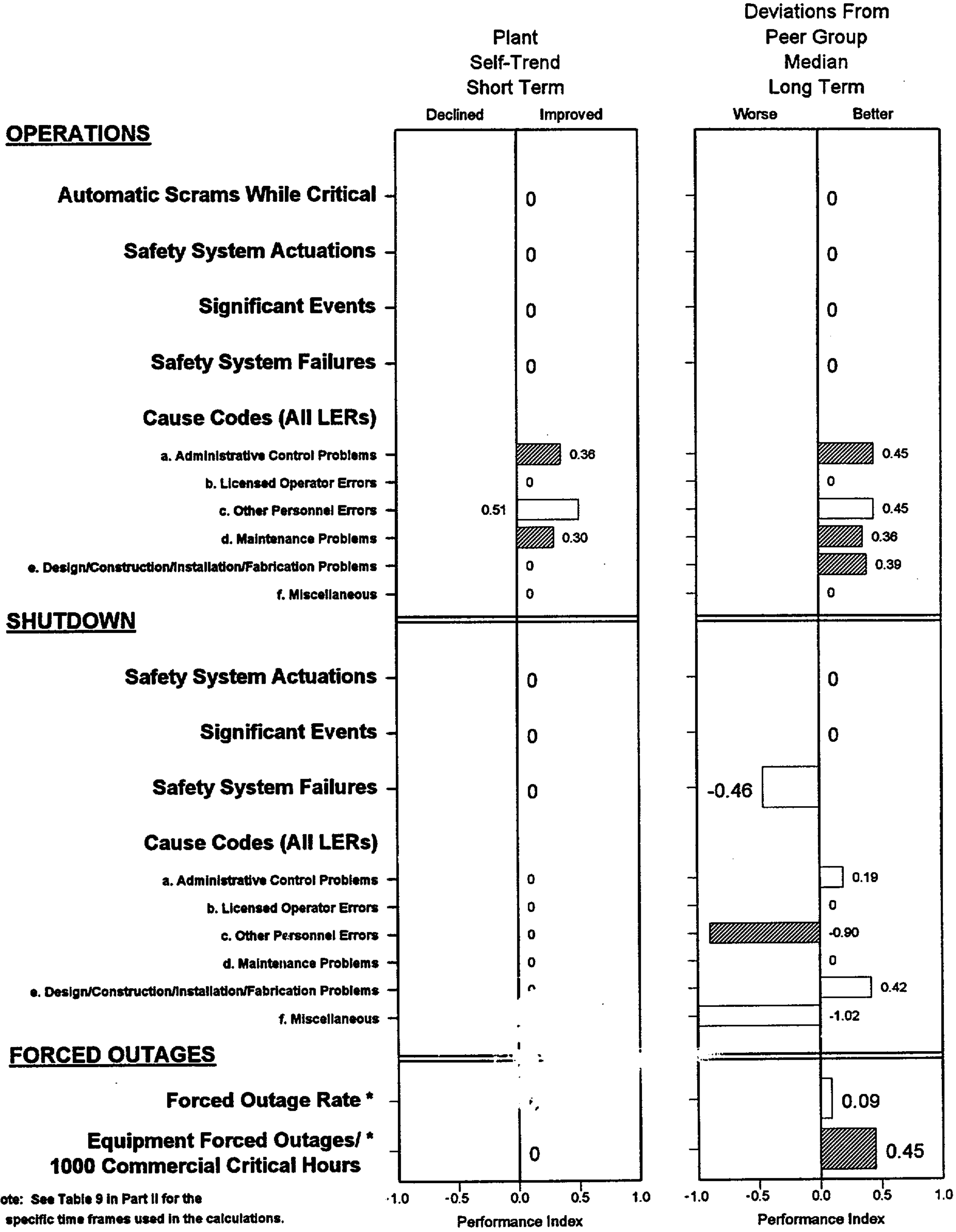
Figure 7.66b

PALO VERDE 3

Peer Group:Combustion Engineering with CPC

96-4 to 99-3 Trends and Deviations

Legend: Statistical Significance
- High ■
- Medium ▨
- Low □



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.67a

PEACH BOTTOM 2

96-4 to 99-3 Quarterly Data

Legend:

Shutdown < approx. 72 hrs	¦	StartUp	☐
Refueling	R	Operation	▨
Industry Avg. Trend	———	ShutDown	▧
		Not Shown Using Op. Cycle	▩

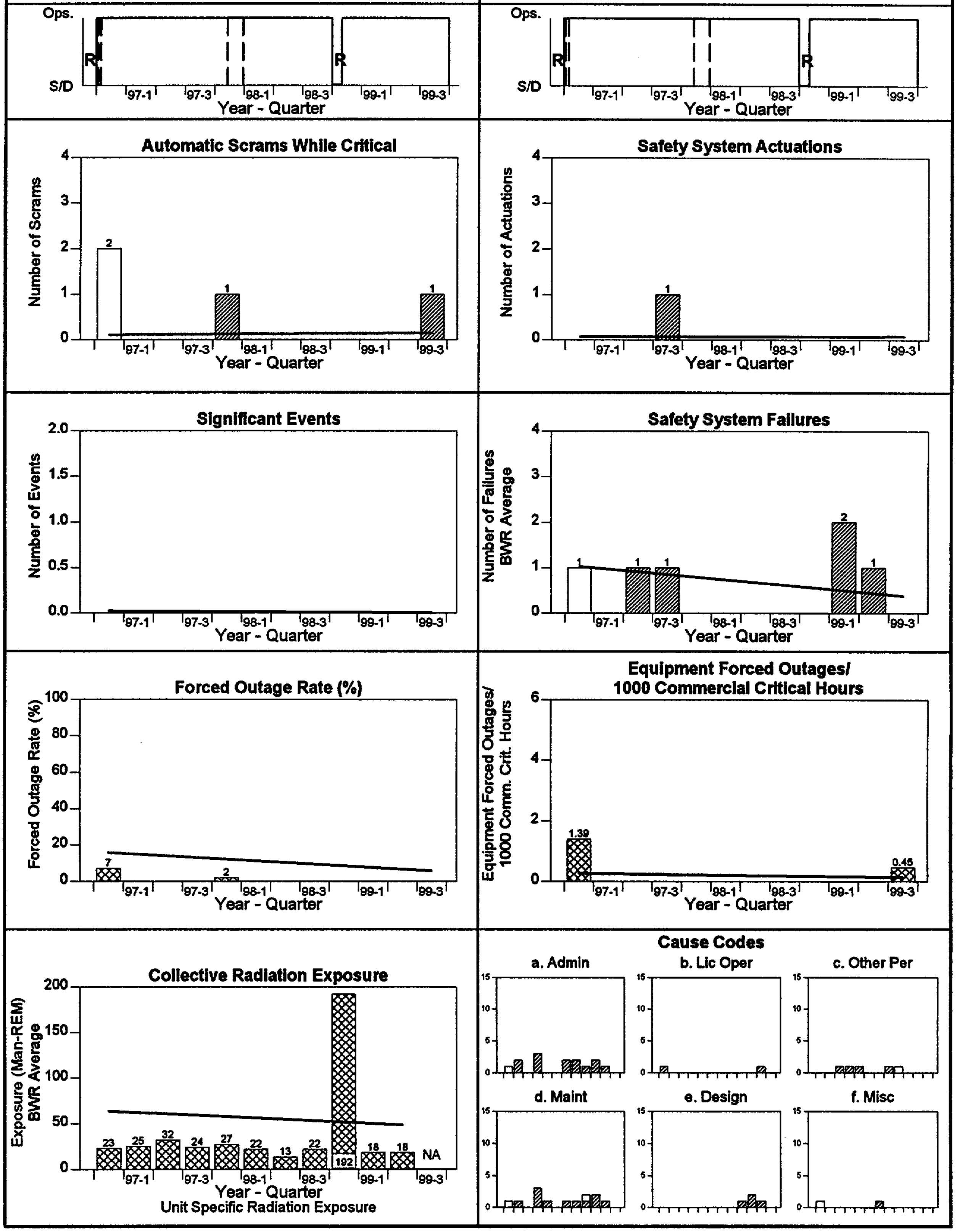


Figure 7.67b

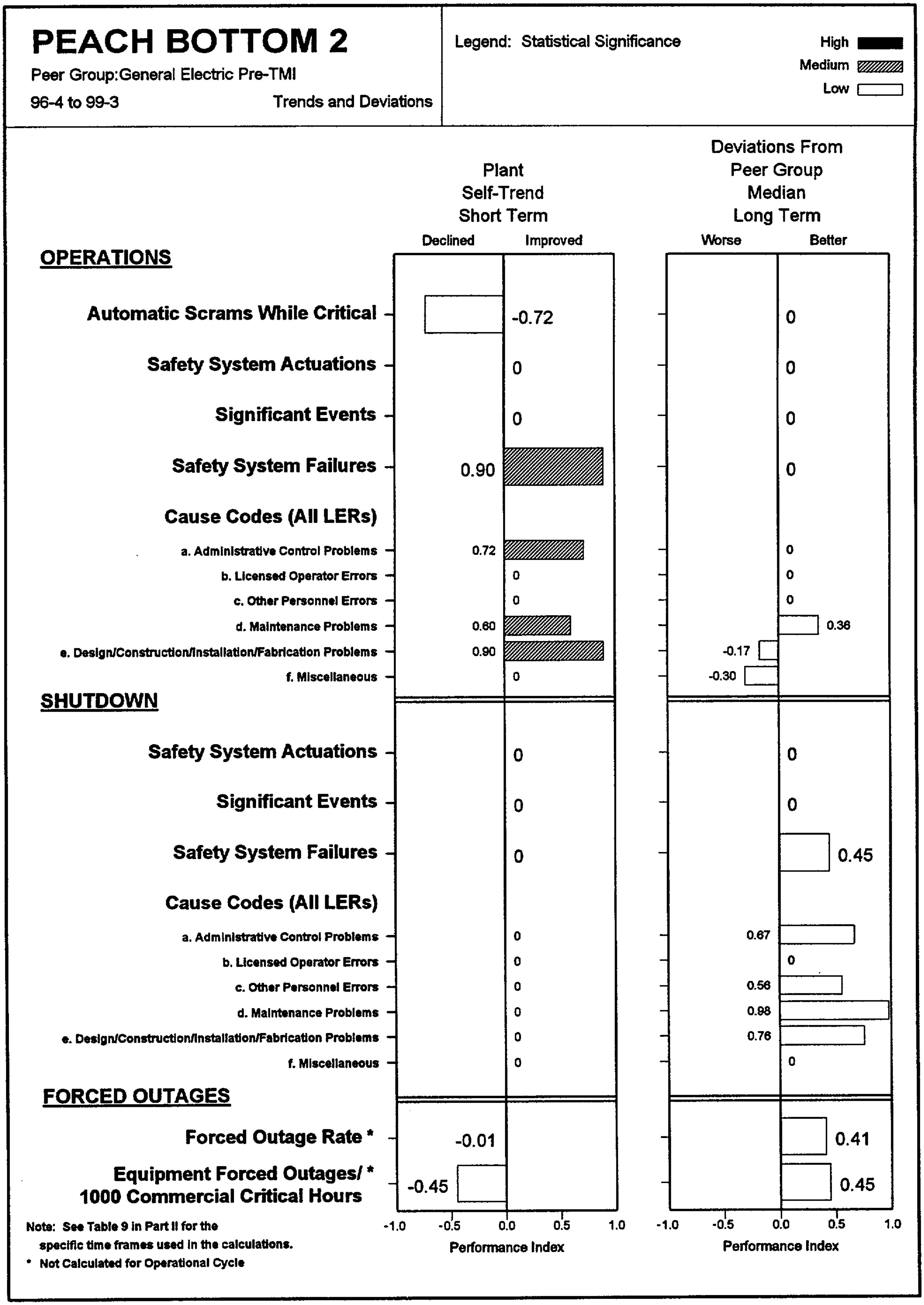

PEACH BOTTOM 2
Peer Group:General Electric Pre-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical
-0.72
0
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0.90
0
Cause Codes (All LERs)
a. Administrative Control Problems
0.72
0
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
0
d. Maintenance Problems
0.60
0.36
e. Design/Construction/Installation/Fabrication Problems
0.90
-0.17
f. Miscellaneous
0
-0.30
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0.45
Cause Codes (All LERs)
a. Administrative Control Problems
0
0.67
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
0.56
d. Maintenance Problems
0
0.98
e. Design/Construction/Installation/Fabrication Problems
0
0.76
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
-0.01
0.41
Equipment Forced Outages/ * 1000 Commercial Critical Hours
-0.45
0.45
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.68a

PEACH BOTTOM 3

96-4 to 99-3 Quarterly Data

Legend:
Shutdown < approx. 72 hrs ¦
Refueling R
Industry Avg. Trend ——
StartUp ☐
Operation ▨
ShutDown ▧
Not Shown Using Op. Cycle ▩

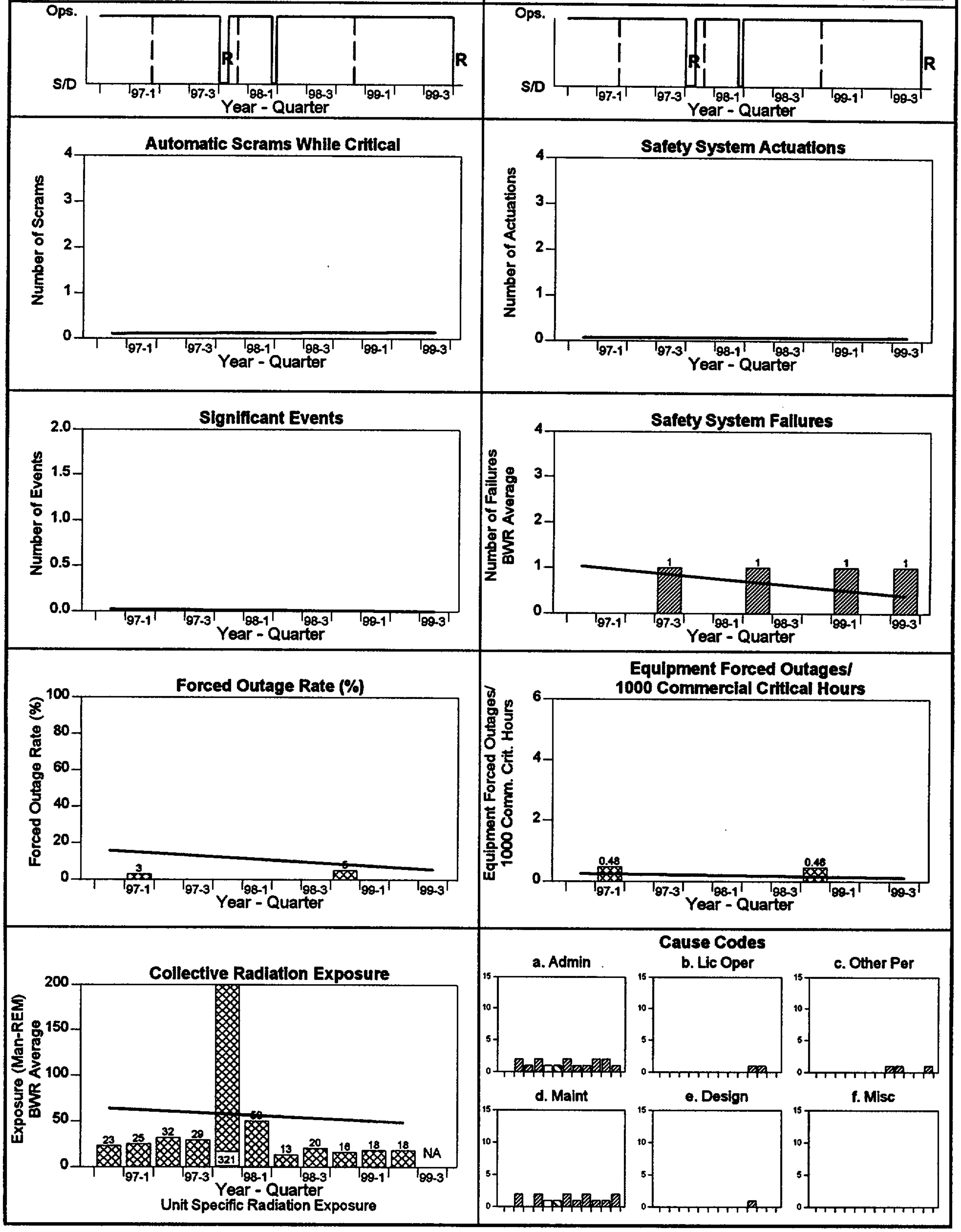


Figure 7.68b

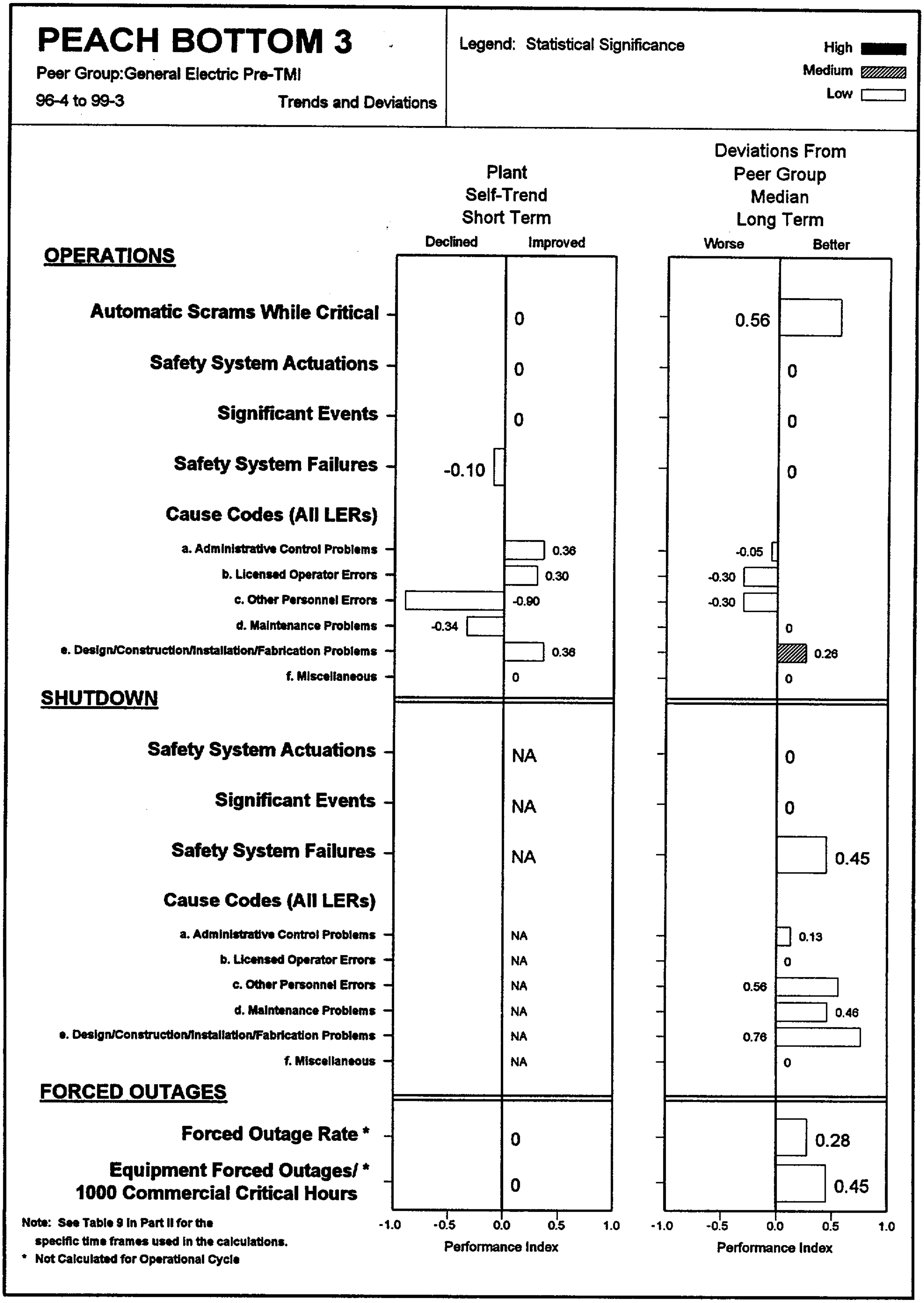

PEACH BOTTOM 3
Peer Group:General Electric Pre-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical: 0 | 0.56
Safety System Actuations: 0 | 0
Significant Events: 0 | 0
Safety System Failures: -0.10 | 0
Cause Codes (All LERs)
a. Administrative Control Problems: 0.36 | -0.05
b. Licensed Operator Errors: 0.30 | -0.30
c. Other Personnel Errors: -0.90 | -0.30
d. Maintenance Problems: -0.34 | 0
e. Design/Construction/Installation/Fabrication Problems: 0.36 | 0.26
f. Miscellaneous: 0 | 0
SHUTDOWN
Safety System Actuations: NA | 0
Significant Events: NA | 0
Safety System Failures: NA | 0.45
Cause Codes (All LERs)
a. Administrative Control Problems: NA | 0.13
b. Licensed Operator Errors: NA | 0
c. Other Personnel Errors: NA | 0.56
d. Maintenance Problems: NA | 0.46
e. Design/Construction/Installation/Fabrication Problems: NA | 0.76
f. Miscellaneous: NA | 0
FORCED OUTAGES
Forced Outage Rate *: 0 | 0.28
Equipment Forced Outages/ * 1000 Commercial Critical Hours: 0 | 0.45
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.69a

PERRY

96-4 to 99-3 Quarterly Data

Legend:
Shutdown < approx. 72 hrs ¦
Refueling R
Industry Avg. Trend ———
StartUp ☐
Operation ▨
ShutDown ▧
Not Shown Using Op. Cycle ▩

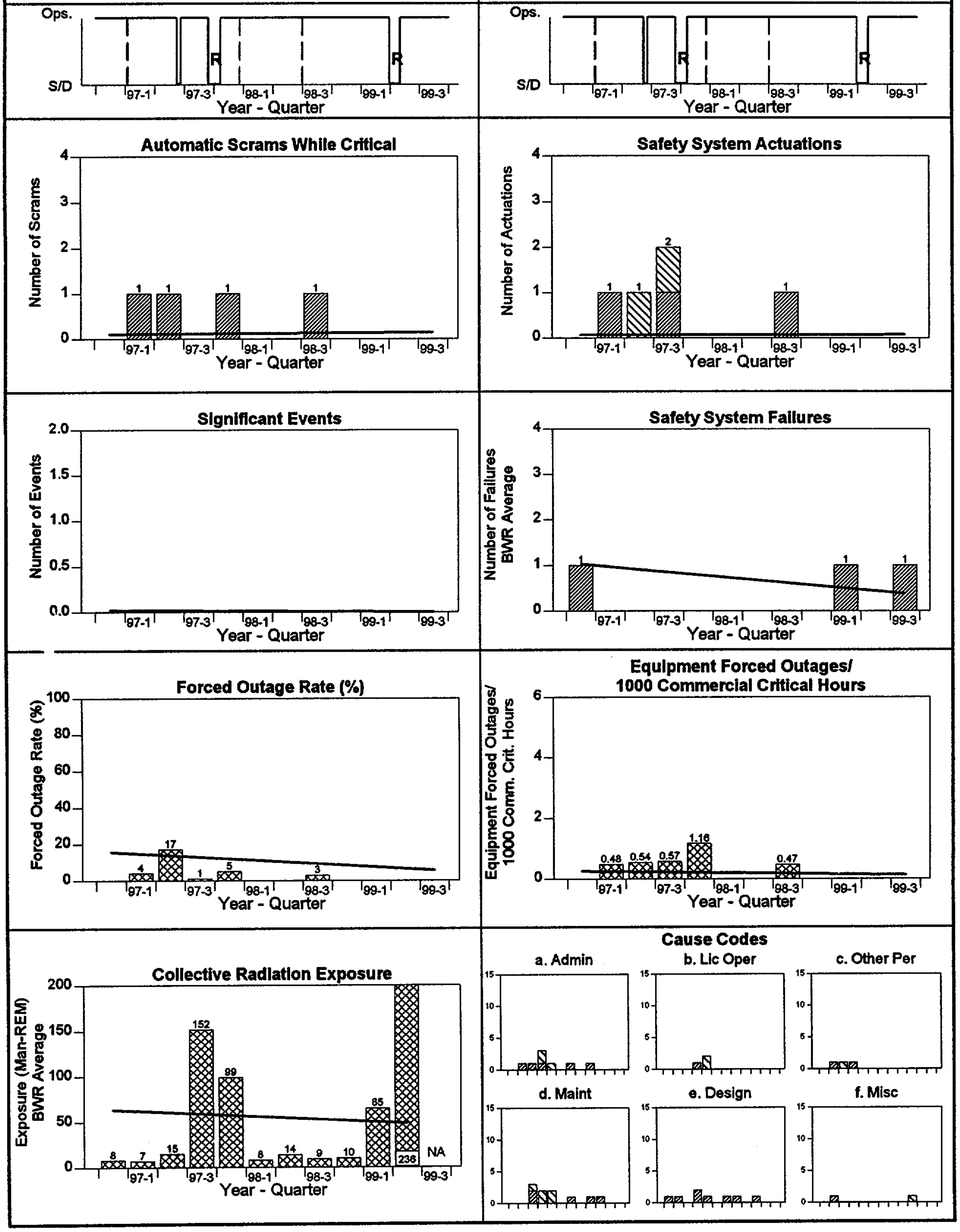


Figure 7.69b

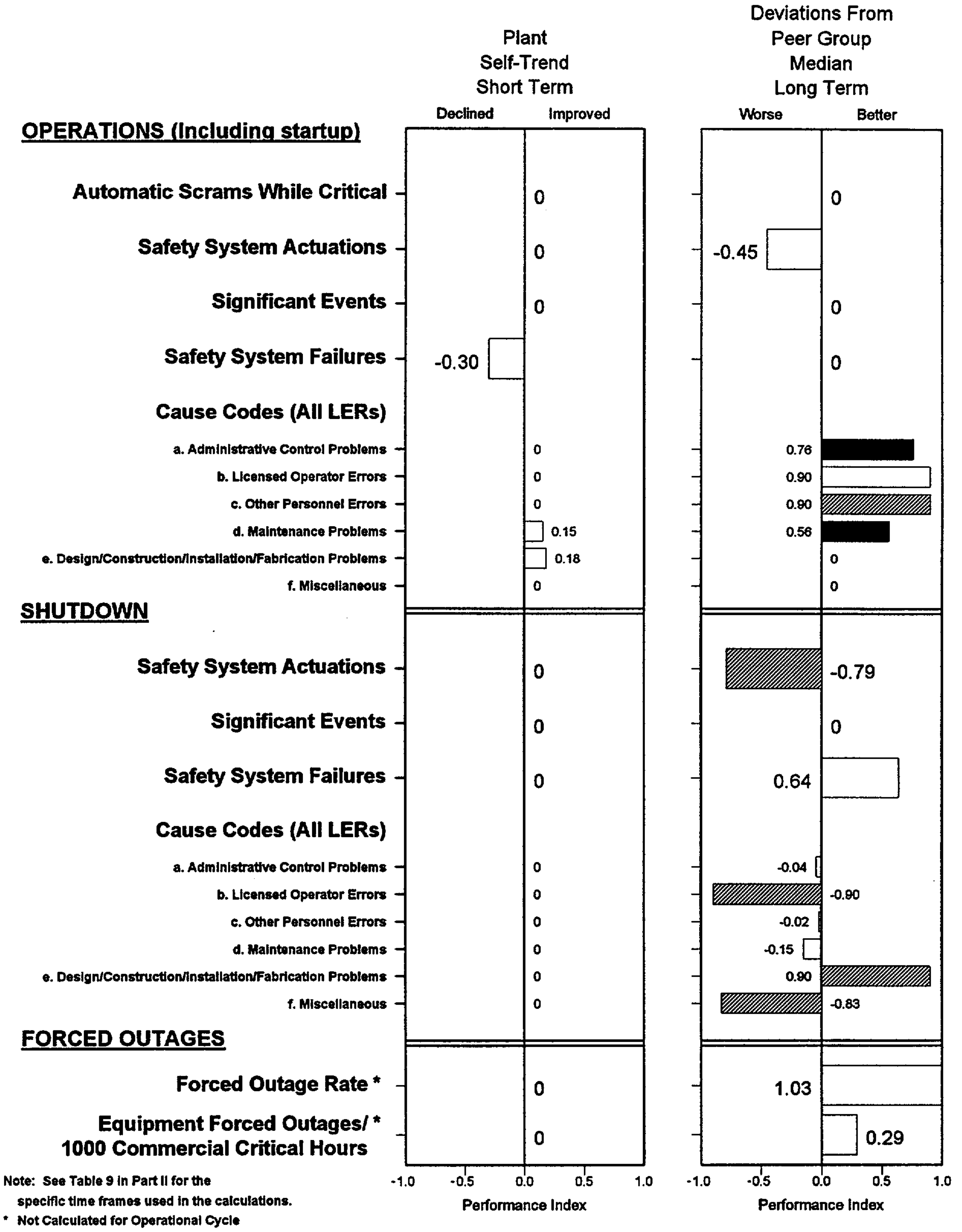
PERRY

Peer Group:General Electric Post-TMI

96-4 to 99-3 Trends and Deviations

Legend: Statistical Significance

High ■
Medium ▨
Low ☐



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.70a

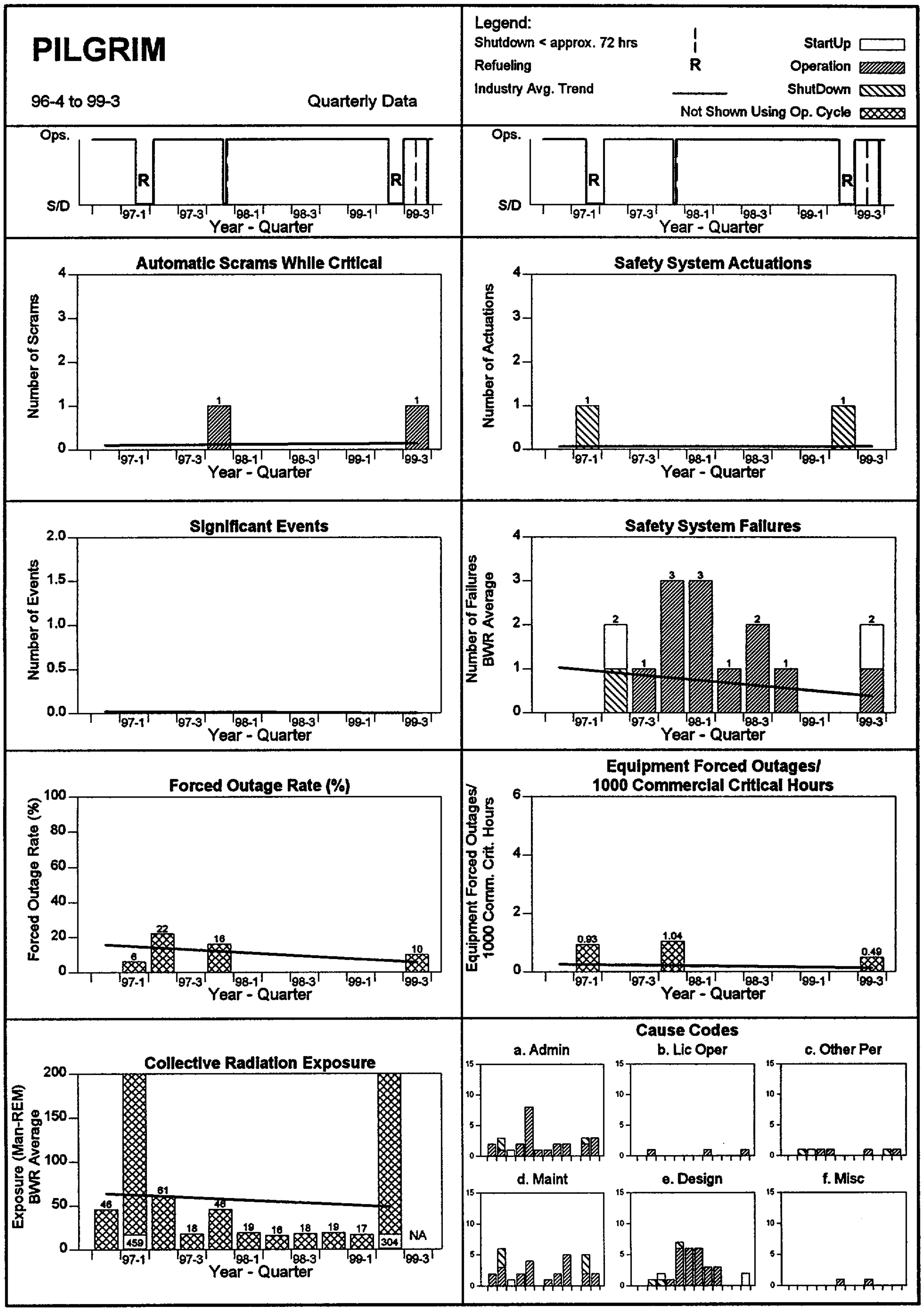

PILGRIM
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
1
Safety System Actuations
Number of Actuations
1
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
BWR Average
2
1
3
3
1
2
1
2
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
6
22
16
10
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.93
1.04
0.49
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
0
50
100
150
200
46
459
61
18
46
19
16
18
19
17
304
NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.70b

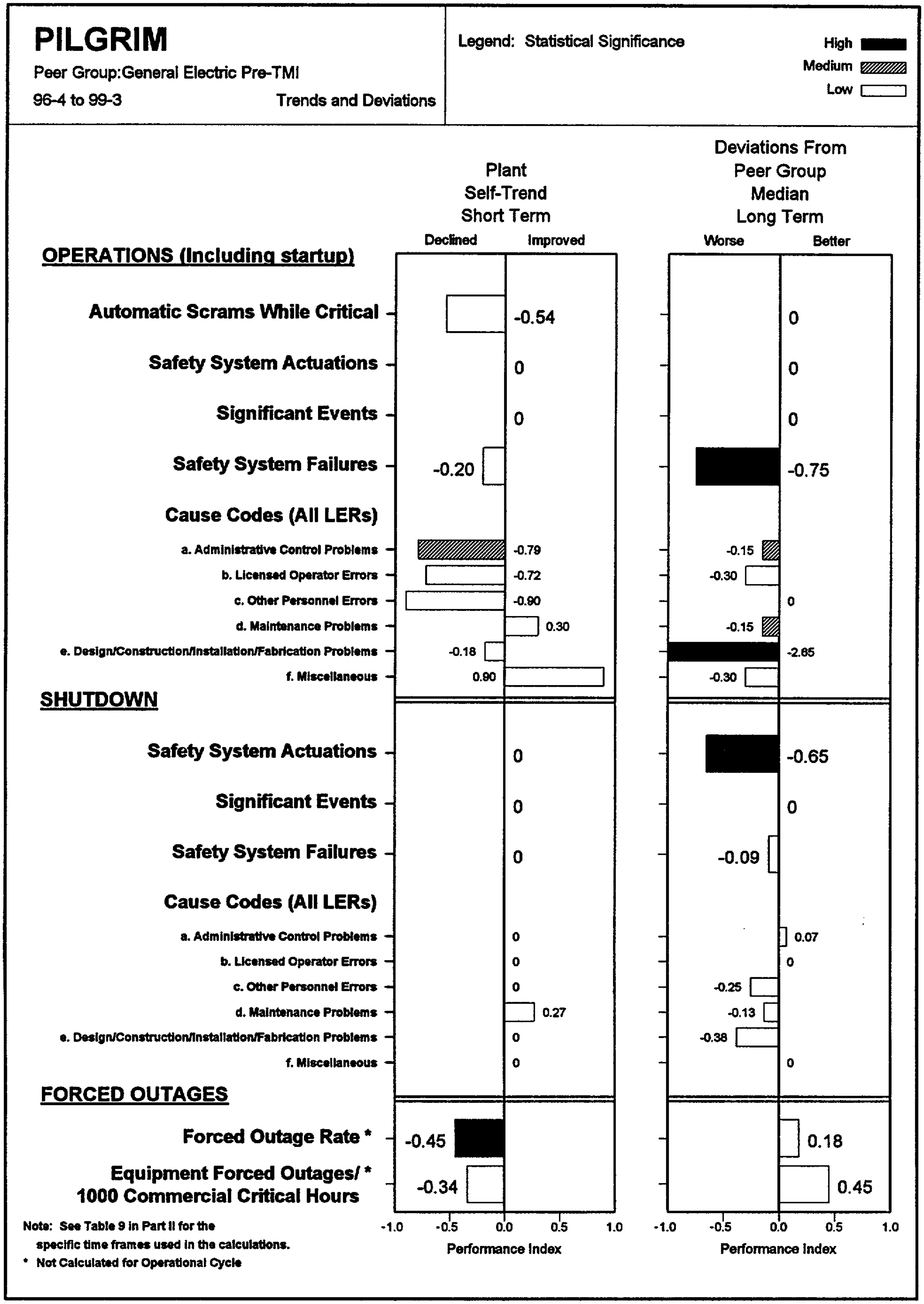

PILGRIM
Peer Group:General Electric Pre-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical
-0.54
0
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
-0.20
-0.75
Cause Codes (All LERs)
a. Administrative Control Problems
-0.79
-0.15
b. Licensed Operator Errors
-0.72
-0.30
c. Other Personnel Errors
-0.90
0
d. Maintenance Problems
0.30
-0.15
e. Design/Construction/Installation/Fabrication Problems
-0.18
-2.65
f. Miscellaneous
0.90
-0.30
SHUTDOWN
Safety System Actuations
0
-0.65
Significant Events
0
0
Safety System Failures
0
-0.09
Cause Codes (All LERs)
a. Administrative Control Problems
0
0.07
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
-0.25
d. Maintenance Problems
0.27
-0.13
e. Design/Construction/Installation/Fabrication Problems
0
-0.38
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
-0.45
0.18
Equipment Forced Outages/ * 1000 Commercial Critical Hours
-0.34
0.45
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.71a

POINT BEACH 1

96-4 to 99-3 Quarterly Data

Legend:
Shutdown < approx. 72 hrs ¦
Refueling R
Industry Avg. Trend ———
StartUp □
Operation ▨
ShutDown ▧
Not Shown Using Op. Cycle ▩

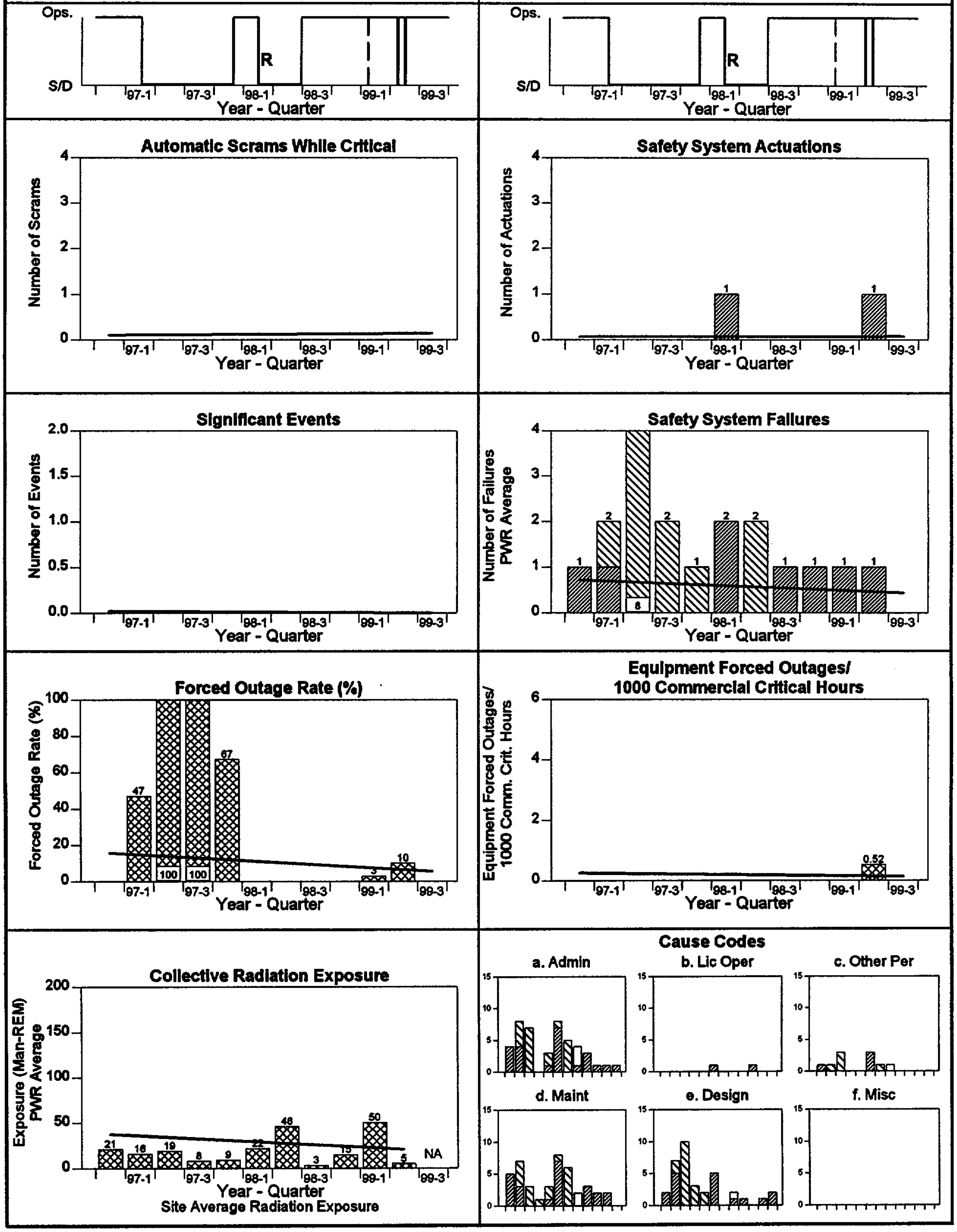


Figure 7.71b

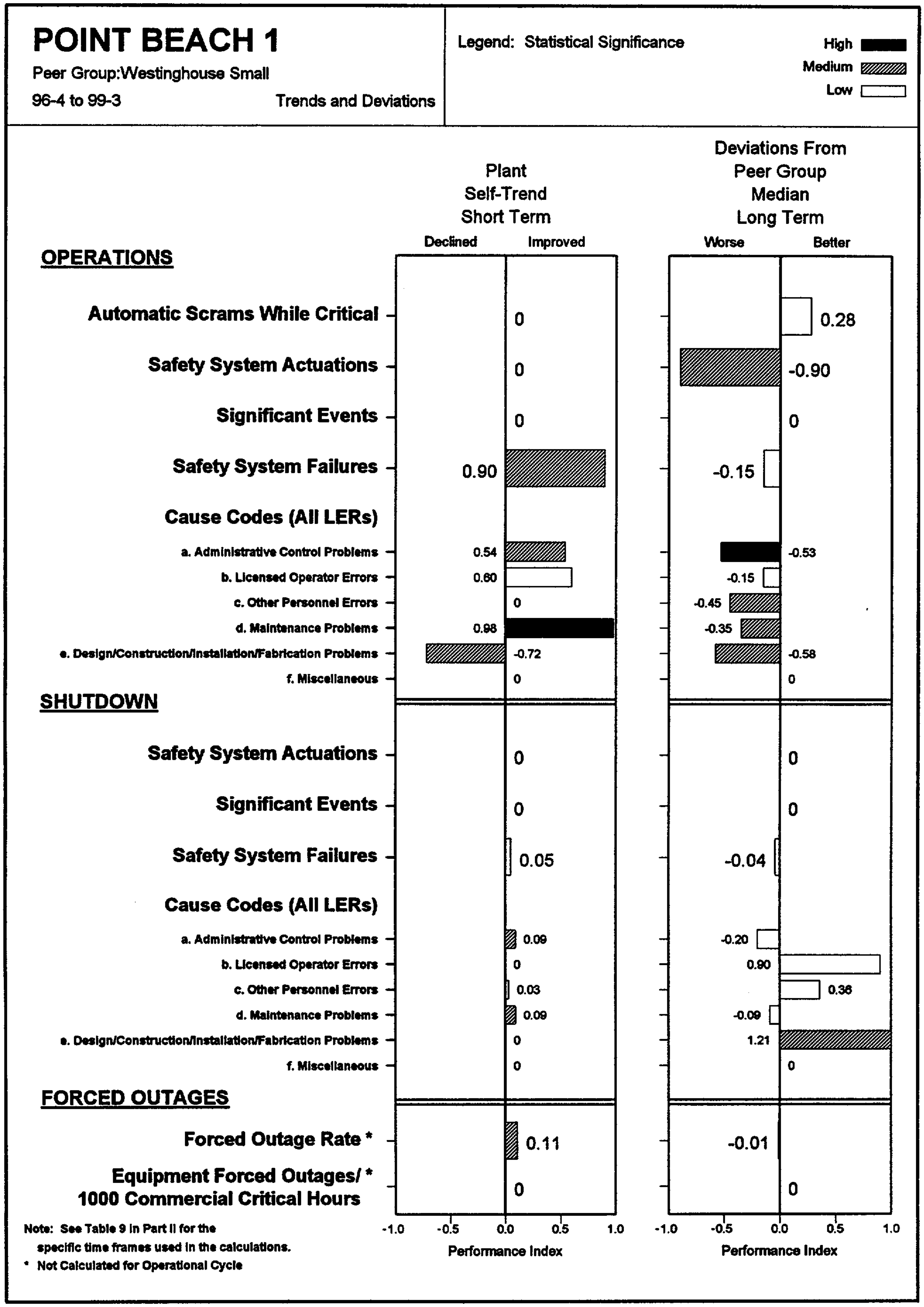

POINT BEACH 1
Peer Group:Westinghouse Small
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical
0
0.28
Safety System Actuations
0
-0.90
Significant Events
0
0
Safety System Failures
0.90
-0.15
Cause Codes (All LERs)
a. Administrative Control Problems
0.54
-0.53
b. Licensed Operator Errors
0.60
-0.15
c. Other Personnel Errors
0
-0.45
d. Maintenance Problems
0.98
-0.35
e. Design/Construction/Installation/Fabrication Problems
-0.72
-0.58
f. Miscellaneous
0
0
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0.05
-0.04
Cause Codes (All LERs)
a. Administrative Control Problems
0.09
-0.20
b. Licensed Operator Errors
0
0.90
c. Other Personnel Errors
0.03
0.36
d. Maintenance Problems
0.09
-0.09
e. Design/Construction/Installation/Fabrication Problems
0
1.21
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
0.11
-0.01
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0
0
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.72a

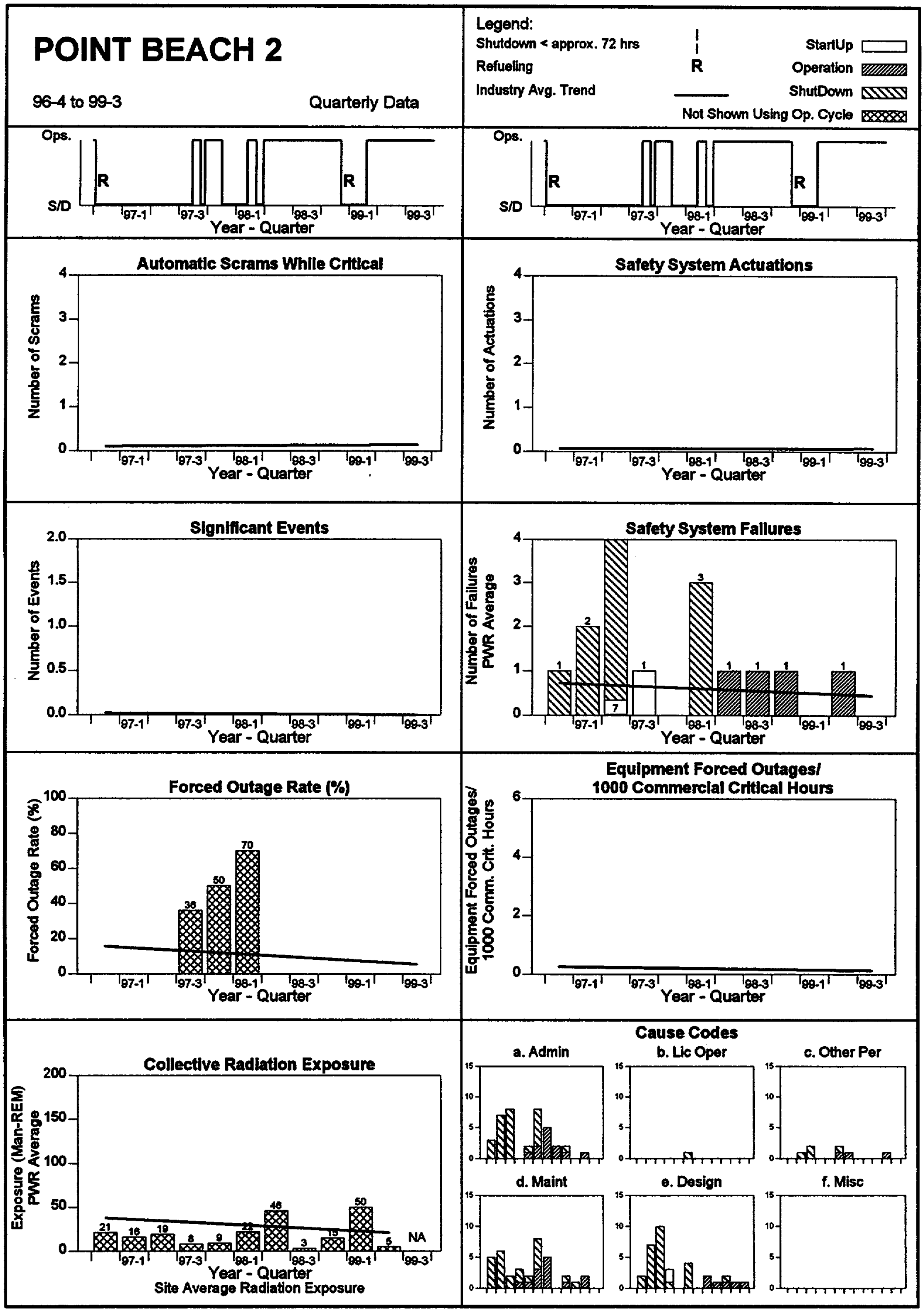

POINT BEACH 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
Safety System Failures
Number of Failures PWR Average
1
2
3
1
1
1
1
1
7
Forced Outage Rate (%)
Forced Outage Rate (%)
36
50
70
Equipment Forced Outages/ 1000 Commercial Critical Hours
Equipment Forced Outages/ 1000 Comm. Crit. Hours
Collective Radiation Exposure
Exposure (Man-REM) PWR Average
21
16
19
8
9
22
46
3
15
50
5
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc

Figure 7.72b

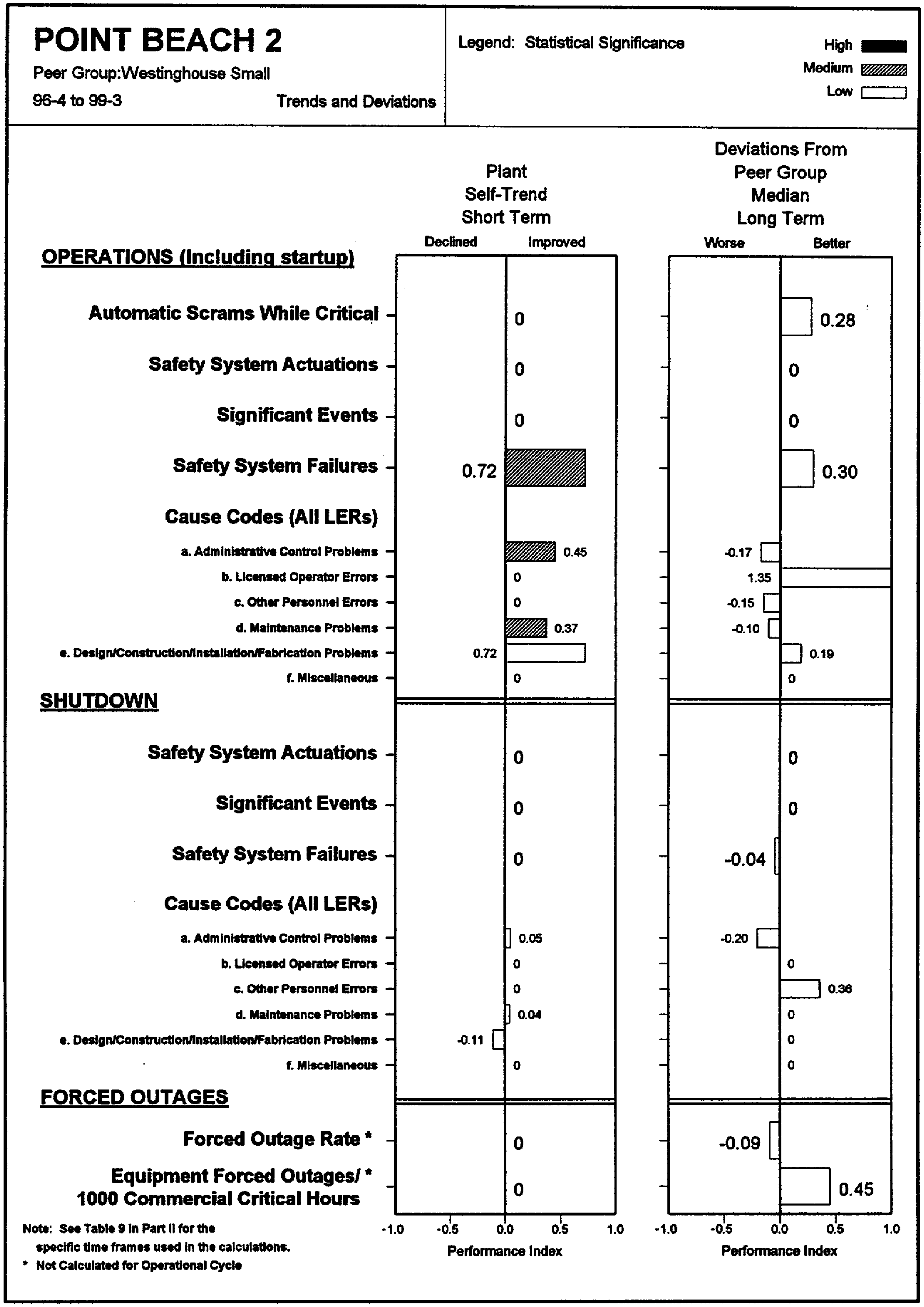

POINT BEACH 2
Peer Group:Westinghouse Small
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical
0
0.28
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0.72
0.30
Cause Codes (All LERs)
a. Administrative Control Problems
0.45
-0.17
b. Licensed Operator Errors
0
1.35
c. Other Personnel Errors
0
-0.15
d. Maintenance Problems
0.37
-0.10
e. Design/Construction/Installation/Fabrication Problems
0.72
0.19
f. Miscellaneous
0
0
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
-0.04
Cause Codes (All LERs)
a. Administrative Control Problems
0.05
-0.20
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
0.36
d. Maintenance Problems
0.04
0
e. Design/Construction/Installation/Fabrication Problems
-0.11
0
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
0
-0.09
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0
0.45
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.73a

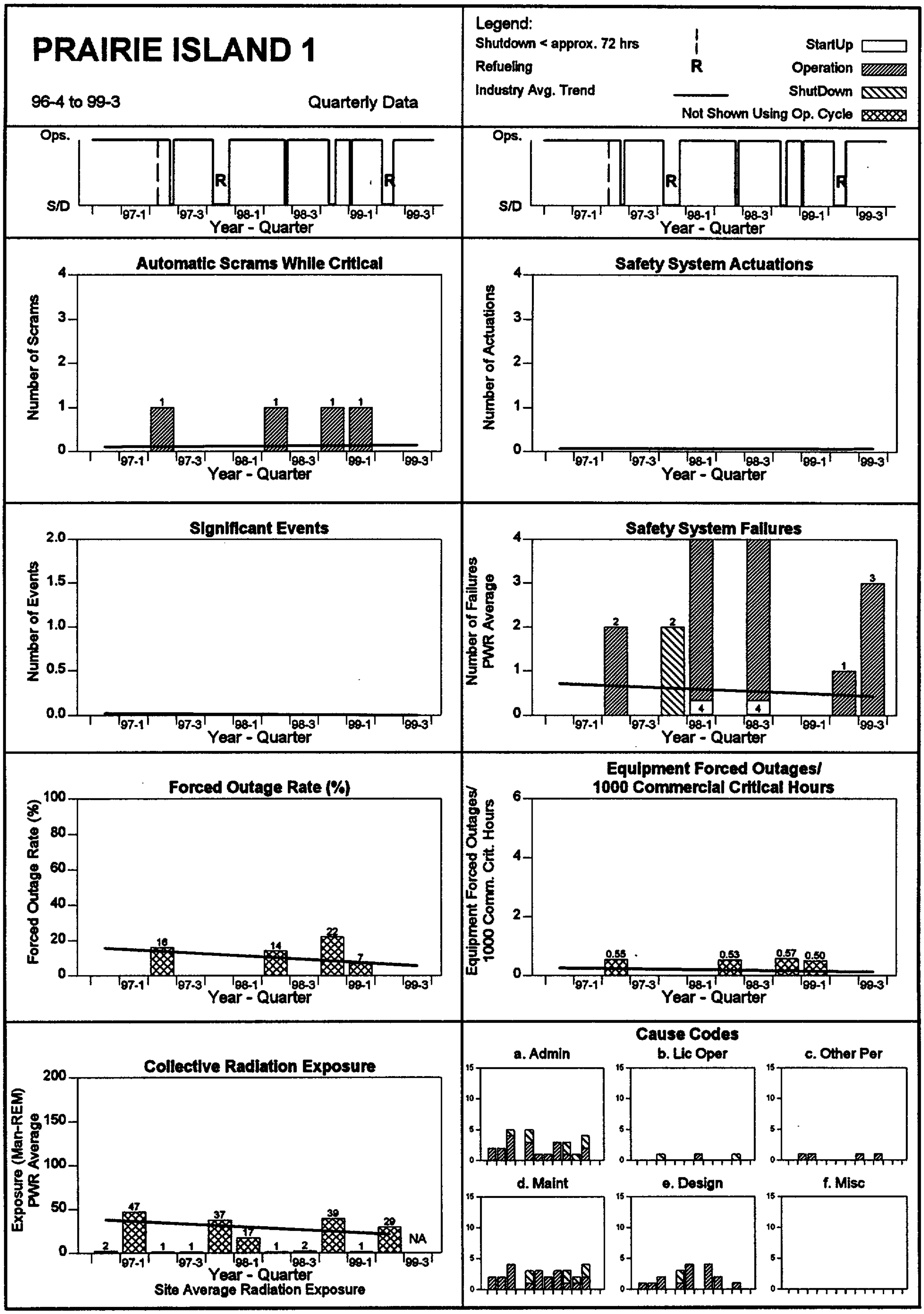

PRAIRIE ISLAND 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling
R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
1
1
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
2
2
4
4
1
3
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
16
14
22
7
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.55
0.53
0.57
0.50
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
2
47
1
1
37
17
1
2
39
1
29
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.73b

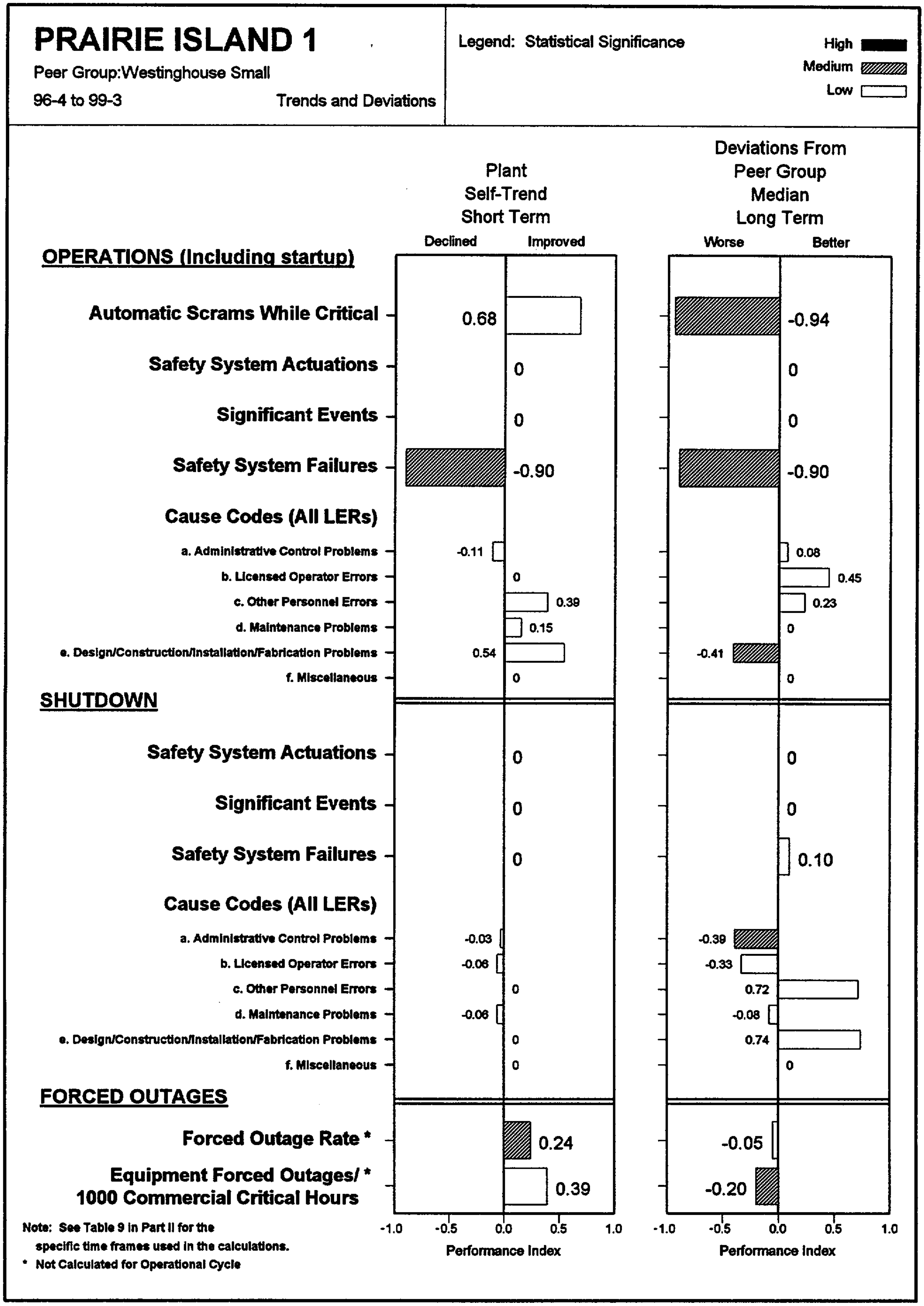

PRAIRIE ISLAND 1
Peer Group:Westinghouse Small
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low ☐
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical 0.68 -0.94
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures -0.90 -0.90
Cause Codes (All LERs)
a. Administrative Control Problems -0.11 0.08
b. Licensed Operator Errors 0 0.45
c. Other Personnel Errors 0.39 0.23
d. Maintenance Problems 0.15 0
e. Design/Construction/Installation/Fabrication Problems 0.54 -0.41
f. Miscellaneous 0 0
SHUTDOWN
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 0.10
Cause Codes (All LERs)
a. Administrative Control Problems -0.03 -0.39
b. Licensed Operator Errors -0.06 -0.33
c. Other Personnel Errors 0 0.72
d. Maintenance Problems -0.06 -0.08
e. Design/Construction/Installation/Fabrication Problems 0 0.74
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * 0.24 -0.05
Equipment Forced Outages/ * 1000 Commercial Critical Hours 0.39 -0.20
-1.0 -0.5 0.0 0.5 1.0
Performance Index
-1.0 -0.5 0.0 0.5 1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.74a

PRAIRIE ISLAND 2

96-4 to 99-3 Quarterly Data

Legend:
Shutdown < approx. 72 hrs |
Refueling R
Industry Avg. Trend ———
StartUp ☐
Operation ▨
ShutDown ▧
Not Shown Using Op. Cycle ▦

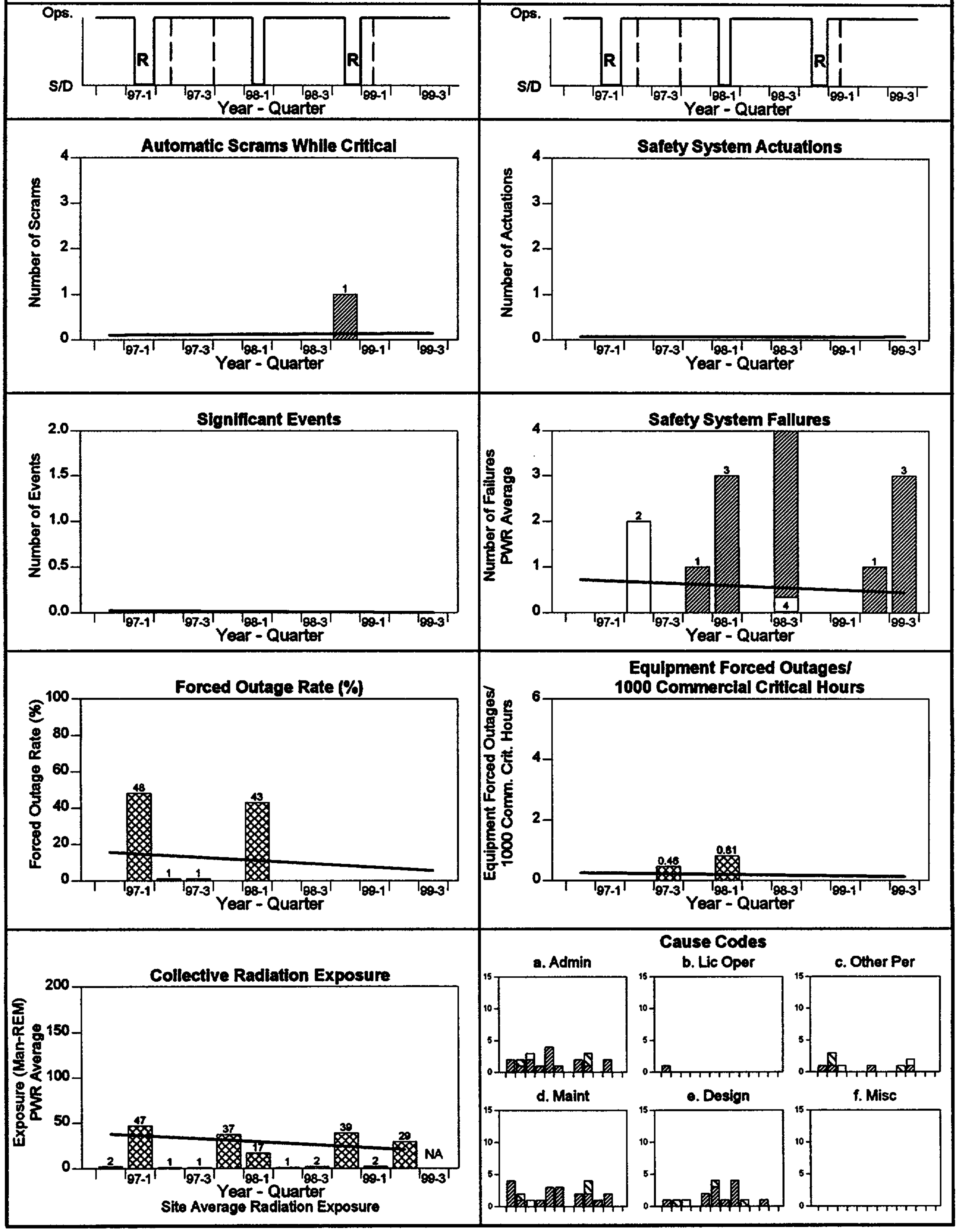


Figure 7.74b

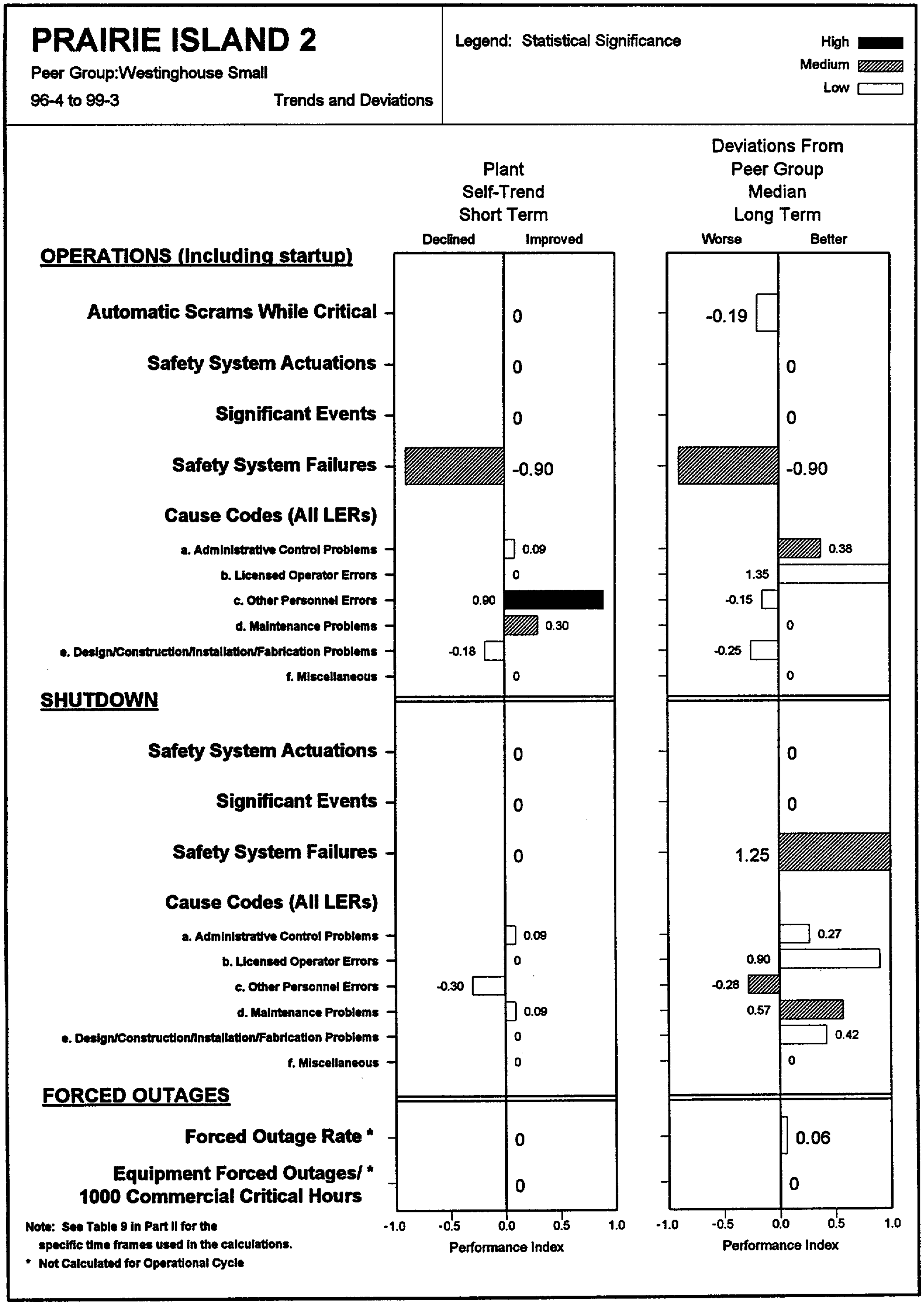

PRAIRIE ISLAND 2
Peer Group:Westinghouse Small
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low ☐
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical
0
-0.19
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
-0.90
-0.90
Cause Codes (All LERs)
a. Administrative Control Problems
0.09
0.38
b. Licensed Operator Errors
0
1.35
c. Other Personnel Errors
0.90
-0.15
d. Maintenance Problems
0.30
0
e. Design/Construction/Installation/Fabrication Problems
-0.18
-0.25
f. Miscellaneous
0
0
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
1.25
Cause Codes (All LERs)
a. Administrative Control Problems
0.09
0.27
b. Licensed Operator Errors
0
0.90
c. Other Personnel Errors
-0.30
-0.28
d. Maintenance Problems
0.09
0.57
e. Design/Construction/Installation/Fabrication Problems
0
0.42
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
0
0.06
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0
0
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.75a

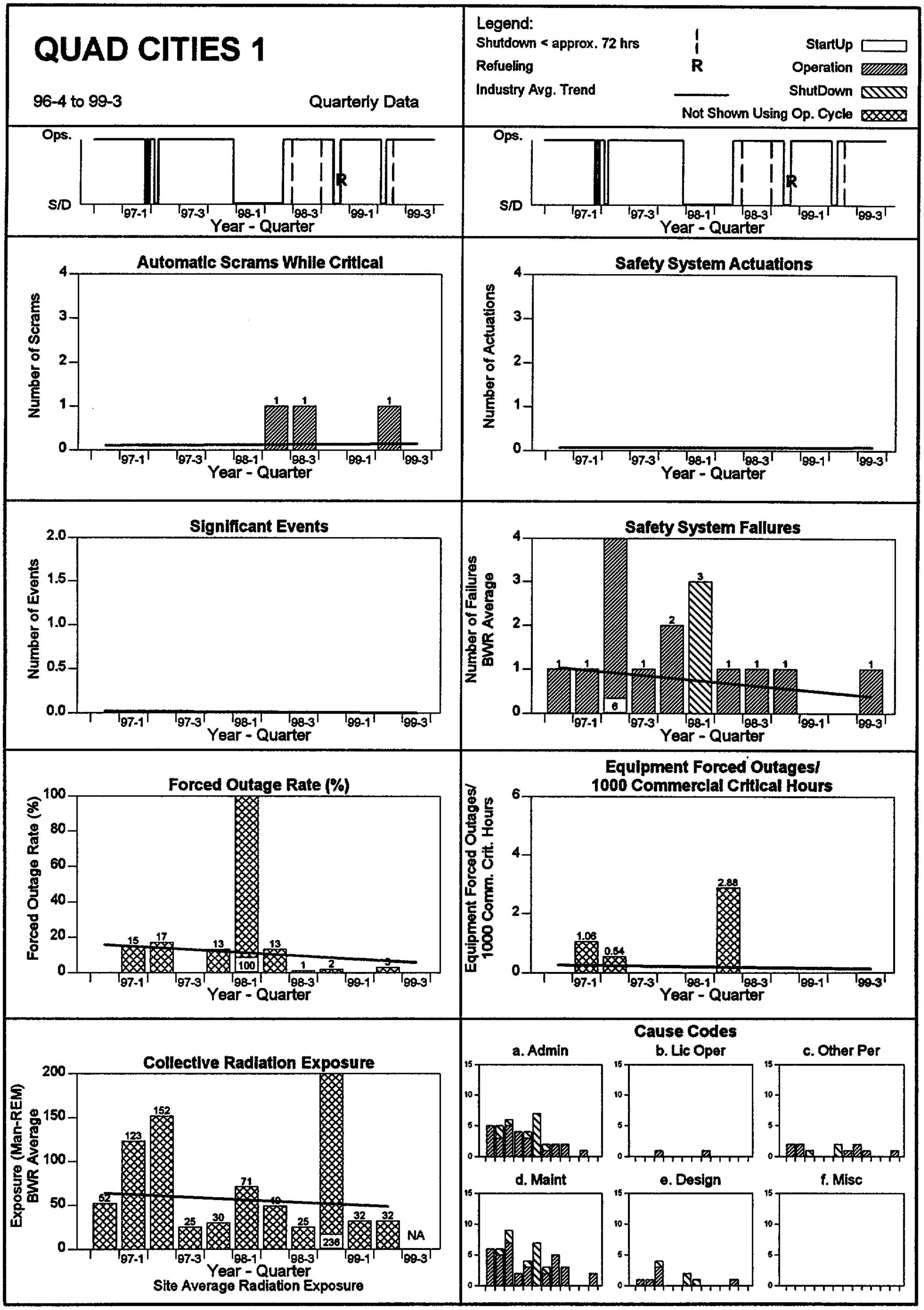

QUAD CITIES 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling
R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
1
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
BWR Average
1
1
6
1
2
3
1
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
15
17
13
100
13
1
2
3
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
1.06
0.54
2.88
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
0
50
100
150
200
52
123
152
25
30
71
49
25
236
32
32
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.75b

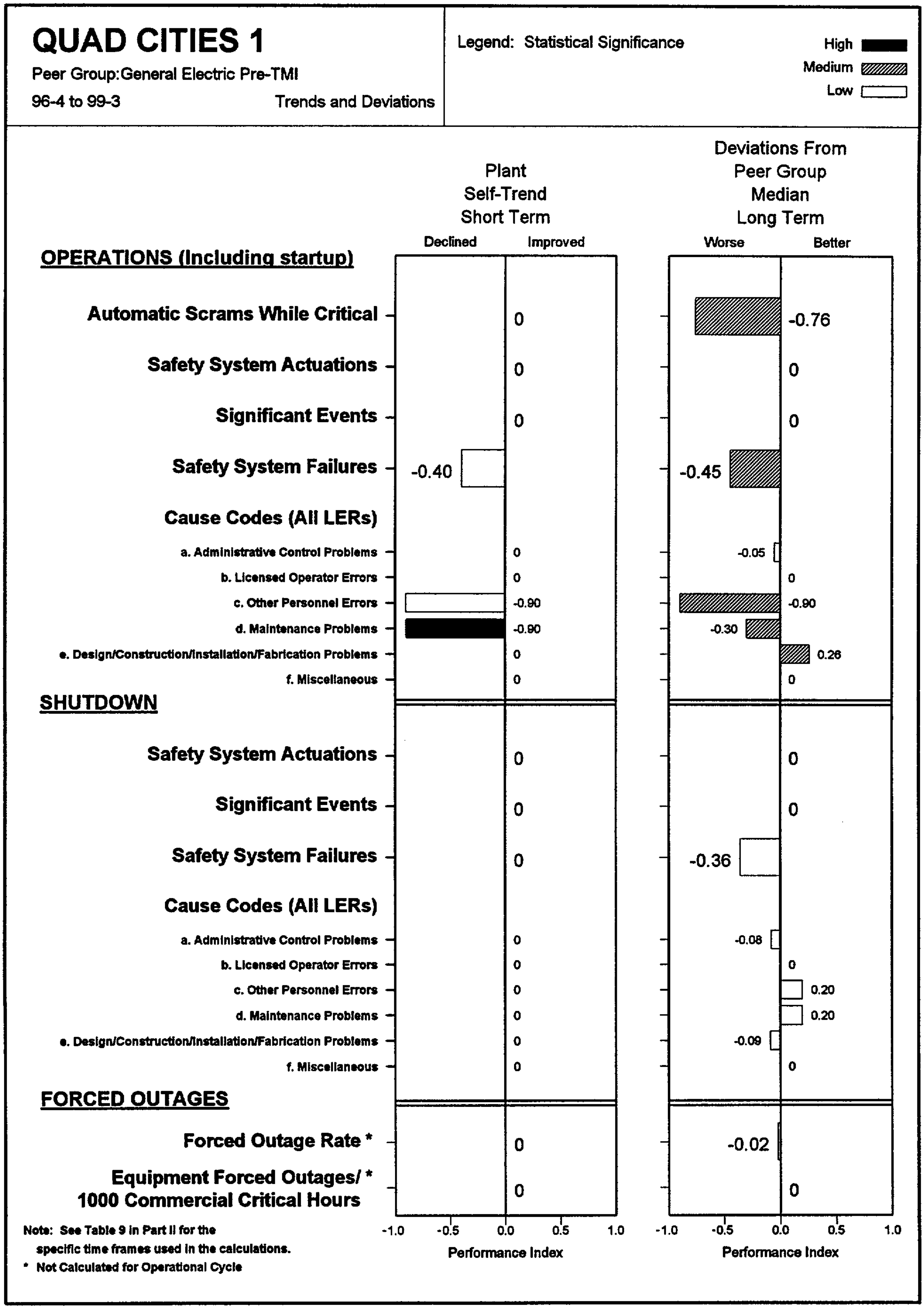
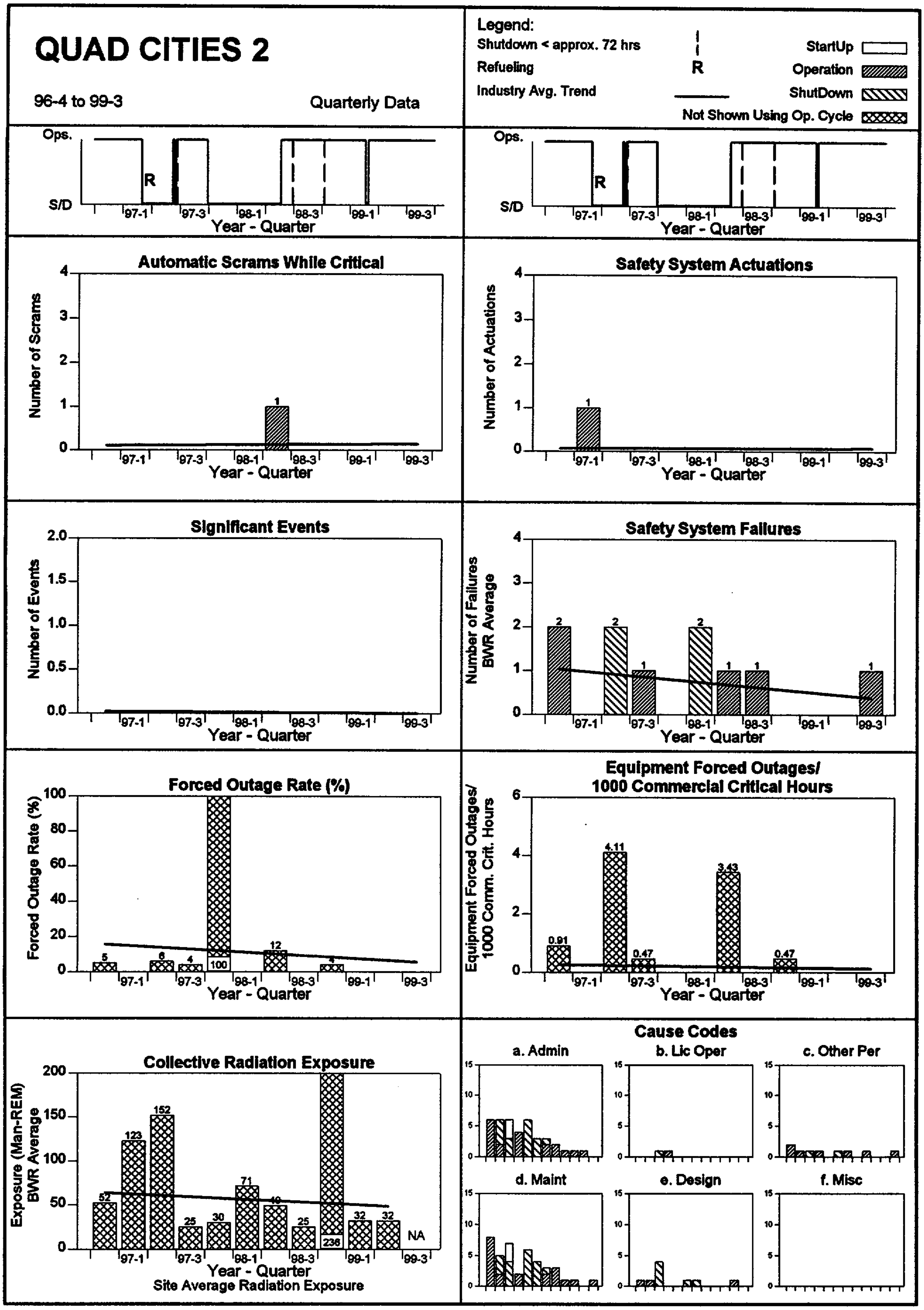

QUAD CITIES 1
Peer Group:General Electric Pre-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical
0
-0.76
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
-0.40
-0.45
Cause Codes (All LERs)
a. Administrative Control Problems
0
-0.05
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
-0.90
-0.90
d. Maintenance Problems
-0.90
-0.30
e. Design/Construction/Installation/Fabrication Problems
0
0.26
f. Miscellaneous
0
0
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
-0.36
Cause Codes (All LERs)
a. Administrative Control Problems
0
-0.08
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
0.20
d. Maintenance Problems
0
0.20
e. Design/Construction/Installation/Fabrication Problems
0
-0.09
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
0
-0.02
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0
0
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.76a



QUAD CITIES 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling
R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
4
3
2
1
0
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
2.0
1.5
1.0
0.5
0.0
Safety System Failures
Number of Failures
BWR Average
2
2
1
2
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
100
80
60
40
20
0
5
6
4
100
12
4
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
6
4
2
0
0.91
4.11
0.47
3.43
0.47
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
200
150
100
50
0
52
123
152
25
30
71
49
25
236
32
32
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
15
10
5
0

Figure 7.76b

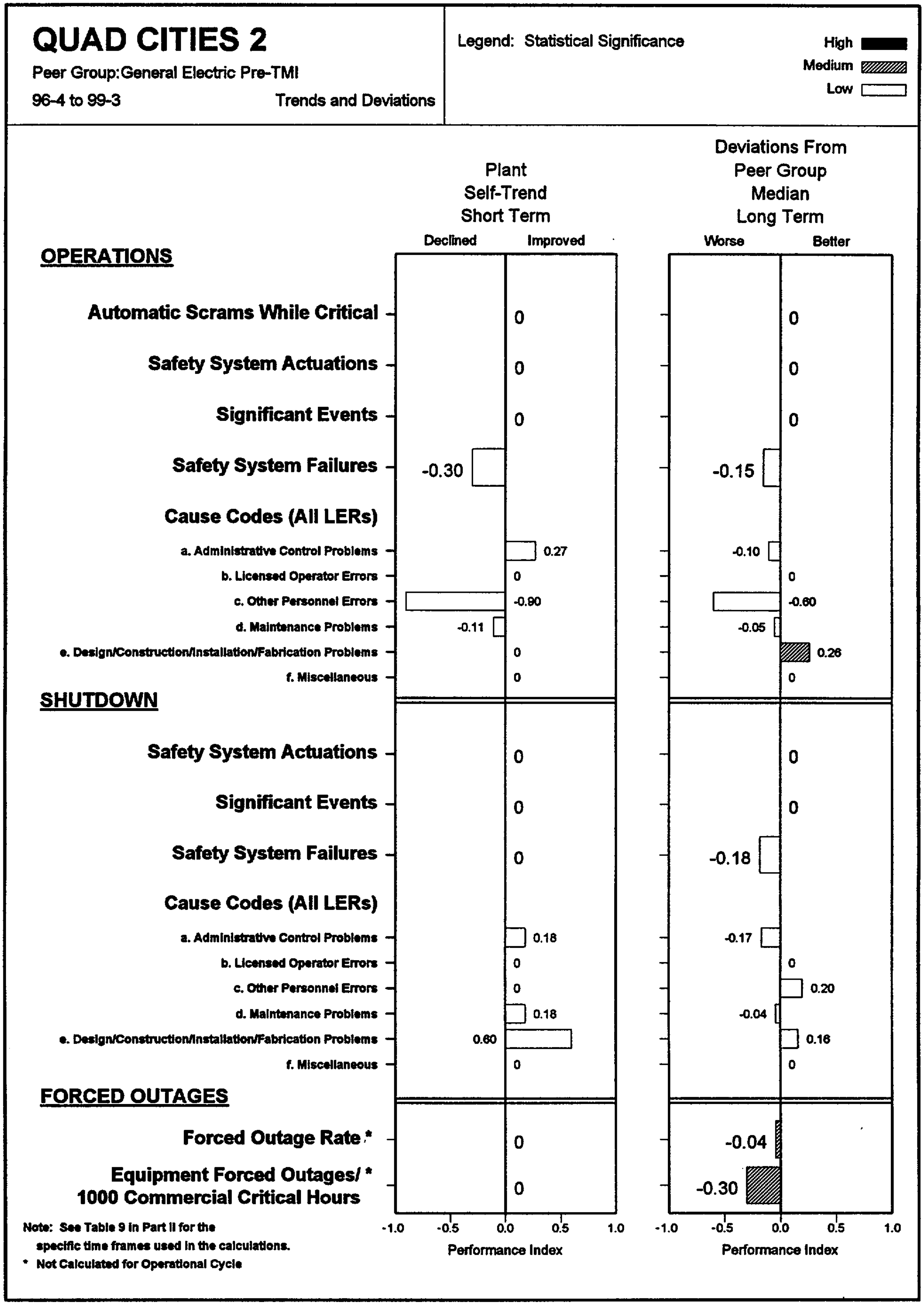

QUAD CITIES 2
Peer Group:General Electric Pre-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical 0 0
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures -0.30 -0.15
Cause Codes (All LERs)
a. Administrative Control Problems 0.27 -0.10
b. Licensed Operator Errors 0 0
c. Other Personnel Errors -0.90 -0.60
d. Maintenance Problems -0.11 -0.05
e. Design/Construction/Installation/Fabrication Problems 0 0.26
f. Miscellaneous 0 0
SHUTDOWN
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 -0.18
Cause Codes (All LERs)
a. Administrative Control Problems 0.18 -0.17
b. Licensed Operator Errors 0 0
c. Other Personnel Errors 0 0.20
d. Maintenance Problems 0.18 -0.04
e. Design/Construction/Installation/Fabrication Problems 0.60 0.16
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * 0 -0.04
Equipment Forced Outages/ * 1000 Commercial Critical Hours 0 -0.30
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.77a

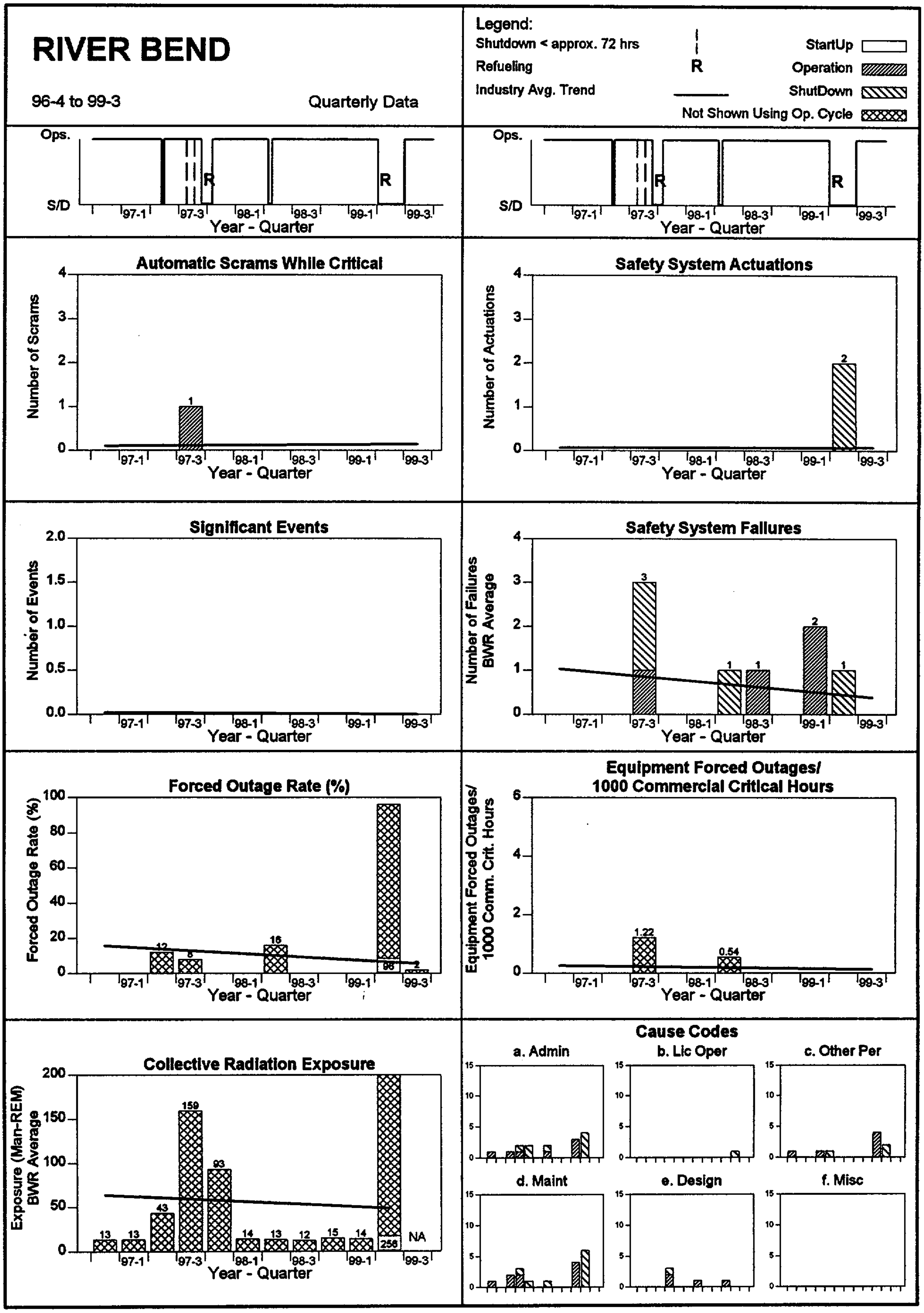

RIVER BEND
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling
R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
Safety System Actuations
Number of Actuations
2
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
BWR Average
3
1
1
2
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
12
8
16
98
2
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
1.22
0.54
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
0
50
100
150
200
13
13
43
159
93
14
13
12
15
14
256
NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.77b

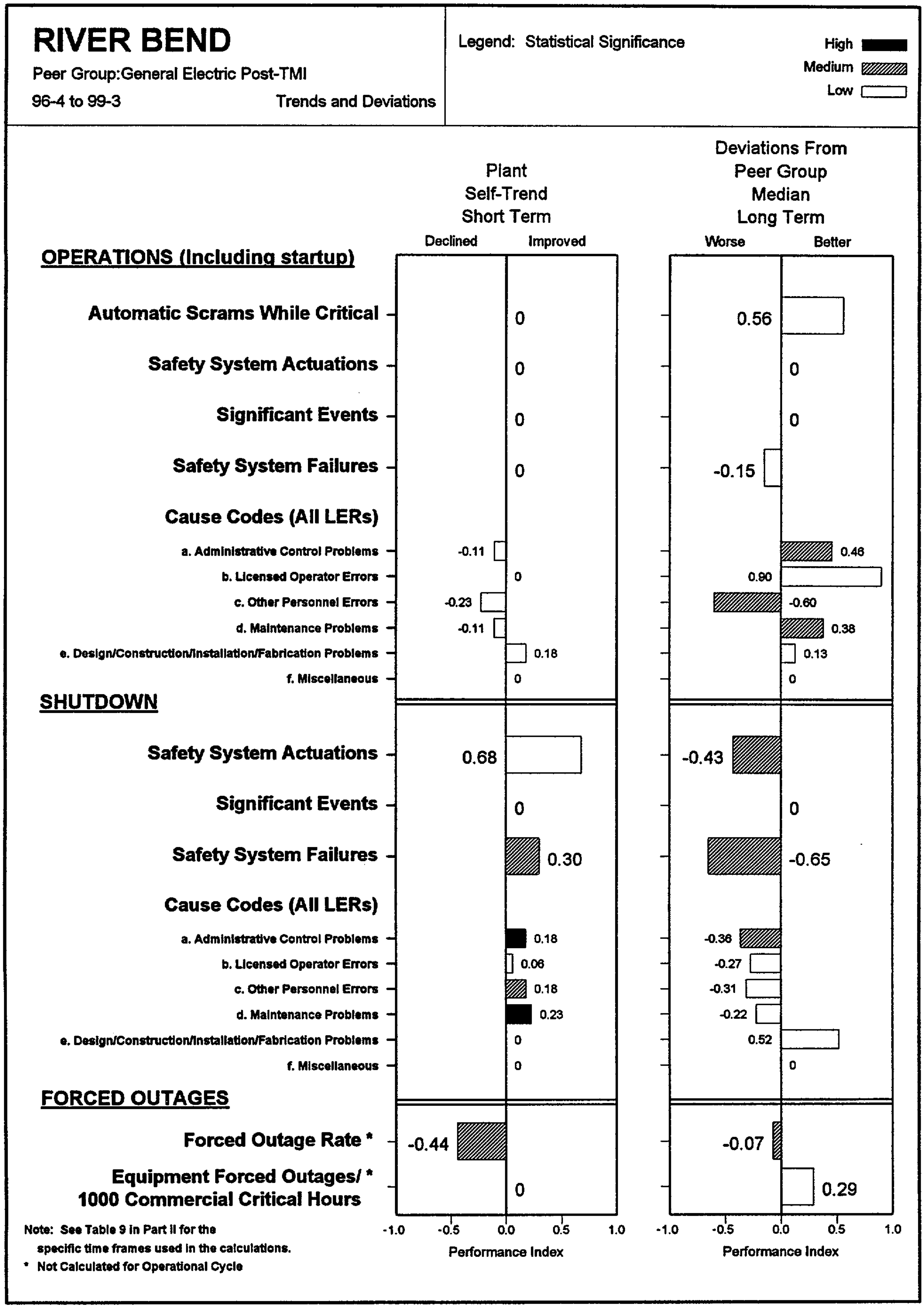

RIVER BEND
Peer Group:General Electric Post-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical
0
0.56
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
-0.15
Cause Codes (All LERs)
a. Administrative Control Problems
-0.11
0.46
b. Licensed Operator Errors
0
0.90
c. Other Personnel Errors
-0.23
-0.60
d. Maintenance Problems
-0.11
0.38
e. Design/Construction/Installation/Fabrication Problems
0.18
0.13
f. Miscellaneous
0
0
SHUTDOWN
Safety System Actuations
0.68
-0.43
Significant Events
0
0
Safety System Failures
0.30
-0.65
Cause Codes (All LERs)
a. Administrative Control Problems
0.18
-0.36
b. Licensed Operator Errors
0.06
-0.27
c. Other Personnel Errors
0.18
-0.31
d. Maintenance Problems
0.23
-0.22
e. Design/Construction/Installation/Fabrication Problems
0
0.52
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
-0.44
-0.07
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0
0.29
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.78a

ROBINSON 2

96-4 to 99-3 Quarterly Data

Legend:

Shutdown < approx. 72 hrs	¦	StartUp	☐
Refueling	R	Operation	▨
Industry Avg. Trend	———	ShutDown	▧
		Not Shown Using Op. Cycle	▩

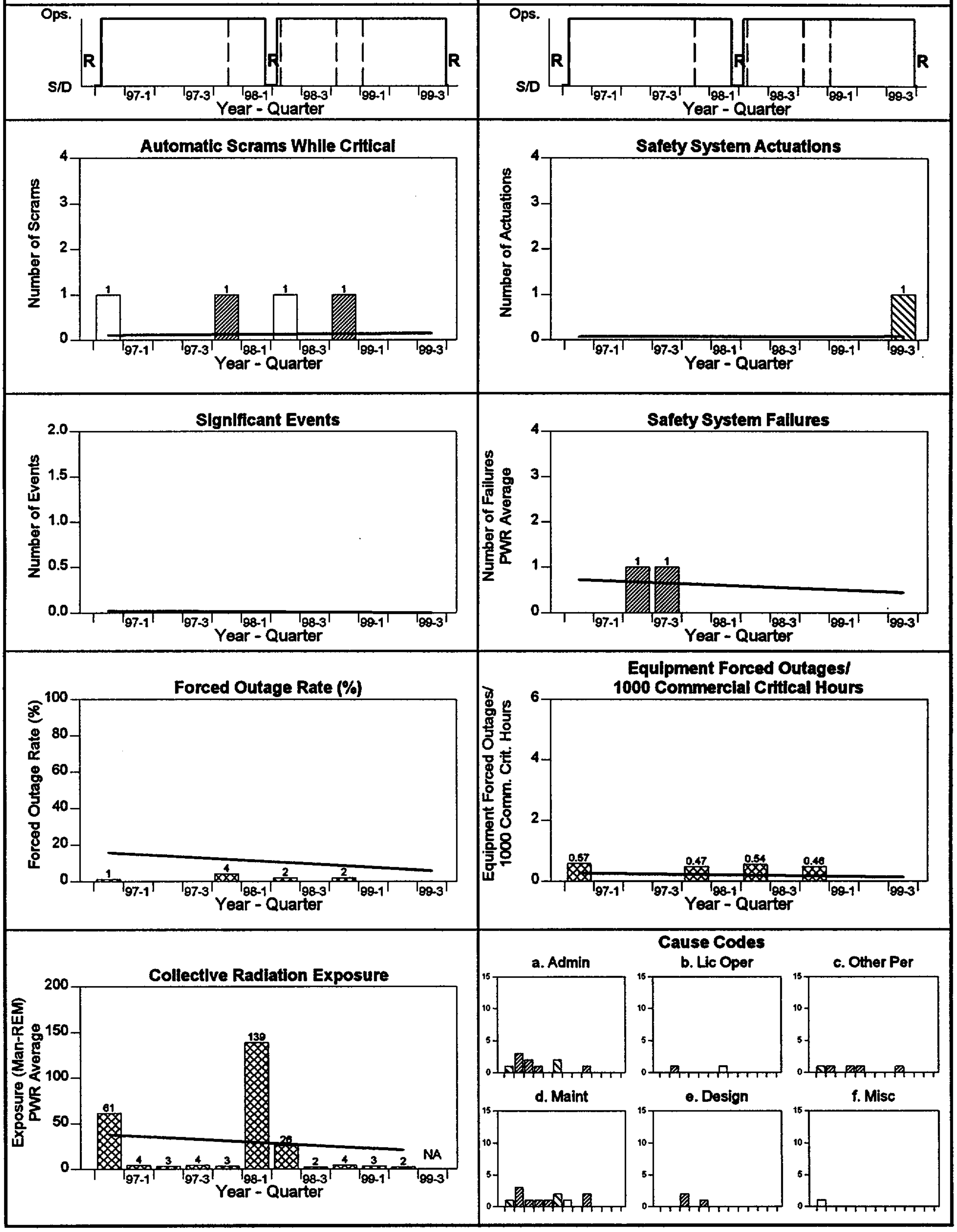
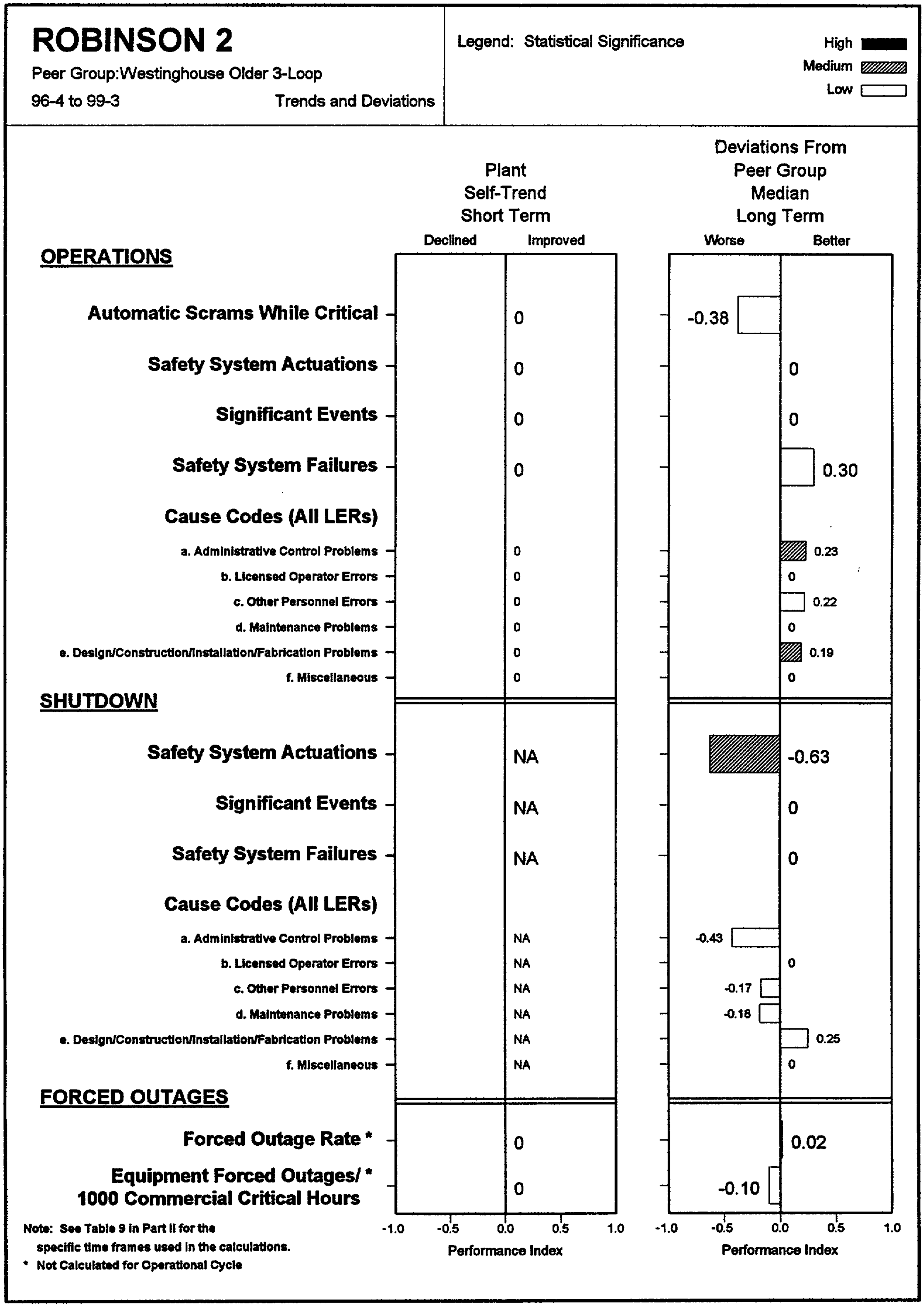


Figure 7.78b



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.79a

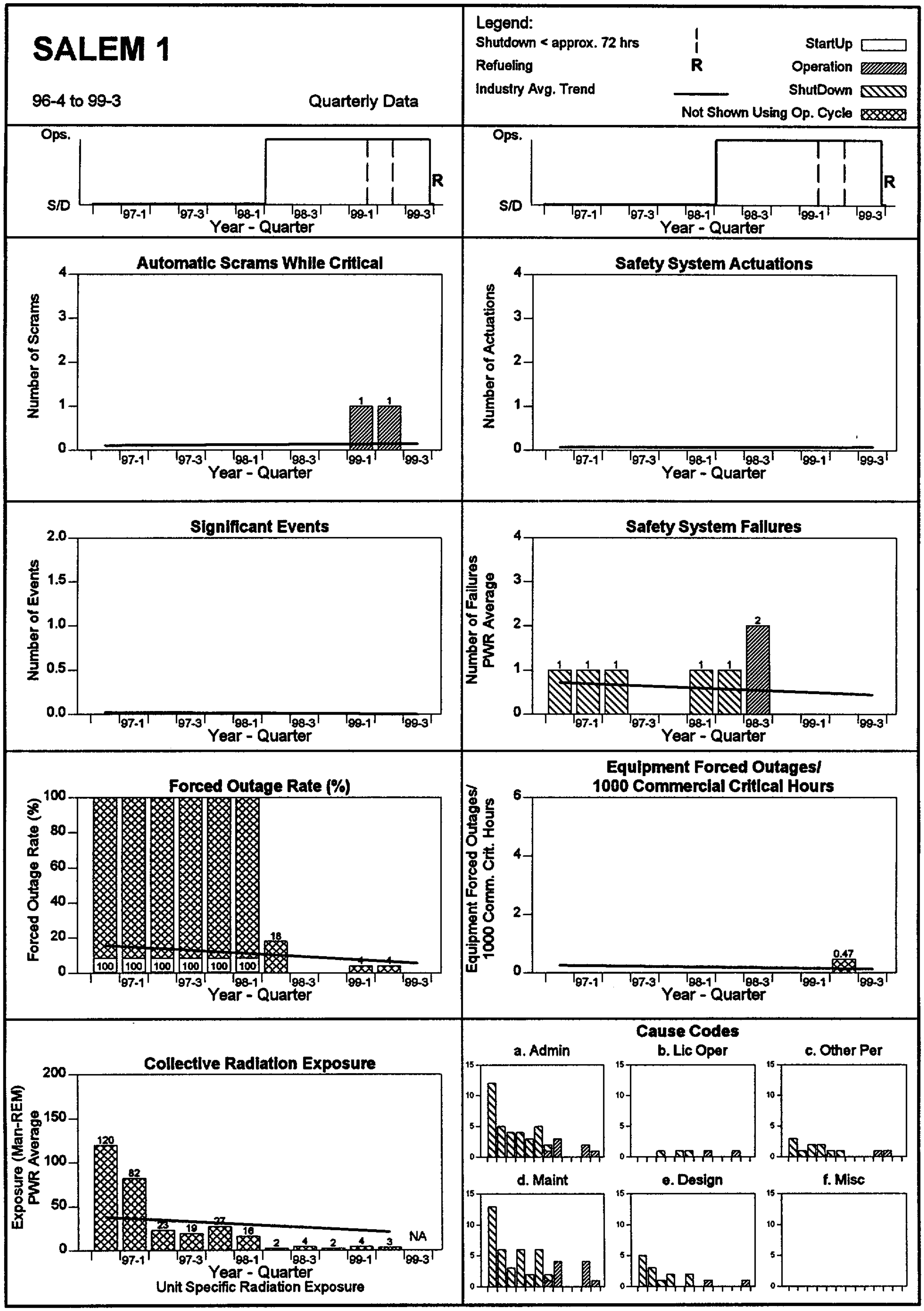
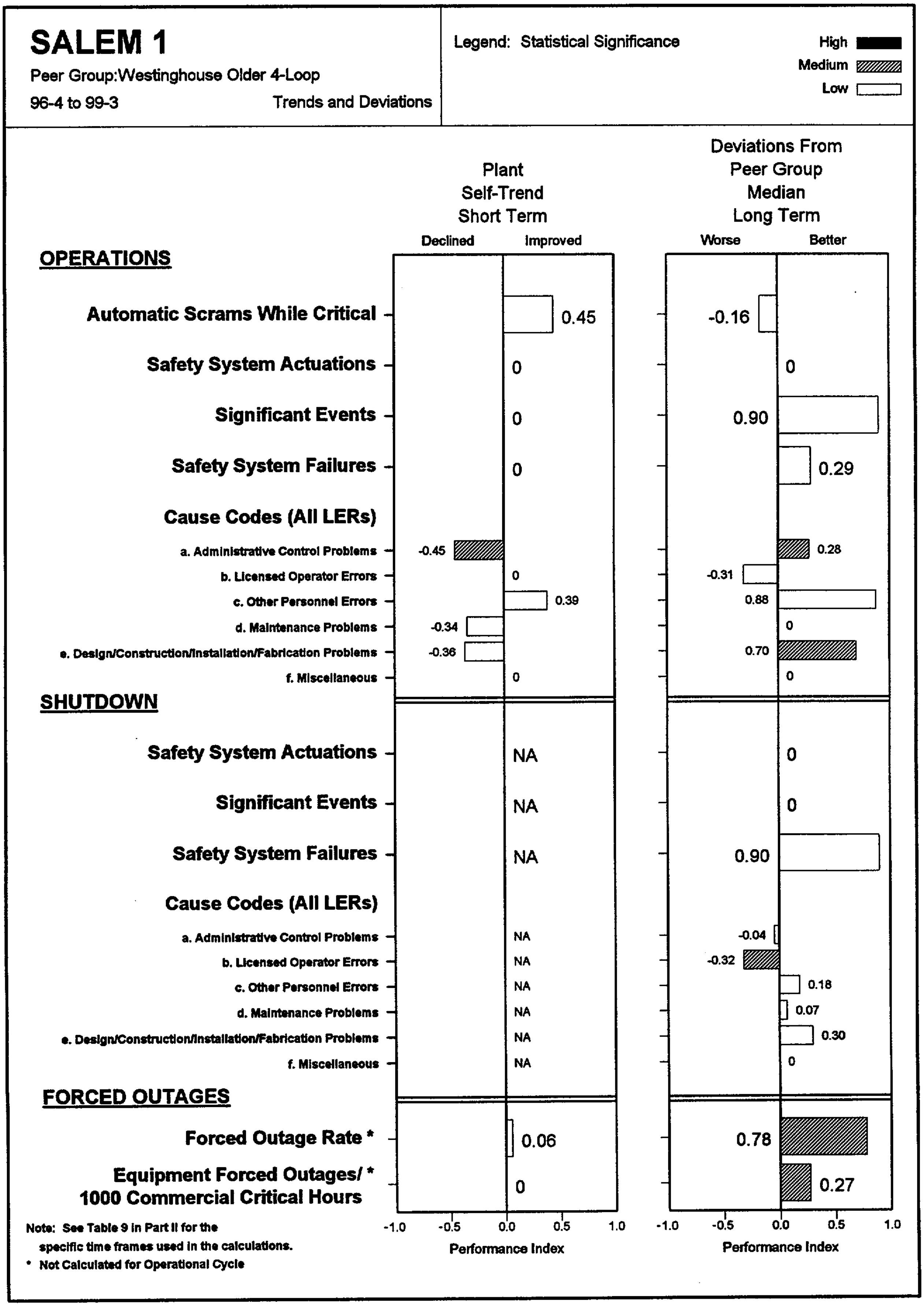

SALEM 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures PWR Average
1
1
1
1
1
2
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
100
100
100
100
100
100
18
4
4
Equipment Forced Outages/ 1000 Commercial Critical Hours
Equipment Forced Outages/ 1000 Comm. Crit. Hours
0
2
4
6
0.47
Collective Radiation Exposure
Exposure (Man-REM) PWR Average
0
50
100
150
200
120
82
23
19
27
16
2
4
2
4
3
NA
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.79b



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.80a

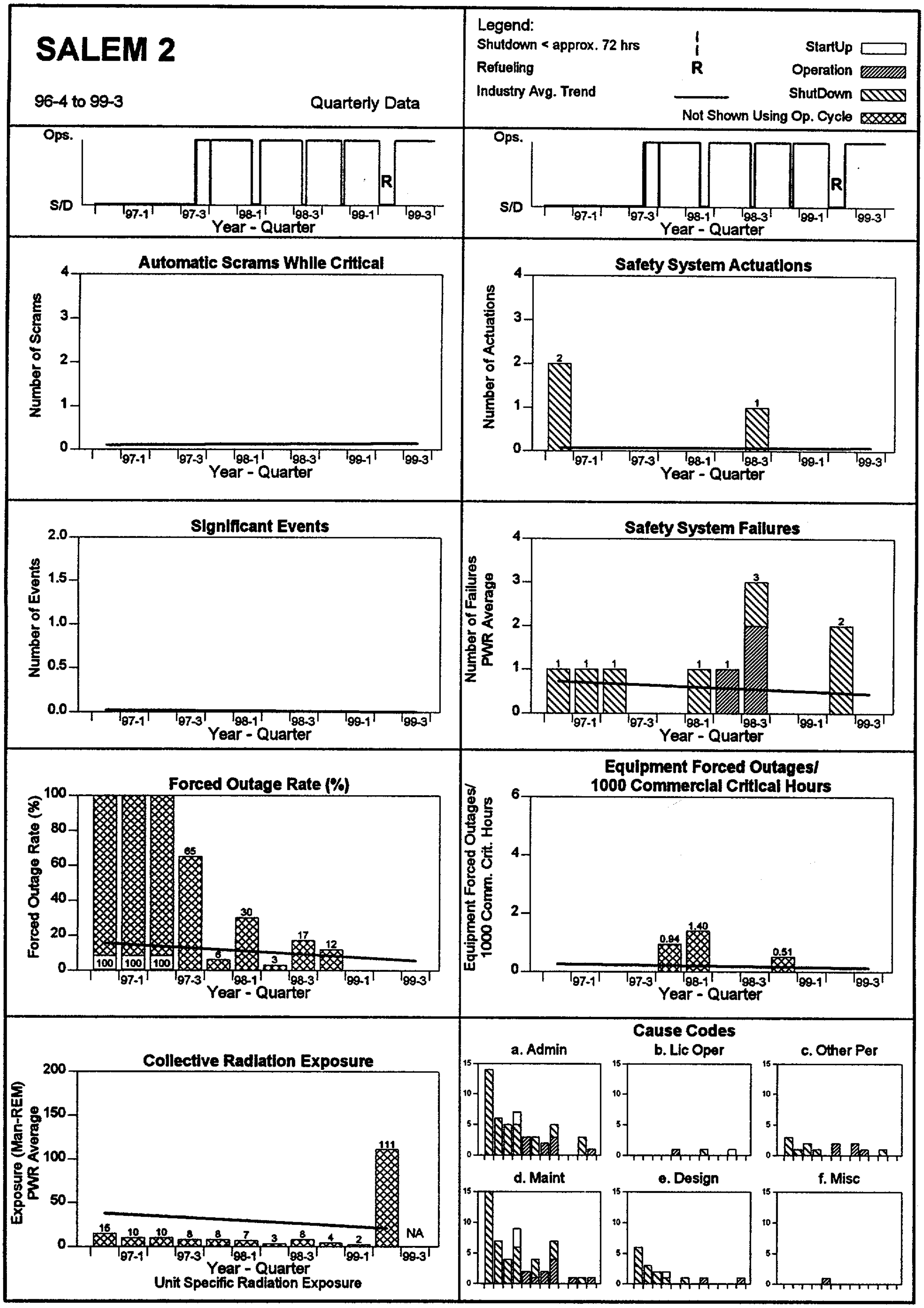

SALEM 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
Year - Quarter
97-1
97-3
98-1
98-3
99-1
99-3
Automatic Scrams While Critical
Number of Scrams
Safety System Actuations
Number of Actuations
2
1
Significant Events
Number of Events
Safety System Failures
Number of Failures
PWR Average
1
1
1
1
1
3
2
Forced Outage Rate (%)
Forced Outage Rate (%)
100
100
100
65
6
30
3
17
12
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0.94
1.40
0.51
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
15
10
10
8
8
7
3
8
4
2
111
NA
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc

Figure 7.80b

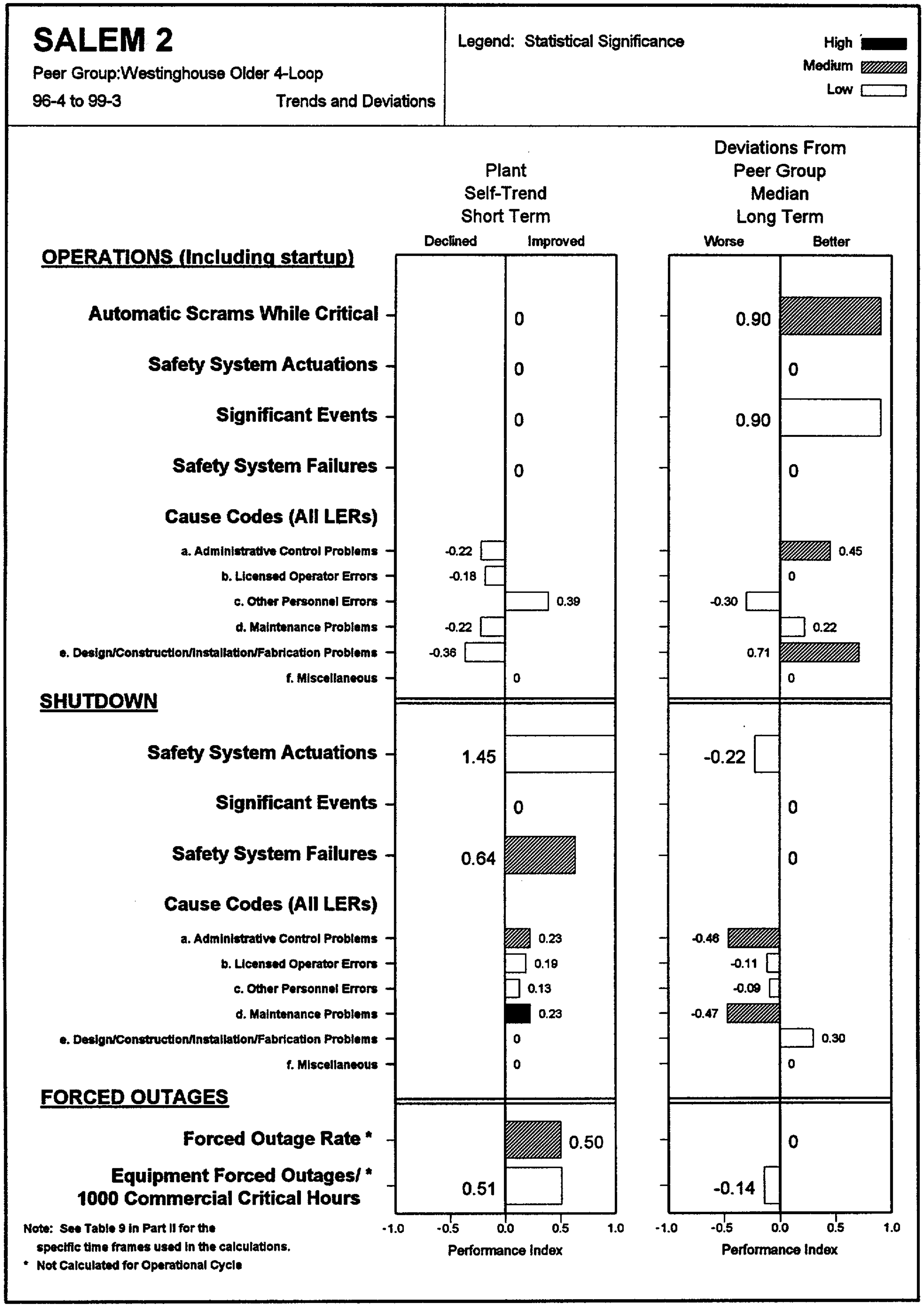

SALEM 2
Peer Group:Westinghouse Older 4-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low ☐
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical 0 0.90
Safety System Actuations 0 0
Significant Events 0 0.90
Safety System Failures 0 0
Cause Codes (All LERs)
a. Administrative Control Problems -0.22 0.45
b. Licensed Operator Errors -0.18 0
c. Other Personnel Errors 0.39 -0.30
d. Maintenance Problems -0.22 0.22
e. Design/Construction/Installation/Fabrication Problems -0.36 0.71
f. Miscellaneous 0 0
SHUTDOWN
Safety System Actuations 1.45 -0.22
Significant Events 0 0
Safety System Failures 0.64 0
Cause Codes (All LERs)
a. Administrative Control Problems 0.23 -0.46
b. Licensed Operator Errors 0.19 -0.11
c. Other Personnel Errors 0.13 -0.09
d. Maintenance Problems 0.23 -0.47
e. Design/Construction/Installation/Fabrication Problems 0 0.30
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * 0.50 0
Equipment Forced Outages/ * 1000 Commercial Critical Hours 0.51 -0.14
-1.0 -0.5 0.0 0.5 1.0
Performance Index
-1.0 -0.5 0.0 0.5 1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.81a

SAN ONOFRE 2

96-4 to 99-3 Quarterly Data

Legend:

Shutdown < approx. 72 hrs	¦	StartUp	☐
Refueling	R	Operation	▨
Industry Avg. Trend	——	ShutDown	▧
		Not Shown Using Op. Cycle	▩

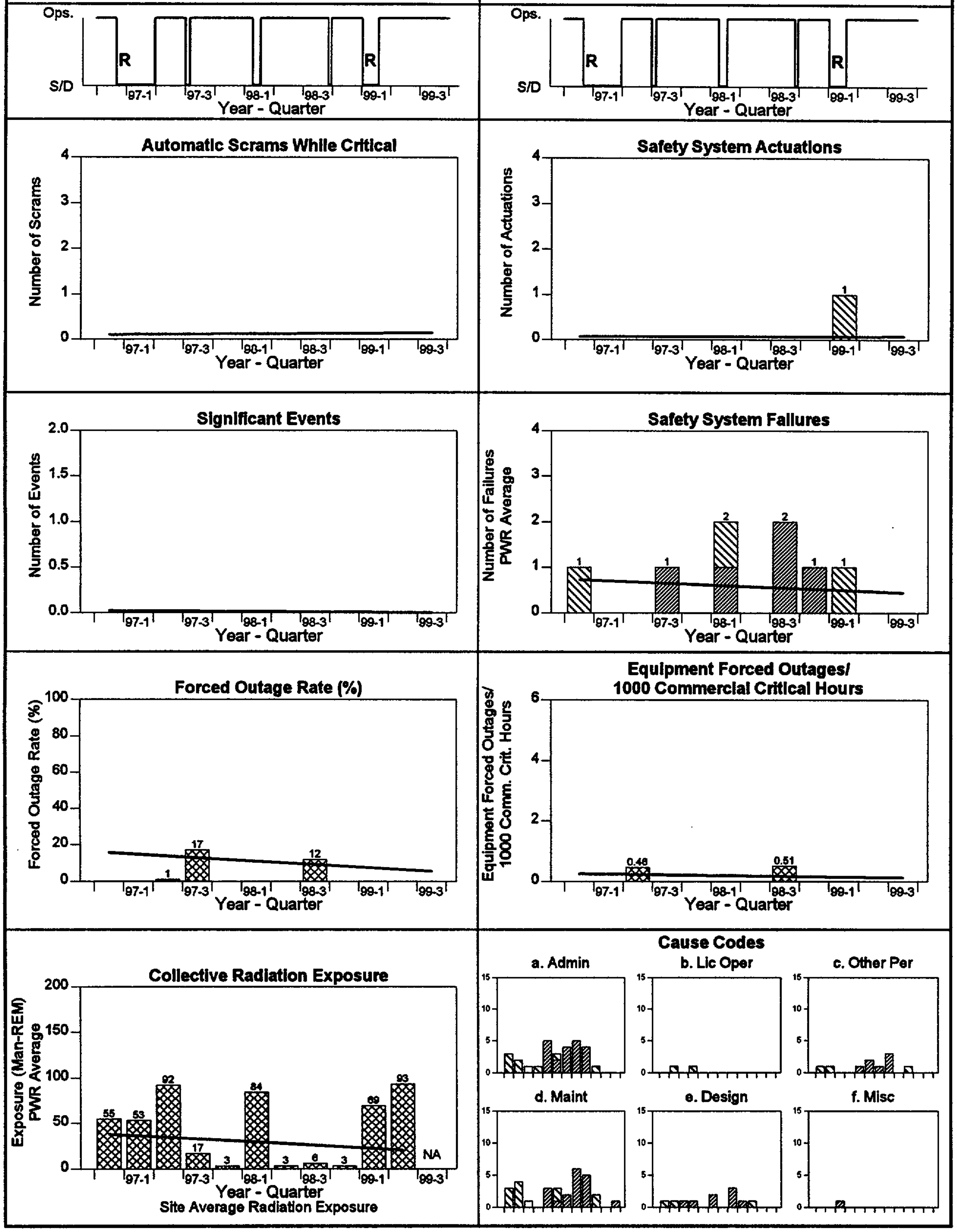


Figure 7.81b

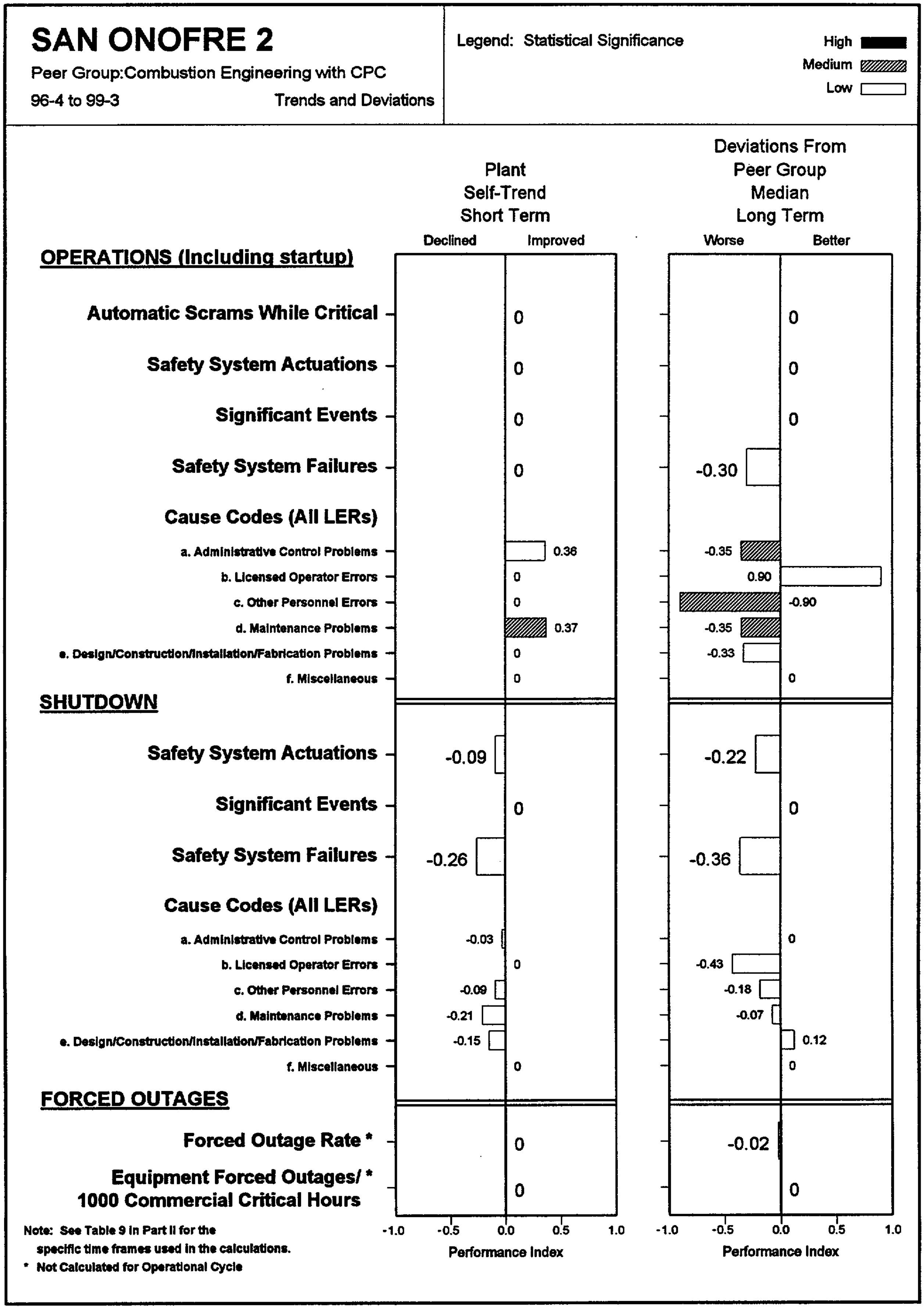

SAN ONOFRE 2
Peer Group:Combustion Engineering with CPC
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical 0 0
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 -0.30
Cause Codes (All LERs)
a. Administrative Control Problems 0.36 -0.35
b. Licensed Operator Errors 0 0.90
c. Other Personnel Errors 0 -0.90
d. Maintenance Problems 0.37 -0.35
e. Design/Construction/Installation/Fabrication Problems 0 -0.33
f. Miscellaneous 0 0
SHUTDOWN
Safety System Actuations -0.09 -0.22
Significant Events 0 0
Safety System Failures -0.26 -0.36
Cause Codes (All LERs)
a. Administrative Control Problems -0.03 0
b. Licensed Operator Errors 0 -0.43
c. Other Personnel Errors -0.09 -0.18
d. Maintenance Problems -0.21 -0.07
e. Design/Construction/Installation/Fabrication Problems -0.15 0.12
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * 0 -0.02
Equipment Forced Outages/ * 1000 Commercial Critical Hours 0 0
-1.0 -0.5 0.0 0.5 1.0
Performance Index
-1.0 -0.5 0.0 0.5 1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.82a

SAN ONOFRE 3

96-4 to 99-3 Quarterly Data

Legend:

Shutdown < approx. 72 hrs	¦	StartUp	☐
Refueling	R	Operation	▨
Industry Avg. Trend	———	ShutDown	▧
		Not Shown Using Op. Cycle	▩

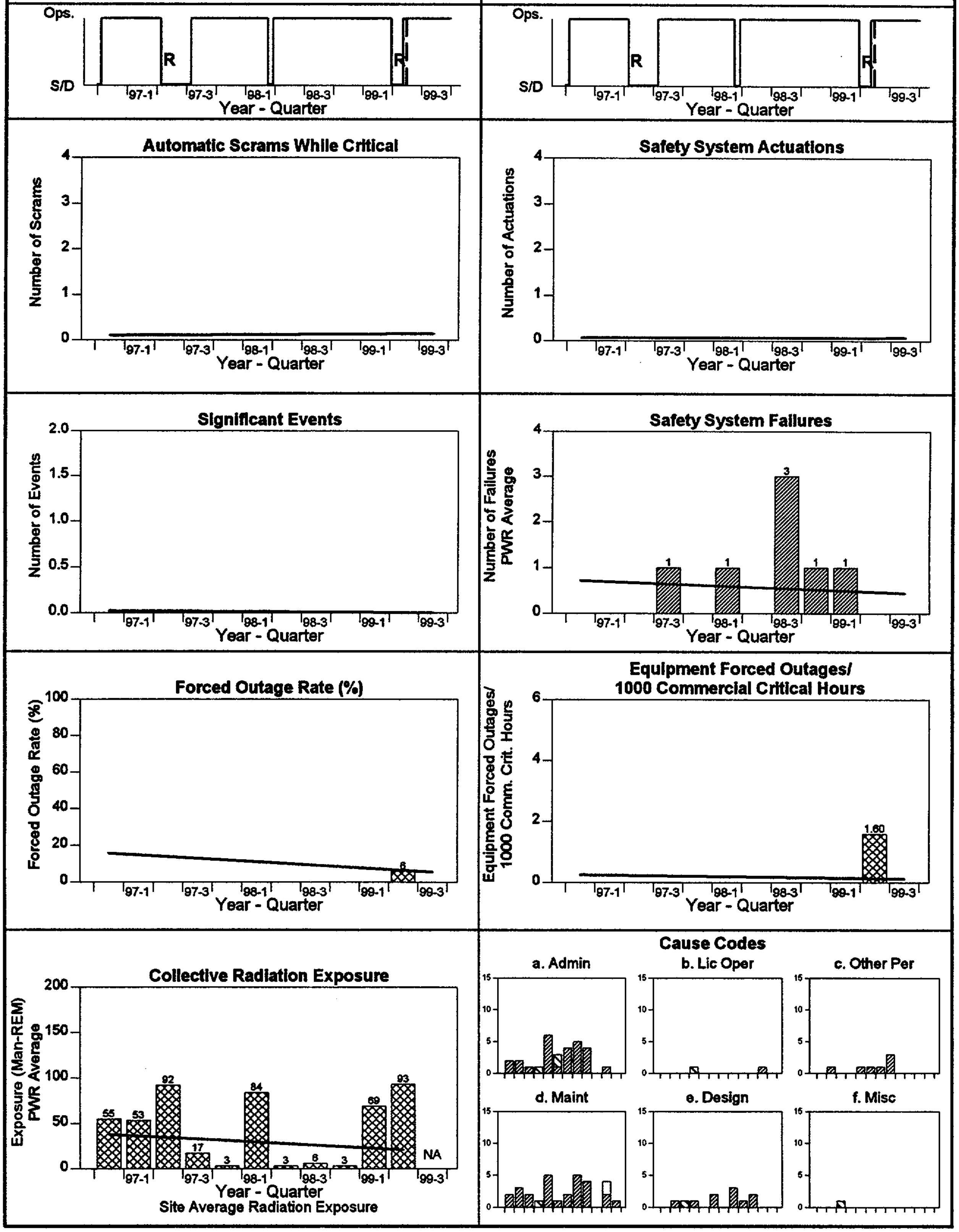


Figure 7.82b

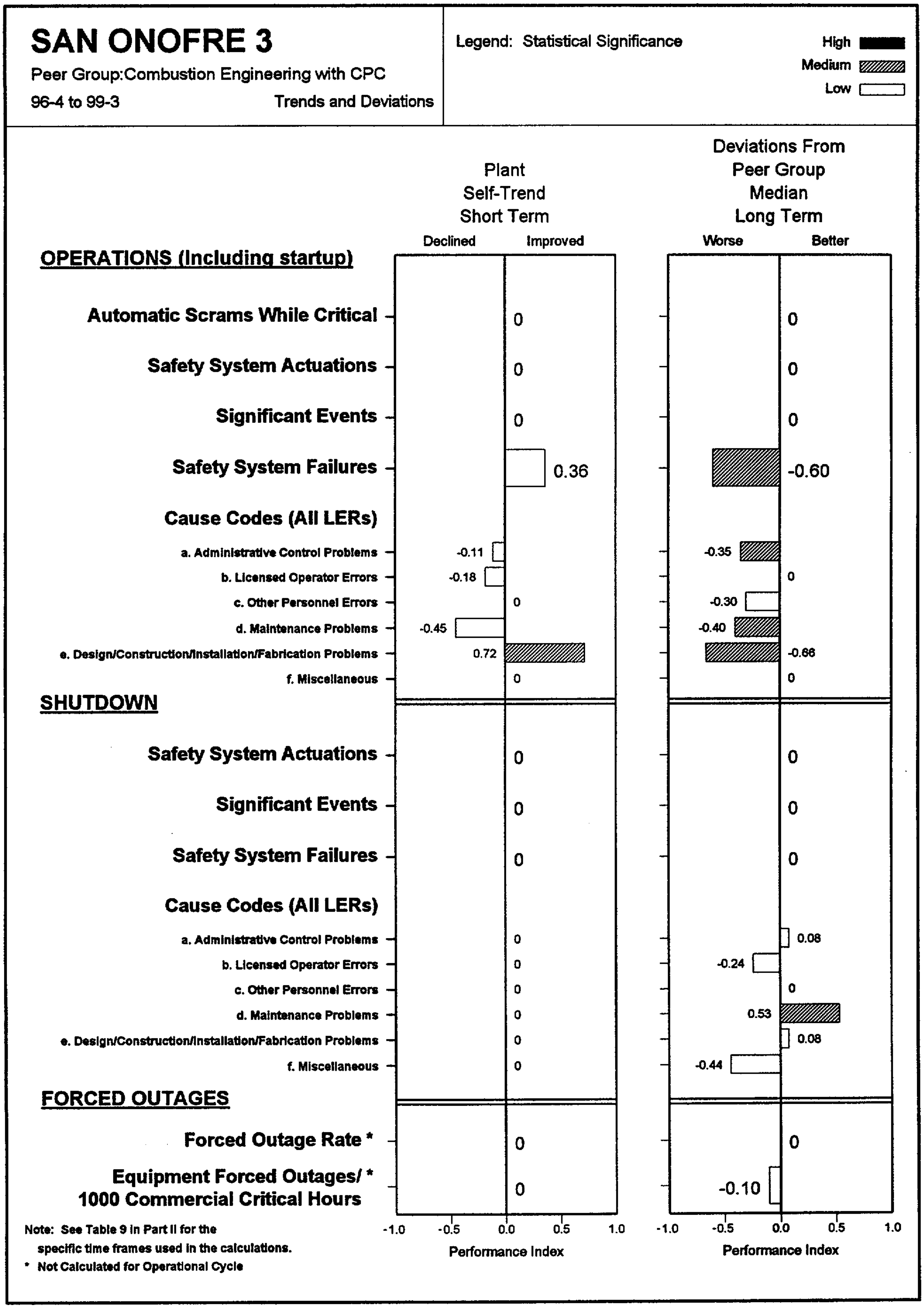

SAN ONOFRE 3
Peer Group:Combustion Engineering with CPC
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low ☐
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical
0
0
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0.36
-0.60
Cause Codes (All LERs)
a. Administrative Control Problems
-0.11
-0.35
b. Licensed Operator Errors
-0.18
0
c. Other Personnel Errors
0
-0.30
d. Maintenance Problems
-0.45
-0.40
e. Design/Construction/Installation/Fabrication Problems
0.72
-0.66
f. Miscellaneous
0
0
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0
Cause Codes (All LERs)
a. Administrative Control Problems
0
0.08
b. Licensed Operator Errors
0
-0.24
c. Other Personnel Errors
0
0
d. Maintenance Problems
0
0.53
e. Design/Construction/Installation/Fabrication Problems
0
0.08
f. Miscellaneous
0
-0.44
FORCED OUTAGES
Forced Outage Rate *
0
0
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0
-0.10
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.83a

SEABROOK

96-4 to 99-3 Quarterly Data

Legend:

Shutdown < approx. 72 hrs |

Refueling R

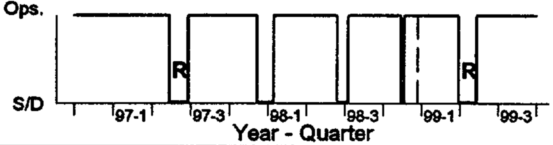
Industry Avg. Trend ——

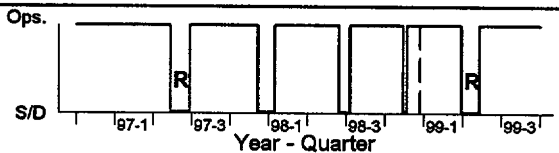
StartUp ☐

Operation ▨

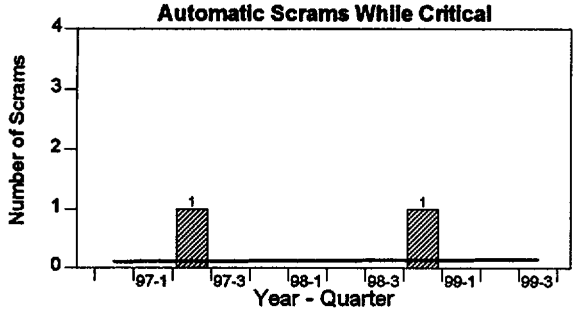
ShutDown ▧

Not Shown Using Op. Cycle ▩

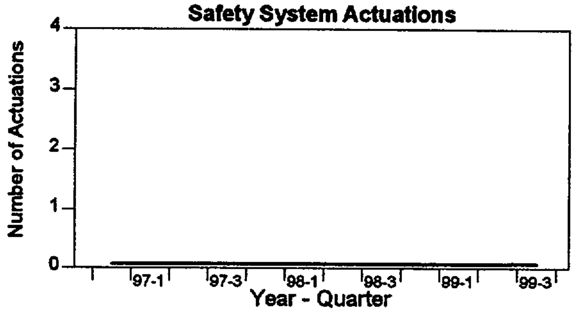




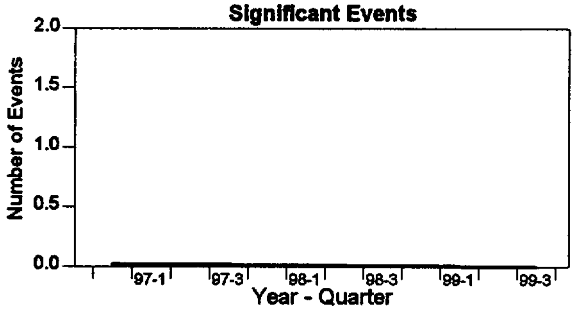
Automatic Scrams While Critical



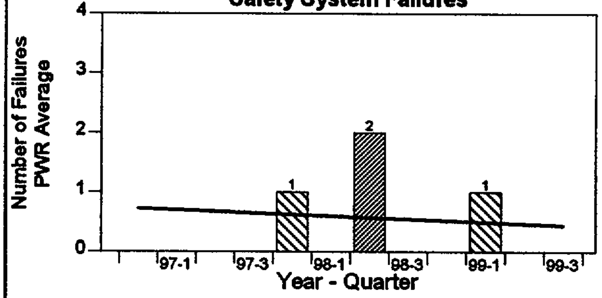
Safety System Actuations



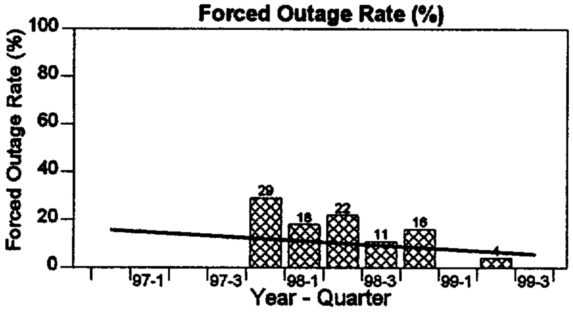
Significant Events



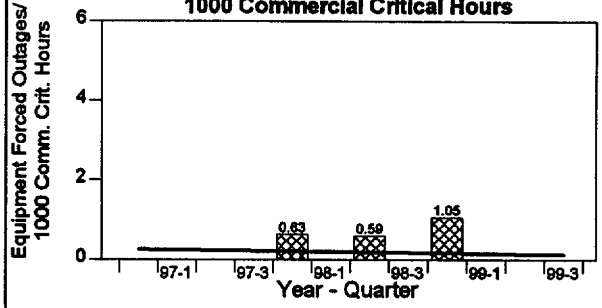
Safety System Failures



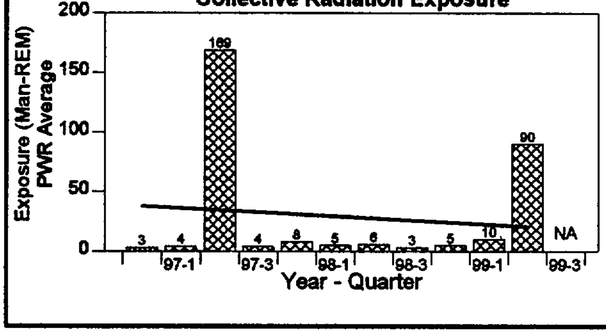
Forced Outage Rate (%)



Equipment Forced Outages/
1000 Commercial Critical Hours



Collective Radiation Exposure



Cause Codes

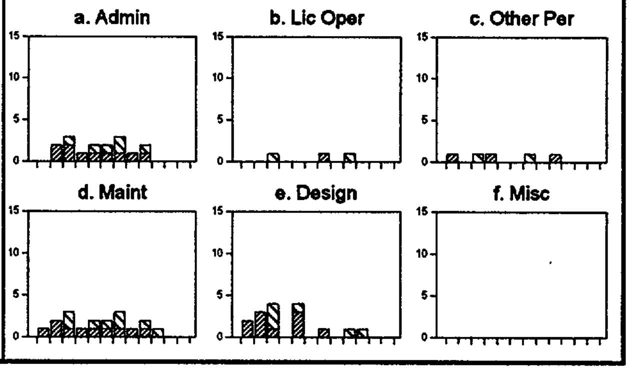
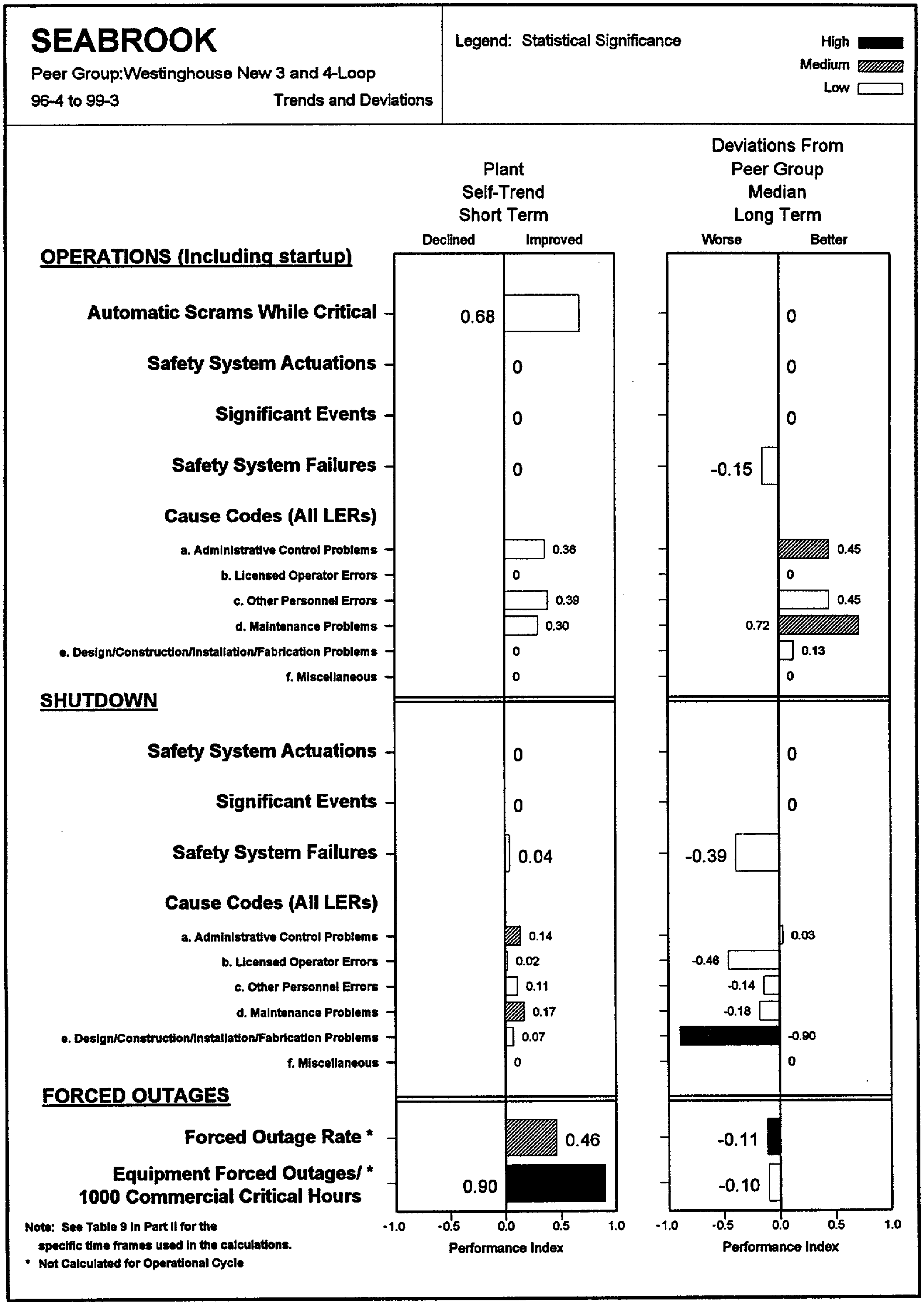


Figure 7.83b



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.84a

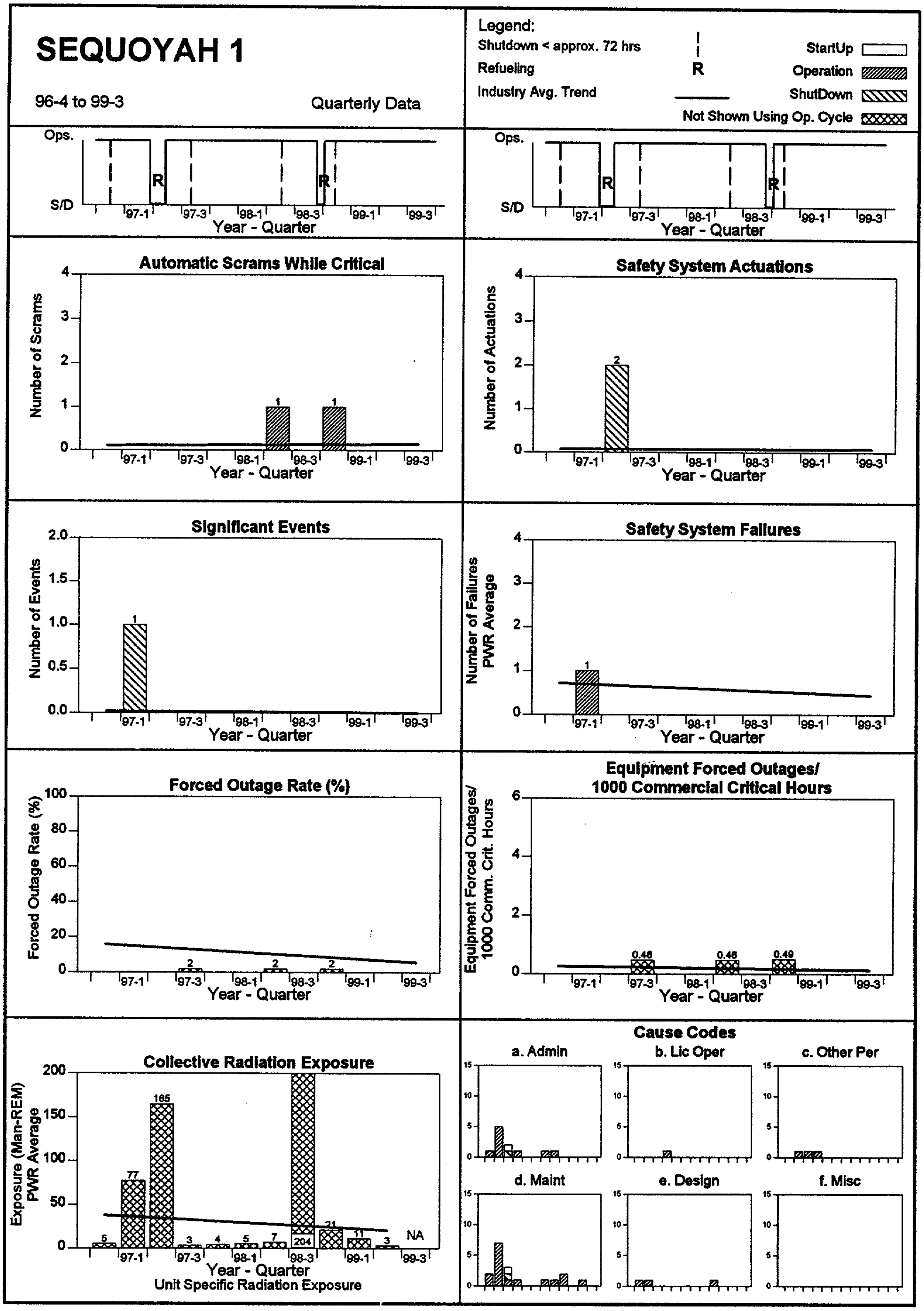

SEQUOYAH 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
4
3
2
1
0
1
1
Safety System Actuations
Number of Actuations
2
Significant Events
Number of Events
2.0
1.5
1.0
0.5
0.0
1
Safety System Failures
Number of Failures
PWR Average
1
Forced Outage Rate (%)
Forced Outage Rate (%)
100
80
60
40
20
0
2
2
2
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
6
4
2
0
0.46
0.46
0.49
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
200
150
100
50
0
5
77
165
3
4
5
7
204
21
11
3
NA
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
15
10
5
0

Figure 7.84b

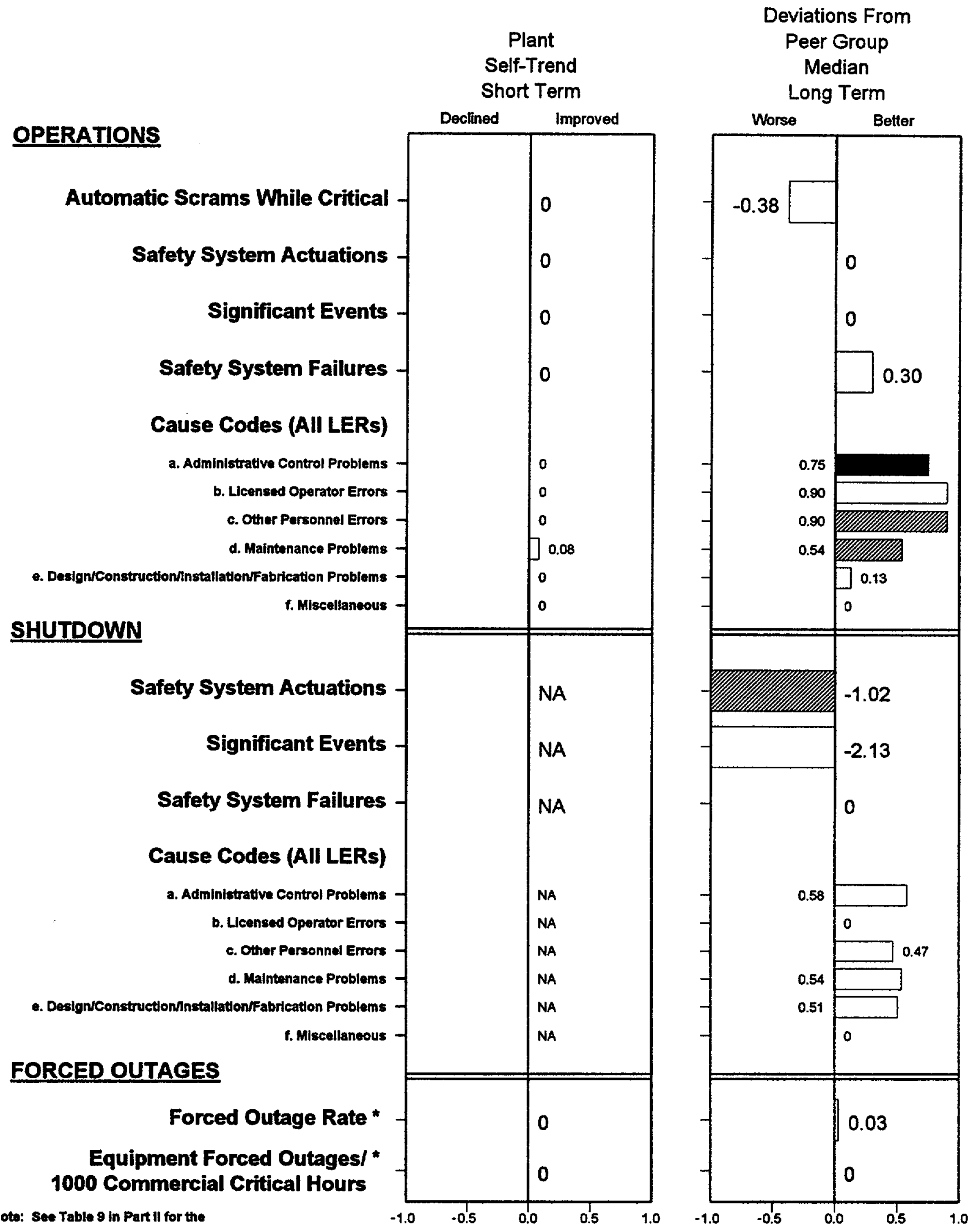
SEQUOYAH 1

Peer Group:Westinghouse New 3 and 4-Loop

96-4 to 99-3 Trends and Deviations

Legend: Statistical Significance

High ■
Medium ▨
Low ☐



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.85a

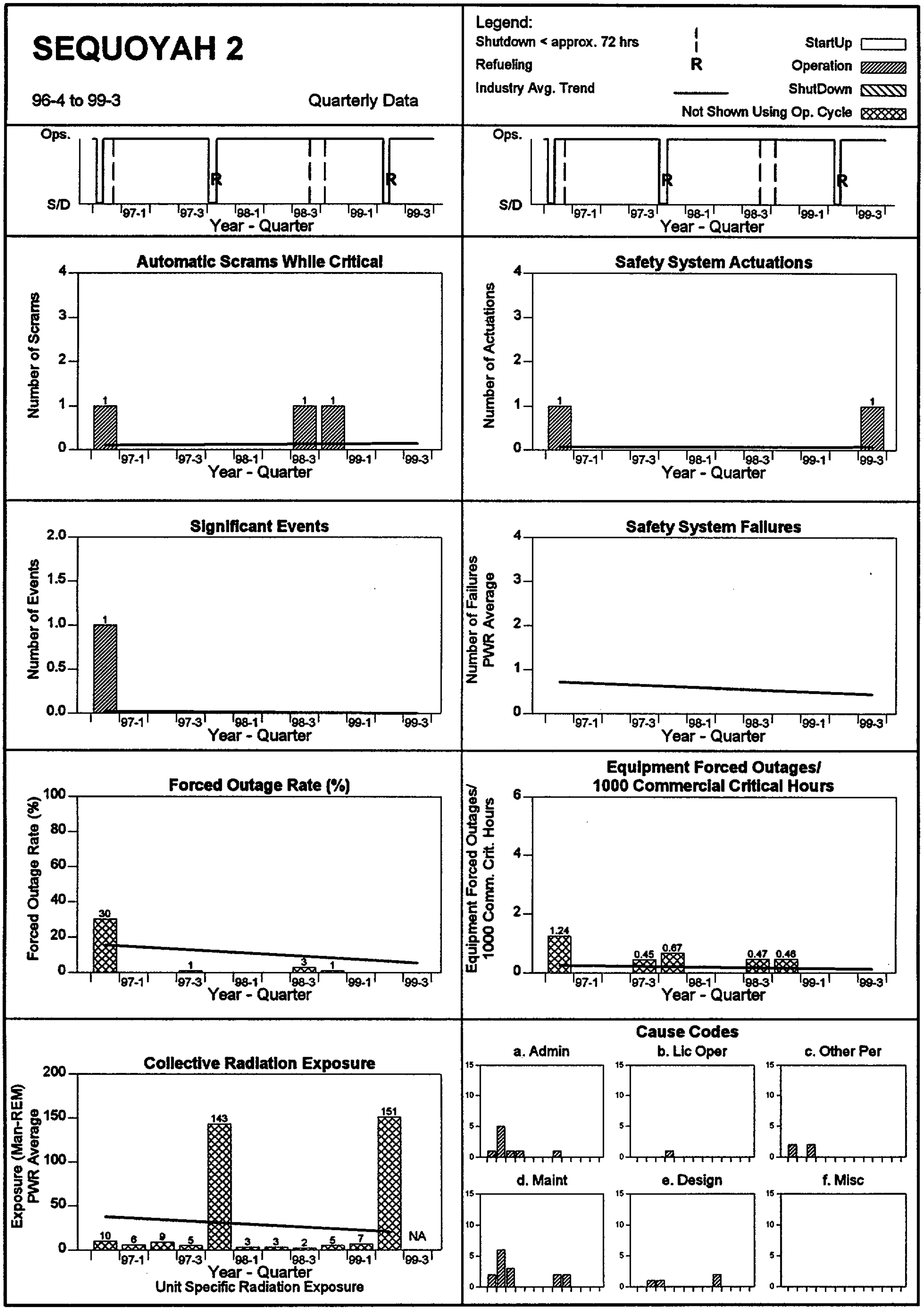

SEQUOYAH 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
1
1
1
Safety System Actuations
Number of Actuations
1
1
Significant Events
Number of Events
1
Safety System Failures
Number of Failures
PWR Average
Forced Outage Rate (%)
Forced Outage Rate (%)
30
1
3
1
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
1.24
0.45
0.67
0.47
0.46
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
10
6
9
5
143
3
3
2
5
7
151
NA
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

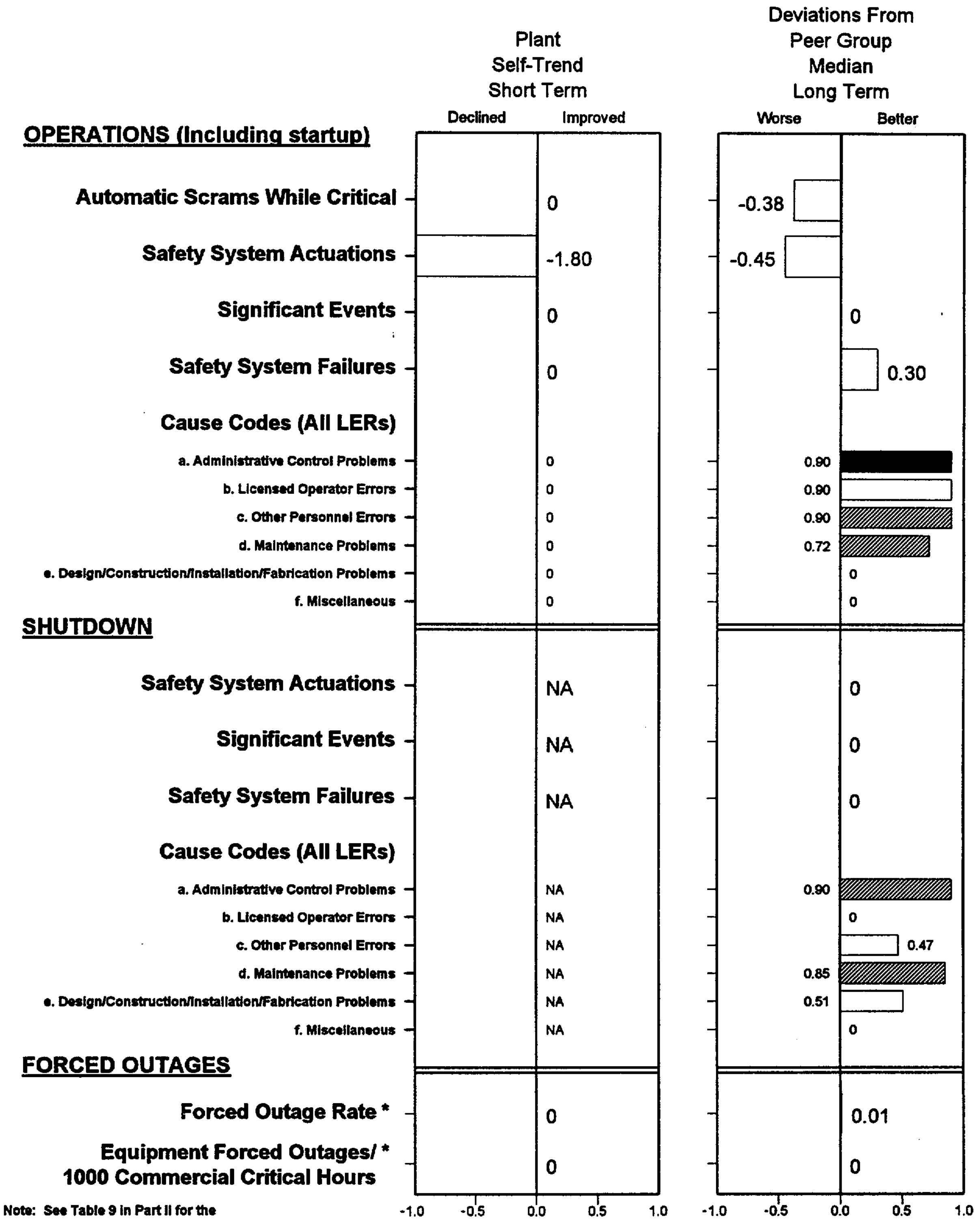
Figure 7.85b

SEQUOYAH 2

Peer Group:Westinghouse New 3 and 4-Loop

96-4 to 99-3 Trends and Deviations

Legend: Statistical Significance
High ■
Medium ▨
Low ☐



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.86a

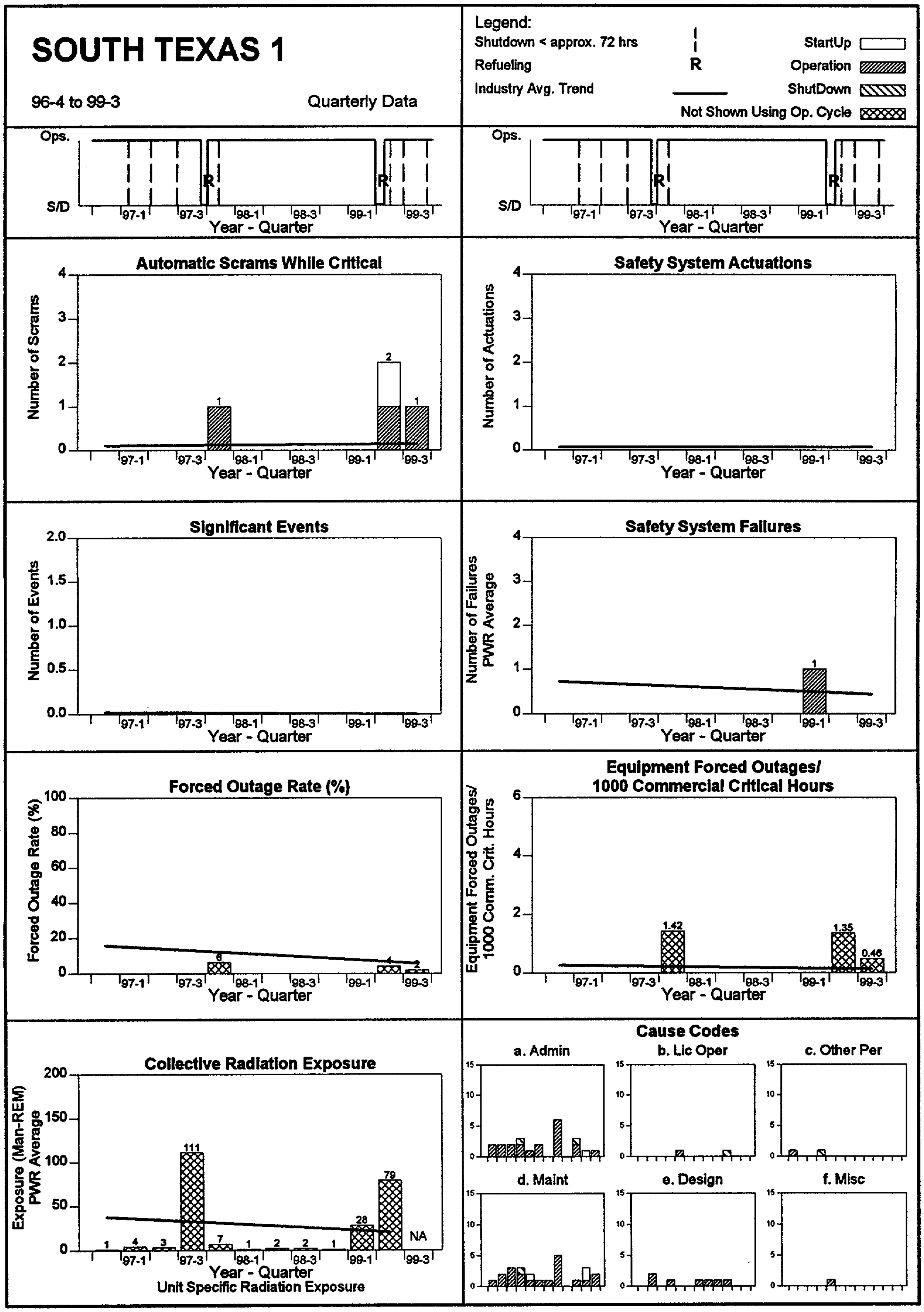

SOUTH TEXAS 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
2
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
6
4
2
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
1.42
1.35
0.46
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
1
4
3
111
7
1
2
2
1
28
79
NA
Unit Specific Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.86b

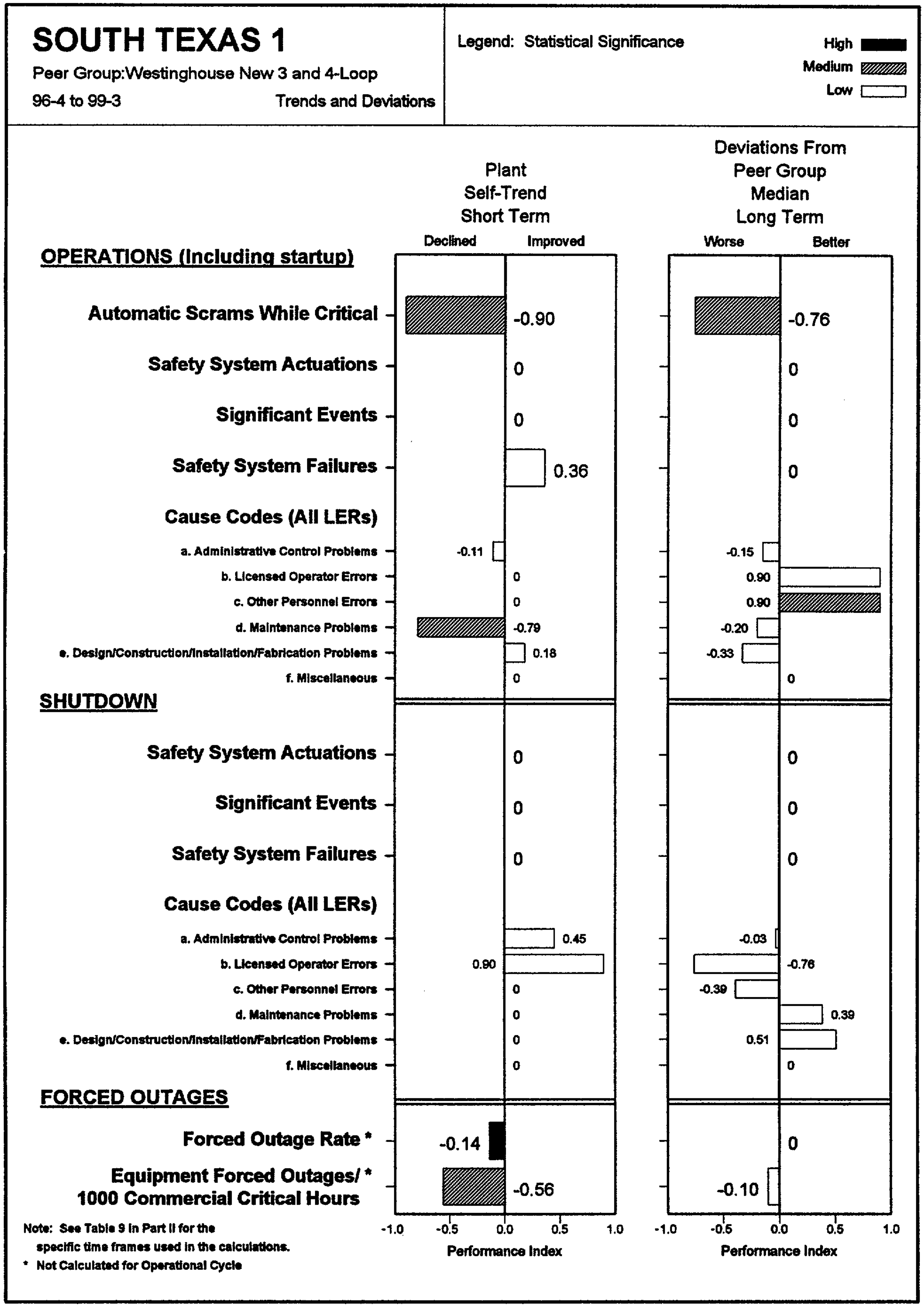

SOUTH TEXAS 1
Peer Group:Westinghouse New 3 and 4-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low ☐
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical
-0.90
-0.76
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0.36
0
Cause Codes (All LERs)
a. Administrative Control Problems
-0.11
-0.15
b. Licensed Operator Errors
0
0.90
c. Other Personnel Errors
0
0.90
d. Maintenance Problems
-0.79
-0.20
e. Design/Construction/Installation/Fabrication Problems
0.18
-0.33
f. Miscellaneous
0
0
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0
Cause Codes (All LERs)
a. Administrative Control Problems
0.45
-0.03
b. Licensed Operator Errors
0.90
-0.76
c. Other Personnel Errors
0
-0.39
d. Maintenance Problems
0
0.39
e. Design/Construction/Installation/Fabrication Problems
0
0.51
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
-0.14
0
Equipment Forced Outages/ * 1000 Commercial Critical Hours
-0.56
-0.10
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index

Figure 7.87a

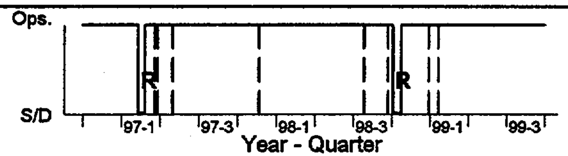
SOUTH TEXAS 2

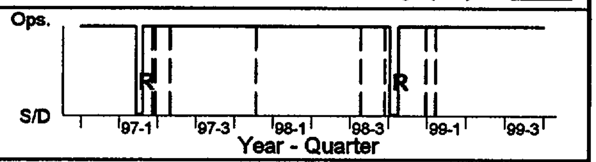
96-4 to 99-3

Quarterly Data

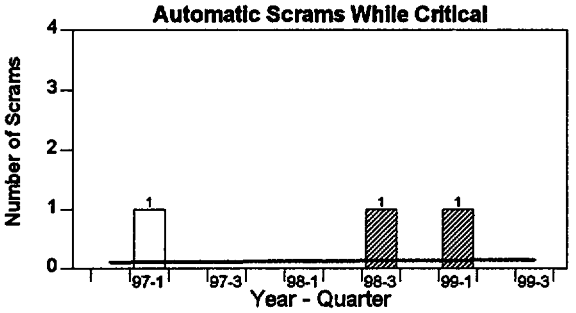
Legend:

Shutdown < approx. 72 hrs	|	StartUp	☐
Refueling	R	Operation	▨
Industry Avg. Trend	———	ShutDown	▧
		Not Shown Using Op. Cycle	▩

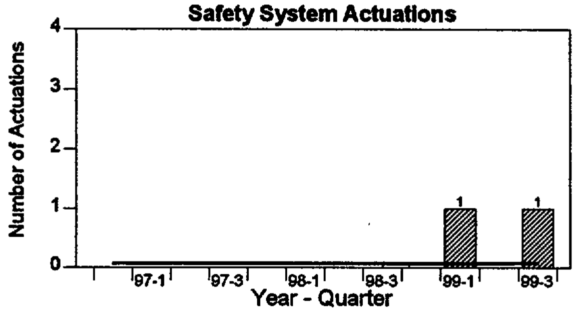




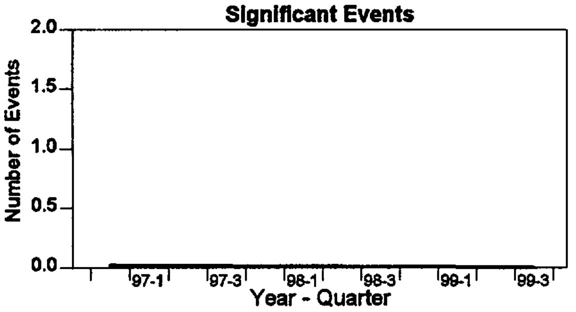
Automatic Scrams While Critical



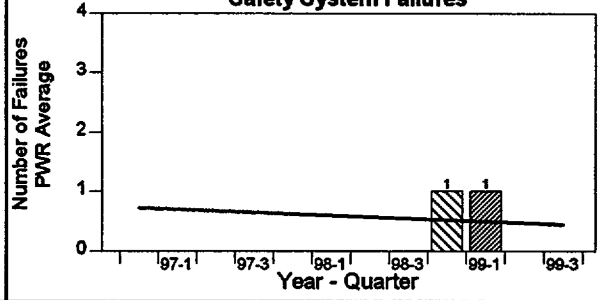
Safety System Actuations



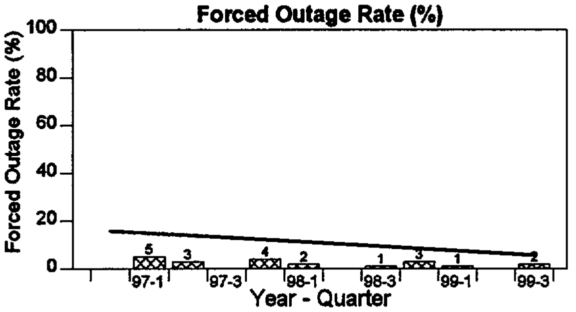
Significant Events



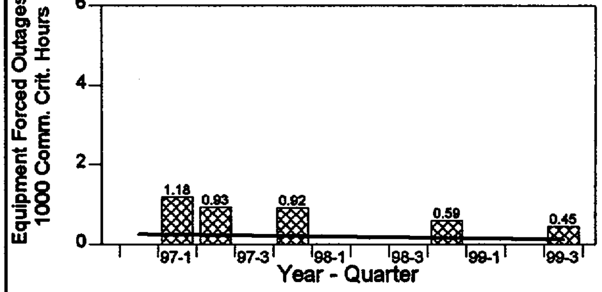
Safety System Failures



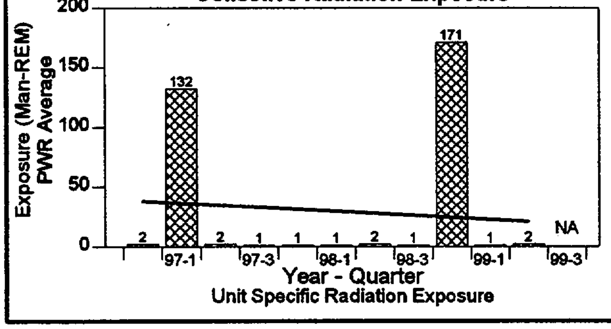
Forced Outage Rate (%)



Equipment Forced Outages/ 1000 Commercial Critical Hours



Collective Radiation Exposure



Unit Specific Radiation Exposure

Cause Codes

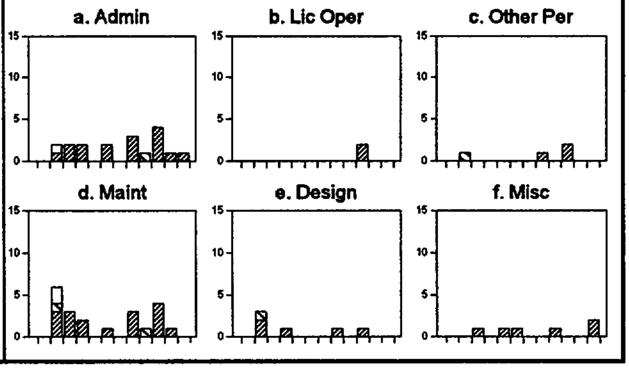


Figure 7.87b

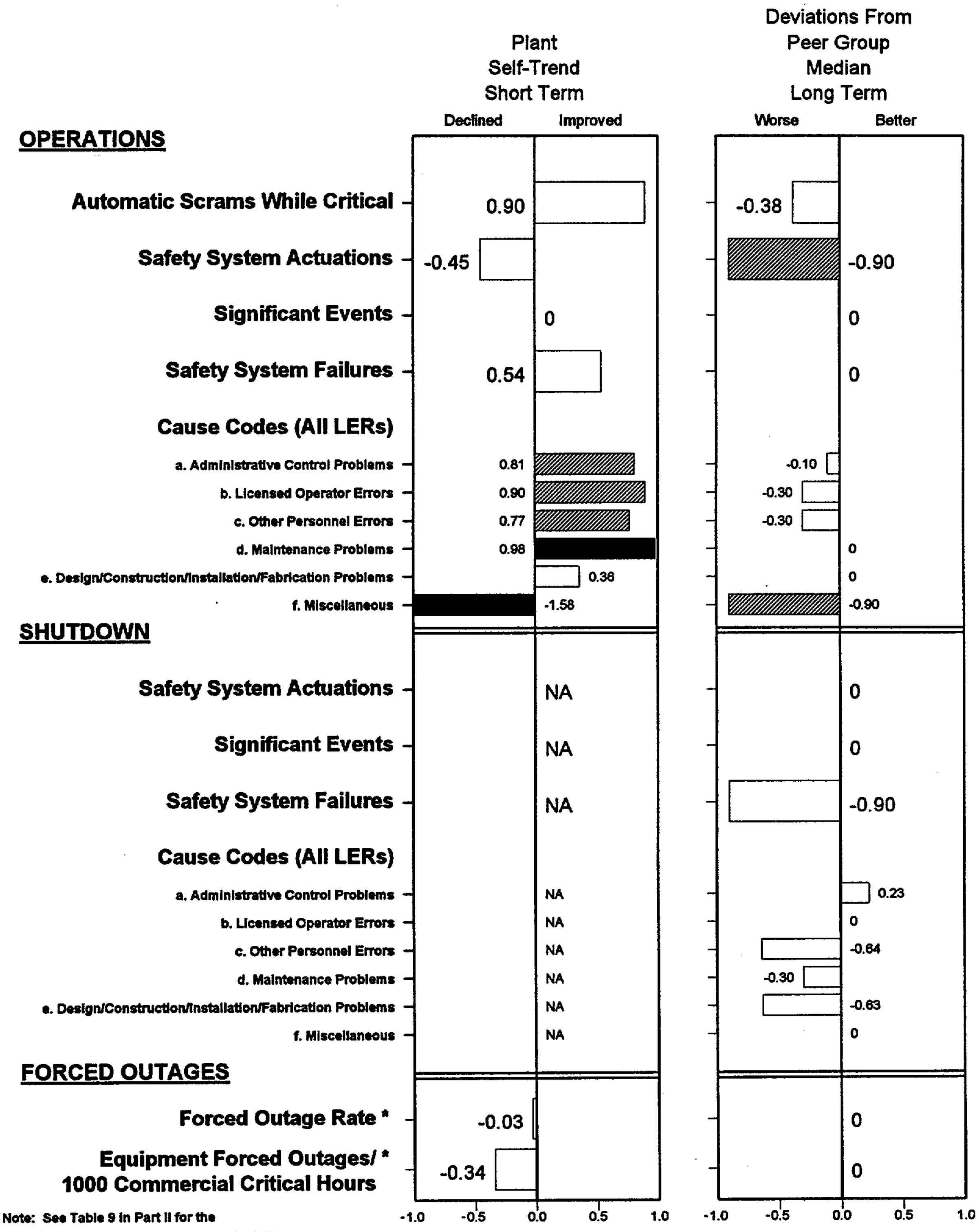
SOUTH TEXAS 2

Peer Group:Westinghouse New 3 and 4-Loop

96-4 to 99-3 Trends and Deviations

Legend: Statistical Significance

High ■
Medium ▨
Low ☐



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.88a

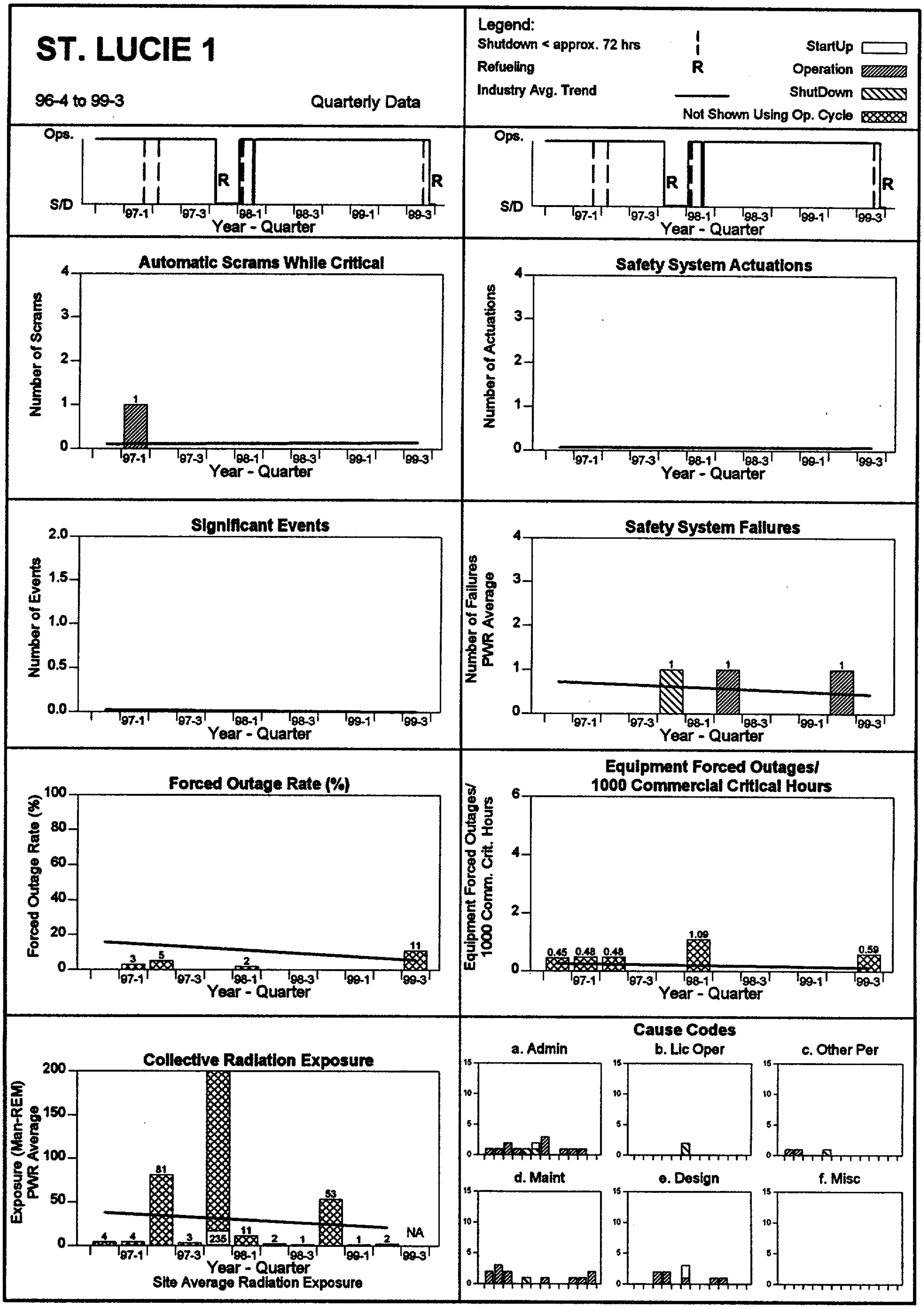

ST. LUCIE 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
Year - Quarter
97-1
97-3
98-1
98-3
99-1
99-3
Automatic Scrams While Critical
Number of Scrams
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
Safety System Failures
Number of Failures
PWR Average
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
3
5
2
11
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0.45
0.48
0.48
1.09
0.59
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
4
4
81
3
235
11
2
1
53
1
2
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc

Figure 7.88b

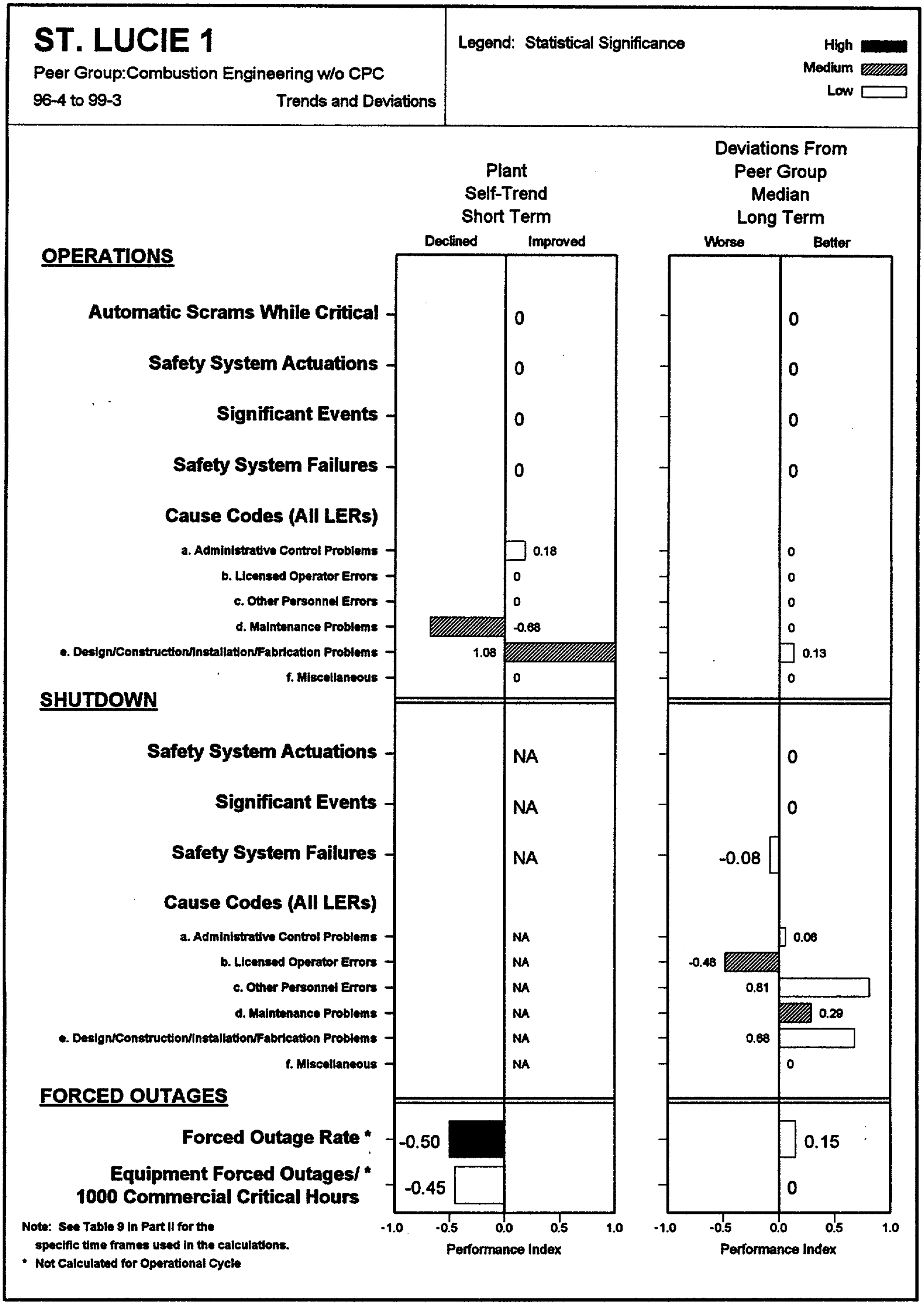

ST. LUCIE 1
Peer Group:Combustion Engineering w/o CPC
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low ☐
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical 0 0
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 0
Cause Codes (All LERs)
a. Administrative Control Problems 0.18 0
b. Licensed Operator Errors 0 0
c. Other Personnel Errors 0 0
d. Maintenance Problems -0.68 0
e. Design/Construction/Installation/Fabrication Problems 1.08 0.13
f. Miscellaneous 0 0
SHUTDOWN
Safety System Actuations NA 0
Significant Events NA 0
Safety System Failures NA -0.08
Cause Codes (All LERs)
a. Administrative Control Problems NA 0.06
b. Licensed Operator Errors NA -0.48
c. Other Personnel Errors NA 0.81
d. Maintenance Problems NA 0.29
e. Design/Construction/Installation/Fabrication Problems NA 0.68
f. Miscellaneous NA 0
FORCED OUTAGES
Forced Outage Rate * -0.50 0.15
Equipment Forced Outages/ * 1000 Commercial Critical Hours -0.45 0
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.89a

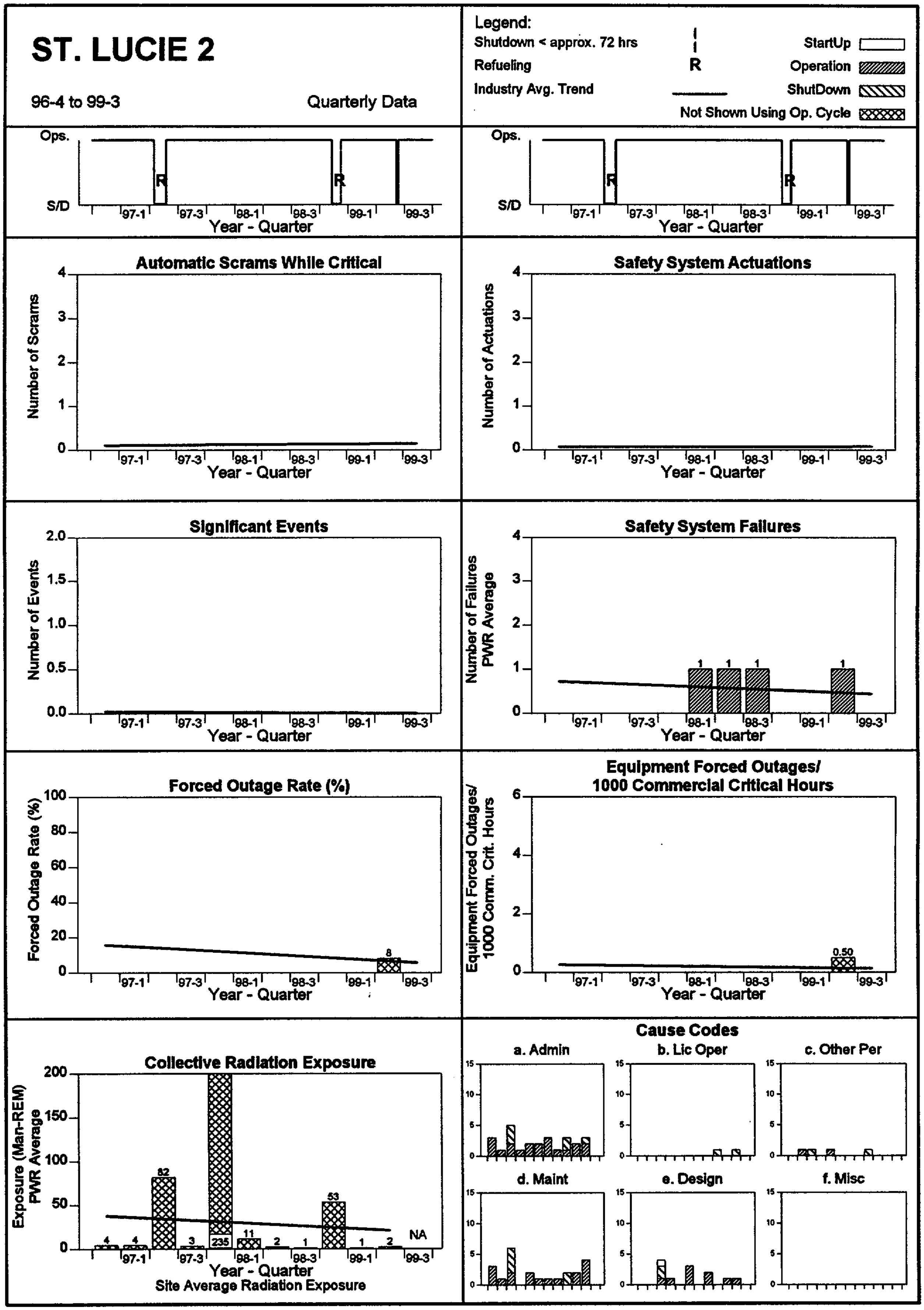

ST. LUCIE 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
Safety System Failures
Number of Failures
PWR Average
1
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
8
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0.50
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
4
4
82
3
235
11
2
1
53
1
2
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc

Figure 7.89b

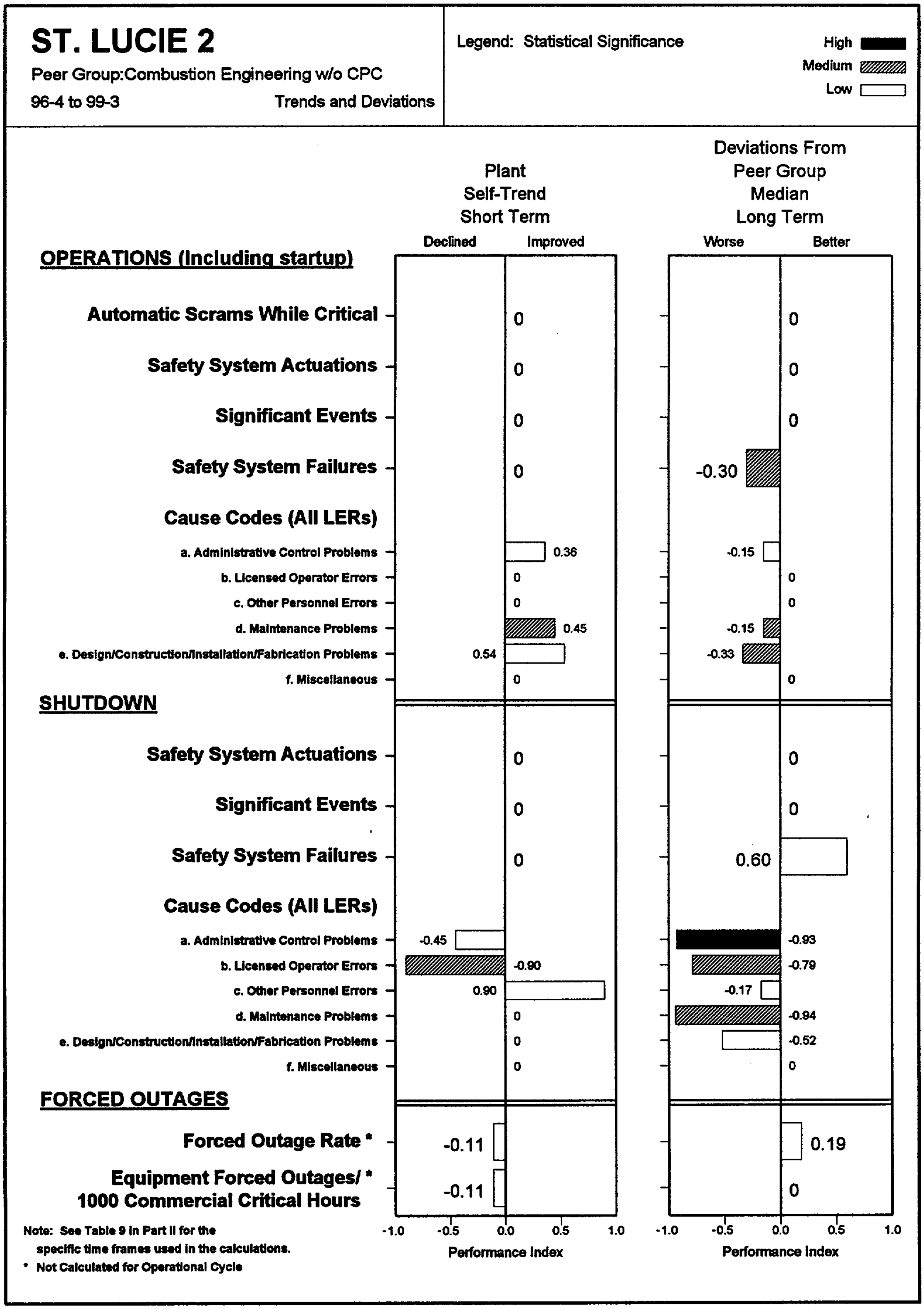

ST. LUCIE 2
Peer Group:Combustion Engineering w/o CPC
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical 0 0
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 -0.30
Cause Codes (All LERs)
a. Administrative Control Problems 0.36 -0.15
b. Licensed Operator Errors 0 0
c. Other Personnel Errors 0 0
d. Maintenance Problems 0.45 -0.15
e. Design/Construction/Installation/Fabrication Problems 0.54 -0.33
f. Miscellaneous 0 0
SHUTDOWN
Safety System Actuations 0 0
Significant Events 0 0
Safety System Failures 0 0.60
Cause Codes (All LERs)
a. Administrative Control Problems -0.45 -0.93
b. Licensed Operator Errors -0.90 -0.79
c. Other Personnel Errors 0.90 -0.17
d. Maintenance Problems 0 -0.94
e. Design/Construction/Installation/Fabrication Problems 0 -0.52
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * -0.11 0.19
Equipment Forced Outages/ * 1000 Commercial Critical Hours -0.11 0
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.90a

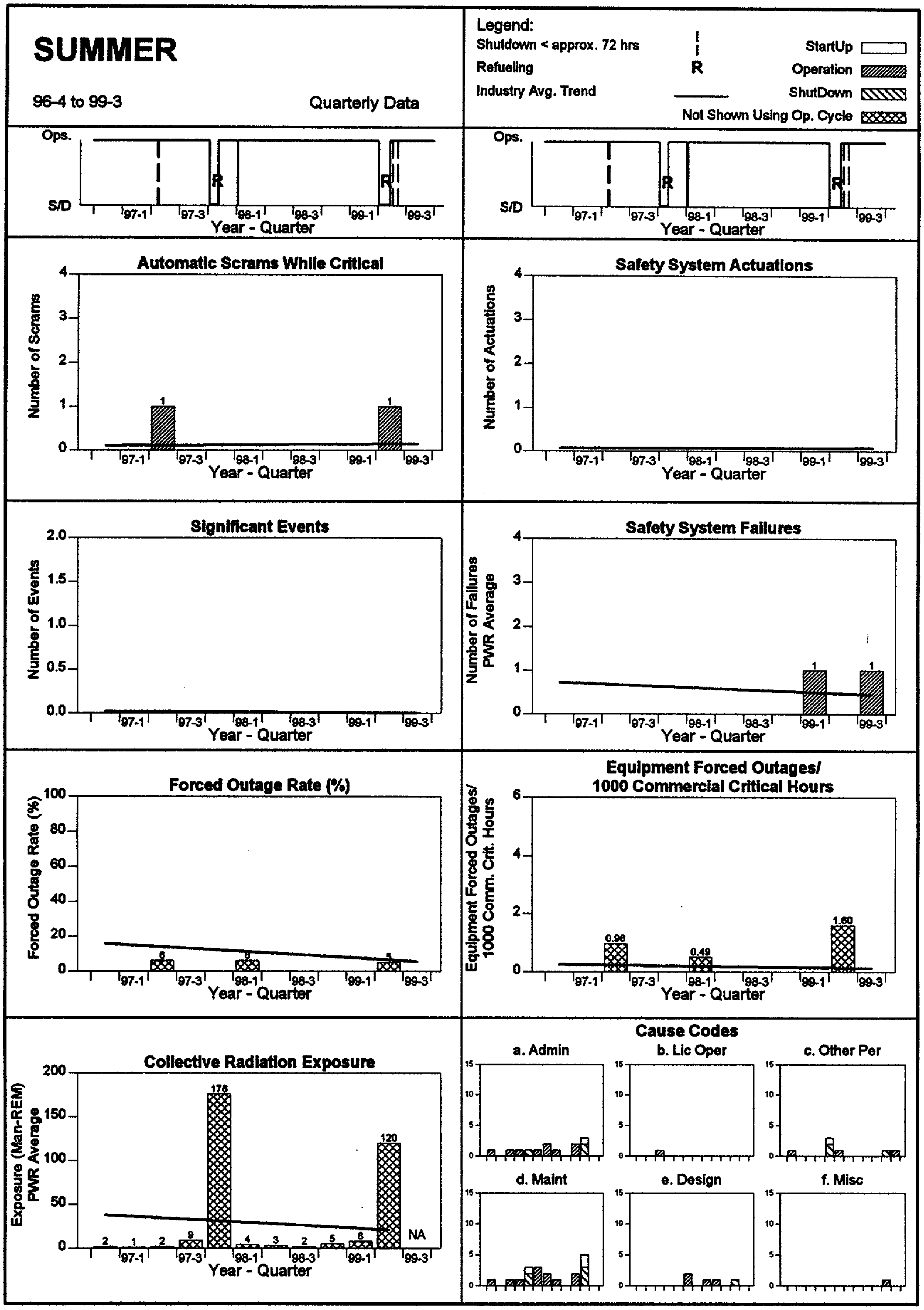

SUMMER
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling
R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures PWR Average
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
6
6
5
Equipment Forced Outages/ 1000 Commercial Critical Hours
Equipment Forced Outages/ 1000 Comm. Crit. Hours
0
2
4
6
0.96
0.49
1.60
Collective Radiation Exposure
Exposure (Man-REM) PWR Average
0
50
100
150
200
2
1
2
9
176
4
3
2
5
8
120
NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.90b

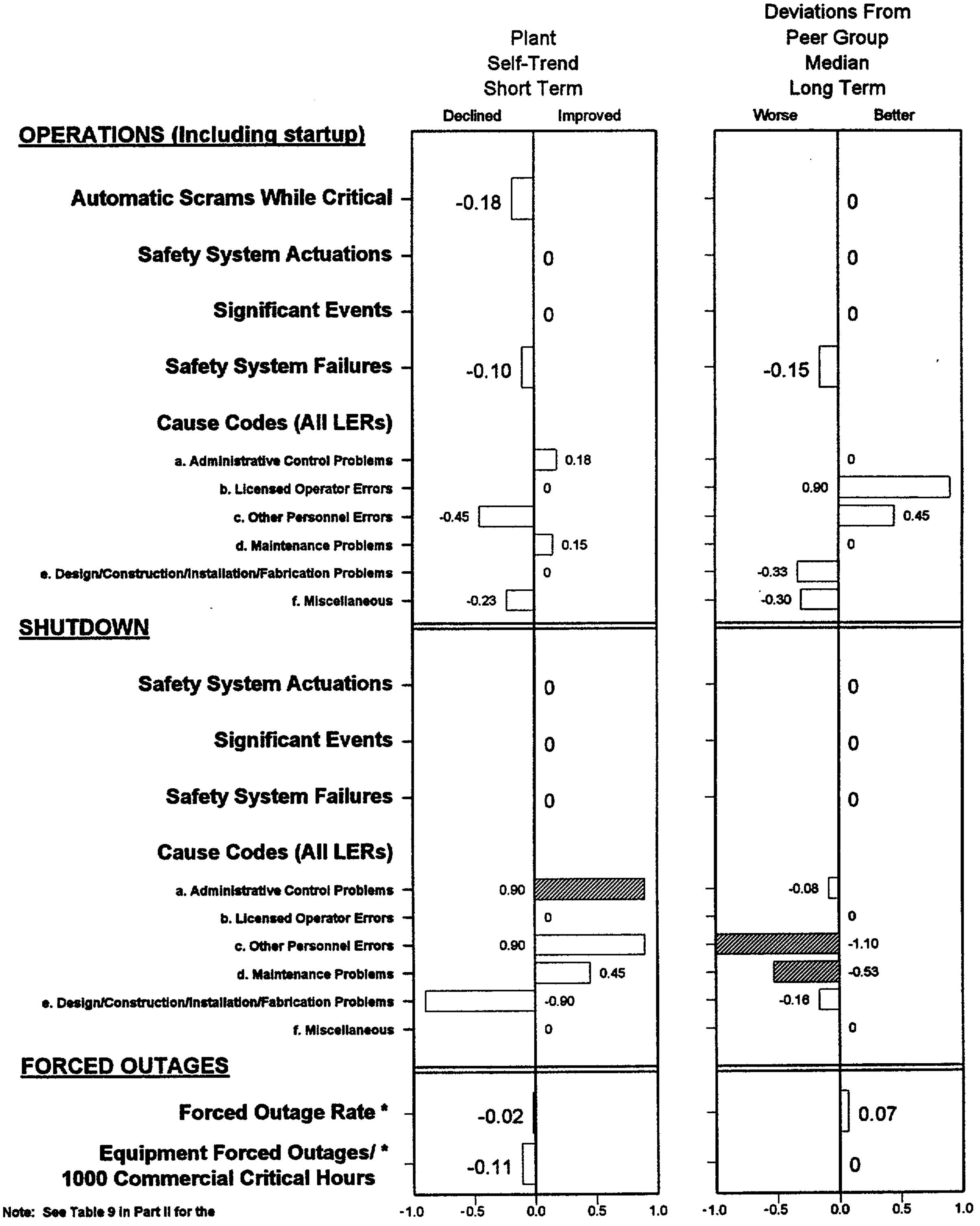
SUMMER

Peer Group:Westinghouse New 3 and 4-Loop

96-4 to 99-3 Trends and Deviations

Legend: Statistical Significance

High ■
Medium ▨
Low □



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.91a

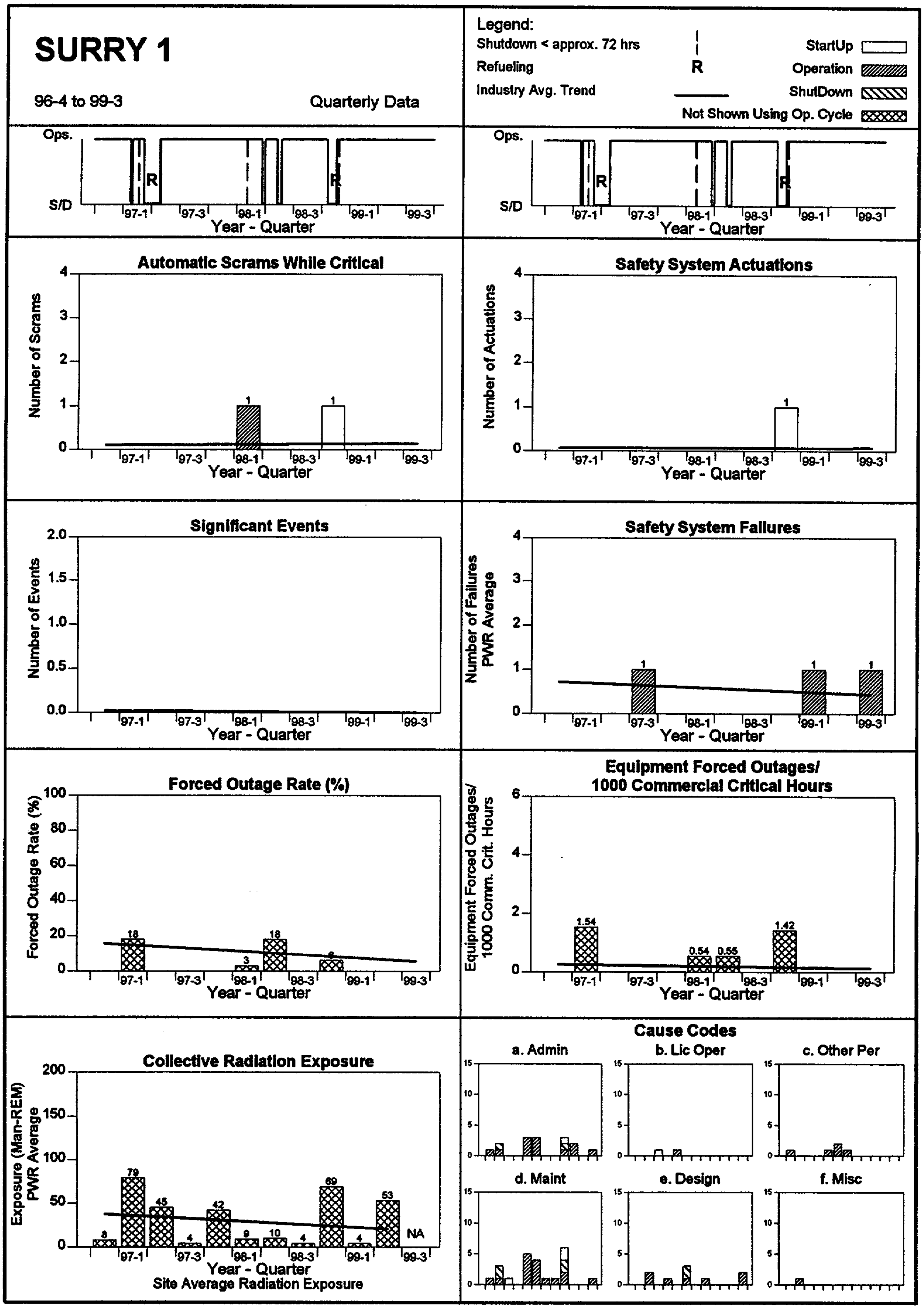
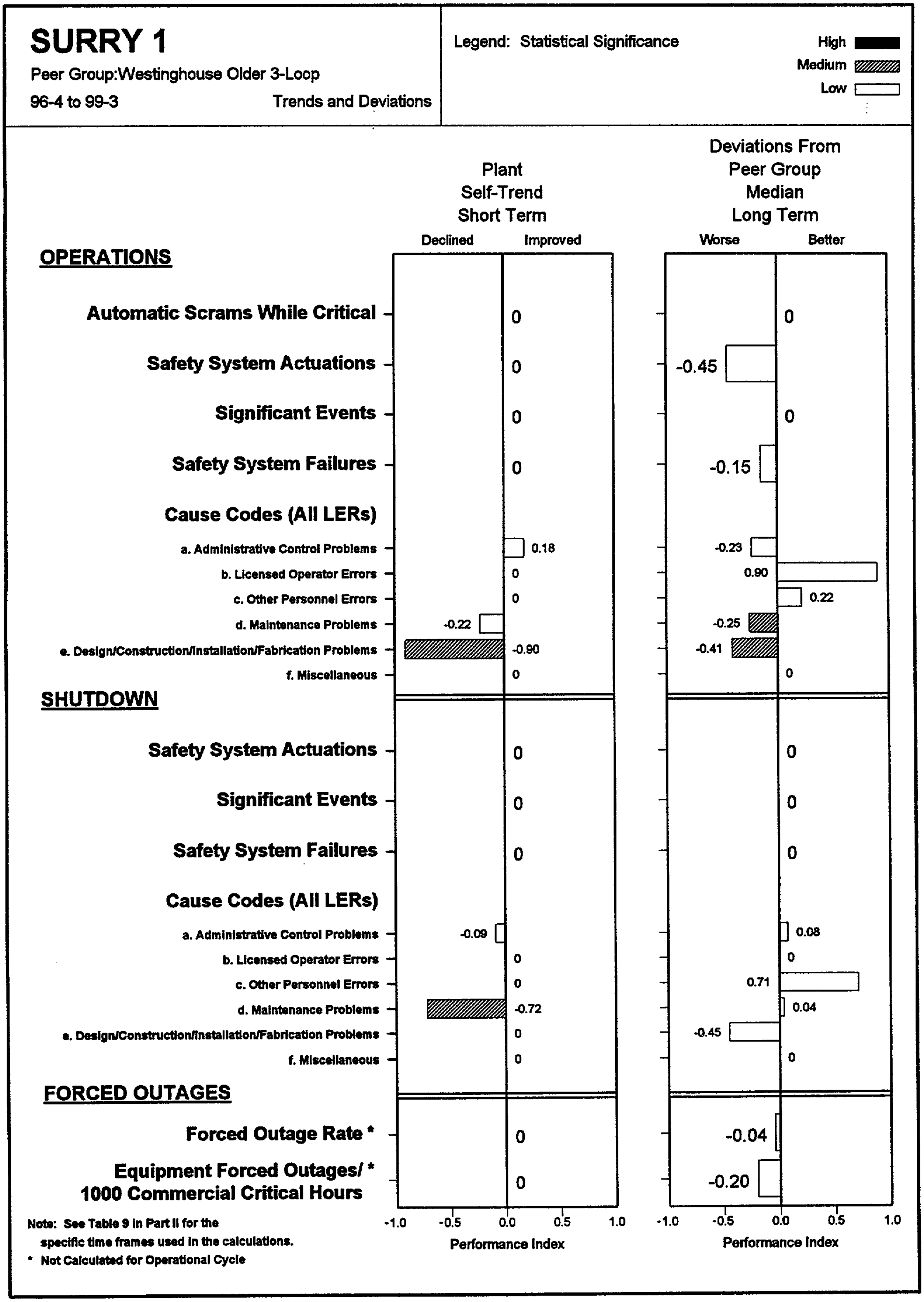

SURRY 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
1
Safety System Actuations
Number of Actuations
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
18
3
18
6
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
1.54
0.54
0.55
1.42
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
8
79
45
4
42
9
10
4
69
4
53
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.91b



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.92a

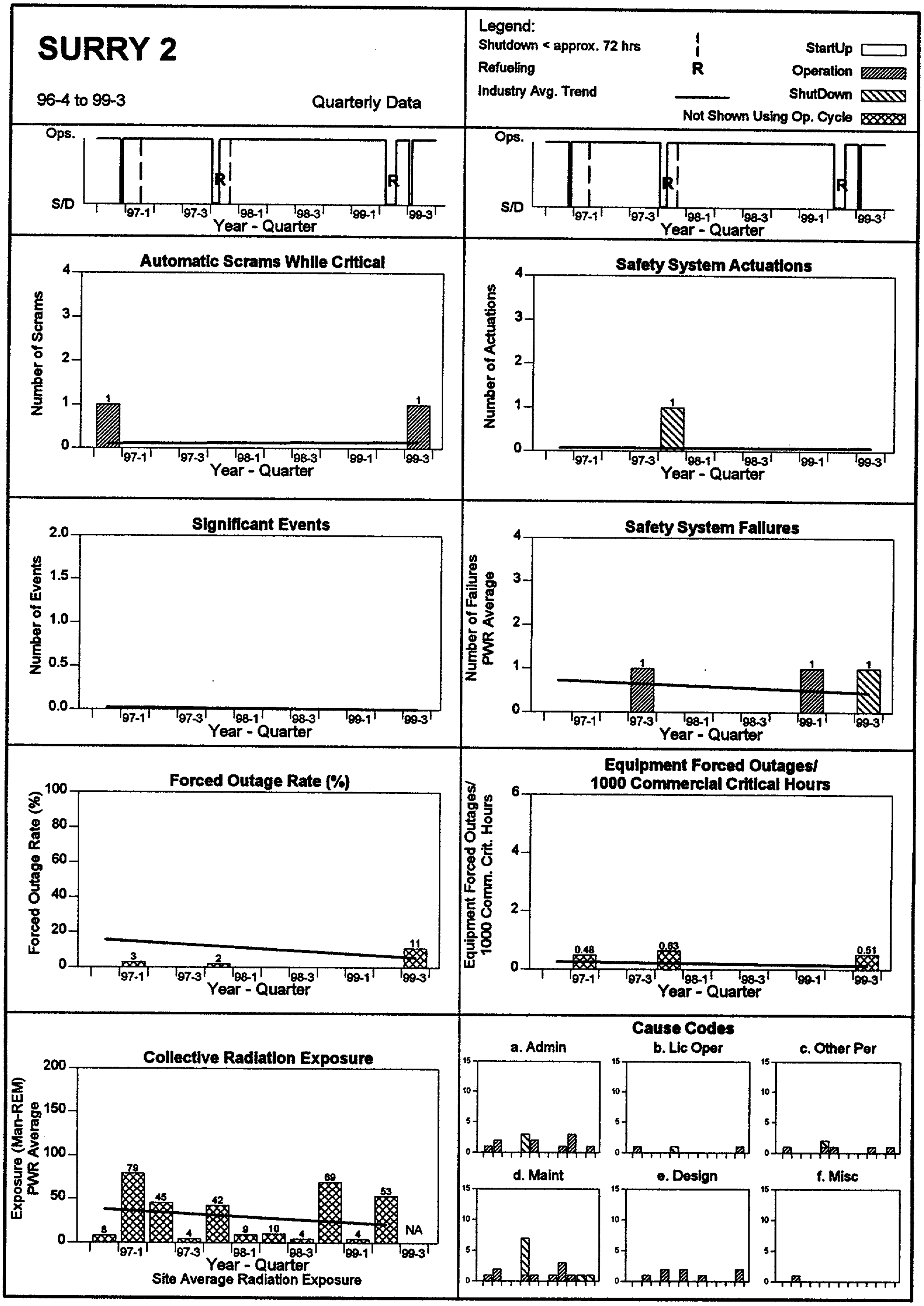

SURRY 2
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
1
Safety System Actuations
Number of Actuations
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
1
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
3
2
11
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.48
0.63
0.51
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
8
79
45
4
42
9
10
4
69
4
53
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.92b

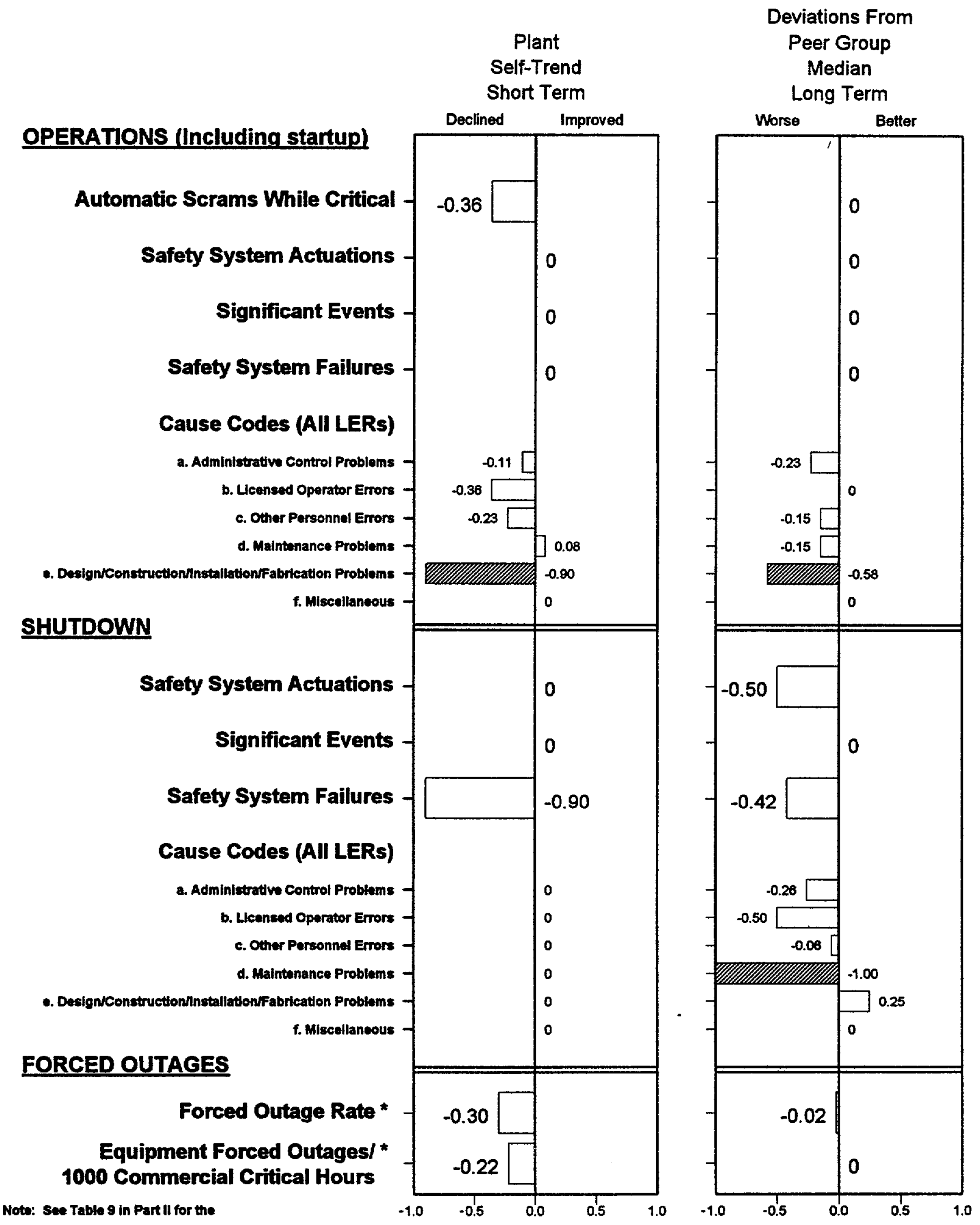
SURRY 2

Peer Group:Westinghouse Older 3-Loop

96-4 to 99-3 Trends and Deviations

Legend: Statistical Significance

High ■
Medium ▨
Low ☐



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.93a

SUSQUEHANNA 1

96-4 to 99-3 Quarterly Data

Legend:
Shutdown < approx. 72 hrs ¦
Refueling R
Industry Avg. Trend ———
StartUp □
Operation ▨
ShutDown ▧
Not Shown Using Op. Cycle ▩

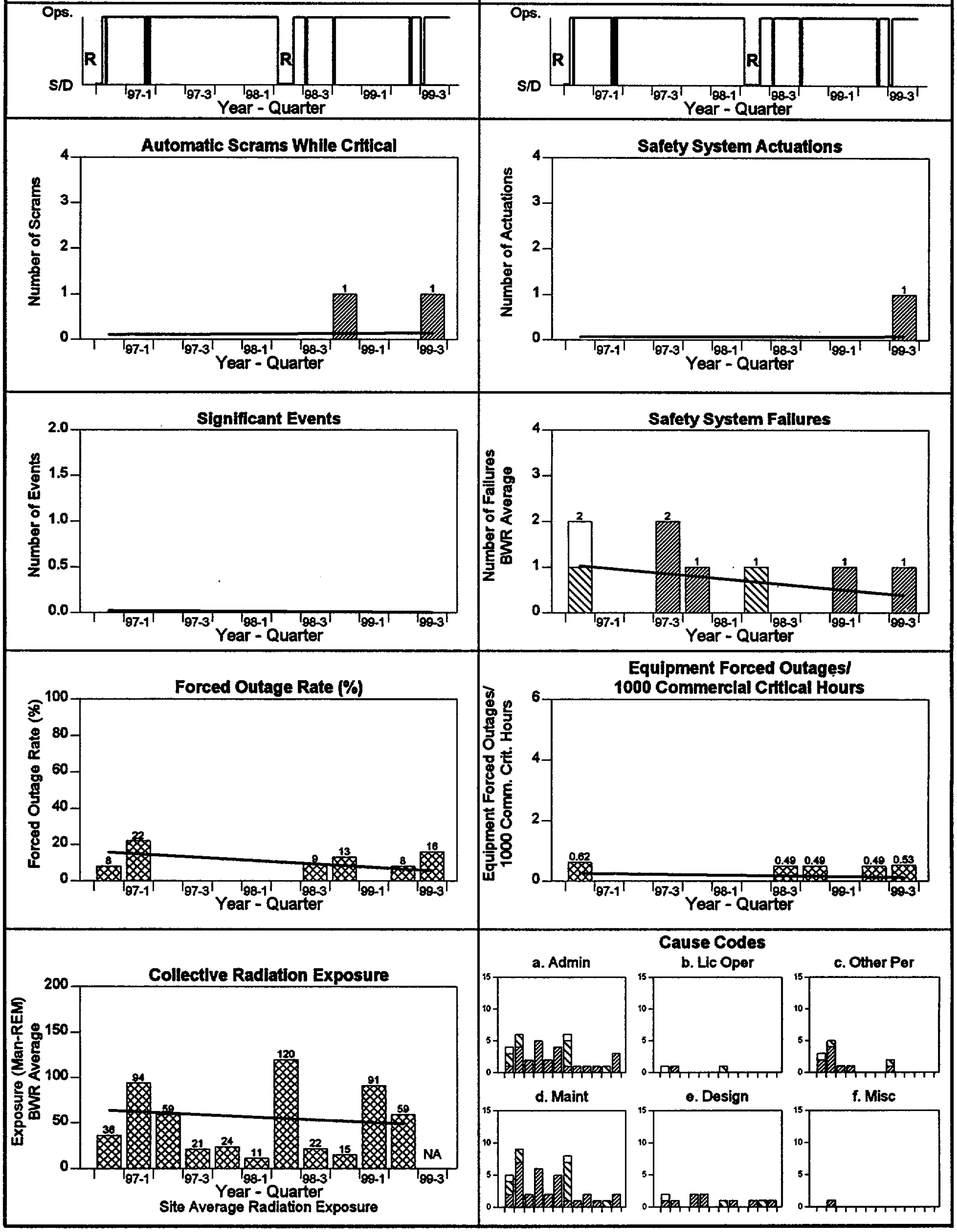


Figure 7.93b

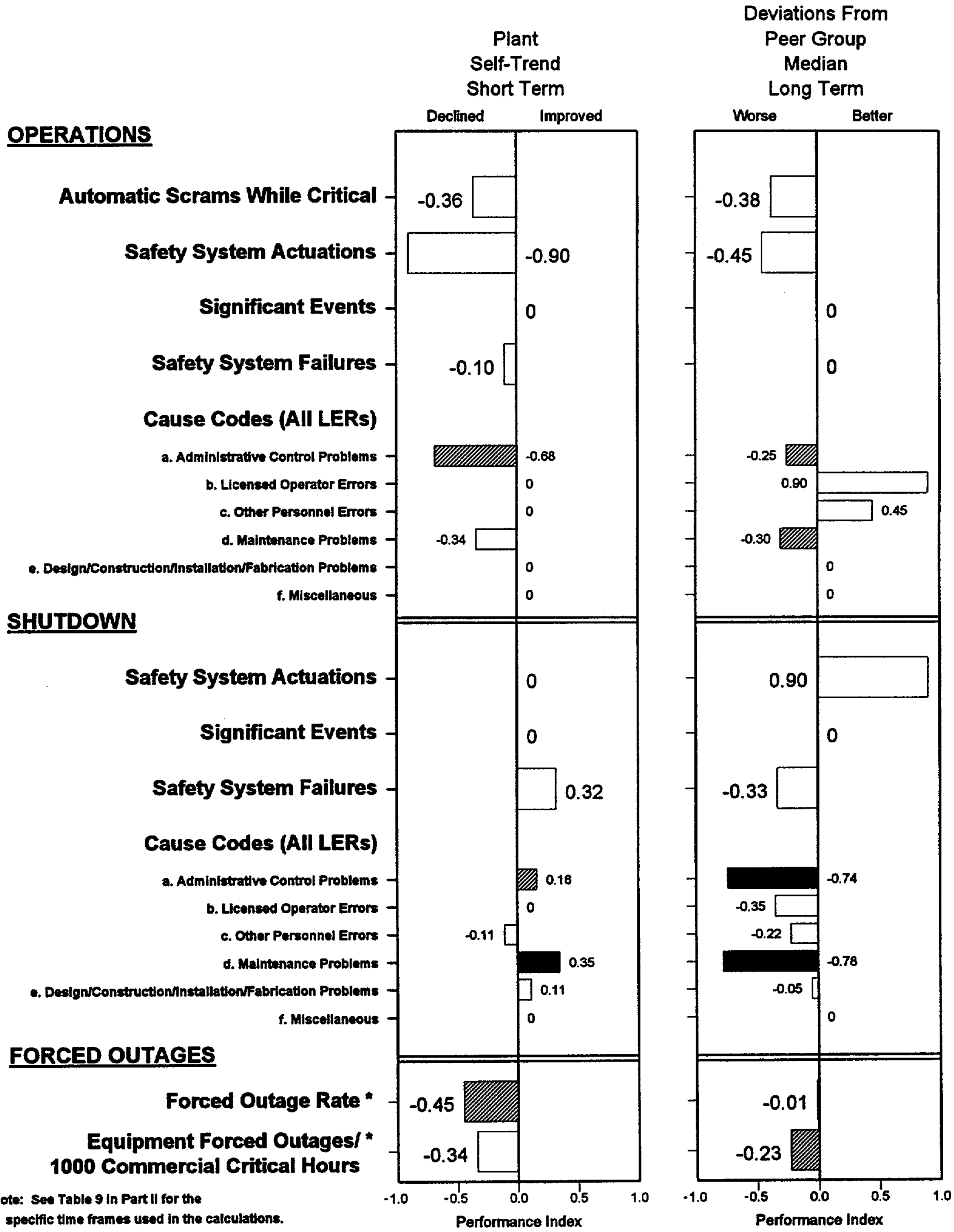
SUSQUEHANNA 1

Peer Group:General Electric Post-TMI

96-4 to 99-3 Trends and Deviations

Legend: Statistical Significance

High ■
Medium ▨
Low □



Note: See Table 9 in Part II for the
specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.94a

SUSQUEHANNA 2

96-4 to 99-3 Quarterly Data

Legend:

Shutdown < approx. 72 hrs ¦

Refueling R

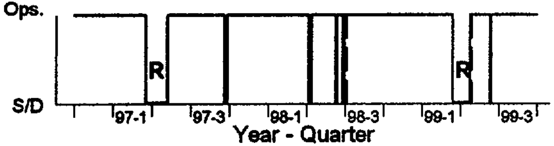
Industry Avg. Trend ——

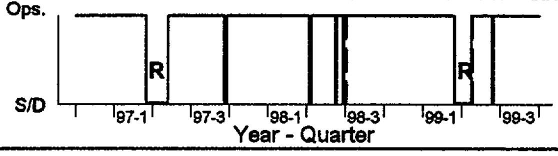
StartUp ▭

Operation ▨

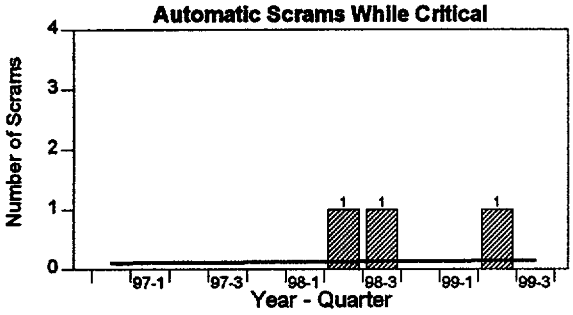
ShutDown ▧

Not Shown Using Op. Cycle ▩

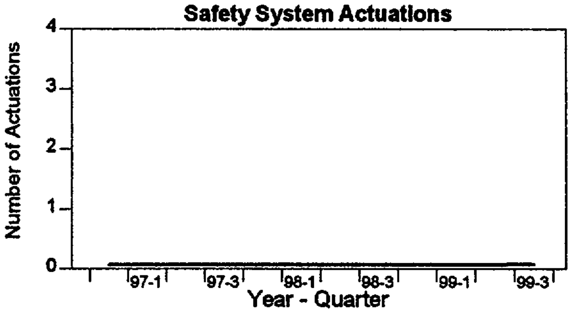




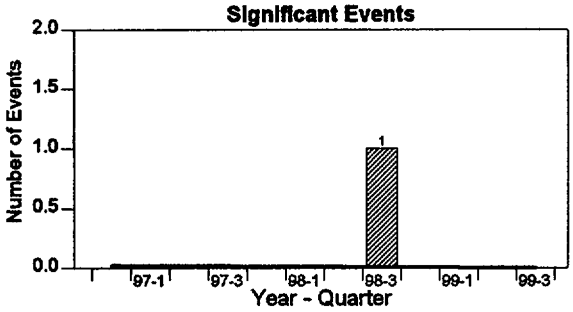
Automatic Scrams While Critical



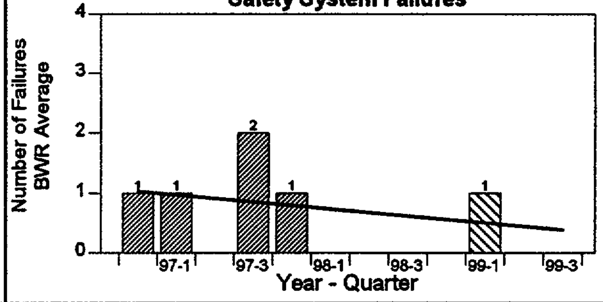
Safety System Actuations



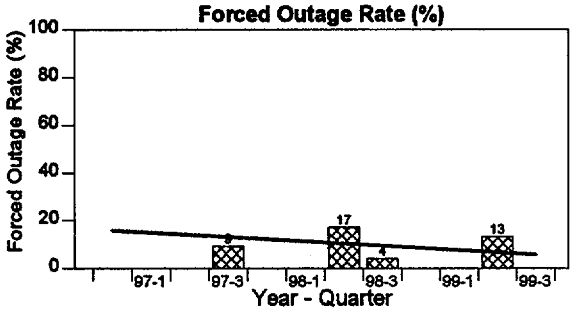
Significant Events



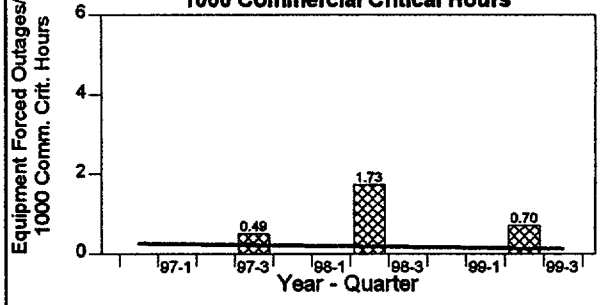
Safety System Failures



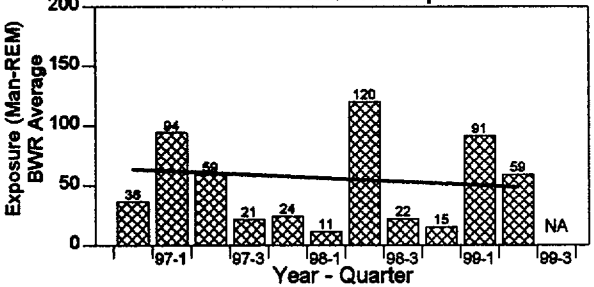
Forced Outage Rate (%)



Equipment Forced Outages/ 1000 Commercial Critical Hours



Collective Radiation Exposure



Site Average Radiation Exposure

Cause Codes

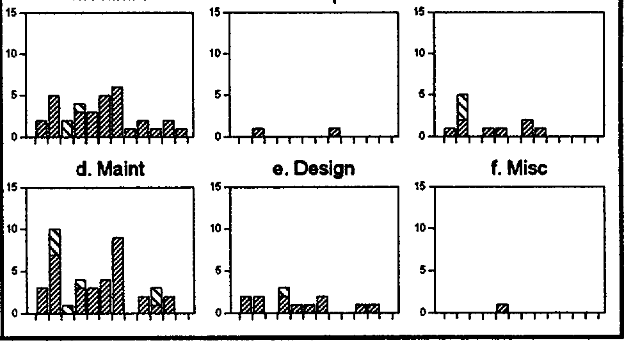


Figure 7.94b

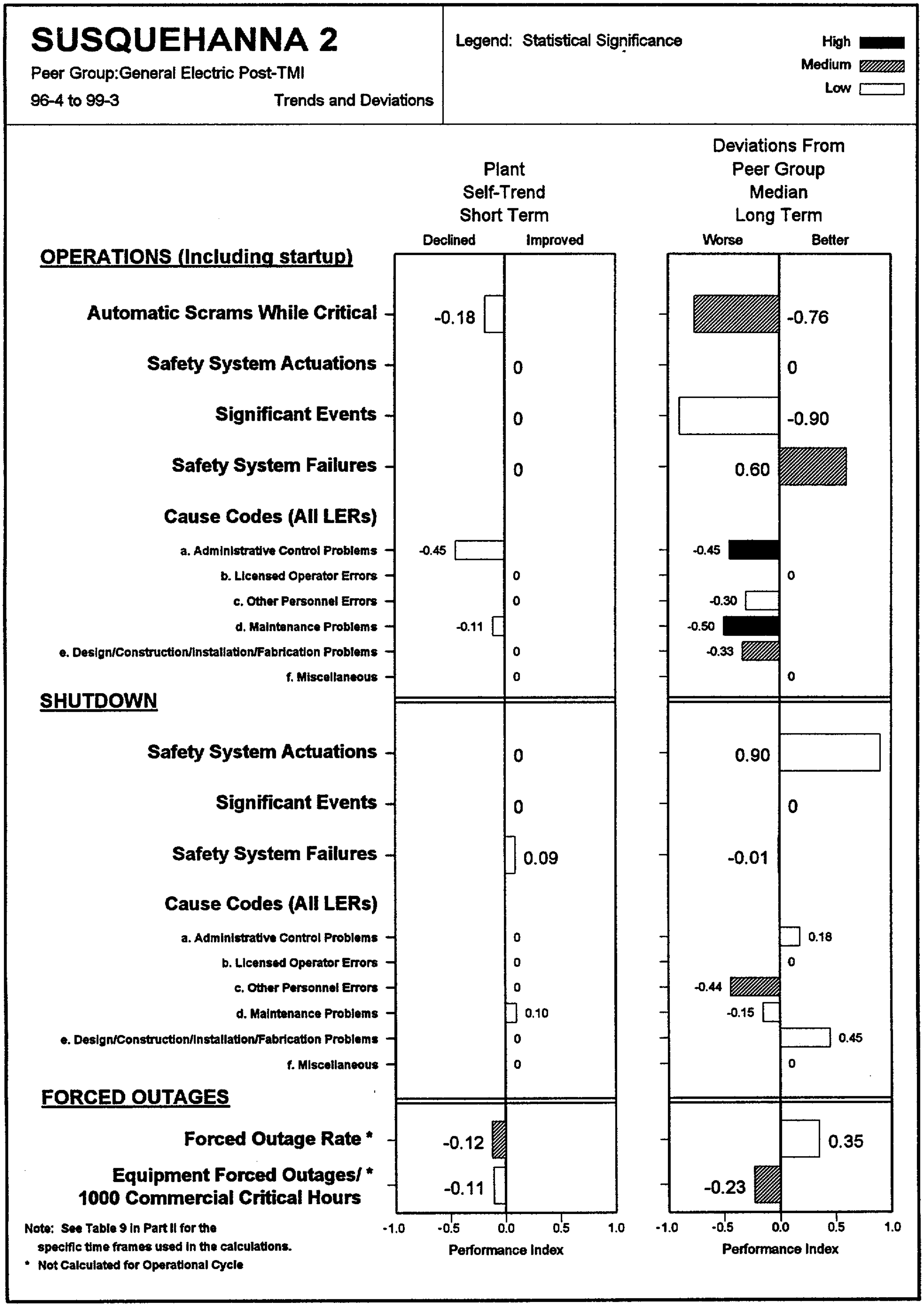

SUSQUEHANNA 2
Peer Group:General Electric Post-TMI
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low □
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical -0.18 -0.76
Safety System Actuations 0 0
Significant Events 0 -0.90
Safety System Failures 0 0.60
Cause Codes (All LERs)
a. Administrative Control Problems -0.45 -0.45
b. Licensed Operator Errors 0 0
c. Other Personnel Errors 0 -0.30
d. Maintenance Problems -0.11 -0.50
e. Design/Construction/Installation/Fabrication Problems 0 -0.33
f. Miscellaneous 0 0
SHUTDOWN
Safety System Actuations 0 0.90
Significant Events 0 0
Safety System Failures 0.09 -0.01
Cause Codes (All LERs)
a. Administrative Control Problems 0 0.18
b. Licensed Operator Errors 0 0
c. Other Personnel Errors 0 -0.44
d. Maintenance Problems 0.10 -0.15
e. Design/Construction/Installation/Fabrication Problems 0 0.45
f. Miscellaneous 0 0
FORCED OUTAGES
Forced Outage Rate * -0.12 0.35
Equipment Forced Outages/ * 1000 Commercial Critical Hours -0.11 -0.23
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.95a

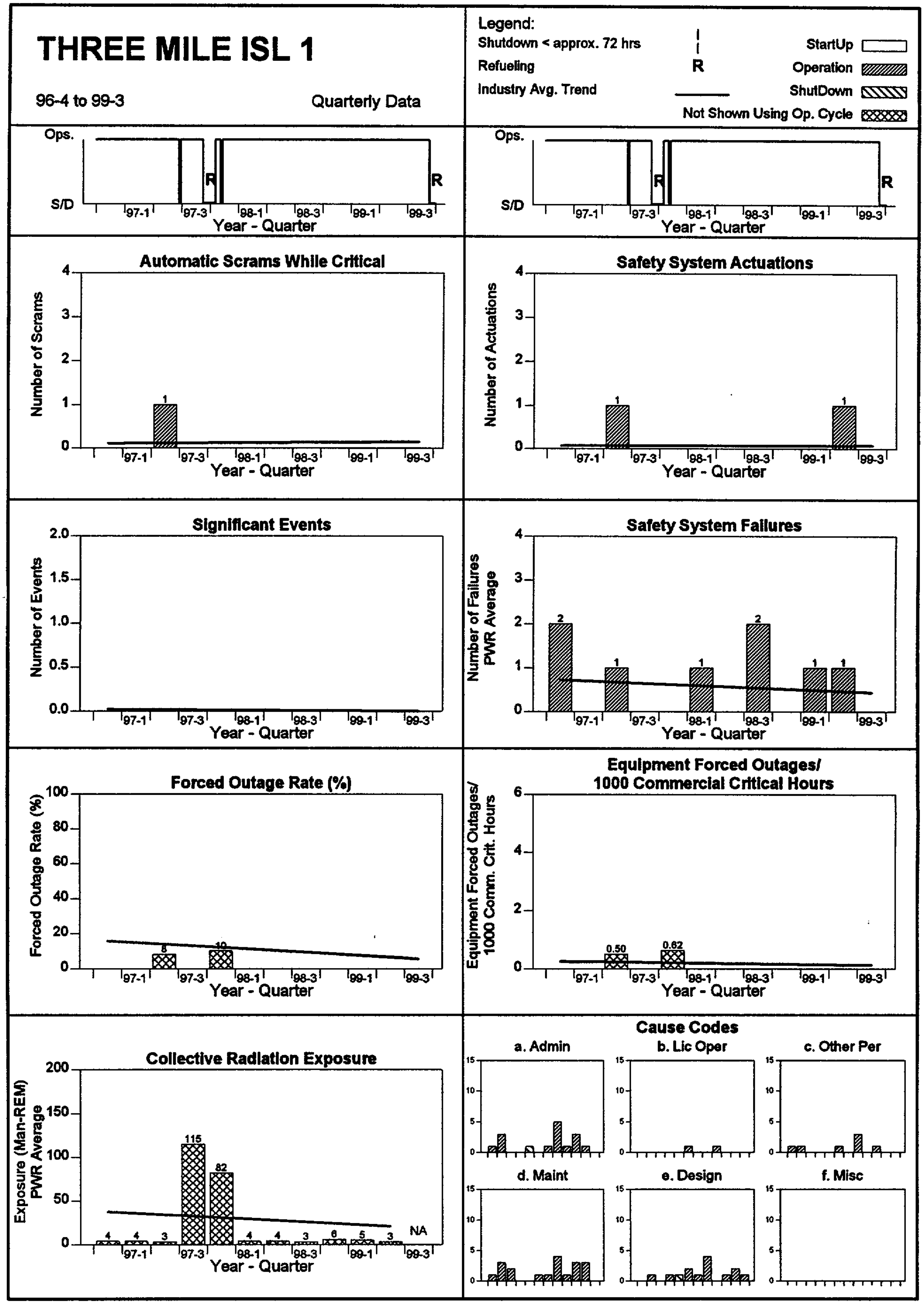

THREE MILE ISL 1
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
Safety System Actuations
Number of Actuations
1
1
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures PWR Average
2
1
1
2
1
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
8
10
Equipment Forced Outages/ 1000 Commercial Critical Hours
Equipment Forced Outages/ 1000 Comm. Crit. Hours
0
2
4
6
0.50
0.62
Collective Radiation Exposure
Exposure (Man-REM) PWR Average
0
50
100
150
200
4
4
3
115
82
4
4
3
6
5
3
NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.95b

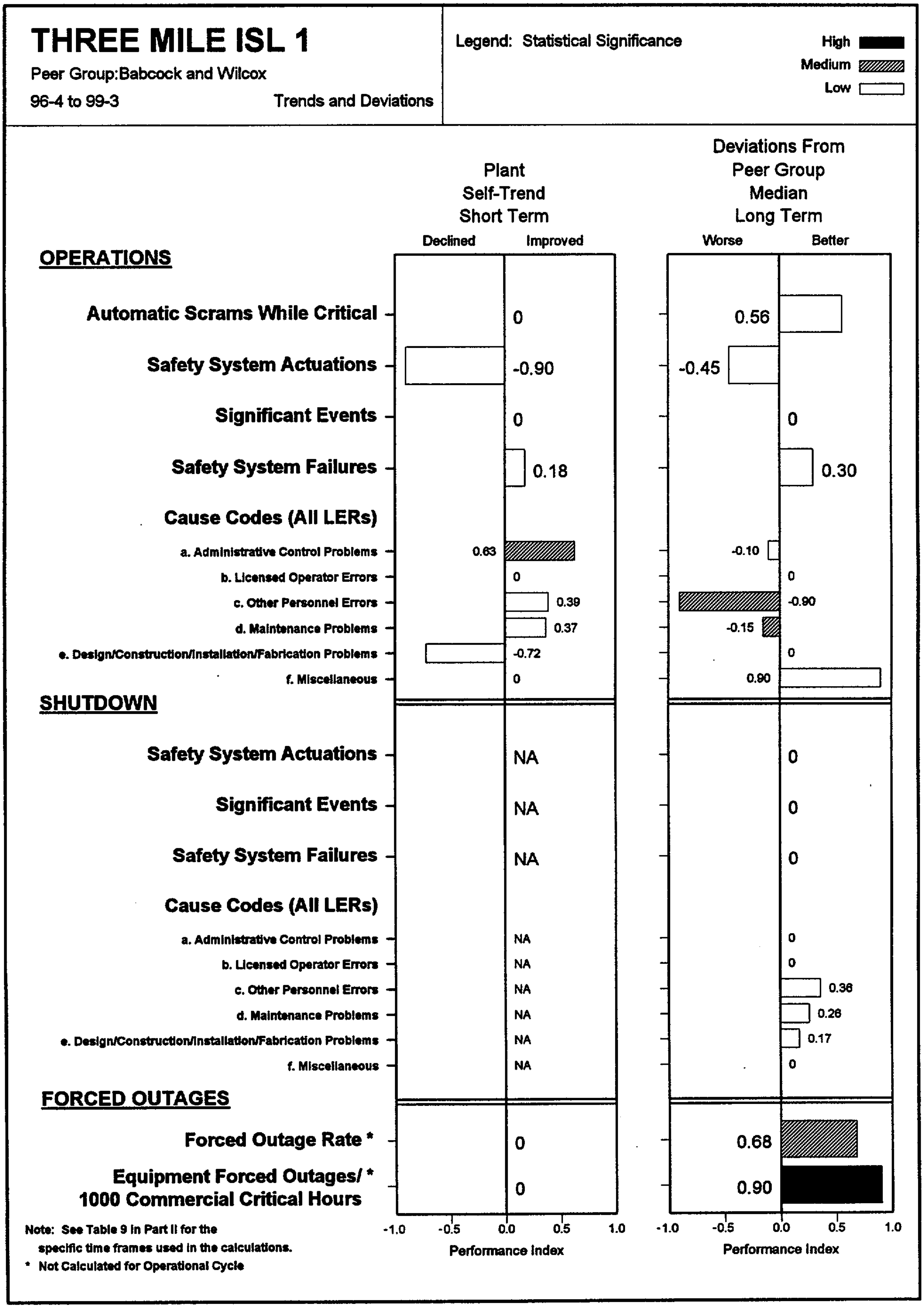

THREE MILE ISL 1
Peer Group:Babcock and Wilcox
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High ■
Medium ▨
Low ☐
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS
Automatic Scrams While Critical
0
0.56
Safety System Actuations
-0.90
-0.45
Significant Events
0
0
Safety System Failures
0.18
0.30
Cause Codes (All LERs)
a. Administrative Control Problems
0.63
-0.10
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0.39
-0.90
d. Maintenance Problems
0.37
-0.15
e. Design/Construction/Installation/Fabrication Problems
-0.72
0
f. Miscellaneous
0
0.90
SHUTDOWN
Safety System Actuations
NA
0
Significant Events
NA
0
Safety System Failures
NA
0
Cause Codes (All LERs)
a. Administrative Control Problems
NA
0
b. Licensed Operator Errors
NA
0
c. Other Personnel Errors
NA
0.36
d. Maintenance Problems
NA
0.26
e. Design/Construction/Installation/Fabrication Problems
NA
0.17
f. Miscellaneous
NA
0
FORCED OUTAGES
Forced Outage Rate *
0
0.68
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0
0.90
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.96a

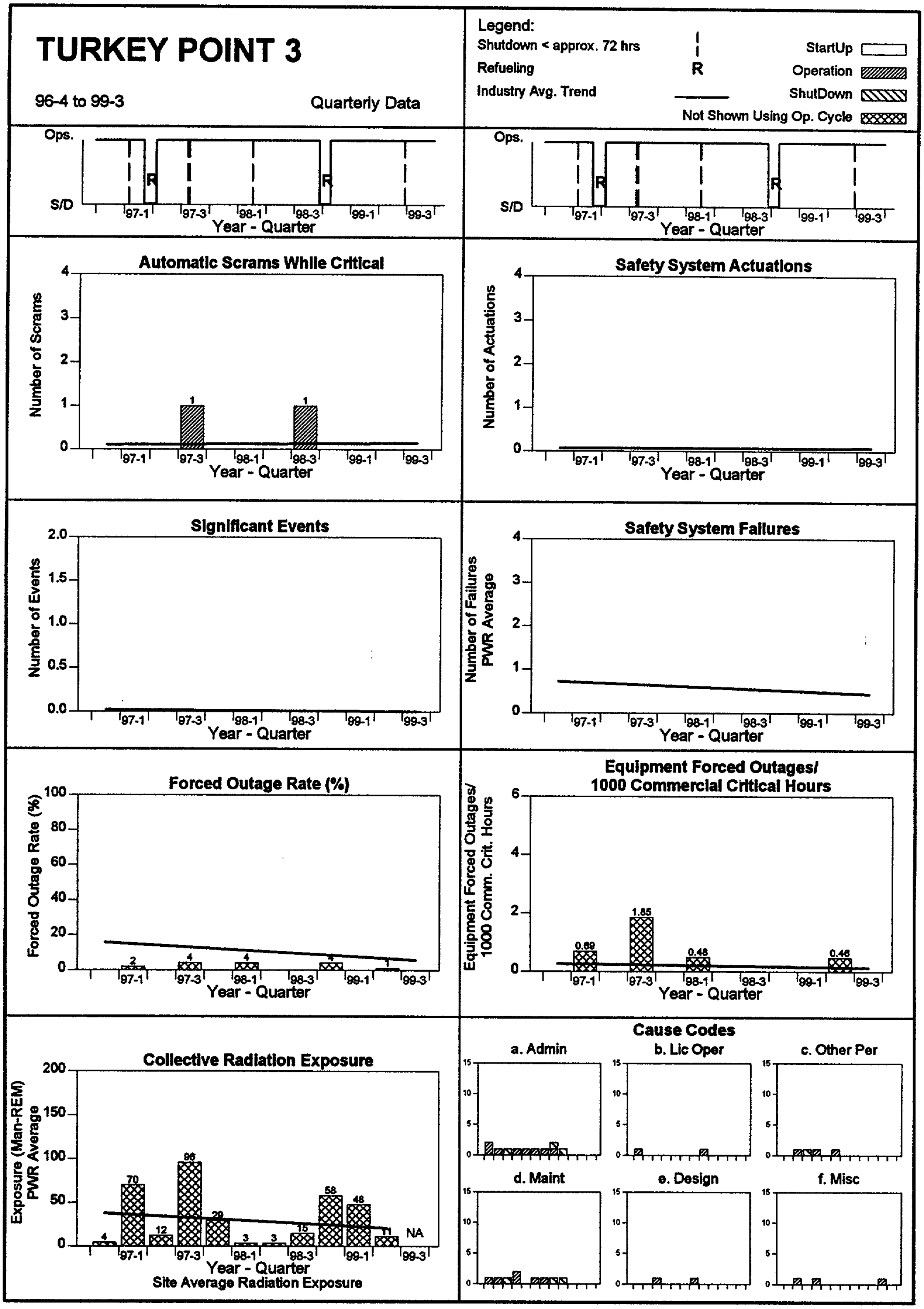
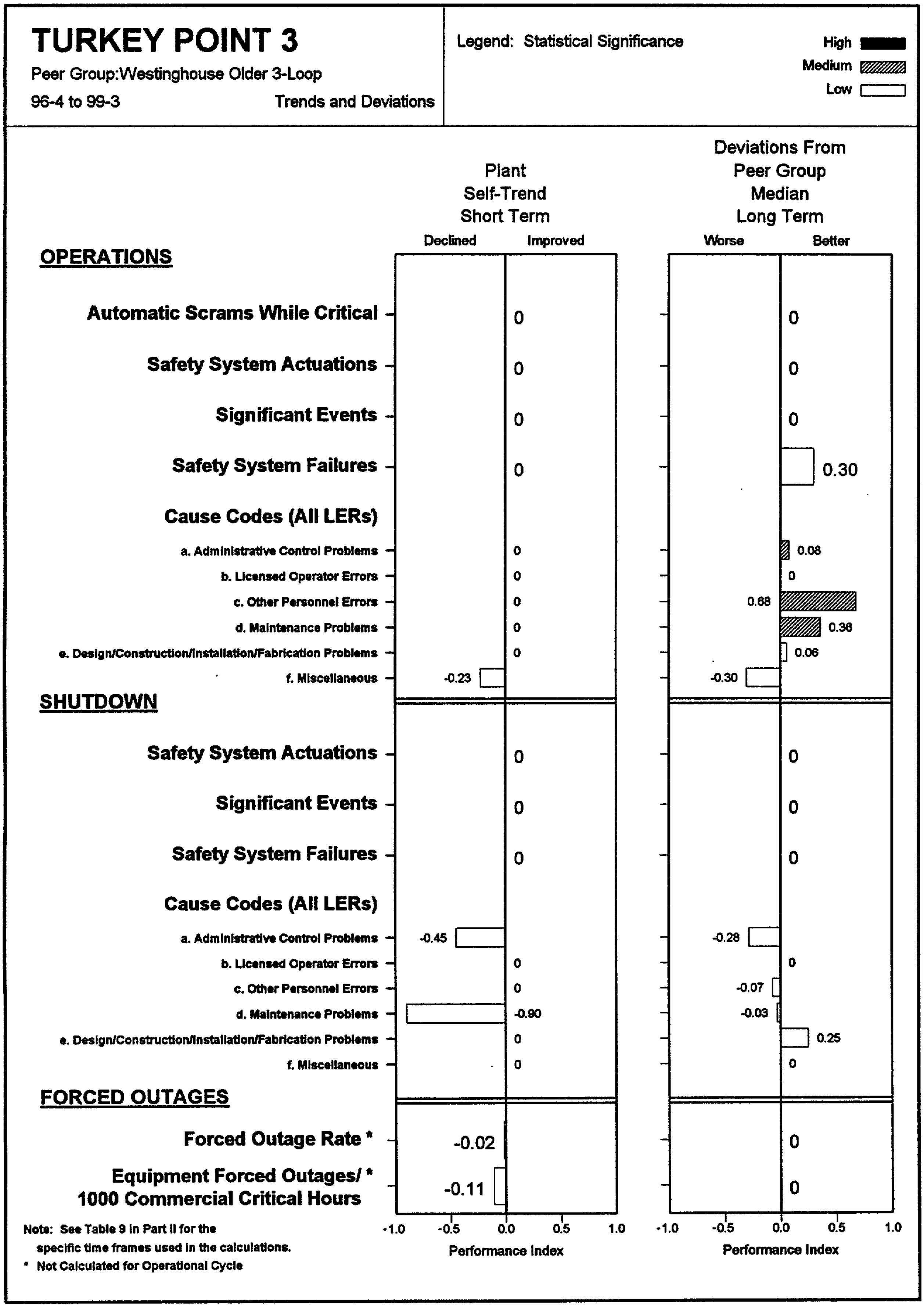

TURKEY POINT 3
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling
R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
4
3
2
1
0
1
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
2.0
1.5
1.0
0.5
0.0
Safety System Failures
Number of Failures
PWR Average
Forced Outage Rate (%)
Forced Outage Rate (%)
100
80
60
40
20
0
2
4
4
4
1
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
6
4
2
0
0.69
1.85
0.48
0.46
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
200
150
100
50
0
4
70
12
96
29
3
3
15
58
48
11
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
15
10
5
0

Figure 7.96b



TURKEY POINT 3
Peer Group:Westinghouse Older 3-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Deviations From Peer Group Median Long Term
Declined
Improved
Worse
Better
OPERATIONS
Automatic Scrams While Critical
0
0
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0.30
Cause Codes (All LERs)
a. Administrative Control Problems
0
0.08
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
0.68
d. Maintenance Problems
0
0.36
e. Design/Construction/Installation/Fabrication Problems
0
0.06
f. Miscellaneous
-0.23
-0.30
SHUTDOWN
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
0
0
Cause Codes (All LERs)
a. Administrative Control Problems
-0.45
-0.28
b. Licensed Operator Errors
0
0
c. Other Personnel Errors
0
-0.07
d. Maintenance Problems
-0.90
-0.03
e. Design/Construction/Installation/Fabrication Problems
0
0.25
f. Miscellaneous
0
0
FORCED OUTAGES
Forced Outage Rate *
-0.02
0
Equipment Forced Outages/ * 1000 Commercial Critical Hours
-0.11
0
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.97a

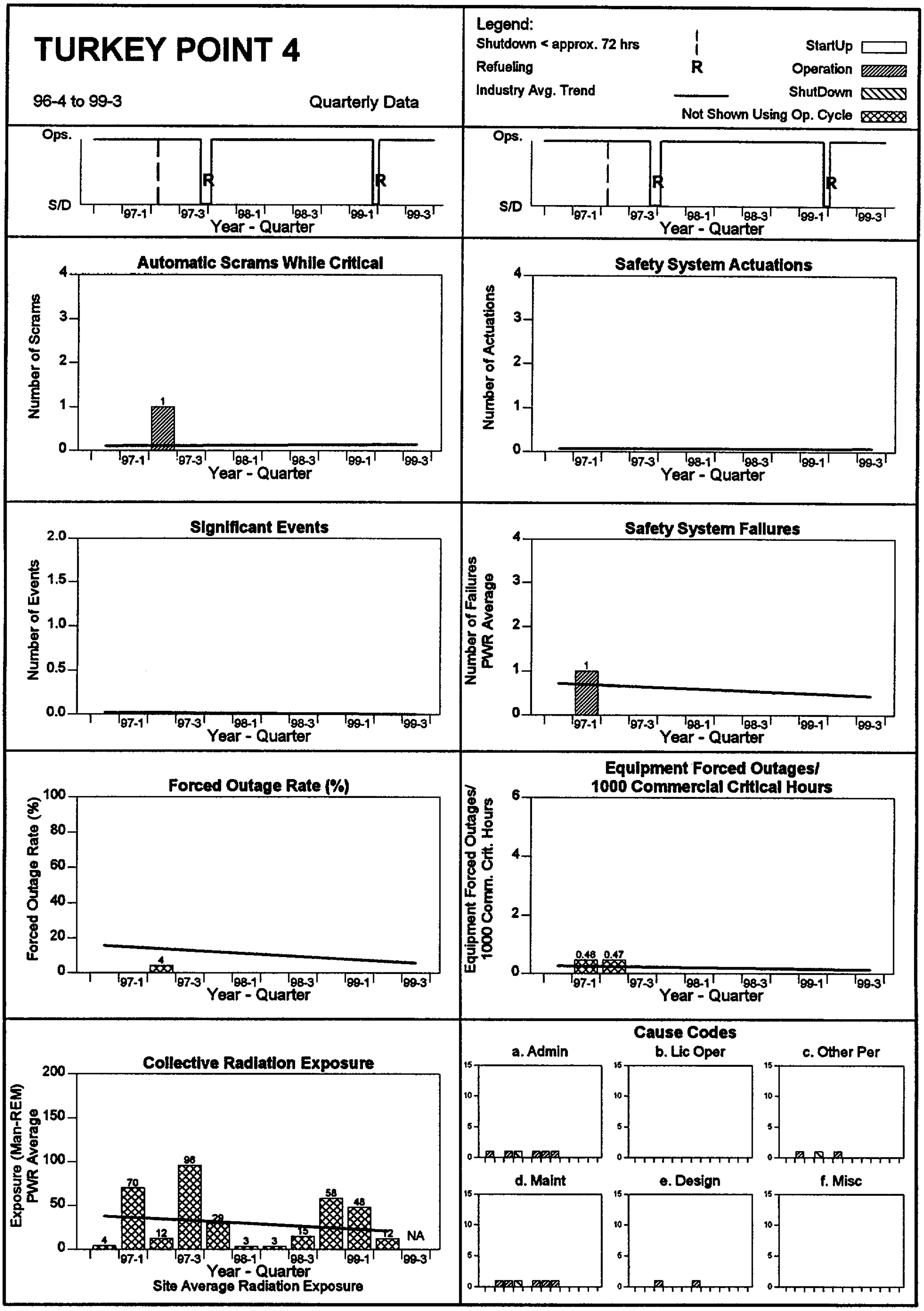

TURKEY POINT 4
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling
R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
R
97-1
97-3
98-1
98-3
99-1
99-3
Year - Quarter
Automatic Scrams While Critical
Number of Scrams
0
1
2
3
4
1
Safety System Actuations
Number of Actuations
Significant Events
Number of Events
0.0
0.5
1.0
1.5
2.0
Safety System Failures
Number of Failures
PWR Average
1
Forced Outage Rate (%)
Forced Outage Rate (%)
0
20
40
60
80
100
4
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
0
2
4
6
0.48
0.47
Collective Radiation Exposure
Exposure (Man-REM)
PWR Average
0
50
100
150
200
4
70
12
96
29
3
3
15
58
48
12
NA
Site Average Radiation Exposure
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc
0
5
10
15

Figure 7.97b

TURKEY POINT 4

Peer Group:Westinghouse Older 3-Loop

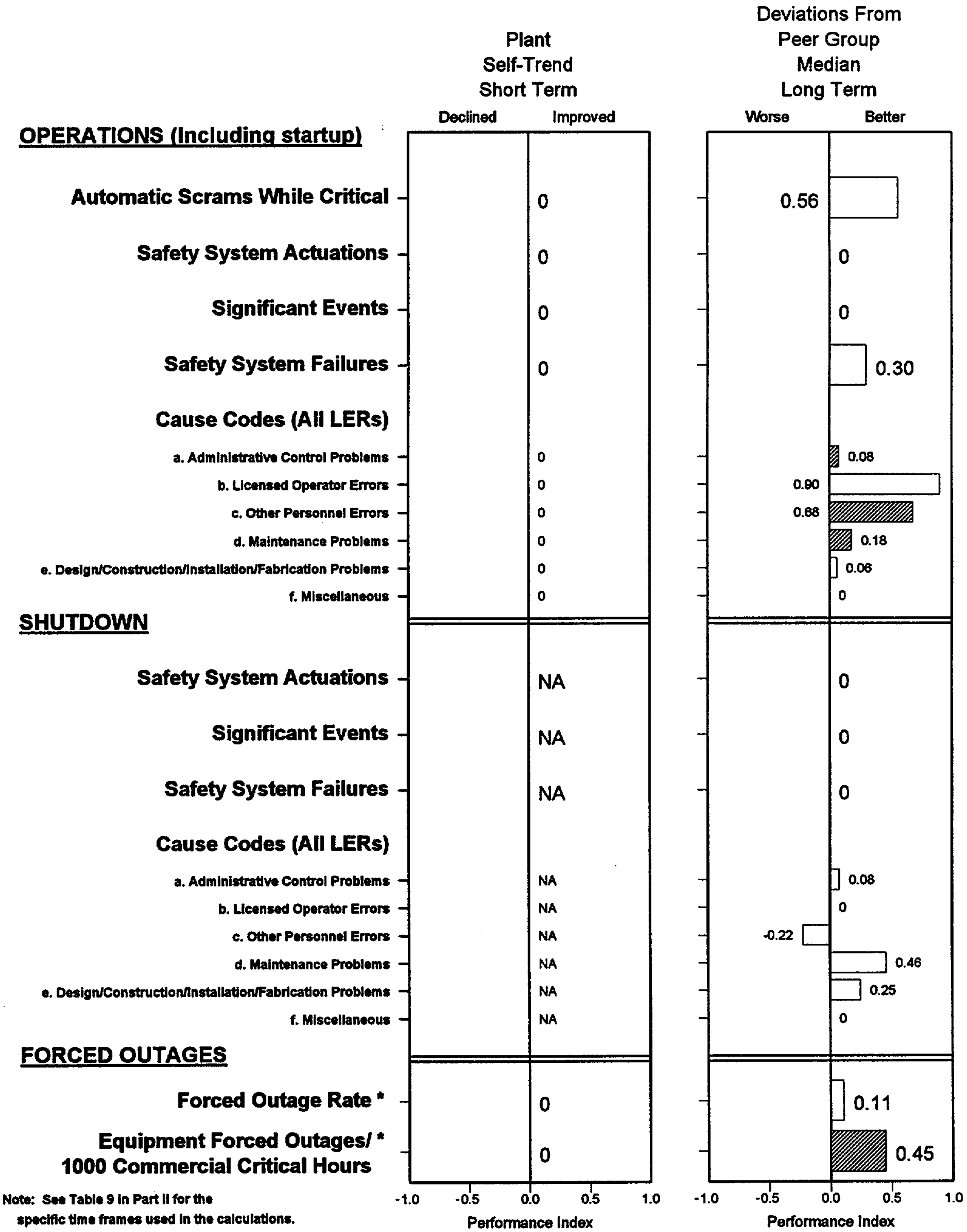
96-4 to 99-3 Trends and Deviations

Legend: Statistical Significance

High ■

Medium ▨

Low □



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.98a

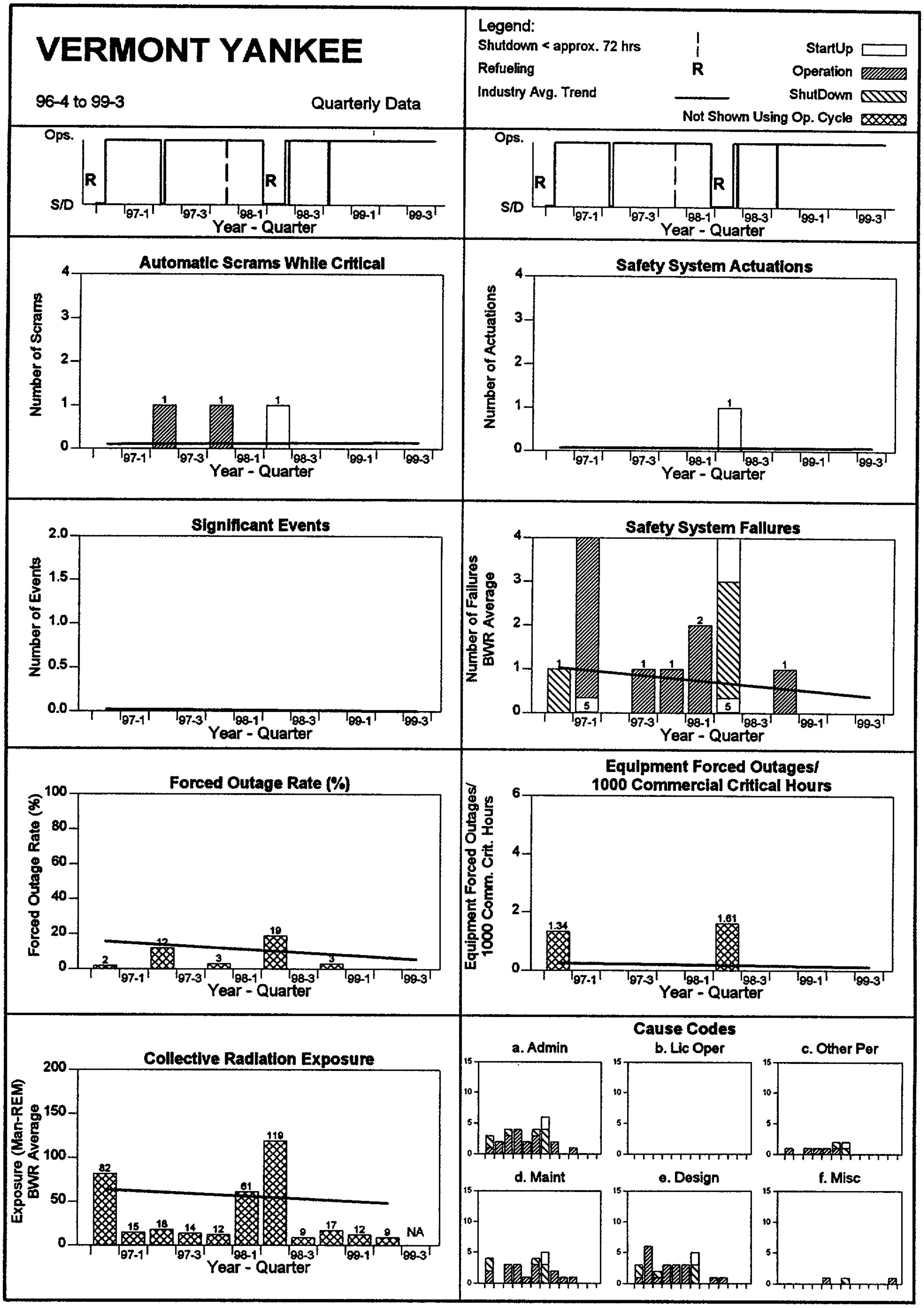
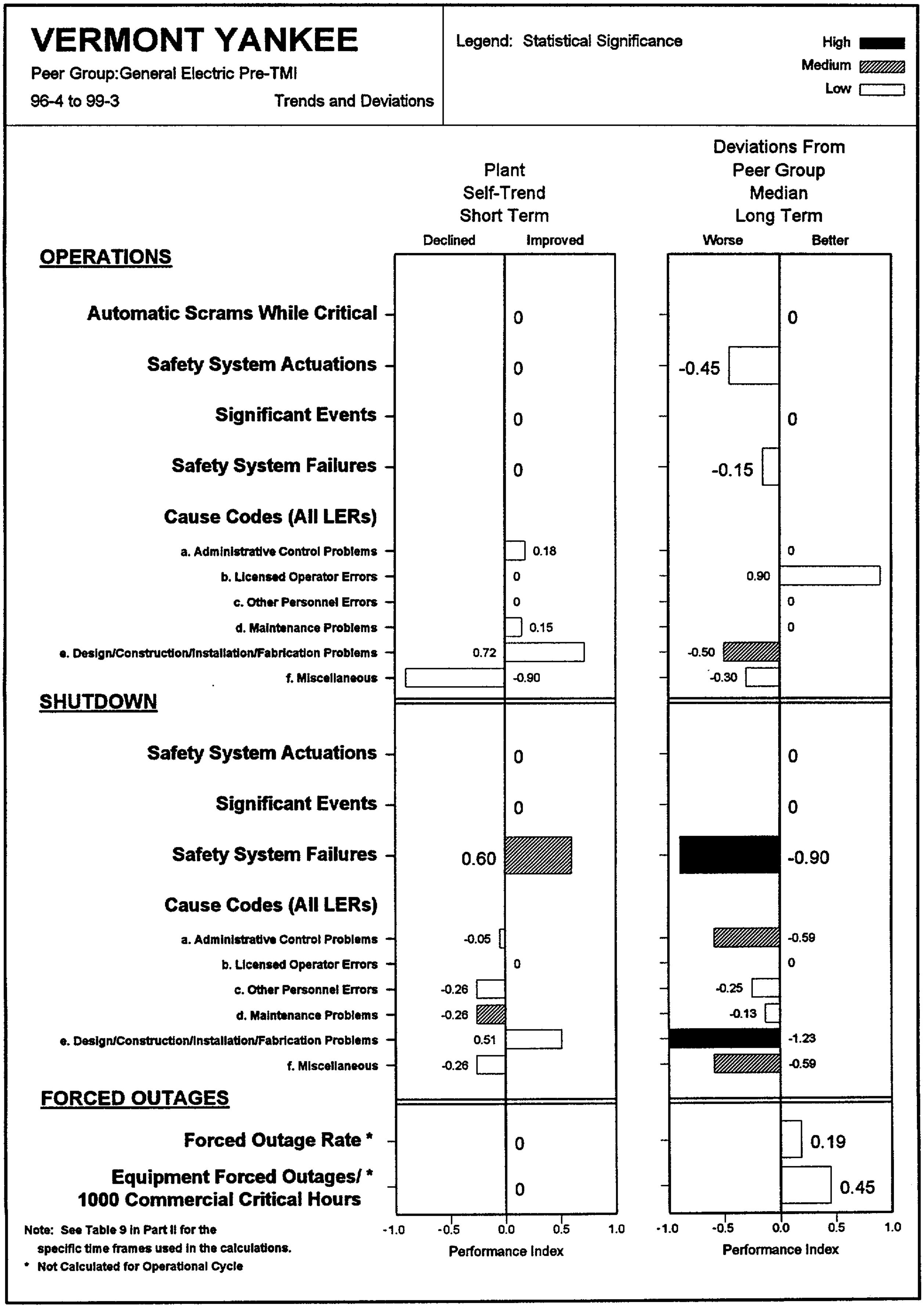

VERMONT YANKEE
96-4 to 99-3
Quarterly Data
Legend:
Shutdown < approx. 72 hrs
Refueling R
Industry Avg. Trend
StartUp
Operation
ShutDown
Not Shown Using Op. Cycle
Ops.
S/D
R
Year - Quarter
'97-1
'97-3
'98-1
'98-3
'99-1
'99-3
Automatic Scrams While Critical
Number of Scrams
1
1
1
Safety System Actuations
Number of Actuations
1
Significant Events
Number of Events
Safety System Failures
Number of Failures
BWR Average
1
5
1
1
2
5
1
Forced Outage Rate (%)
Forced Outage Rate (%)
2
12
3
19
3
Equipment Forced Outages/
1000 Commercial Critical Hours
Equipment Forced Outages/
1000 Comm. Crit. Hours
1.34
1.61
Collective Radiation Exposure
Exposure (Man-REM)
BWR Average
82
15
18
14
12
61
119
9
17
12
9
NA
Cause Codes
a. Admin
b. Lic Oper
c. Other Per
d. Maint
e. Design
f. Misc

Figure 7.98b



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

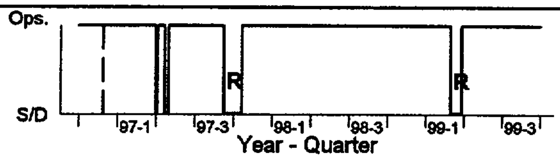
Figure 7.99a

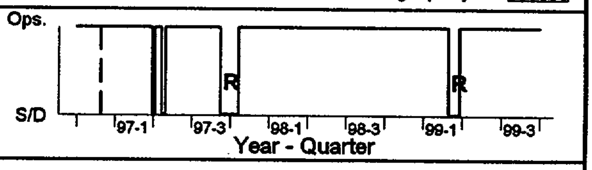
VOGTLE 1

96-4 to 99-3 Quarterly Data

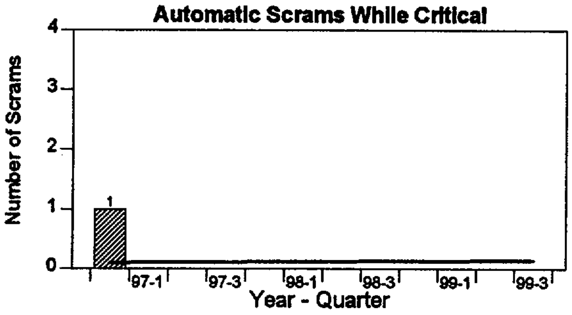
Legend:

Shutdown < approx. 72 hrs	¦	StartUp	☐
Refueling	R	Operation	▨
Industry Avg. Trend	———	ShutDown	▧
		Not Shown Using Op. Cycle	▩

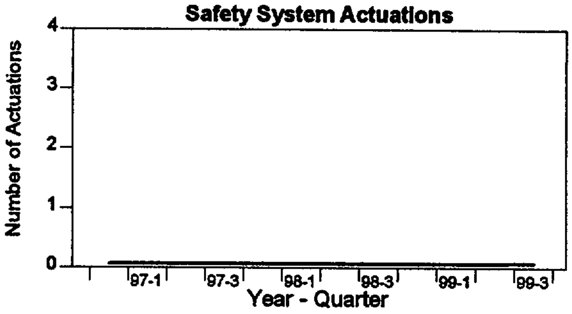




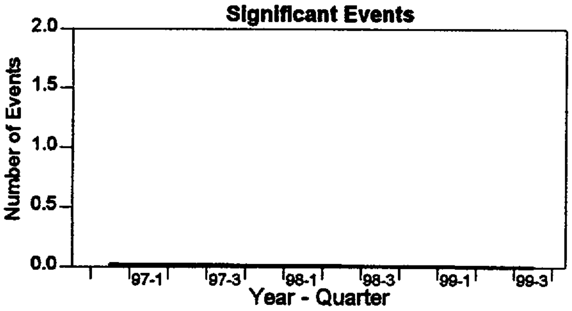
Automatic Scrams While Critical



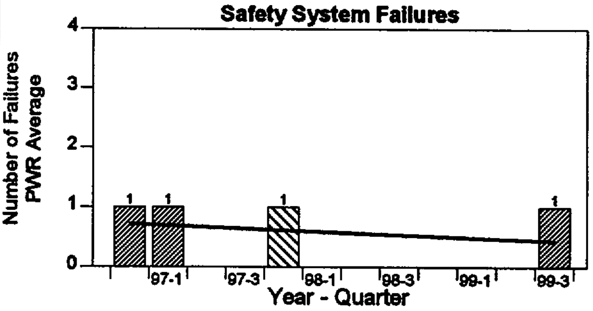
Safety System Actuations



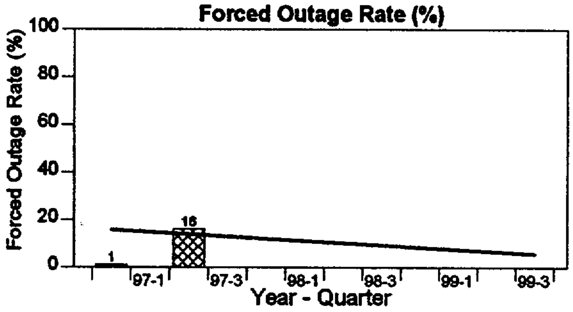
Significant Events



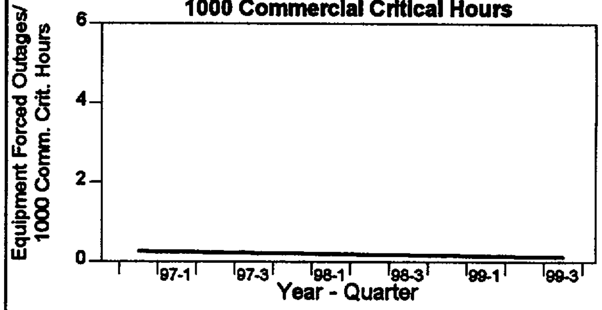
Safety System Failures



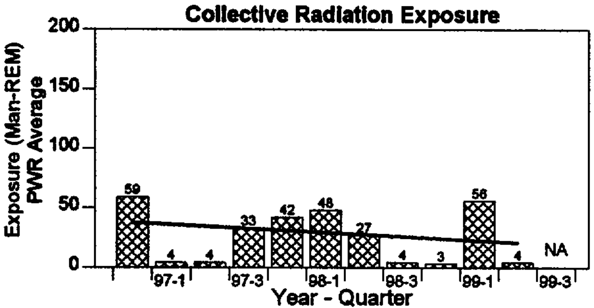
Forced Outage Rate (%)



Equipment Forced Outages/
1000 Commercial Critical Hours



Collective Radiation Exposure



Site Average Radiation Exposure

Cause Codes

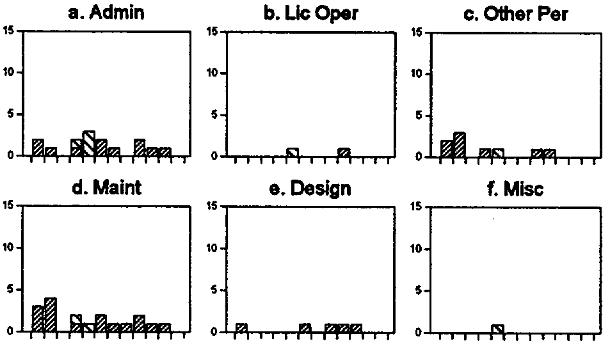


Figure 7.99b

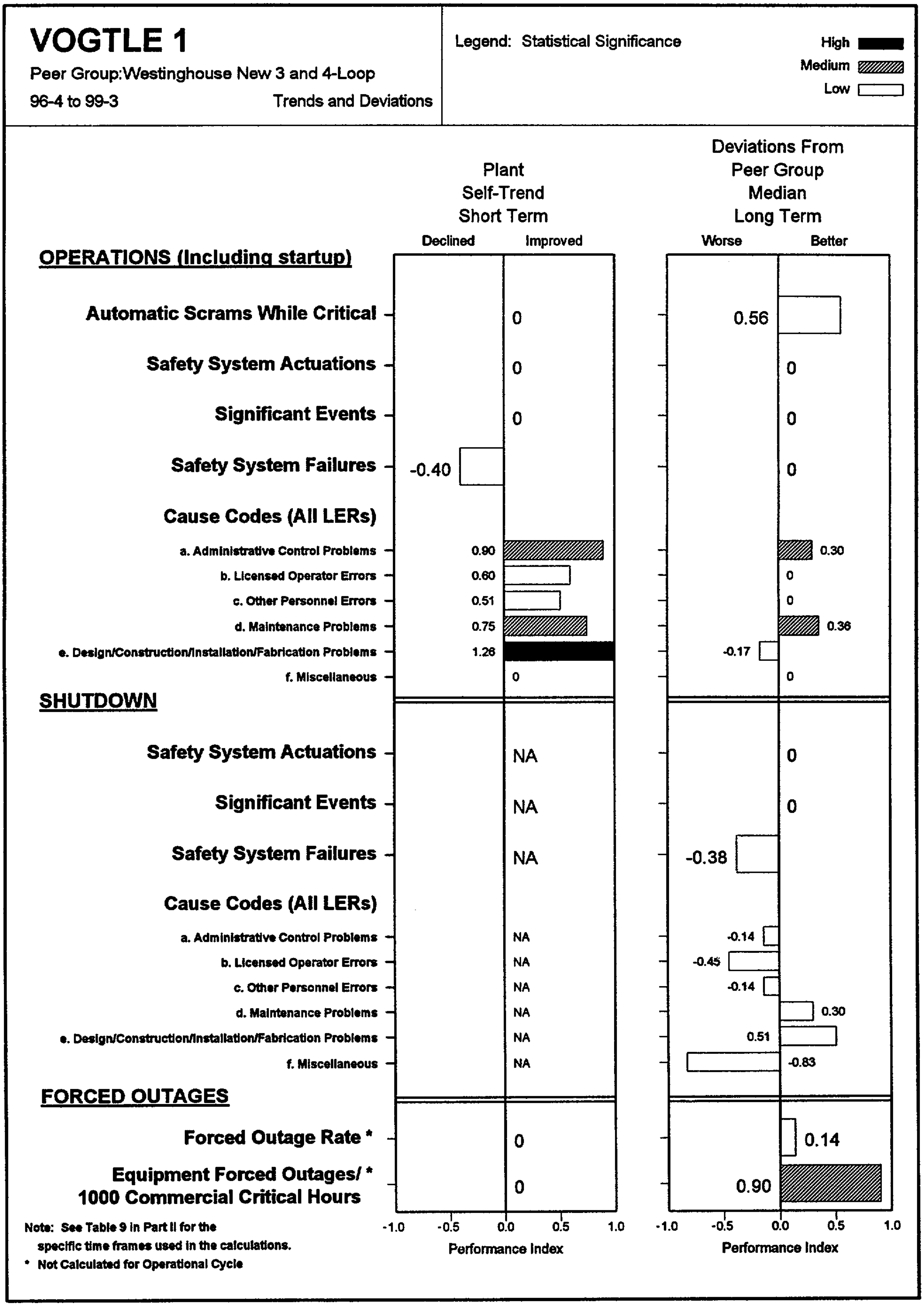

VOGTLE 1
Peer Group:Westinghouse New 3 and 4-Loop
96-4 to 99-3
Trends and Deviations
Legend: Statistical Significance
High
Medium
Low
Plant Self-Trend Short Term
Declined
Improved
Deviations From Peer Group Median Long Term
Worse
Better
OPERATIONS (Including startup)
Automatic Scrams While Critical
0
0.56
Safety System Actuations
0
0
Significant Events
0
0
Safety System Failures
-0.40
0
Cause Codes (All LERs)
a. Administrative Control Problems
0.90
0.30
b. Licensed Operator Errors
0.60
0
c. Other Personnel Errors
0.51
0
d. Maintenance Problems
0.75
0.36
e. Design/Construction/Installation/Fabrication Problems
1.26
-0.17
f. Miscellaneous
0
0
SHUTDOWN
Safety System Actuations
NA
0
Significant Events
NA
0
Safety System Failures
NA
-0.38
Cause Codes (All LERs)
a. Administrative Control Problems
NA
-0.14
b. Licensed Operator Errors
NA
-0.45
c. Other Personnel Errors
NA
-0.14
d. Maintenance Problems
NA
0.30
e. Design/Construction/Installation/Fabrication Problems
NA
0.51
f. Miscellaneous
NA
-0.83
FORCED OUTAGES
Forced Outage Rate *
0
0.14
Equipment Forced Outages/ * 1000 Commercial Critical Hours
0
0.90
-1.0
-0.5
0.0
0.5
1.0
Performance Index
-1.0
-0.5
0.0
0.5
1.0
Performance Index
Note: See Table 9 in Part II for the specific time frames used in the calculations.
* Not Calculated for Operational Cycle

Figure 7.100a

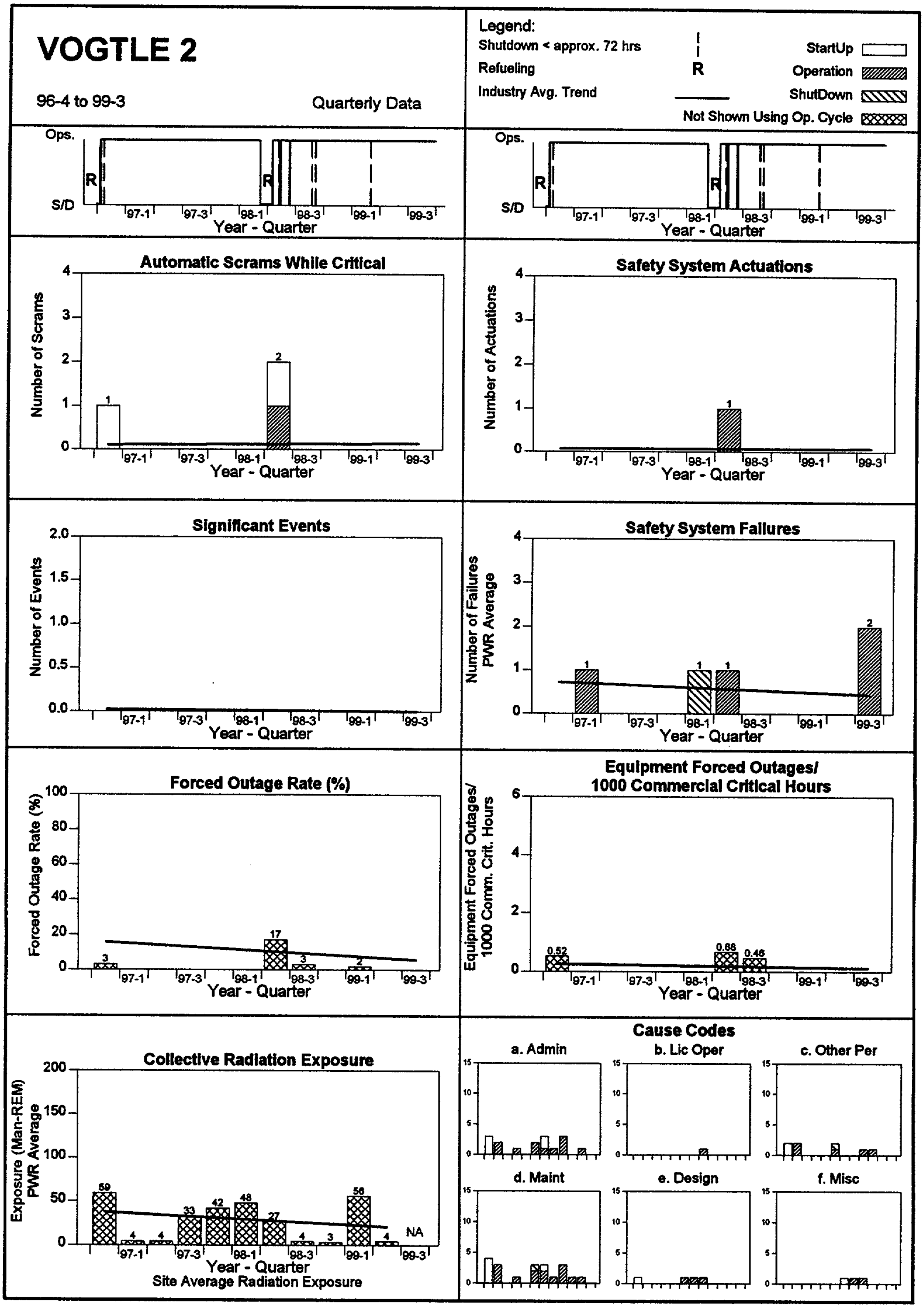


Figure 7.100b

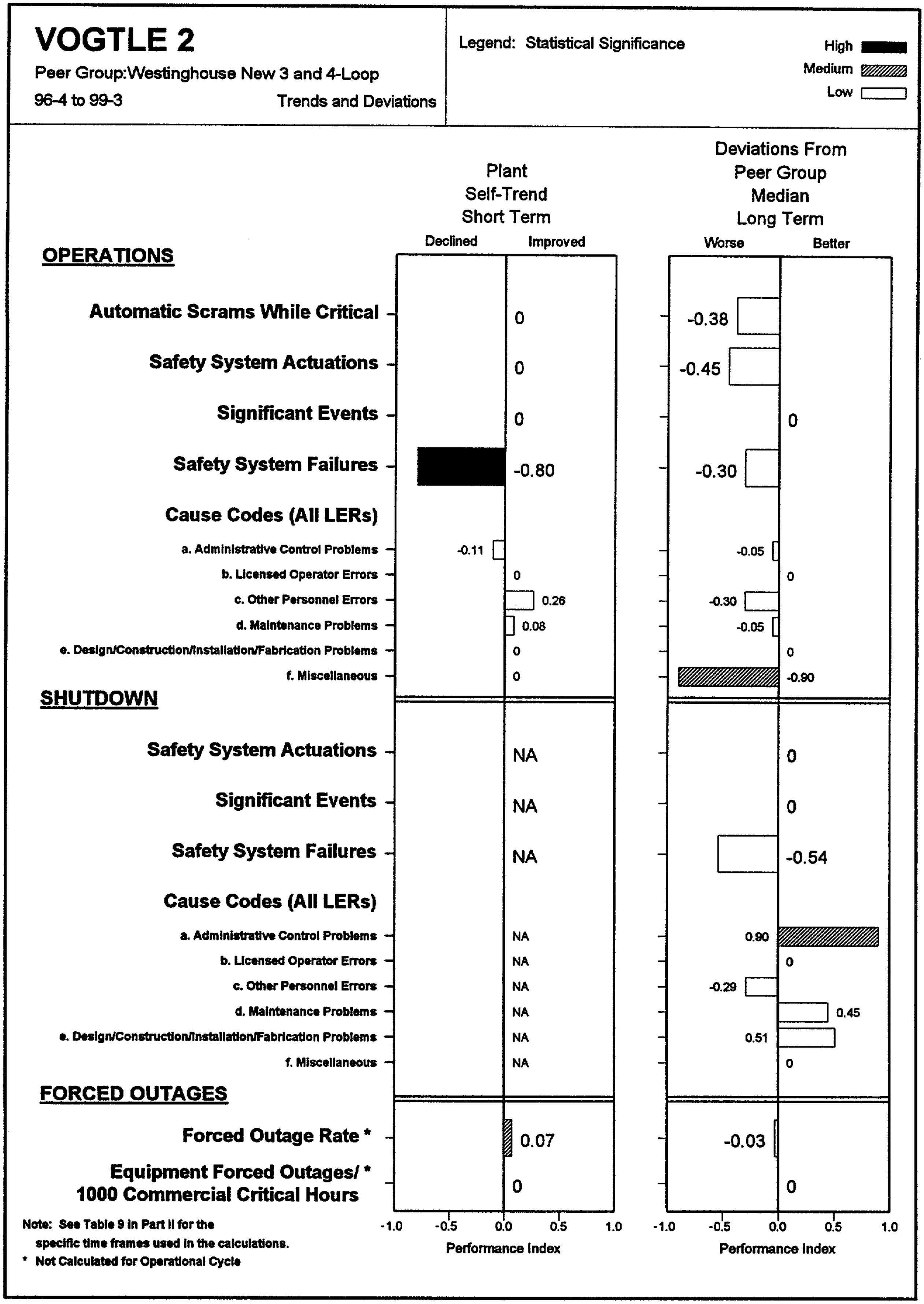


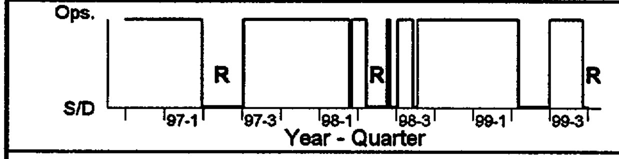
Figure 7.101a

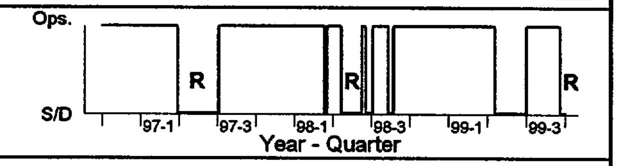
WASH. NUCLEAR 2

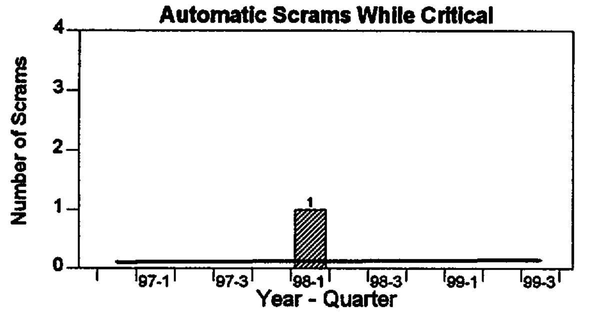
96-4 to 99-3 Quarterly Data

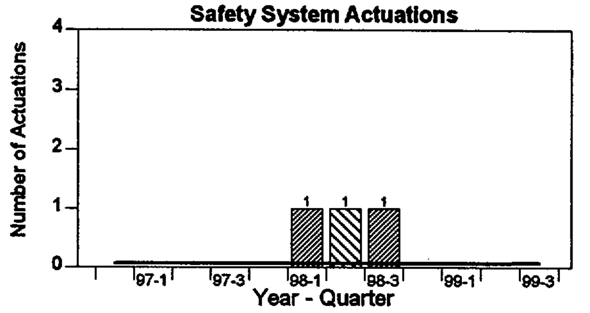
Legend:

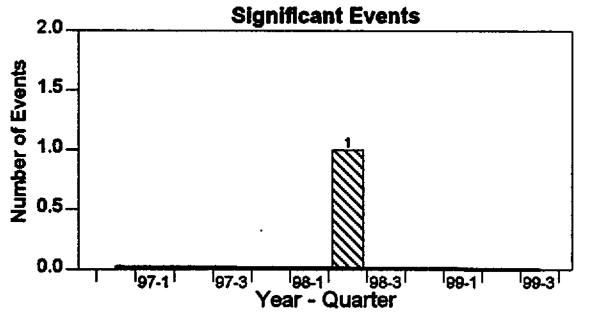
Shutdown < approx. 72 hrs	¦	StartUp	☐
Refueling	R	Operation	▨
Industry Avg. Trend	———	ShutDown	▧
		Not Shown Using Op. Cycle	▩

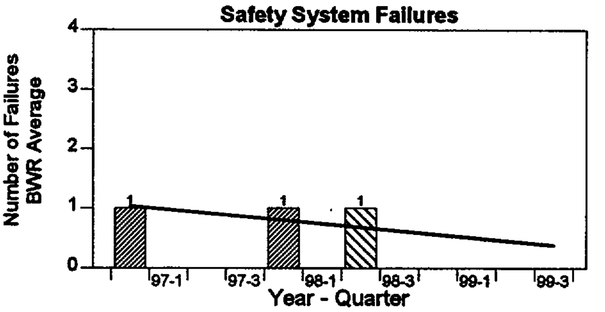


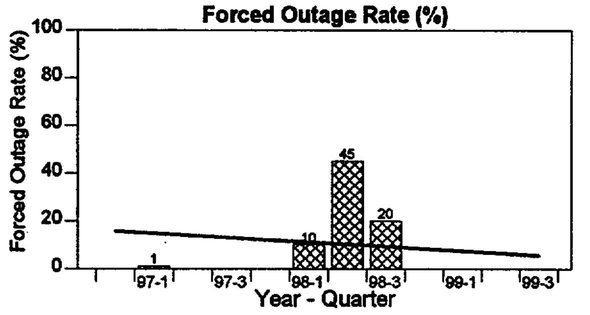


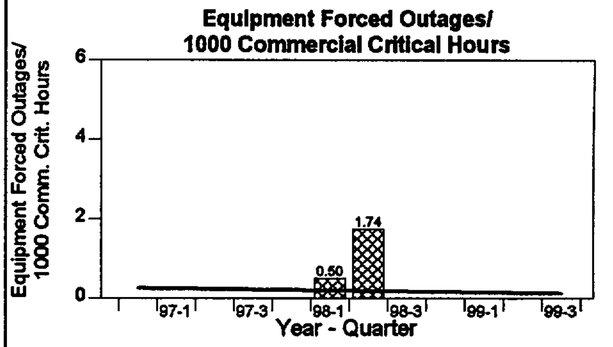


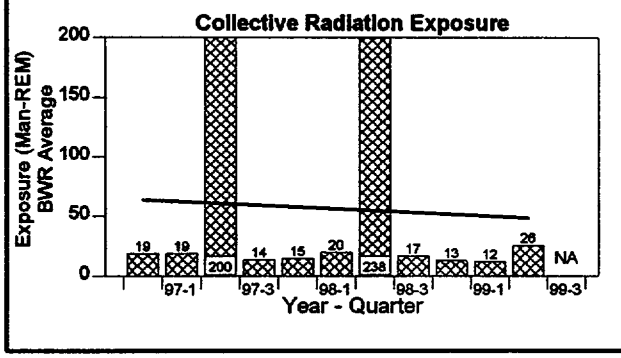












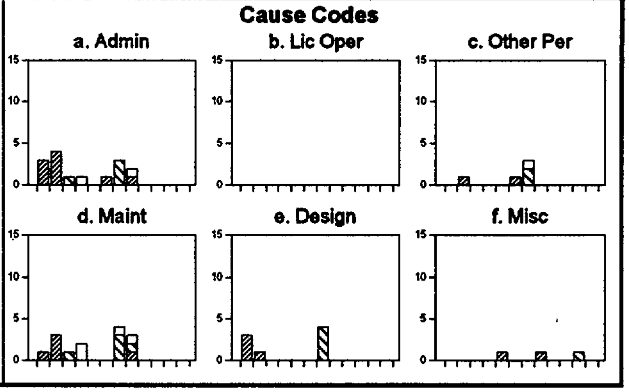


Figure 7.101b

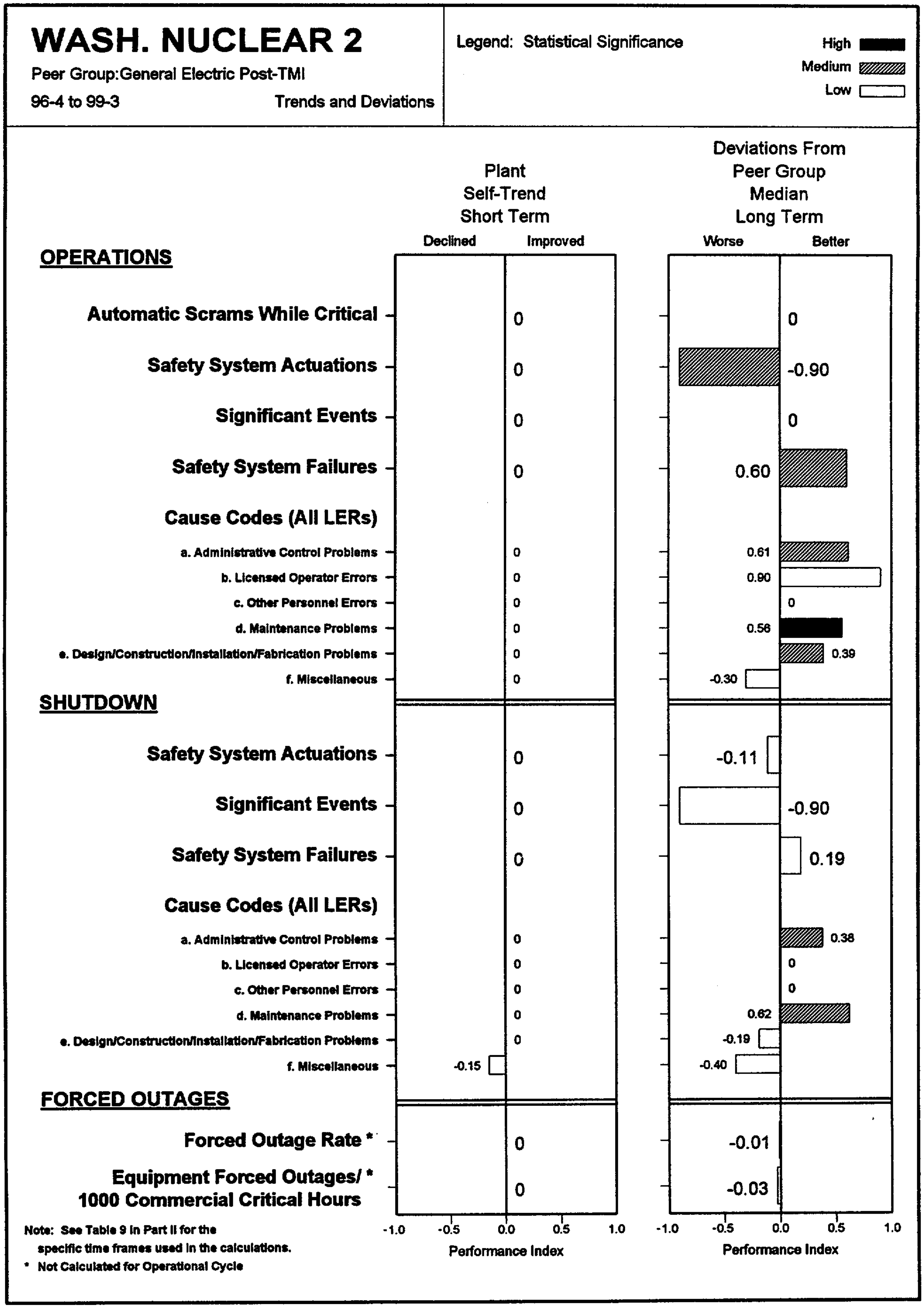


Figure 7.102a

WATERFORD 3

96-4 to 99-3 Quarterly Data

Legend:

Shutdown < approx. 72 hrs ¦

Refueling R

Industry Avg. Trend ——

StartUp ☐

Operation ▨

ShutDown ▧

Not Shown Using Op. Cycle ▦

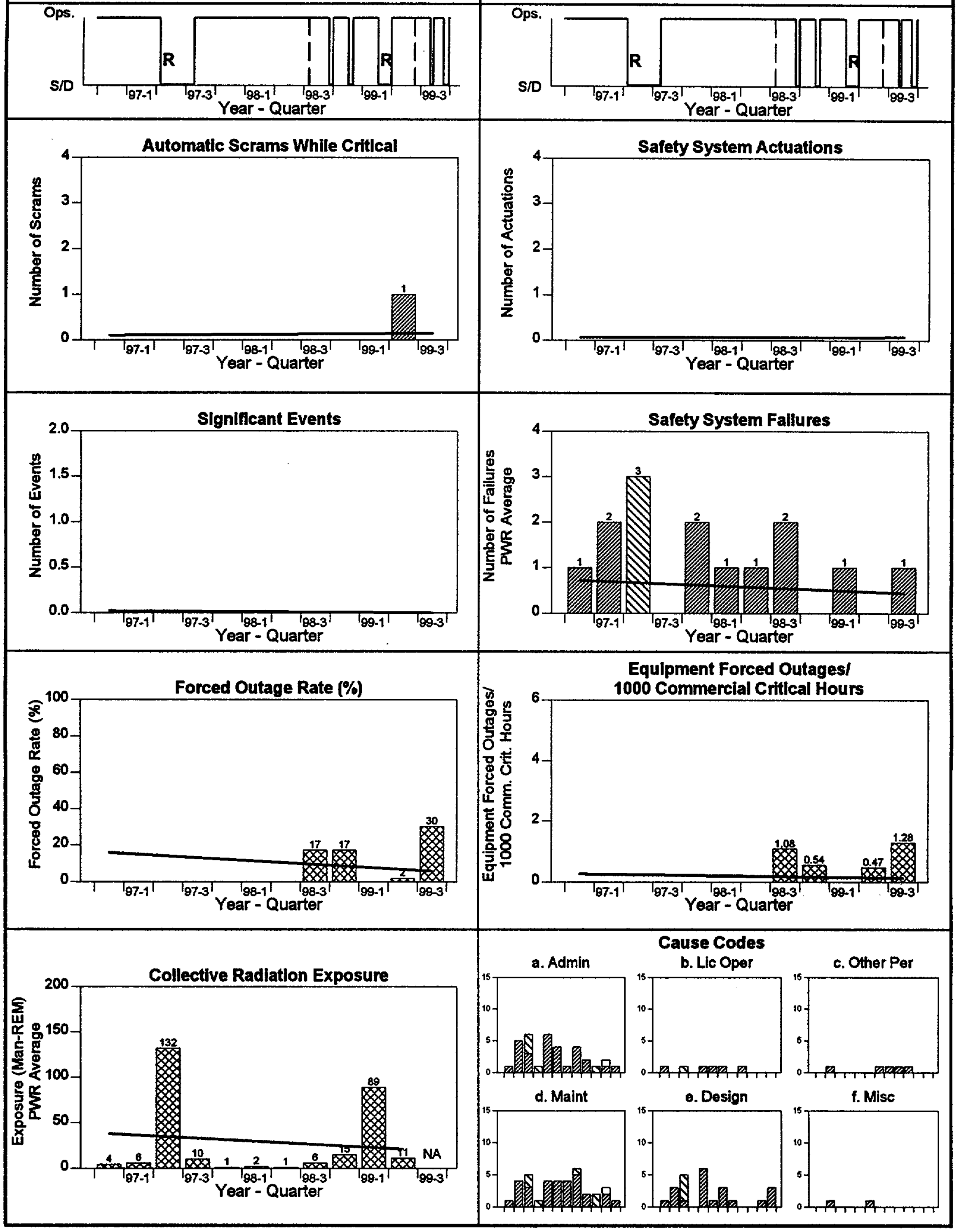


Figure 7.102b

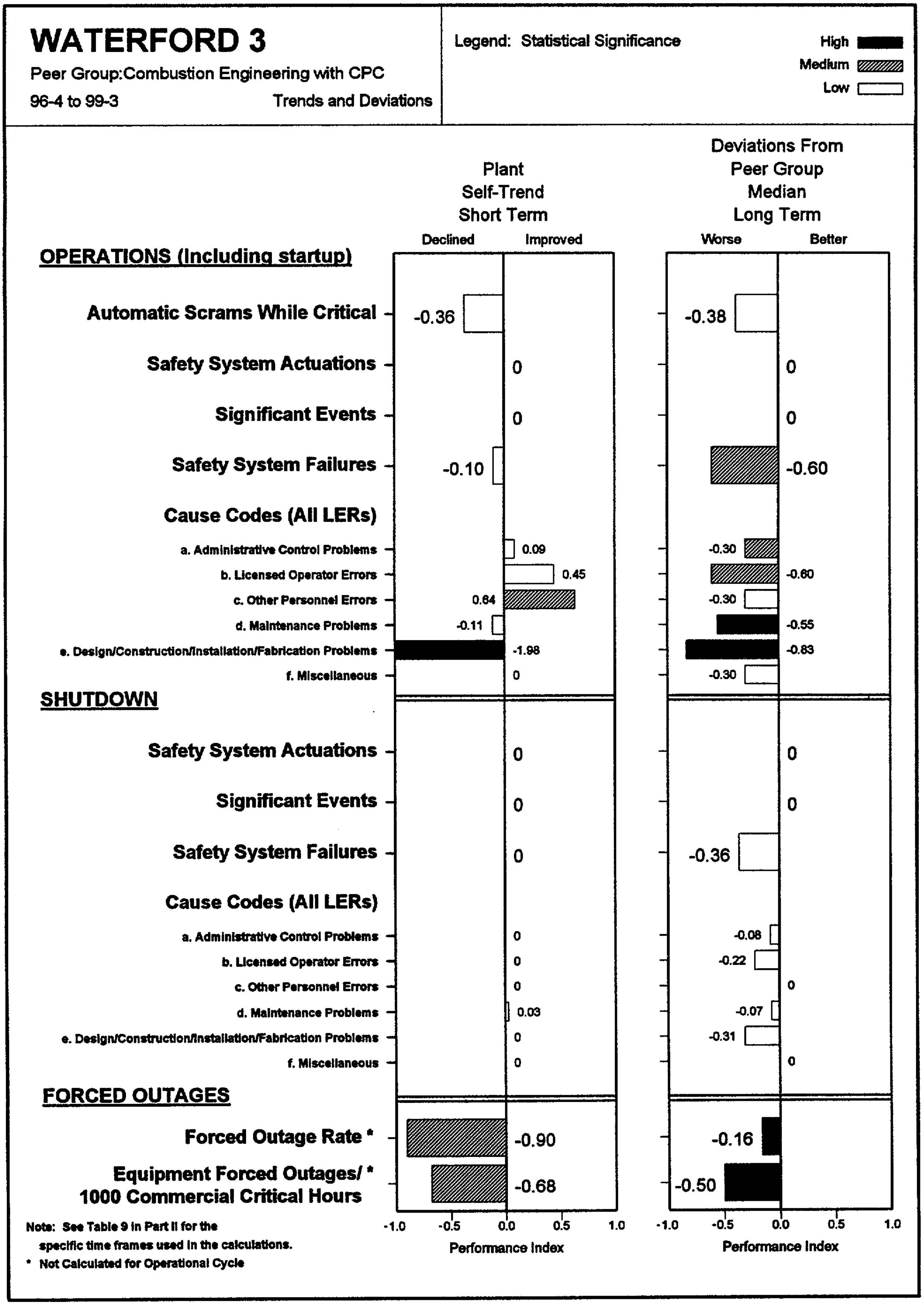


Figure 7.103a

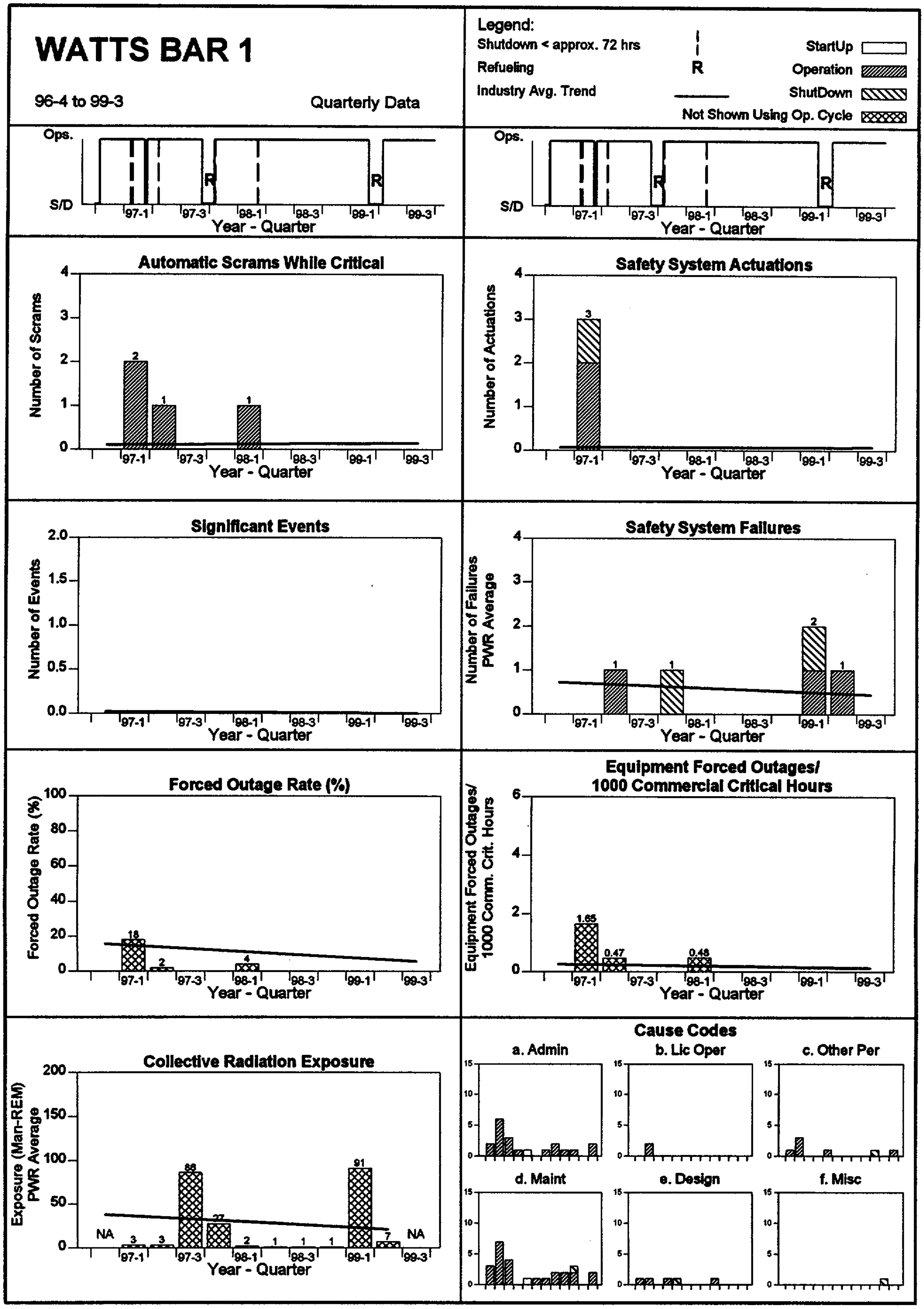


Figure 7.103b

WATTS BAR 1

Peer Group:Westinghouse New 3 and 4-Loop

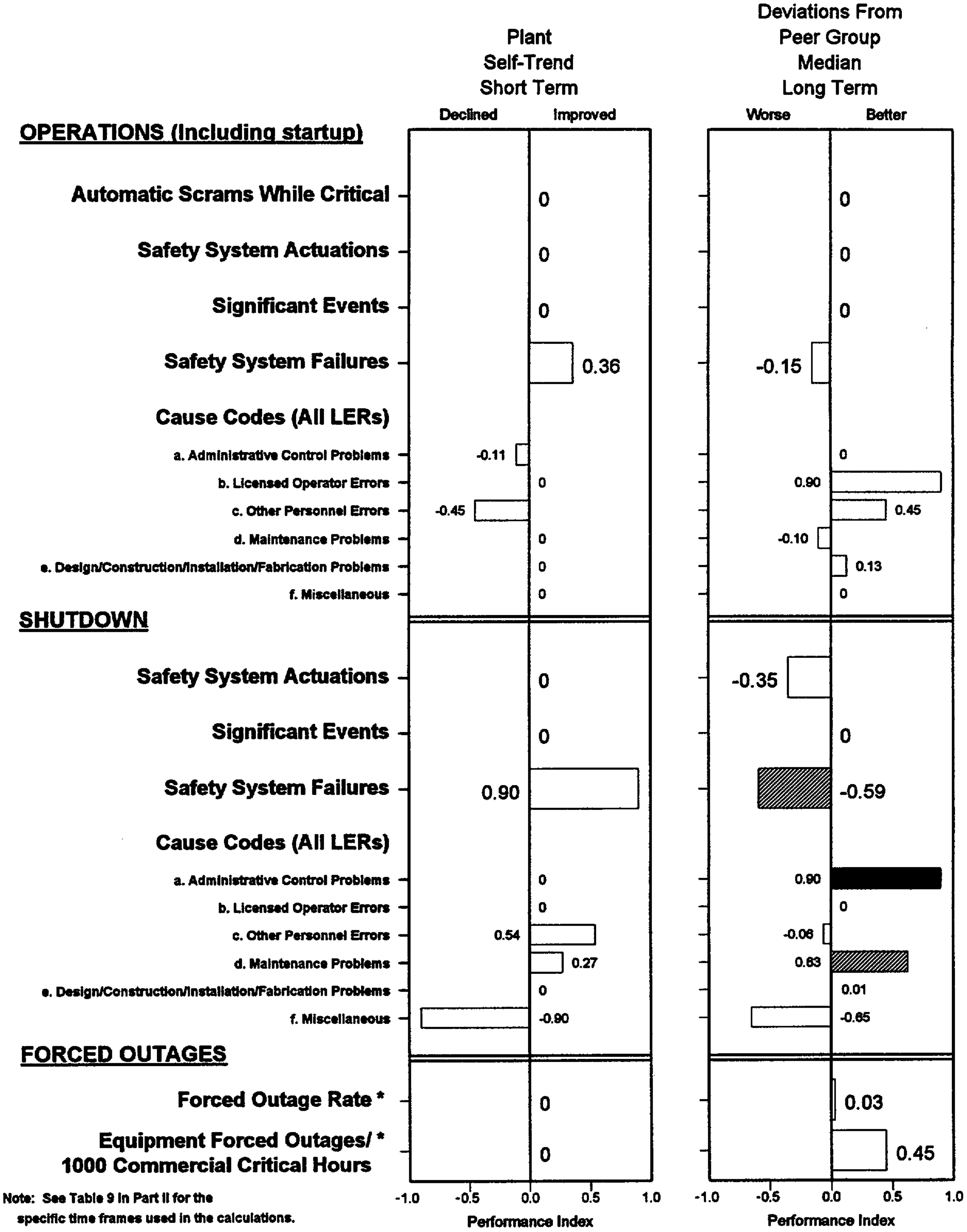
96-4 to 99-3 Trends and Deviations

Legend: Statistical Significance

High ■

Medium ▨

Low □



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

Figure 7.104a

WOLF CREEK

96-4 to 99-3

Quarterly Data

Legend:

Shutdown < approx. 72 hrs	¦	StartUp	☐
Refueling	R	Operation	▨
Industry Avg. Trend	———	ShutDown	▧
		Not Shown Using Op. Cycle	▩

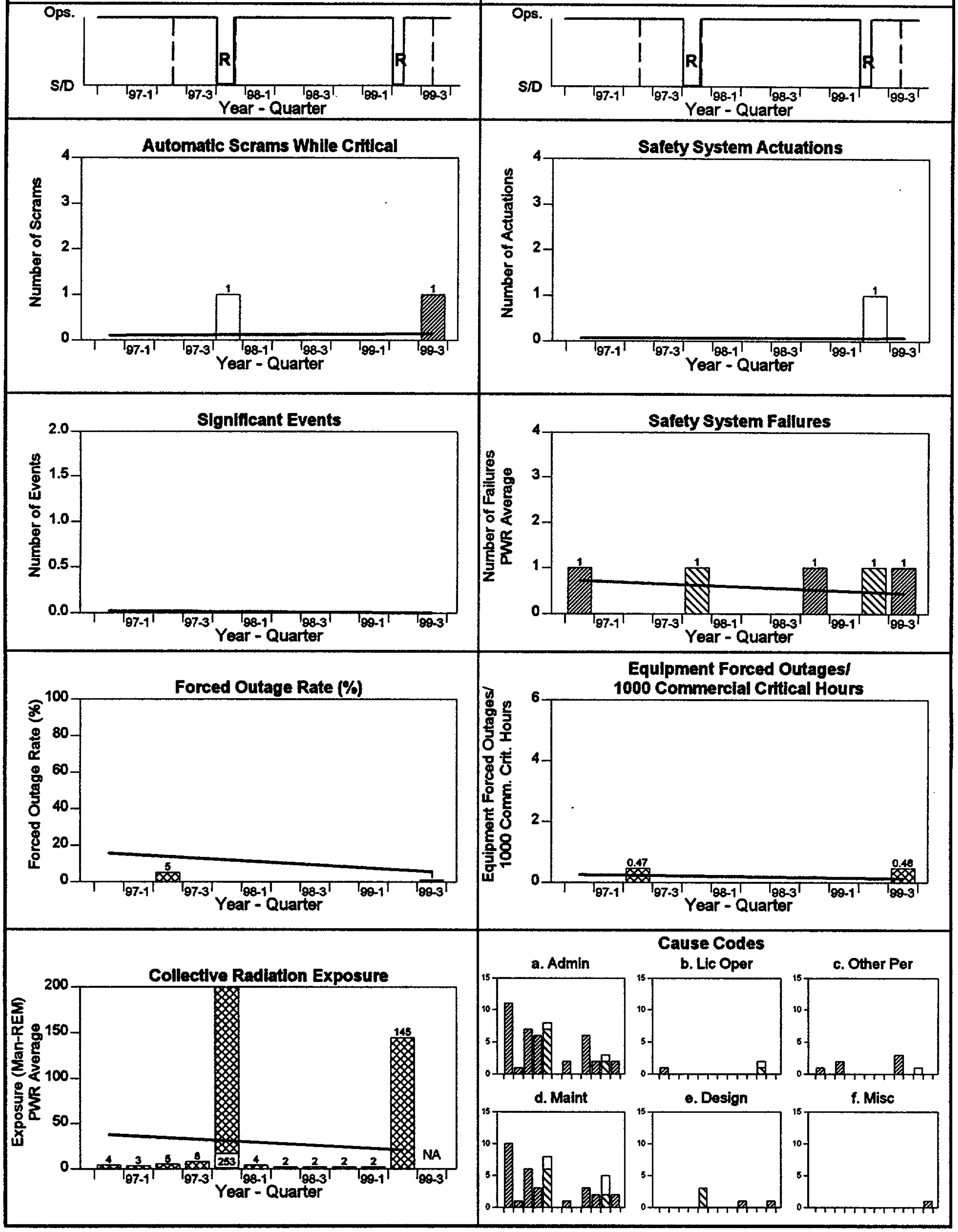
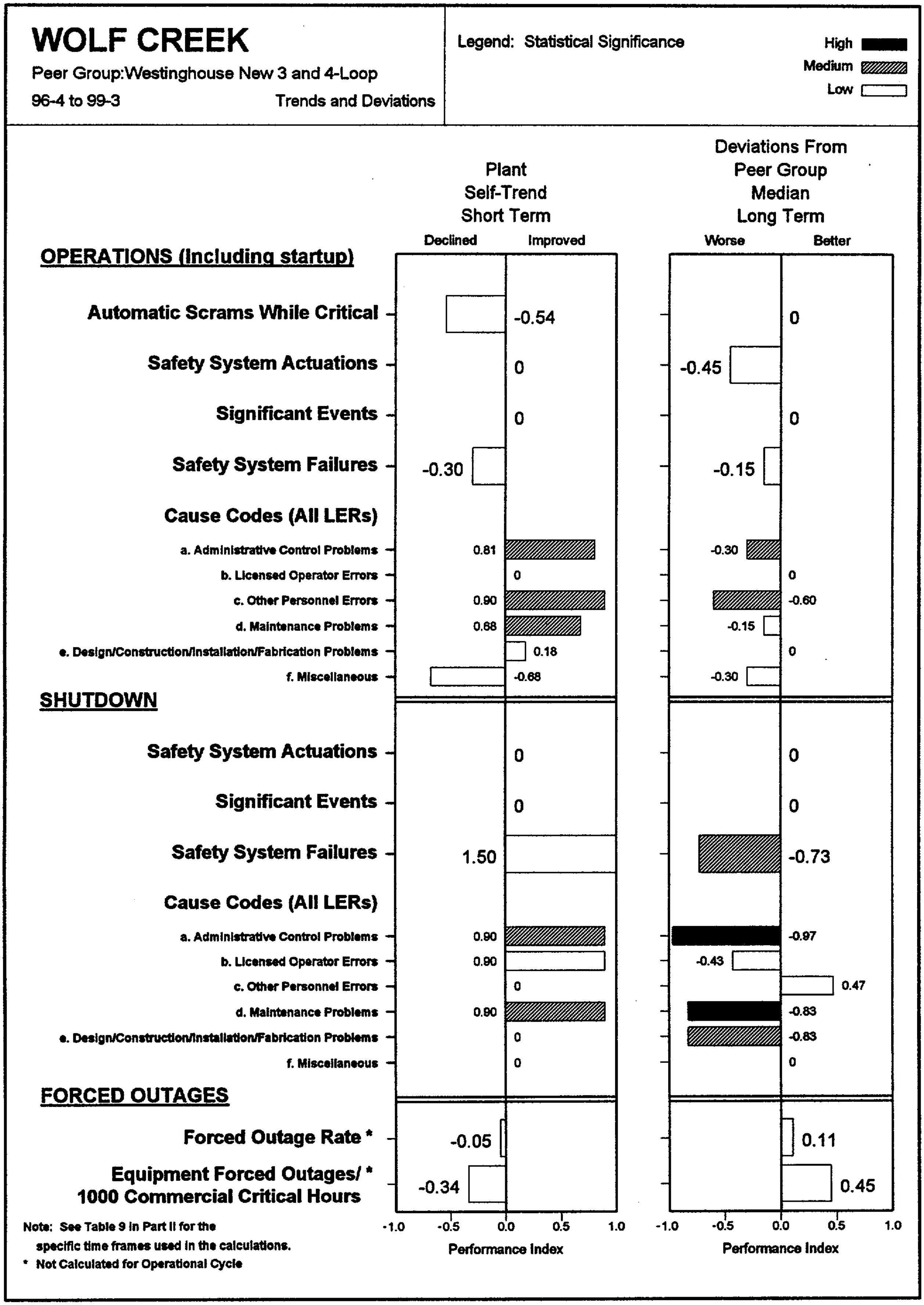


Figure 7.104b



Note: See Table 9 in Part II for the specific time frames used in the calculations.

* Not Calculated for Operational Cycle

8. DESCRIPTIONS OF PLANT EVENTS

QUARTERS 98-4 THROUGH 99-3

TABLE 8.1

ARKANSAS 1

SSF 12/15/1998 LER#: 3681998008 50.72#:
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 100% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE CONTROL ROOM VENTILATION SYSTEM WAS INOPERABLE. ONE TRAIN'S CHILLER WAS DISCOVERED TO BE INOPERABLE WHILE THE OTHER TRAIN'S CHILLER WAS OUT OF SERVICE FOR MAINTENANCE. THE CAUSE WAS A FAILED CONTROLLER.

SSF 07/06/1999 LER#: 3131999002 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
DESC : BOTH EDGS WERE INOPERABLE. ONE EDG WAS INOPERABLE ON VARIOUS OCCASIONS FOR MAINTENANCE WHILE THE OTHER EDG WAS UNKNOWINGLY INOPERABLE BECAUSE OF A DEGRADED LUBE OIL SYSTEM. THE CAUSE WAS FATIGUE FAILURE OF IDLER GEAR ASSEMBLY FASTENERS.

TABLE 8.2

ARKANSAS 2

SSF 12/15/1998 LER#: 3681998008 50.72#:
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 98% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE CONTROL ROOM VENTILATION SYSTEM WAS INOPERABLE. ONE TRAIN'S CHILLER WAS DISCOVERED TO BE INOPERABLE WHILE THE OTHER TRAIN'S CHILLER WAS OUT OF SERVICE FOR MAINTENANCE. THE CAUSE WAS A FAILED CONTROLLER.

SSF 08/31/1999 LER#: 3681999005 50.72#:
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : REACTOR TRIP INSTRUMENTATION
SYSTEM : PLANT PROTECTION SYSTEM
DESC : THREE OF FOUR CHANNELS OF LPD AND DNBR RX TRIP FUNCTIONS WERE INOPERABLE. ONE CHANNEL WAS BYPASSED FOR TESTING, ANOTHER WAS INOPERABLE AND TRIPPED, AND THE THIRD WAS INOPERABLE BECAUSE OF RESISTANCE FLUCTUATIONS ACROSS A TEST SWITCH.

TABLE 8.3

BEAVER VALLEY 1

SSF 01/21/1999 LER#: 3341999002 50.72#: 35359
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : REACTOR CONTAINMENT BUILDING
DESC : THE USE OF A NONCONSERVATIVE DOSE METHODOLOGY COULD HAVE RESULTED IN EXCEEDING GDC 19 LIMITS FOR CONTROL ROOM PERSONNEL DURING AN ACCIDENT.

SSF 03/17/1999 LER#: 3341999004 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE 1982
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE SAFETY INJECTION SYSTEM
DESC : THE CHARGING/HHSI PUMPS COULD HAVE BEEN RENDERED INOPERABLE FROM GAS BINDING DURING A FIRE IN CERTAIN AREAS. INCORRECT ASSUMPTIONS WERE USED IN THE 1982 FIRE PROTECTION SAFE SHUTDOWN ANALYSIS.

TABLE 8.3 (CONT.)

BEAVER VALLEY 1

SSF 04/09/1999 LER#: 3341999006 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE 1985
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
DESC : PROCEDURALIZED OPERATOR ACTIONS FOR CERTAIN FIRES COULD RENDER THE EDGS INOPERABLE FOR APPENDIX R SAFE SHUTDOWN CAPABILITY. THE CAUSE WAS PERSONNEL ERROR DURING THE DEVELOPMENT OF THE PROCEDURES.

TABLE 8.4

BEAVER VALLEY 2

SSF 03/05/1999 LER#: 4121999002 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE 1987
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE SAFETY INJECTION SYSTEM
DESC : THE CHARGING/HHSI PUMPS COULD HAVE BEEN RENDERED INOPERABLE FROM GAS BINDING DURING A FIRE IN CERTAIN AREAS. INCORRECT ASSUMPTIONS WERE USED IN THE 1987 FIRE PROTECTION SAFE SHUTDOWN ANALYSIS.

SSA 03/29/1999 LER#: 4121999005 50.72#: 35525 PWR HIST: COLD SHUTDOWN
DESC : AN EDG STARTED AND ENERGIZED AN EMERGENCY BUS THAT HAD LOST POWER. THE CAUSE WAS AN ERRATIC DC SUPPLY VOLTAGE CAUSED BY A LOOSE CONNECTION IN A NONSAFETY-RELATED BATTERY CHARGER.

SSA 07/16/1999 LER#: 4121999006 50.72#: 35927 PWR HIST: POWER OPERATIONS AT 100%
DESC : AN EDG WAS SECURED BECAUSE OF DEGRADED PERFORMANCE, DEENERGIZING THE ASSOCIATED 4KV EMERGENCY BUS. THE EDG AUTOMATICALLY RESTARTED ON LOW BUS VOLTAGE WHEN THE EDG KEY SWITCH WAS REPOSITIONED FROM REMOTE TO LOCAL. THE CAUSE COULD NOT BE DETERMINED.

SE 07/16/1999 LER#: 4121999006 50.72#: 35927
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
DESC : A 4160V SAFETY BUS WAS DE-ENERGIZED DURING EDG TESTING. OPERATORS DID NOT RECOGNIZE THE RESULTING LOSS OF ALL RCP COOLING FOR 15 MINUTES. THIS COULD HAVE RESULTED IN A RCP SEAL LOCA. DEFICIENCIES WERE NOTED IN DESIGN, MAINTENANCE, AND OPERATIONS.

TABLE 8.5

BRAIDWOOD 1

SSF 05/16/1999 LER#: 4561999001 50.72#:
PWR HIST: EVENT DISCOVERED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : LOW PRESSURE SAFETY INJECTION SYSTEM
DESC : BOTH TRAINS OF LPSI WERE DECLARED INOPERABLE DUE TO A GAS POCKET IN A COMMON SECTION OF DISCHARGE PIPING. THE CAUSE WAS LEAKAGE OF SAFETY INJECTION ACCUMULATOR WATER AND SUBSEQUENT ACCUMULATION OF NITROGEN THROUGH A CHECK VALVE.

TABLE 8.6

BRAIDWOOD 2

SSF 10/04/1998 LER#: 4561998005 50.72#:
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
DESC : BOTH TRAINS OF CONTROL ROOM VENTILATION WERE INOPERABLE. A MAKE UP FAN IN ONE TRAIN FAILED TO START WHILE THE OTHER TRAIN WAS OUT OF SERVICE FOR MAINTENANCE. THE CAUSE WAS A FAILURE OF THE FAN MOTOR STARTER.

TABLE 8.6 (CONT.)

BRAIDWOOD 2

SCRAM 04/14/1999 LER#: 4571999001 50.72#: 35592 PWR HIST: POWER OPERATIONS AT 86%
DESC : A TURBINE TRIP/RX TRIP RESULTED FROM A SPURIOUS GENERATOR STATOR GROUND RELAY ACTUATION.

SCRAM 05/19/1999 LER#: 4571999003 50.72#: 35743 PWR HIST: STARTUP MODE AT 3%
DESC : A RX TRIP OCCURRED ON A HIGH NEUTRON FLUX SIGNAL FROM A SPIKING INTERMEDIATE RANGE NUCLEAR INSTRUMENT. FULL SCALE FLUCTUATIONS WERE OBSERVED ON THE IRNI SUR METER SHORTLY BEFORE THE TRIP. THE LICENSEE IS INVESTIGATING THE ROOT CAUSE.

TABLE 8.7

BROWNS FERRY 1

NONE

TABLE 8.8

BROWNS FERRY 2

SCRAM 10/01/1998 LER#: 2601998003 50.72#: 34857 PWR HIST: POWER OPERATIONS AT 100%
DESC : A TURBINE TRIP/RX SCRAM OCCURRED WHEN THE MAIN GENERATOR STATOR OUTLET TEMPERATURE REACHED ITS HIGH TEMPERATURE SETPOINT. THE STATOR COOLING SYSTEM TEMPERATURE CONTROL VALVE FAILED.

SCRAM 05/15/1999 LER#: 2601999003 50.72#: 35720 PWR HIST: POWER OPERATIONS AT 100%
DESC : A TURBINE TRIP/RX SCRAM OCCURRED DURING MAIN TURBINE MECHANICAL OVERSPEED TESTING. THE MOST PROBABLE CAUSE WAS A FAILURE OF THE MECHANICAL TRIP MECHANISM TO RELATCH.

SSF 09/05/1999 LER#: 2601999008 50.72#: 36134
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS INOPERABLE BECAUSE OF A FAILED SYSTEM FLOW CONTROLLER. THE CAUSE WAS PREMATURE FAILURE OF A CAPACITOR IN THE FLOW CONTROLLER POWER SUPPLY.

SCRAM 09/17/1999 LER#: 2601999010 50.72#: 36194 PWR HIST: POWER OPERATIONS AT 30% DURING A STARTUP
DESC : A TURBINE TRIP/RX SCRAM RESULTED FROM MOISTURE SEPARATOR HIGH LEVEL. THE CAUSE WAS A FAILED MAIN TURBINE MOISTURE SEPARATOR LEVEL CONTROLLER.

TABLE 8.9

BROWNS FERRY 3

SSA 11/16/1998 LER#: 2961998007 50.72#: 35042 PWR HIST: POWER OPERATIONS AT 100%
DESC : TWO EDGS STARTED AND LOADED WHEN A 4160 VAC BUS LOST POWER DUE TO A FAULT PROTECTION LOCKOUT. THE CAUSE WAS A SHORTED RESISTOR ON THE LOCKOUT RELAY MONITORING LAMP CIRCUIT.

SSF 01/14/1999 LER#: 2961999001 50.72#: 35265
PWR HIST: EVENT DISCOVERED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS DECLARED INOPERABLE WHEN AN OIL LEAK DEVELOPED ON THE HPCI TURBINE INLET STOP VALVE DURING SURVEILLANCE TESTING. ONE STUD WAS FOUND SHEARED FROM THE STOP VALVE. THE FAILED STUD AND ONE INTACT STUD WERE FABRICATED FROM AN IMPROPER MATERIAL.

SSF 04/08/1999 LER#: 2961999003 50.72#: 35562
PWR HIST: EVENT DISCOVERED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS DECLARED INOPERABLE WHEN A LOOSE WIRE WAS FOUND IN THE POWER SUPPLY PATHWAY FOR THE HPCI LOGIC CIRCUIT. THE LOOSE WIRE COULD HAVE PREVENTED ADEQUATE VOLTAGE FROM BEING SUPPLIED TO THE INITIATION AND ISOLATION LOGIC.

TABLE 8.10

BRUNSWICK 1

NONE

TABLE 8.11

BRUNSWICK 2

SSF 12/16/1998 LER#: 3241998004 50.72#:
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS RENDERED INOPERABLE WHEN THE TURBINE EXHAUST LINE VACUUM BREAKER ISOLATION VALVE WAS CLOSED FOR MAINTENANCE. PERSONNEL INCORRECTLY DETERMINED THAT THE VALVE POSITION DID NOT AFFECT HPCI SYSTEM OPERABILITY.

SSF 03/17/1999 LER#: 3241999001 50.72#: 35476
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : REACTOR CORE ISOLATION COOLING SYSTEMS GROUP
SYSTEM : REACTOR CORE ISOLATION COOLING SYSTEM
DESC : RCIC WAS ISOLATED AND DECLARED INOPERABLE DUE TO A SIGNIFICANT INCREASE IN STEAM LEAKAGE FROM THE STEAM SUPPLY OUTBOARD ISOLATION VALVE PACKING. THE CAUSE WAS ATTRIBUTED TO INADEQUATE PACKING COMPRESSION.

SCRAM 03/29/1999 LER#: 3241999002 50.72#: 35522 PWR HIST: POWER OPERATIONS AT 97%
DESC : A TURBINE TRIP/RX TRIP RESULTED FROM A SPURIOUS TURBINE HIGH VIBRATION SIGNAL. THE CAUSE WAS FAILED ELECTRICAL CONNECTIONS ON A MAIN TURBINE BEARING VIBRATION DETECTOR.

SCRAM 06/28/1999 LER#: 3241999006 50.72#: 35878 PWR HIST: SCRAM FROM 70% FOLLOWING REDUCTION FROM 100%
DESC : A TURBINE TRIP/RX SCRAM RESULTED FROM LOW CONDENSER VACUUM. THE LOW VACUUM OCCURRED AFTER ALL OPERATING CIRC PUMPS TRIPPED ON HIGH D/P ACROSS THEIR INTAKE TRAVELING SCREENS. THE CAUSE WAS SILT FOULING OF THE SCREENS EXACERBATED BY A VERY LOW TIDE.

TABLE 8.12

BYRON 1

SCRAM 05/13/1999 LER#: 4541999003 50.72#: 35710 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP OCCURRED DUE TO AN INADVERTENT POWER RANGE HIGH FLUX SIGNAL DURING SURVEILLANCE TESTING. A TECHNICIAN INADVERTENTLY REMOVED INSTRUMENT FUSES FROM A CHANNEL ADJACENT TO THE CHANNEL IN TEST, SATISFYING THE TWO OF FOUR LOGIC.

TABLE 8.13

BYRON 2

NONE

TABLE 8.14

CALLAWAY

NONE

TABLE 8.15

CALVERT CLIFFS 1

SSF 01/18/1999 LER#: 3171999001 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : EMERGENCY/STANDBY GAS TREATMENT SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE PENETRATION ROOM EXHAUST VENTILATION SYSTEM COULD BE RENDERED INOPERABLE DURING A CONTAINMENT ISOLATION SIGNAL WITH ONE TRAIN ISOLATED FOR MAINTENANCE OR TESTING. THE CAUSE WAS INADEQUATE MAINTENANCE ISOLATION BOUNDARIES.

SCRAM 07/24/1999 LER#: 3171999004 50.72#: 35957 PWR HIST: POWER OPERATIONS AT 100%
DESC : A TURBINE TRIP/RX TRIP OCCURRED WHEN THE MAIN GENERATOR OUTPUT BREAKER OPENED. A LIGHTNING STRIKE CAUSED ONE PHASE OF THE MAIN TRANSFORMER TO FLASHOVER.

TABLE 8.16

CALVERT CLIFFS 2

SSF 01/18/1999 LER#: 3171999001 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : EMERGENCY/STANDBY GAS TREATMENT SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE PENETRATION ROOM EXHAUST VENTILATION SYSTEM COULD BE RENDERED INOPERABLE DURING A CONTAINMENT ISOLATION SIGNAL WITH ONE TRAIN ISOLATED FOR MAINTENANCE OR TESTING. THE CAUSE WAS INADEQUATE MAINTENANCE ISOLATION BOUNDARIES.

TABLE 8.17

CATAWBA 1

SSF 05/04/1999 LER#: 4131999010 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : AUXILIARY/EMERGENCY FEEDWATER SYSTEMS GROUP
SYSTEM : AUXILIARY/EMERGENCY FEEDWATER SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE AFW SYSTEM WAS DECLARED INOPERABLE DUE TO A CORROSION INDUCED FLOW RESTRICTION IN THE AFW SAFETY RELATED (BACKUP) SUPPLY PIPING. THE CAUSE WAS UNDETECTED CORROSION BUILDUP DUE TO INADEQUATE TESTING.

TABLE 8.18

CATAWBA 2

SSF 05/04/1999 LER#: 4131999010 50.72#: 35670
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : AUXILIARY/EMERGENCY FEEDWATER SYSTEMS GROUP
SYSTEM : AUXILIARY/EMERGENCY FEEDWATER SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE AFW SYSTEM WAS DECLARED INOPERABLE DUE TO A CORROSION INDUCED FLOW RESTRICTION IN THE AFW SAFETY RELATED (BACKUP) SUPPLY PIPING. THE CAUSE WAS UNDETECTED CORROSION BUILDUP DUE TO INADEQUATE TESTING.

TABLE 8.19

CLINTON 1

SSA 10/18/1998 LER#: 4611998036 50.72#: PWR HIST: COLD SHUTDOWN
DESC : AN EDG STARTED AND ENERGIZED ITS BUS WHEN POWER WAS LOST DURING A MAINTENANCE ACTIVITY. THE LOSS OF POWER OCCURRED WHEN AN OPERATOR OPENED THE WRONG POTENTIAL TRANSFORMER FUSE CUBICLE DOOR.

TABLE 8.19 (CONT.)

CLINTON 1

SSA 01/06/1999 LER#: 4611999002 50.72#: 35224 PWR HIST: COLD SHUTDOWN
DESC : ALL THREE EDGS STARTED AND LOADED WHEN A 138 KV OFFSITE SUPPLY LINE WAS LOST. THE CAUSE WAS A BROKEN GUY WIRE ON AN OFFSITE POWER POLE.

SSF 01/29/1999 LER#: 4611999001 50.72#: 35328
PWR HIST: EVENT DISCOVERED IN COLD SHUTDOWN
GROUP : ESSENTIAL SERVICE WATER SYSTEM GROUP
SYSTEM : ESSENTIAL SERVICE WATER SYSTEM
DESC : BOTH DIVISIONS OF SERVICE WATER PUMPS WERE DECLARED INOPERABLE BECAUSE OF DEGRADED BEARINGS. THE CAUSE WAS IMPROPER ASSEMBLY OF THE BEARING THERMOCOUPLE AND INSULATING GASKET, WHICH ALLOWED CURRENT TO FLOW TO THE BEARINGS.

SSF 04/19/1999 LER#: 4611999006 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : PRIMARY CONTAINMENT
DESC : THE MAXIMUM CONTAINMENT DESIGN PRESSURE COULD HAVE BEEN EXCEEDED DURING A SMALL BREAK LOCA. THE CONTAINMENT AND DRYWELL FREE VOLUMES ARE SMALLER THAN ORIGINALLY ANALYZED. THE CAUSE WAS INADEQUATE CALCULATION CONTROL DURING CONSTRUCTION.

TABLE 8.20

COMANCHE PEAK 1

NONE

TABLE 8.21

COMANCHE PEAK 2

SSA 05/22/1999 LER#: 4461999004 50.72#: 35756 PWR HIST: POWER OPERATIONS AT 100%
DESC : AN EDG STARTED AND ENERGIZED ITS SAFEGUARDS BUS. POWER TO THE BUS HAD BEEN LOST WHEN THE NORMAL SUPPLY BREAKER OPENED AFTER RECEIVING AN OVERCURRENT RELAY GROUND INDICATION THROUGH THE LOCKOUT RELAY. A CONCLUSIVE CAUSE COULD NOT BE DETERMINED.

TABLE 8.22

COOK 1

SSF 10/20/1998 LER#: 3151999007 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : REACTOR CONTAINMENT BUILDING
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : A STEAM LINE BREAK COULD CAUSE INCREASED BYPASS FLOW AROUND THE ICE CONDENSERS, WHICH COULD RESULT IN A HIGHER THAN EXPECTED CONTAINMENT PRESSURE. THE CAUSE WAS POTENTIALLY OVERSTRESSED CONDITIONS IN THE SG ENCLOSURES.

SSF 11/03/1998 LER#: 3151998046 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : AUXILIARY/EMERGENCY FEEDWATER SYSTEMS GROUP
SYSTEM : AUXILIARY/EMERGENCY FEEDWATER SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE AFW SYSTEM WAS DECLARED INOPERABLE DURING A SPECIAL TEST WHEN IT WAS DETERMINED THE SUCTION STRAINERS WERE INADEQUATELY DESIGNED FOR THE BACKUP SUCTION SOURCE. THE CAUSE WAS INADEQUATE ORIGINAL DESIGN OF THE SUCTION BASKET STRAINERS.

TABLE 8.22 (CONT.)

COOK 1

SSF 01/06/1999 LER#: 3151999001 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : BOTH EDGS WERE DECLARED INOPERABLE BECAUSE SAFETY-RELATED RELAYS WERE NOT SEISMICALLY QUALIFIED. THE RELAYS WERE NOT PROPERLY CONFIGURED IN ACCORDANCE WITH VENDOR REQUIREMENTS FOR CONTACT ADJUSTMENT AND SERVICING INSTRUCTIONS.

SSF 01/07/1999 LER#: 3151999003 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : FAILURE TO RECOGNIZE A DOOR AS PART OF THE CONTROL ROOM PRESSURE BOUNDARY RESULTED IN THE POTENTIAL TO EXCEED GDC 19 CRITERIA FOR CONTROL ROOM PERSONNEL DURING AN ACCIDENT. THE DOOR HAS BEEN MAINTAINED OPEN SINCE INITIAL PLANT STARTUP.

SSF 03/27/1999 LER#: 3151999013 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE SAFETY INJECTION SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : DURING POST LOCA CONDITIONS, THE HPSI PUMPS COULD BECOME INOPERABLE DUE TO MECHANICAL EROSION OF THE SAFETY INJECTION AND CENTRIFUGAL CHARGING THROTTLE VALVES. THE CAUSE WAS INADEQUATE DESIGN APPLICATION OF THE VALVES.

SSF 04/07/1999 LER#: 3151999011 50.72#: 35554
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE EDGS WERE DECLARED INOPERABLE WHEN IT WAS DETERMINED THE STARTING AIR SYSTEM AIR COMPRESSORS WERE NOT SAFETY RELATED OR SEISMICALLY QUALIFIED. THE CAUSE WAS AN ORIGINAL DESIGN DEFICIENCY.

SSF 06/09/1999 LER#: 3151999022 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : MEDIUM-VOLTAGE POWER SYSTEM - CLASS 1E
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE 4160 VAC BUS DEGRADED VOLTAGE SETPOINTS WERE TOO LOW TO ENSURE ADEQUATE VOLTAGE TO SOME 600 AND 120 VAC SAFETY RELATED LOADS. THE CAUSE WAS INADEQUATE DESIGN AND LICENSING BASIS CONTROL.

SSF 06/29/1999 LER#: 3151999018 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE SAFETY INJECTION SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE HIGH HEAD SAFETY INJECTION SYSTEM WAS DECLARED INOPERABLE. THE RWST SUCTION MOVS TO THE CENTRIFUGAL CHARGING PUMPS MAY FAIL TO OPEN DURING A SEISMIC EVENT. AS A RESULT OF INADEQUATE DESIGN, THE VALVE YOKES MAY FAIL FROM SEISMIC AND STATIC STRESSES.

SSF 07/27/1999 LER#: 3151999020 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE EDGS WERE DECLARED INOPERABLE BECAUSE COMBUSTION AIR INTAKE, EXHAUST PIPING, AND ROOM VENTILATION STRUCTURES ARE NOT PROTECTED FROM TORNADO GENERATED MISSILE HAZARDS. THE CAUSE WAS INADEQUATE ORIGINAL PLANT DESIGN.

TABLE 8.23

COOK 2

SSF 10/20/1998 LER#: 3151999007 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : REACTOR CONTAINMENT BUILDING
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : A STEAM LINE BREAK COULD CAUSE INCREASED BYPASS FLOW AROUND THE ICE CONDENSERS, WHICH COULD RESULT IN A HIGHER THAN EXPECTED CONTAINMENT PRESSURE. THE CAUSE WAS POTENTIALLY OVERSTRESSED CONDITIONS IN THE SG ENCLOSURES.

SSF 11/03/1998 LER#: 3151998046 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : AUXILIARY/EMERGENCY FEEDWATER SYSTEMS GROUP
SYSTEM : AUXILIARY/EMERGENCY FEEDWATER SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE AFW SYSTEM WAS DECLARED INOPERABLE DURING A SPECIAL TEST WHEN IT WAS DETERMINED THE SUCTION STRAINERS WERE INADEQUATELY DESIGNED FOR THE BACKUP SUCTION SOURCE. THE CAUSE WAS INADEQUATE ORIGINAL DESIGN OF THE SUCTION BASKET STRAINERS.

SSF 11/06/1998 LER#: 3161998007 50.72#:
PWR HIST: CONDITION DISCOVERED IN COLD SHUTDOWN
GROUP : AUXILIARY/EMERGENCY FEEDWATER SYSTEMS GROUP
SYSTEM : AUXILIARY/EMERGENCY FEEDWATER SYSTEM
DESC : THE AFW SYSTEM WAS RENDERED INOPERABLE IN JULY 1995 WHEN A HELB DOOR WAS BLOCKED OPEN FOR MAINTENANCE. THE CAUSE WAS AN INVALID ASSUMPTION THAT A HELB WOULD BE DETECTED AND ISOLATED WITHIN 10 MINUTES.

SSF 01/06/1999 LER#: 3151999001 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : BOTH EDGS WERE DECLARED INOPERABLE BECAUSE SAFETY-RELATED RELAYS WERE NOT SEISMICALLY QUALIFIED. THE RELAYS WERE NOT PROPERLY CONFIGURED IN ACCORDANCE WITH VENDOR REQUIREMENTS FOR CONTACT ADJUSTMENT AND SERVICING INSTRUCTIONS.

SSF 01/07/1999 LER#: 3151999003 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : FAILURE TO RECOGNIZE A DOOR AS PART OF THE CONTROL ROOM PRESSURE BOUNDARY RESULTED IN THE POTENTIAL TO EXCEED GDC 19 CRITERIA FOR CONTROL ROOM PERSONNEL DURING AN ACCIDENT. THE DOOR HAS BEEN MAINTAINED OPEN SINCE INITIAL PLANT STARTUP.

SSF 03/27/1999 LER#: 3151999013 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE SAFETY INJECTION SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : DURING POST LOCA CONDITIONS, THE HPSI PUMPS COULD BECOME INOPERABLE DUE TO MECHANICAL EROSION OF THE SAFETY INJECTION AND CENTRIFUGAL CHARGING THROTTLE VALVES. THE CAUSE WAS INADEQUATE DESIGN APPLICATION OF THE VALVES.

SSF 04/07/1999 LER#: 3151999011 50.72#: 35554
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE EDGS WERE DECLARED INOPERABLE WHEN IT WAS DETERMINED THE STARTING AIR SYSTEM AIR COMPRESSORS WERE NOT SAFETY RELATED OR SEISMICALLY QUALIFIED. THE CAUSE WAS AN ORIGINAL DESIGN DEFICIENCY.

TABLE 8.23 (CONT.)

COOK 2

SSF 06/09/1999 LER#: 3151999022 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : MEDIUM-VOLTAGE POWER SYSTEM - CLASS 1E
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE 4160 VAC BUS DEGRADED VOLTAGE SETPOINTS WERE TOO LOW TO ENSURE ADEQUATE VOLTAGE TO SOME 600 AND 120 VAC SAFETY RELATED LOADS. THE CAUSE WAS INADEQUATE DESIGN AND LICENSING BASIS CONTROL.

SSF 06/29/1999 LER#: 3151999018 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE SAFETY INJECTION SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE HIGH HEAD SAFETY INJECTION SYSTEM WAS DECLARED INOPERABLE. THE RWST SUCTION MOVS TO THE CENTRIFUGAL CHARGING PUMPS MAY FAIL TO OPEN DURING A SEISMIC EVENT. AS A RESULT OF INADEQUATE DESIGN, THE VALVE YOKES MAY FAIL FROM SEISMIC AND STATIC STRESSES.

SSF 07/27/1999 LER#: 3151999020 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE EDGS WERE DECLARED INOPERABLE BECAUSE COMBUSTION AIR INTAKE, EXHAUST PIPING, AND ROOM VENTILATION STRUCTURES ARE NOT PROTECTED FROM TORNADO GENERATED MISSILE HAZARDS. THE CAUSE WAS INADEQUATE ORIGINAL PLANT DESIGN.

TABLE 8.24

COOPER STATION

SSF 12/17/1998 LER#: 2981998012 50.72#: 35162
PWR HIST: EVENT OCCURRED DURING STARTUP AT 1% POWER
GROUP : MULTIPLE SYSTEMS GROUP
SYSTEM : MULTIPLE SYSTEMS
DESC : HPCI AND RCIC WERE DECLARED INOPERABLE WHEN THEIR TURBINES TRIPPED ON OVERSPEED DURING TESTING. THE CAUSE WAS AIR BINDING IN THE COMMON SUCTION LINE FROM THE EMERGENCY CONDENSATE STORAGE TANK. THE CAUSE WAS AN INADEQUATE FILL AND VENT PROCEDURE.

SSF 12/18/1998 LER#: 2981998011 50.72#: 35172
PWR HIST: EVENT DISCOVERED DURING OPERATION AT 10% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS RENDERED INOPERABLE IN ORDER TO ISOLATE A STEAM LEAK AT THE TURBINE STEAM SUPPLY INLET VALVE. THE VALVE'S OUTLET FLANGE WAS MISALIGNED WITH THE PIPE FLANGE DURING A RECENT VALVE REPLACEMENT PROCEDURE.

SSF 09/17/1999 LER#: 2981999007 50.72#: 36192
PWR HIST: EVENT DISCOVERED DURING OPERATION AT 100% POWER
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : EMERGENCY/STANDBY GAS TREATMENT SYSTEM
DESC : BOTH STANDBY GAS TREATMENT TRAINS WERE DECLARED INOPERABLE WHEN IT WAS DISCOVERED THAT BOTH SUMP Z PUMPS WERE INOPERABLE. AN INADEQUATE CONDUIT SEAL AND DEFICIENT AUGMENTED OFFGAS SYSTEM OPERATING PROCEDURE RESULTED IN A HYDROGEN IGNITION WITHIN SUMP Z.

TABLE 8.25

CRYSTAL RIVER 3

SSF 10/29/1998 LER#: 3021998011 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
DESC : THE CONTROL ROOM CHILLERS MAY HAVE BEEN INOPERABLE DURING PERIODS OF HIGH ULTIMATE HEAT SINK TEMPERATURES. THE CAUSE WAS A NONCONSERVATIVE ASSUMPTION USED IN THE RX BUILDING TEMPERATURE PROFILE ANALYSIS DURING THE ORIGINAL PLANT DESIGN.

TABLE 8.25 (CONT.)

CRYSTAL RIVER 3

SSF 12/03/1998 LER#: 3021998015 50.72#: 35109
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : ESSENTIAL SERVICE WATER SYSTEM GROUP
SYSTEM : ESSENTIAL SERVICE WATER SYSTEM
DESC : A FAILED OPEN CHECK VALVE IN THE COMMON DISCHARGE HEADER RENDERED BOTH NUCLEAR SERVICES AND DECAY HEAT RAW WATER PUMPS INOPERABLE. THE CAUSE WAS INSERVICE COMPONENT WEAR.

TABLE 8.26

DAVIS-BESSE

SSA 10/14/1998 LER#: 3461998011 50.72#: 34915 PWR HIST: POWER OPERATIONS AT 100%
DESC : TWO 4160V BUSES TRIPPED AND LOCKED OUT WHEN A RELAY WAS BUMPED DURING MAINTENANCE. AN EDG STARTED BUT ITS OUTPUT BREAKER WAS ALSO LOCKED OUT AND COULD NOT CLOSE. THE CAUSE WAS AN INADEQUATE DESIGN LAYOUT OF RELAYS MOUNTED ON A BREAKER CUBICLE DOOR.

SSF 10/14/1998 LER#: 3461998011 50.72#: 34915
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : AUXILIARY/EMERGENCY FEEDWATER SYSTEMS GROUP
SYSTEM : AUXILIARY/EMERGENCY FEEDWATER SYSTEM
DESC : BOTH TRAINS OF AFW WERE INOPERABLE FOR APPROXIMATELY 19 MINUTES. ONE TRAIN WAS OUT OF SERVICE FOR TESTING WHILE THE OTHER TRAIN BECAME INOPERABLE AS THE RESULT OF A BUS LOCKOUT. THE LOCKOUT WAS CAUSED WHEN A RELAY WAS BUMPED DURING MAINTENANCE.

SCRAM 10/18/1998 LER#: 3461998012 50.72#: 34929 PWR HIST: STARTUP MODE AT 4%
DESC : A RX TRIP RESULTED FROM AN ANTICIPATORY RX TRIP SYSTEM (ARTS) SIGNAL. AS A RESULT OF INCORRECT SWITCH WIRING, THE TRIP SIGNAL WAS GENERATED WHEN THE CONTROL ROOM OPERATOR ROTATED THE ARTS TEST TRIP BYPASS SWITCH TO THE SPARE POSITION.

SSF 02/08/1999 LER#: 3461999002 50.72#:
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : SHIELD ANNULUS RETURN AND EXHAUST SYSTEM
DESC : BOTH TRAINS OF THE EMERGENCY VENTILATION SYSTEM WERE RENDERED INOPERABLE DUE TO AN UNATTENDED OPEN DOOR. THE CAUSE WAS PERSONNEL ERROR.

TABLE 8.27

DIABLO CANYON 1

SSF 11/16/1998 LER#: 2751998011 50.72#: 35041
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : MULTIPLE SYSTEMS
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : GAS VOIDING COULD HAVE RENDERED BOTH SI PUMPS OR BOTH CHARGING PUMPS INOPERABLE DURING THE RECIRCULATION PHASE OF A LOCA. THE CAUSE WAS INADEQUATE SYSTEM FILLING AND VENTING PROCEDURES FOLLOWING OUTAGE CONDITIONS.

SSA 03/03/1999 LER#: 2751999001 50.72#: 35437 PWR HIST: REFUELING
DESC : AN EDG STARTED AND ENERGIZED ITS BUS WHEN POWER WAS LOST DURING MAINTENANCE TESTING. THE CAUSE WAS AN INADEQUATE PROCEDURE AND PERSONNEL ERROR.

SCRAM 09/22/1999 LER#: 2751999006 50.72#: 36212 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP OCCURRED ON OVER TEMPERATURE DIFFERENTIAL TEMPERATURE WHEN LIGHTNING STRUCK THE 500 KV LINE. THE UNIT'S OUTPUT BREAKERS TRIPPED OPEN AND CAUSED A FULL LOAD REJECTION.

TABLE 8.28

DIABLO CANYON 2

SSF 11/16/1998 LER#: 2751998011 50.72#: 35041
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : MULTIPLE SYSTEMS
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : GAS VOIDING COULD HAVE RENDERED BOTH SI PUMPS OR BOTH CHARGING PUMPS INOPERABLE DURING THE RECIRCULATION PHASE OF A LOCA. THE CAUSE WAS INADEQUATE SYSTEM FILLING AND VENTING PROCEDURES FOLLOWING OUTAGE CONDITIONS.

TABLE 8.29

DRESDEN 2

NONE

TABLE 8.30

DRESDEN 3

SSF 10/29/1998 LER#: 2491998007 50.72#: 34974
PWR HIST: EVENT OCCURRED DURING OPERATION AT 98% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS TRIPPED AND DECLARED INOPERABLE WHEN THE GLAND SEAL CONDENSER HIGH LEVEL ALARM WAS RECEIVED DURING TESTING. THE CAUSE WAS ATTRIBUTED TO AIR BINDING OF THE GLAND SEAL LEAKOFF PUMP DUE TO ABSENCE OF A VENT ON THE PUMP CASING.

SSF 07/10/1999 LER#: 2491999005 50.72#: 35911
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 99% POWER
GROUP : ISOLATION CONDENSER SYSTEM GROUP
SYSTEM : ISOLATION CONDENSER SYSTEM
DESC : THE ISOLATION CONDENSER WAS DECLARED INOPERABLE WHEN THE CONDENSATE RETURN VALVE FAILED TO OPEN DURING QUARTERLY VALVE TIME TESTING. THE VALVE'S MOTOR PINION GEAR WAS LOOSE ON THE SHAFT AND THE DRIVE KEY HAD FALLEN OUT OF THE KEYWAY.

TABLE 8.31

DUANE ARNOLD

NONE

TABLE 8.32

FARLEY 1

SSF 11/24/1998 LER#: 3481998006 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : SPENT FUEL SYSTEMS GROUP
SYSTEM : FUEL BUILDING ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE SPENT FUEL POOL BUILDING BOUNDARY COULD HAVE BEEN BREACHED DURING ACCIDENT CONDITIONS DUE TO AN INADEQUATE VENTILATION SYSTEM DESIGN. SUCTION DAMPERS WERE INCORRECTLY DESIGNED TO FAIL OPEN ON A LOSS OF INSTRUMENT AIR.

TABLE 8.32 (CONT.)

FARLEY 1

SCRAM 05/27/1999 LER#: 3481999002 50.72#: 35771 PWR HIST: TRIP FROM 92% FOLLOWING REDUCTION FROM 100%
DESC : A RX TRIP OCCURRED DURING A RAPID MANUAL TURBINE LOAD REDUCTION FOLLOWING THE TRIP OF A FEEDWATER PUMP. THE OPERATOR REDUCED STEAM LOAD TOO MUCH, RESULTING IN AN OVER TEMPERATURE DELTA TEMPERATURE TRIP.

TABLE 8.33

FARLEY 2

SSF 11/24/1998 LER#: 3481998006 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : SPENT FUEL SYSTEMS GROUP
SYSTEM : FUEL BUILDING ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE SPENT FUEL POOL BUILDING BOUNDARY COULD HAVE BEEN BREACHED DURING ACCIDENT CONDITIONS DUE TO AN INADEQUATE VENTILATION SYSTEM DESIGN. SUCTION DAMPERS WERE INCORRECTLY DESIGNED TO FAIL OPEN ON A LOSS OF INSTRUMENT AIR.

TABLE 8.34

FERMI 2

SSF 06/25/1999 LER#: 3411999003 50.72#: 35865
PWR HIST: EVENT OCCURRED DURING OPERATION AT 97% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS DECLARED INOPERABLE AFTER DISCOVERING THAT THE FLOW CONTROLLER HAD FAILED DOWNSCALE. THE CAUSE WAS A FAILED CONTROL AMPLIFIER CIRCUIT CARD IN THE HPCI FLOW CONTROLLER.

SSF 09/13/1999 LER#: 3411999004 50.72#: 36153
PWR HIST: EVENT OCCURRED DURING OPERATION AT 85% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS ISOLATED AND DECLARED INOPERABLE WHEN A HPCI ROOM TEMPERATURE SWITCH FAILED UPSCALE DURING TESTING. THE CAUSE WAS A FAILED CAPACITOR. THIS WAS THE FIRST OF TWO SIMILAR EVENTS.

SSF 09/20/1999 LER#: 3411999004 50.72#: 36204
PWR HIST: EVENT OCCURRED DURING OPERATION AT 97% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS ISOLATED AND DECLARED INOPERABLE WHEN A HPCI ROOM TEMPERATURE SWITCH FAILED UPSCALE DURING TESTING. THE CAUSE WAS A FAILED CAPACITOR. THIS WAS THE SECOND OF TWO SIMILAR EVENTS.

TABLE 8.35

FITZPATRICK

SSF 01/14/1999 LER#: 3331999001 50.72#:
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
DESC : THE EDGS WERE INOPERABLE FOR APPROXIMATELY FOUR HOURS WHEN THEY WERE LEFT RUNNING UNLOADED WITH THE TIE BREAKERS OPEN. THE CAUSE APPEARS TO BE BOTH A LACK OF OPERATOR KNOWLEDGE AND INADEQUATE PROCEDURAL GUIDANCE CONCERNING EDG OPERABILITY.

TABLE 8.35 (CONT.)

FITZPATRICK

SSF 06/09/1999 LER#: 3331999006 50.72#:
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : LOW PRESSURE COOLANT INJECTION SYSTEM
DESC : BOTH TRAINS OF LPCI WERE INOPERABLE. AS A RESULT OF A LOOSE FUSE, 125 VDC CONTROL POWER WAS LOST TO THE ECCS RESTART PROGRAM, WHICH WOULD HAVE PREVENTED THE LPCI PUMPS FROM AUTOMATICALLY STARTING.

SSF 09/10/1999 LER#: 3331999008 50.72#: 36144
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS ISOLATED AND DECLARED INOPERABLE DUE TO THE FAILURE OF A MASTER TRIP UNIT IN THE SYSTEM'S ISOLATION LOGIC CIRCUITRY. THE CAUSE HAS NOT BEEN DETERMINED.

TABLE 8.36

FORT CALHOUN

SSF 10/21/1998 LER#: 2851998014 50.72#:
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : MULTIPLE SYSTEMS GROUP
SYSTEM : MULTIPLE SYSTEMS
DESC : TWO FIRE DAMPERS AND A DROP DOWN PANEL CREDITED FOR MITIGATION OF A MAIN STEAM LINE BREAK ACCIDENT WERE DEFEATED IN A NONCONSERVATIVE DIRECTION. THE CAUSE WAS INADEQUATE PROCEDURAL CONTROL OF AN EMERGENCY TEMPORARY MODIFICATION.

SSF 12/04/1998 LER#: 2851998016 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : MEDIUM-VOLTAGE POWER SYSTEM - CLASS 1E
DESC : RELAY COVERS WERE NOT PROPERLY INSTALLED ON OFFSITE POWER LOW SIGNAL UNDERVOLTAGE RELAYS RENDERING THEM SEISMICALLY NONQUALIFIED. THIS CONDITION COULD RENDER SAFEGUARDS EQUIPMENT INOPERABLE DURING A SEISMIC EVENT WITH DEGRADED VOLTAGE.

TABLE 8.37

GINNA

SSA 11/20/1998 LER#: 2441998005 50.72#: 35067 PWR HIST: POWER OPERATIONS AT 100%
DESC : AN EDG STARTED AND ENERGIZED A SAFETY BUS FOLLOWING A PARTIAL LOSS OF OFFSITE POWER. THE CAUSE WAS A FAULTED UNDERGROUND CABLE SPLICE.

SSF 04/12/1999 LER#: 2441999004 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : CONTAINMENT COOLING SYSTEMS GROUP
SYSTEM : CONTAINMENT FAN COOLING SYSTEM
DESC : THE CONTAINMENT RECIRCULATION FAN CHEVRON MOISTURE SEPARATOR VANES WERE INSTALLED BACKWARDS DUE TO AN ORIGINAL MANUFACTURING ERROR. THE RESULTING DECREASED EFFICIENCY COULD HAVE CAUSED CONTAINMENT DESIGN PRESSURE TO BE SLIGHTLY EXCEEDED DURING A DBA.

SSA 04/13/1999 LER#: 2441999005 50.72#: 35590 PWR HIST: COLD SHUTDOWN
DESC : AN EDG STARTED AND ENERGIZED A SAFEGUARDS BUS DURING RESTORATION FROM A TEST LINEUP. AS A RESULT OF PERSONNEL ERROR, THE EDG, WHICH HAD BEEN LOCKED OUT FOR THE TEST, WAS RESET WITH AN UNDERVOLTAGE SIGNAL PRESENT ON THE BUS.

SCRAM 04/23/1999 LER#: 2441999007 50.72#: 35623 PWR HIST: POWER OPERATIONS AT 35%
DESC : A RX TRIP OCCURRED WHILE ADJUSTING THE POWER RANGE NUCLEAR INSTRUMENT TRIP SETPOINTS. WITH ONE CHANNEL IN TRIP, A TECHNICIAN INADVERTENTLY REMOVED THE FUSES FROM A SECOND CHANNEL, COMPLETING THE TWO OF FOUR LOGIC.

TABLE 8.37 (CONT.)

GINNA

SCRAM 04/27/1999 LER#: 2441999008 50.72#: 35638 PWR HIST: POWER OPERATIONS AT 90%
DESC : A RX TRIP OCCURRED DUE TO A SPURIOUS OVER TEMPERATURE DELTA TEMPERATURE SIGNAL ON ONE CHANNEL WHILE ANOTHER CHANNEL WAS IN A TRIPPED CONDITION FOR TESTING. THE CAUSE WAS A FAULTED BISTABLE.

SSF 08/23/1999 LER#: 2441999011 50.72#: 36058
PWR HIST: EVENT DISCOVERED DURING OPERATION AT 100% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
DESC : THE CONTROL ROOM VENTILATION SYSTEM WAS INOPERABLE BECAUSE OF A TORN FLEXIBLE SUCTION JOINT TO THE CONTROL ROOM RETURN AIR FAN. THIS DAMAGE COULD HAVE ALLOWED INLEAKAGE GREATER THAN THAT ASSUMED IN THE ACCIDENT ANALYSIS.

TABLE 8.38

GRAND GULF

SSF 09/09/1999 LER#: 4161999004 50.72#: 36140
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE CORE SPRAY SYSTEM
DESC : THE HPCS EDG WAS EMERGENCY STOPPED AND DECLARED INOPERABLE DURING A SURVEILLANCE RUN WHEN A GENERATOR BEARING FAILED. THE CAUSE WAS INADEQUATE LUBRICATION AS A RESULT OF LOWERING THE OIL LEVEL BECAUSE OF CONCERNS WITH BEARING OIL FROTHING.

TABLE 8.39

HARRIS

SCRAM 01/14/1999 LER#: 4001999002 50.72#: 35261 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP OCCURRED FOLLOWING THE TRIP OF TWO RCPS. PERSONNEL PERFORMING A RELAY CALIBRATION FAILED TO REMOVE A BLOCKING DEVICE PRIOR TO REINSTALLING THE RELAY. THUS, A SIMULATED UV TRIP SIGNAL TO AN ELECTRICAL BUS RESULTED IN TRIPPING TWO RCPS.

SCRAM 03/12/1999 LER#: 4001999004 50.72#: 35462 PWR HIST: POWER OPERATIONS AT 100%
DESC : A TURBINE TRIP/RX TRIP RESULTED FROM HIGH SG WATER LEVEL. THE CAUSE WAS A DEGRADED FEEDWATER REGULATING VALVE POSITIONER, WHICH WAS ATTRIBUTED TO AN INADEQUATE PREVENTIVE MAINTENANCE PROGRAM.

SSF 09/08/1999 LER#: 4001999008 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
DESC : THE CONTROL ROOM EMERGENCY FILTRATION SYSTEM WAS INOPERABLE AT TIMES DURING FOUR PREVIOUS REFUELING OUTAGES. PRESSURE BOUNDARY DOORS WERE BLOCKED OPEN TO ALLOW THE PASSAGE OF ELECTRICAL CABLES. THE CAUSE WAS PERSONNEL ERROR.

TABLE 8.40

HATCH 1

SSF 04/29/1999 LER#: 3211999002 50.72#: 35648
PWR HIST: EVENT OCCURRED DURING OPERATION AT 16% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS SHUTDOWN AND DECLARED INOPERABLE WHEN THE BAROMETRIC CONDENSER VACUUM PUMP TRIPPED DUE TO HIGH CONDENSATE LEVEL. THE RECENTLY INSTALLED CONDENSATE PUMP WAS NOT DESIGNED TO OPERATE AT THE TANK'S RELATIVELY HIGH VACUUM.

TABLE 8.40 (CONT.)

HATCH 1

SCRAM 05/07/1999 LER#: 3211999003 50.72#: 35689 PWR HIST: POWER OPERATIONS AT 53%
DESC : A RX SCRAM OCCURRED ON HIGH RX VESSEL PRESSURE AFTER THE MAIN TURBINE STOP AND CONTROL VALVES DRIFTED CLOSED. AN EQUIPMENT OPERATOR INADVERTENTLY ISOLATED THE MAIN TURBINE EHC SYSTEM OIL SUPPLY DURING A TAGOUT.

TABLE 8.41

HATCH 2

SCRAM 05/05/1999 LER#: 3661999005 50.72#: 35676 PWR HIST: POWER OPERATIONS AT 98%
DESC : A TURBINE TRIP/RX TRIP RESULTED FROM A GENERATOR GROUND FAULT. AS A RESULT OF A MANUFACTURING DEFICIENCY, SOME TURNING VANES IN AN ISOPHASE BUS DUCT COOLING FAN BROKE LOOSE, SHORTING THE PHASE TO GROUND.

SE 06/15/1999 LER#: 3661999006 50.72#: 35826
PWR HIST: POWER OPERATIONS AT 41%
DESC : THE RX WAS MANUALLY SCRAMMED DUE TO A LOSS OF CONDENSER VACUUM. COMPLICATING FACTORS INCLUDED: TWO 4160V BUSES DID NOT AUTOMATICALLY REALIGN, 600V BUS GROUND FAULT, LOSS OF FEEDWATER, MSIV FAILED TO SHUT. SIMILAR EVENTS OCCURRED IN 1995 AND 1997.

SCRAM 06/28/1999 LER#: 3661999007 50.72#: 35874 PWR HIST: POWER OPERATIONS AT 100%
DESC : A SCRAM OCCURRED ON LOW RX WATER LEVEL. THE LOW LEVEL RESULTED FROM A REDUCTION IN FEED FLOW FOLLOWING AN INVALID HIGH WATER LEVEL SIGNAL. THE ROOT CAUSE WAS PERSONNEL ERROR WHILE VENTING THE COLD LEG KEEP FILL SYSTEM.

SSA 06/28/1999 LER#: 3661999007 50.72#: 35874 PWR HIST: HOT SHUTDOWN FOLLOWING A SCRAM
DESC : HPCI AND RCIC INITIATED ON LOW RX WATER LEVEL FOLLOWING A SCRAM. HOWEVER, THE FEED PUMPS RECOVERED WATER LEVEL BEFORE EITHER SYSTEM COULD INJECT.

TABLE 8.42

HOPE CREEK

SCRAM 11/15/1998 LER#: 3541998008 50.72#: 35035 PWR HIST: POWER OPERATIONS AT 95%
DESC : A TURBINE TRIP/RX SCRAM RESULTED FROM A HIGH LEVEL IN THE MOISTURE SEPARATOR DRAIN TANKS. INSTRUMENT AIR WAS INADVERTENTLY ISOLATED TO THE MOISTURE SEPARATOR DRAIN TANK NORMAL LEVEL CONTROL VALVES DUE TO AN ERROR IN A PIPING DIAGRAM.

SSF 01/11/1999 LER#: 3541999001 50.72#: 35241
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : REACTOR CORE ISOLATION COOLING SYSTEMS GROUP
SYSTEM : REACTOR CORE ISOLATION COOLING SYSTEM
DESC : RCIC WAS DECLARED INOPERABLE WHEN THE OUTBOARD STEAM SUPPLY VALVE WAS CLOSED TO TROUBLESHOOT A FAILED ISOLATION LOGIC CIRCUITRY POWER SUPPLY. THE FAILED POWER SUPPLY WAS REPLACED.

SSF 09/19/1999 LER#: 3541999011 50.72#: 36200
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS DECLARED INOPERABLE DURING SURVEILLANCE TESTING WHEN A TURBINE TRIP SIGNAL WOULD NOT RESET. THE CAUSE WAS A FAILED TRIP UNIT ASSOCIATED WITH THE HPCI TURBINE EXHAUST PRESSURE TRANSMITTER.

TABLE 8.43

INDIAN POINT 2

SSF 05/11/1999 LER#: 2471999009 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE 1991
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
DESC : THE CONTROL ROOM VENTILATION SYSTEM WAS DECLARED INOPERABLE BECAUSE OF NONCONSERVATIVE AMMONIA MONITOR SETPOINTS. THE CAUSE WAS A FAILURE TO UNDERSTAND THE INACCURACIES ASSOCIATED WITH THE SETPOINT CALIBRATION.

TABLE 8.43 (CONT.)

INDIAN POINT 2

SCRAM 08/31/1999 LER#: 2471999015 50.72#: 36104 PWR HIST: POWER OPERATIONS AT 99%
DESC : A RX TRIP OCCURRED ON A SPURIOUS OVERTEMPERATURE DIFFERENTIAL TEMPERATURE TRIP SIGNAL WHILE CONDUCTING MAINTENANCE WITH THE OTHER CHANNEL IN A TRIPPED CONDITION. THE LICENSEE IS INVESTIGATING THE CAUSE.

SSA 08/31/1999 LER#: 2471999015 50.72#: 36104 PWR HIST: HOT STANDBY FOLLOWING A RX TRIP
DESC : ALL THREE EDGS STARTED AND LOADED FOLLOWING A BUS UNDERVOLTAGE TRIP SIGNAL. HOWEVER, THE OUTPUT BREAKER FOR ONE EDG TRIPPED ON OVERCURRENT BECAUSE OF AN IMPROPER BREAKER SETTING.

SE 08/31/1999 LER#: 2471999015 50.72#: 36104
PWR HIST: POWER OPERATIONS AT 99%
DESC : A RX TRIP AND SUSTAINED PARTIAL LOSS OF 480V VITAL POWER OCCURRED. SUBSEQUENT LOSS OF AN AC INSTRUMENT BUS DISABLED MOST CONTROL ROOM ANNUNCIATORS FOR SAFETY RELATED SYSTEMS. AN AIT DETERMINED THE PRIMARY CAUSE WAS INADEQUATE CONFIGURATION CONTROL.

TABLE 8.44

INDIAN POINT 3

SCRAM 03/09/1999 LER#: 2861999003 50.72#: 35452 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP OCCURRED DUE TO AN INVALID LOW RCS FLOW SIGNAL. A PRESSURE OSCILLATION OCCURRED IN A COMMON SENSING LINE WHILE RETURNING A FLOW TRANSMITTER TO SERVICE.

SCRAM 08/12/1999 LER#: 2861999010 50.72#: 36023 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP OCCURRED ON LOW LOW SG LEVEL. THE FAILURE OF A STATIC INVERTER RESULTED IN THE LOSS OF AN INSTRUMENT BUS, WHICH CAUSED A TURBINE RUNBACK AND MAIN FEEDWATER ISOLATION.

TABLE 8.45

KEWAUNEE

SSF 10/08/1998 LER#: 3051998012 50.72#: 34891
PWR HIST: EVENT OCCURRED DURING OPERATION AT 96% POWER
GROUP : COMPONENT COOLING WATER SYSTEM GROUP
SYSTEM : CLOSED/COMPONENT COOLING WATER SYSTEM
DESC : BOTH TRAINS OF COMPONENT COOLING WATER WERE RENDERED INOPERABLE FOR APPROXIMATELY FIVE MINUTES. THE EMERGENCY POWER SOURCE FOR ONE TRAIN WAS MADE INOPERABLE FOR TESTING WHILE THE OTHER TRAIN WAS SECURED. THE CAUSE WAS PERSONNEL ERROR.

SSF 11/13/1998 LER#: 3051998017 50.72#:
PWR HIST: CONDITION DISCOVERED DURING REFUELING
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : REACTOR CONTAINMENT BUILDING
DESC : GDC 19 CONTROL ROOM DOSE LIMITS COULD HAVE BEEN EXCEEDED DURING CONTAINMENT SUMP RECIRCULATION DUE TO LEAKAGE PAST AN ISOLATION VALVE. THE LEAKAGE EXCEEDED THE CAPACITY OF THE TEST EQUIPMENT AND COULD NOT BE QUANTIFIED.

TABLE 8.46

LASALLE 1

SCRAM 09/02/1999 LER#: 3731999003 50.72#: 36114 PWR HIST: POWER OPERATIONS AT 93%
DESC : A RX SCRAM OCCURRED ON LOW RX WATER LEVEL DURING A FEEDWATER TRANSIENT. FOLLOWING PREVENTIVE MAINTENANCE ON AN OPERATING FEED PUMP'S HYDRAULIC CONTROL SYSTEM, AN OPERATOR RESTORED AUTOMATIC CONTROL IMPROPERLY, CAUSING A SHARP DROP IN FEED FLOW.

TABLE 8.47

LASALLE 2

SCRAM 08/21/1999 LER#: 3741999002 50.72#: 36056 PWR HIST: POWER OPERATIONS AT 70%
DESC : A SCRAM OCCURRED ON LOW RX WATER LEVEL DURING A PLANNED LOAD REDUCTION. A TURBINE DRIVEN RX FEED PUMP HYDRAULIC CONTROL SYSTEM FAILURE RESULTED IN ERRATIC FEED PUMP RESPONSE. INAPPROPRIATE OPERATOR ACTIONS EXACERBATED THE SUBSEQUENT LEVEL TRANSIENT.

TABLE 8.48

LIMERICK 1

SCRAM 04/20/1999 LER#: 3521999003 50.72#: 35611 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX SCRAM OCCURRED ON LOW RX LEVEL DURING A LOSS OF FEED TRANSIENT. A BREAKER SPURIOUSLY TRIPPED CAUSING THE CONDENSATE DEMINERALIZER OUTLET VALVES TO CLOSE. THE RESULTING RAPID INCREASE IN D/P PREVENTED THE DEMINERALIZER BYPASS VALVES FROM OPENING.

SSA 04/20/1999 LER#: 3521999003 50.72#: 35611 PWR HIST: HOT SHUTDOWN FOLLOWING A RX SCRAM
DESC : HPCI AND RCIC STARTED AND INJECTED ON LOW RX WATER LEVEL FOLLOWING A SCRAM.

SSF 06/06/1999 LER#: 3521999004 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : SAFETY AND RELIEF VALVES GROUP
SYSTEM : AUTOMATIC DEPRESSURIZATION SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE ADS SYSTEM HAS BEEN INADVERTENTLY RENDERED INOPERABLE ON PAST OCCASIONS FOR PREVENTIVE MAINTENANCE. THE CAUSE WAS INADEQUATE REVIEW OF OPERABILITY REQUIREMENTS AND INADEQUATE PLANNING AND SCHEDULING OF PREVENTIVE MAINTENANCE.

SCRAM 06/11/1999 LER#: 3521999005 50.72#: 35815 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX SCRAM OCCURRED ON A TURBINE CONTROL VALVE FAST CLOSURE DUE TO PERSONNEL ERROR DURING WEEKLY TESTING.

SSF 06/23/1999 LER#: 3521999008 50.72#: 35852
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI FAILED TO START DURING SURVEILLANCE TESTING. THE TURBINE CONTROL VALVE FAILED TO OPEN ON DEMAND. THE CAUSE WAS CORROSION PRODUCT BINDING OF THE VALVE'S HYDRAULIC ACTUATOR.

TABLE 8.49

LIMERICK 2

SSF 12/09/1998 LER#: 3531998008 50.72#:
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : PRIMARY CONTAINMENT
DESC : PRIMARY CONTAINMENT WAS IMPAIRED DUE TO THE INOPERABILITY OF AN INBOARD AND OUTBOARD CONTAINMENT ISOLATION VALVE. ONE VALVE WAS PARTIALLY OPEN (WITH A CLOSED INDICATION), WHILE THE REDUNDANT VALVE WAS REMOVED FROM SERVICE ON THREE OCCASIONS.

SSF 01/21/1999 LER#: 3531999001 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : COMPONENT COOLING WATER SYSTEM GROUP
SYSTEM : CLOSED/COMPONENT COOLING WATER SYSTEM
DESC : FIRE INDUCED DAMAGE TO A COMPONENT COOLING WATER PUMP PRESSURE SWITCH COULD RENDER THE SYSTEM INOPERABLE FOR SAFE SHUTDOWN. THE CAUSE WAS INADEQUATE IMPLEMENTATION OF DESIGN REQUIREMENTS AND RELAXED TESTING TOLERANCES.

TABLE 8.49 (CONT.)

LIMERICK 2

SSF 06/06/1999 LER#: 3521999004 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : SAFETY AND RELIEF VALVES GROUP
SYSTEM : AUTOMATIC DEPRESSURIZATION SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE ADS SYSTEM HAS BEEN INADVERTENTLY RENDERED INOPERABLE ON PAST OCCASIONS FOR PREVENTIVE MAINTENANCE. THE CAUSE WAS INADEQUATE REVIEW OF OPERABILITY REQUIREMENTS AND INADEQUATE PLANNING AND SCHEDULING OF PREVENTIVE MAINTENANCE.

SSF 06/07/1999 LER#: 3531999003 50.72#:
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 100% POWER
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : PRIMARY CONTAINMENT
DESC : CONTAINMENT INTEGRITY WAS VIOLATED WHEN THE RWCU LEAK DETECTION SYSTEM AUTOMATIC ISOLATION FUNCTIONS WERE BYPASSED ON THREE OCCASIONS. THE CAUSE WAS AN INADEQUATE SYSTEM OPERATING PROCEDURE.

TABLE 8.50

MCGUIRE 1

NONE

TABLE 8.51

MCGUIRE 2

SCRAM 07/15/1999 LER#: 3701999004 50.72#: 35922 PWR HIST: POWER OPERATIONS AT 100%
DESC : A TURBINE TRIP/RX TRIP OCCURRED DURING POST-INSTALLATION RX TRIP BREAKER TESTING. THE CAUSE WAS AN INADEQUATE BREAKER RECEIPT INSPECTION PROCEDURE, WHICH RESULTED IN A MISALIGNED RX TRIP BREAKER SWITCH LEVER ARM.

TABLE 8.52

MILLSTONE 2

SSF 01/23/1999 LER#: 3361999003 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : CONTAINMENT COOLING SYSTEMS GROUP
SYSTEM : CONTAINMENT SPRAY SYSTEM
DESC : THE CONTAINMENT SPRAY SYSTEM'S ABILITY TO PERFORM ITS SAFETY FUNCTION DURING THE RECIRCULATION PHASE OF A DBA WAS IMPAIRED DUE TO INADEQUATE NET POSITIVE SUCTION HEAD. THE CAUSE WAS ADDITIONAL SPRAY NOZZLES INSTALLED SUBSEQUENT TO THE ORIGINAL DESIGN.

SSF 03/01/1999 LER#: 3361999006 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE 1979
GROUP : REACTOR TRIP INSTRUMENTATION
SYSTEM : PLANT PROTECTION SYSTEM
DESC : THE RCP UNDERSPEED TRIP HAS BEEN INOPERABLE SINCE INITIAL INSTALLATION BECAUSE THE SPEED SENSING CIRCUIT DID NOT MEET THE REQUIRED RESPONSE TIME. THE CAUSE WAS HISTORICAL USE OF A NONCONSERVATIVE TESTING METHODOLOGY.

TABLE 8.53

MILLSTONE 3

SSF 10/01/1998 LER#: 4231998039 50.72#: 34862
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : CONTAINMENT COOLING SYSTEMS GROUP
SYSTEM : CONTAINMENT SPRAY SYSTEM
DESC : BOTH TRAINS OF CONTAINMENT RECIRCULATION SPRAY WERE INOPERABLE. WITH ONE TRAIN OUT OF SERVICE FOR MAINTENANCE, THE OTHER TRAIN EXPERIENCED REPEATED BLOWN FUSES IN THE 125 VAC VITAL INSTRUMENT INVERTER. THE CAUSE WAS AN ELECTRICAL COMPONENT FAILURE.

TABLE 8.53 (CONT.)

MILLSTONE 3

SCRAM 12/11/1998 LER#: 4231998045 50.72#: 35137 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP OCCURRED ON LOW SG LEVEL WHEN AN MSIV FULLY SHUT DURING TESTING. THE CAUSE WAS A FAILED MSIV SOLENOID VALVE.

SSF 01/16/1999 LER#: 4231999001 50.72#:
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
DESC : THE CONTROL ROOM PRESSURIZATION SYSTEM WAS INOPERABLE BECAUSE OF A BREACHED BOUNDARY. THE EAST DOOR LATCH STUCK IN THE WITHDRAWN POSITION. THE CAUSE WAS EXCESSIVE FORCE APPLIED WHILE OPENING THE DOOR. THIS IS THE FIRST OF TWO SIMILAR EVENTS.

SSF 01/26/1999 LER#: 4231999001 50.72#:
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
DESC : THE CONTROL ROOM PRESSURIZATION SYSTEM WAS INOPERABLE BECAUSE OF A BREACHED BOUNDARY. THE EAST DOOR LATCH STUCK IN THE WITHDRAWN POSITION. THE CAUSE WAS EXCESSIVE FORCE APPLIED WHILE OPENING THE DOOR. THIS IS THE SECOND OF TWO SIMILAR EVENTS.

TABLE 8.54

MONTICELLO

SSF 04/12/1999 LER#: 2631999003 50.72#: 35579
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS DECLARED INOPERABLE DUE TO THE LOSS OF EMERGENCY SERVICE WATER TO ONE OF TWO ROOM COOLING UNITS. THE CAUSE WAS A PROBLEM WITH THE EMERGENCY SERVICE WATER PUMP DISCHARGE CHECK VALVE.

SCRAM 04/22/1999 LER#: 2631999004 50.72#: 35617 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX SCRAM OCCURRED ON LOW RX WATER LEVEL FOLLOWING A DIGITAL FEEDWATER CONTROL SYSTEM FAILURE. THE CAUSE WAS AN OXIDIZED CONNECTION IN A POWER SUPPLY.

SSF 04/22/1999 LER#: 2631999004 50.72#: 35629
PWR HIST: EVENT OCCURRED FOLLOWING A SCRAM FROM 100% POWER
GROUP : MULTIPLE SYSTEMS GROUP
SYSTEM : MULTIPLE SYSTEMS
DESC : HPCI AND RCIC BECAME INOPERABLE WHEN A HIGH REACTOR WATER LEVEL RESULTED IN WATER ENTERING THE MAIN STEAM LINES FOLLOWING A SCRAM. THE CAUSE WAS A FAILURE OF A DIGITAL FEEDWATER CONTROL SYSTEM POWER SUPPLY.

SSF 06/02/1999 LER#: 2631999006 50.72#: 35787
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS DECLARED INOPERABLE WHEN A TURBINE INLET HIGH DRAIN POT LEVEL ALARM WAS RECEIVED DURING SURVEILLANCE TESTING. A MALFUNCTIONING STEAM TRAP WAS NOT PROPERLY REMOVING WATER FROM THE DRAIN POT.

SSF 06/10/1999 LER#: 2631999007 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI MAY NOT HAVE BEEN ABLE TO ACHIEVE THE REQUIRED INJECTION FLOW BECAUSE THE HPCI TEST RETURN VALVE WAS UNABLE TO CLOSE AGAINST THE MAXIMUM EXPECTED DIFFERENTIAL PRESSURE. THE CAUSE WAS INADEQUATE ORIGINAL DESIGN.

TABLE 8.55

NINE MILE PT. 1

SCRAM 07/23/1999 LER#: 2201999004 50.72#: 35954 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX SCRAM OCCURRED ON A HIGH FLUX SIGNAL DURING TESTING OF THE TURBINE MECHANICAL PRESSURE REGULATOR. THE CAUSE WAS INTERNAL BLOCKAGE OF THE PRESSURE SUPPRESSOR VALVE DUE TO EXCESSIVE CORROSION INHIBITOR.

SCRAM 08/01/1999 LER#: 2201999005 50.72#: 35977 PWR HIST: STARTUP MODE AT 0%
DESC : A RX SCRAM RESULTED FROM INVALID INTERMEDIATE RANGE SPIKES WHILE SWITCHING FROM RANGE TWO TO THREE. THE CAUSE WAS DEGRADED RANGE SWITCH CONTACTS.

TABLE 8.56

NINE MILE PT. 2

SSF 12/02/1998 LER#: 4101998028 50.72#:
PWR HIST: EVENT OCCURRED DURING OPERATION AT 51% POWER
GROUP : REACTOR CORE ISOLATION COOLING SYSTEMS GROUP
SYSTEM : REACTOR CORE ISOLATION COOLING SYSTEM
DESC : RCIC BECAME INOPERABLE WHEN THE SYSTEM ISOLATED FOLLOWING THE FAILURE OF A TEMPERATURE TRIP UNIT. THE TRIP UNIT WAS SUBSEQUENTLY REPLACED AND SENT TO A LABORATORY FOR FAILURE ANALYSIS. THE MOST LIKELY CAUSE OF FAILURE WAS COMPONENT AGING.

SSF 03/18/1999 LER#: 4101999004 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : ESSENTIAL SERVICE WATER SYSTEM GROUP
SYSTEM : ESSENTIAL SERVICE WATER SYSTEM
DESC : A COMPLETE LOSS OF SERVICE WATER COULD OCCUR DURING PERIODS OF LOW SERVICE WATER INTAKE TEMPERATURES COINCIDENT WITH A CONTROL/RELAY ROOM FIRE WHICH RENDERS THE INTAKE DEICING HEATERS INOPERABLE. THE CAUSE WAS INADEQUATE ORIGINAL DESIGN.

SCRAM 04/24/1999 LER#: 4101999005 50.72#: 35627 PWR HIST: POWER OPERATIONS AT 100%
DESC : A TURBINE TRIP/RX SCRAM RESULTED FROM A MAIN GENERATOR PROTECTION VOLTS/HERTZ RELAY FAILURE, WHICH ACTUATED A GENERATOR LOCKOUT RELAY.

SSA 04/24/1999 LER#: 4101999005 50.72#: 35627 PWR HIST: HOT SHUTDOWN FOLLOWING A SCRAM
DESC : HPCS AND RCIC INITIATED ON LOW RX LEVEL FOLLOWING A SCRAM. RCIC FAILED TO ACHIEVE RATED SPEED.

SSF 04/24/1999 LER#: 4101999005 50.72#: 35627
PWR HIST: EVENT OCCURRED FOLLOWING A SCRAM FROM 100% POWER
GROUP : REACTOR CORE ISOLATION COOLING SYSTEMS GROUP
SYSTEM : REACTOR CORE ISOLATION COOLING SYSTEM
DESC : RCIC INITIATED FOLLOWING A SCRAM, BUT FAILED TO ACHIEVE RATED SPEED. THE CAUSE OF THE FAILURE WAS AN INADVERTENT ACTUATION OF THE TRIP THROTTLE VALVE. THE OVERSPEED TRIP MECHANISM WAS INCORRECTLY ALIGNED DURING THE LAST REFUELING OUTAGE.

SCRAM 06/24/1999 LER#: 4101999010 50.72#: 35857 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP OCCURRED ON LOW RX WATER LEVEL. WHEN THE FEEDWATER LEVEL MASTER CONTROLLER WAS SHIFTED TO MANUAL TO PERFORM A MAINTENANCE PROCEDURE, THE LEVEL CONTROL VALVES BEGAN TO SHUT. THE CAUSE WAS AN AGE RELATED CONTROLLER FAILURE.

SSA 06/24/1999 LER#: 4101999010 50.72#: 35857 PWR HIST: HOT SHUTDOWN FOLLOWING A RX TRIP
DESC : TWO EDGS STARTED AND ENERGIZED THEIR RESPECTIVE BUSES DURING A PARTIAL LOSS OF OFFSITE POWER. THE LOSS OF POWER WAS CAUSED BY A FAILED MAIN GENERATOR OUTPUT BREAKER FAULT RELAY.

SSF 06/24/1999 LER#: 4101999010 50.72#: 35859
PWR HIST: EVENT OCCURRED IN HOT SHUTDOWN FOLLOWING A SCRAM FROM 100% POWER
GROUP : REACTOR CORE ISOLATION COOLING SYSTEMS GROUP
SYSTEM : REACTOR CORE ISOLATION COOLING SYSTEM
DESC : RCIC WAS DECLARED INOPERABLE DUE TO SWINGS OF 200 TO 300 GPM IN SYSTEM FLOW RATE. THE FLOWRATE STABILIZED AFTER THE FLOW CONTROLLER WAS PLACED IN MANUAL. THE CAUSE WAS AIR IN THE FLOW TRANSMITTER AND A MISCALIBRATED FLOW CONTROLLER.

TABLE 8.57

NORTH ANNA 1

SSF 10/11/1998 LER#: 3381998007 50.72#:
PWR HIST: EVENT OCCURRED IN HOT SHUTDOWN
GROUP : CONTAINMENT COOLING SYSTEMS GROUP
SYSTEM : CONTAINMENT SPRAY SYSTEM
DESC : BOTH CONTAINMENT SPRAY PUMPS WERE INOPERABLE. ONE TRAIN WAS UNKNOWINGLY AIR BOUND FROM AN EARLIER MAKEUP EVOLUTION WHEN THE OPPOSITE TRAIN'S EDG WAS RENDERED INOPERABLE FOR SURVEILLANCE.

SSF 03/31/1999 LER#: 3381999003 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE SAFETY INJECTION SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : A MAIN CONTROL ROOM FIRE COULD RESULT IN THE LOSS OF BOTH UNITS' CHARGING/HHSI PUMPS DUE TO THE DEPLETION OF THE VOLUME CONTROL TANK. THE MAIN CONTROL ROOM FIRE PROCEDURE WAS INADEQUATE.

SSF 04/13/1999 LER#: 3381999004 50.72#: 35587
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 100% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE CONTROL ROOM EMERGENCY VENTILATION SYSTEM WAS INOPERABLE BECAUSE A SUCTION SUPPLY DAMPER SWITCH WAS OUT OF POSITION. IT IS BELIEVED THE SWITCH WAS ACCIDENTALLY BUMPED DURING MAINTENANCE.

TABLE 8.58

NORTH ANNA 2

SSF 03/31/1999 LER#: 3381999003 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE SAFETY INJECTION SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : A MAIN CONTROL ROOM FIRE COULD RESULT IN THE LOSS OF BOTH UNITS' CHARGING/HHSI PUMPS DUE TO THE DEPLETION OF THE VOLUME CONTROL TANK. THE MAIN CONTROL ROOM FIRE PROCEDURE WAS INADEQUATE.

SSF 04/13/1999 LER#: 3381999004 50.72#: 35587
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 100% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE CONTROL ROOM EMERGENCY VENTILATION SYSTEM WAS INOPERABLE BECAUSE A SUCTION SUPPLY DAMPER SWITCH WAS OUT OF POSITION. IT IS BELIEVED THE SWITCH WAS ACCIDENTALLY BUMPED DURING MAINTENANCE.

TABLE 8.59

OCONEE 1

SSF 10/01/1998 LER#: 2691998012 50.72#: 34860
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : CONTAINMENT COOLING SYSTEMS GROUP
SYSTEM : CONTAINMENT SPRAY SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1, 2, AND 3.
DESC : RX BUILDING SPRAY WAS INOPERABLE DUE TO THE POTENTIAL FOR EXCESSIVE FLOW RATES AND INADEQUATE NPSH DURING A LARGE BREAK LOCA. THE CAUSE WAS A HISTORICAL DESIGN INADEQUACY.

SSF 11/19/1998 LER#: 2691998015 50.72#: 35058
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1, 2, AND 3.
DESC : BOTH TRAINS OF ONSITE EMERGENCY POWER BECAME INOPERABLE WHEN AN OPERATOR MISPOSITIONED A SWITCH ON ONE TRAIN WHILE THE OTHER TRAIN WAS REMOVED FROM SERVICE FOR TESTING.

TABLE 8.59 (CONT.)

OCONEE 1

SSF 11/20/1998 LER#: 2691998015 50.72#: 35066
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1, 2, AND 3.
DESC : BOTH TRAINS OF ONSITE EMERGENCY POWER BECAME INOPERABLE DUE TO A PROBLEM WITH THE GOVERNOR OIL SYSTEM ON ONE TRAIN WHILE THE OTHER TRAIN WAS REMOVED FROM SERVICE FOR TESTING. THE CAUSE WAS A CRACKED WELD ON THE FLOAT OF A GOVERNOR OIL FLOAT VALVE.

SCRAM 07/07/1999 LER#: 2691999005 50.72#: 35899 PWR HIST: POWER OPERATIONS AT 15%
DESC : A RX TRIP OCCURRED ON A LOSS OF ALL MAIN FEEDWATER FLOW. WHILE ISOLATING THE "B" MFP TO REPAIR A LEAK, THE "A" MFP TRIPPED ON AN INVALID LOW SUCTION PRESSURE SIGNAL. THE "A" AND "B" INSTRUMENT LINES HAD BEEN ERRONEOUSLY CONNECTED TO THE OPPOSITE TRAIN.

SCRAM 08/18/1999 LER#: 2691999006 50.72#: 36040 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP OCCURRED ON A VARIABLE LOW PRESSURE/TEMPERATURE TRIP AFTER THE GROUP FIVE CONTROL RODS DROPPED INTO THE CORE. THE CAUSE WAS A FAULTED SOLID STATE PROGRAMMER MICROPROCESSOR.

TABLE 8.60

OCONEE 2

SSF 10/01/1998 LER#: 2691998012 50.72#: 34860
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : CONTAINMENT COOLING SYSTEMS GROUP
SYSTEM : CONTAINMENT SPRAY SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1, 2, AND 3.
DESC : RX BUILDING SPRAY WAS INOPERABLE DUE TO THE POTENTIAL FOR EXCESSIVE FLOW RATES AND INADEQUATE NPSH DURING A LARGE BREAK LOCA. THE CAUSE WAS A HISTORICAL DESIGN INADEQUACY.

SCRAM 11/03/1998 LER#: 2701998007 50.72#: 34990 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP OCCURRED DUE TO A LOSS OF A MAIN FEEDWATER ANTICIPATORY TRIP. THE TRIP WAS CAUSED WHEN A METAL NAIL USED IN THE REPAIR OF FIRE BARRIER PENETRATIONS GROUNDED A CABLE. THE ROOT CAUSE WAS INADEQUATE PROCEDURAL GUIDANCE TO PERFORM THE REPAIR WORK.

SSF 11/19/1998 LER#: 2691998015 50.72#: 35058
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1, 2, AND 3.
DESC : BOTH TRAINS OF ONSITE EMERGENCY POWER BECAME INOPERABLE WHEN AN OPERATOR MISPOSITIONED A SWITCH ON ONE TRAIN WHILE THE OTHER TRAIN WAS OUT OF SERVICE FOR TESTING.

SSF 11/20/1998 LER#: 2691998015 50.72#: 35066
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1, 2, AND 3.
DESC : BOTH TRAINS OF ONSITE EMERGENCY POWER BECAME INOPERABLE DUE TO A PROBLEM WITH THE GOVERNOR OIL SYSTEM ON ONE TRAIN WHILE THE OTHER TRAIN WAS REMOVED FROM SERVICE FOR TESTING. THE CAUSE WAS A CRACKED WELD ON THE FLOAT OF A GOVERNOR OIL FLOAT VALVE.

SCRAM 02/28/1999 LER#: 2701999001 50.72#: 35424 PWR HIST: POWER OPERATIONS AT 98%
DESC : THE RX TRIPPED FROM HIGH RCS PRESSURE WHEN THE MAIN TURBINE CONTROL VALVES FAILED SHUT. THE CAUSE WAS AN INTERNAL OPEN CIRCUIT FAULT IN AN EHC FUSE.

SCRAM 06/19/1999 LER#: 2701999002 50.72#: 35847 PWR HIST: POWER OPERATIONS AT 66%
DESC : A TURBINE TRIP/RX TRIP RESULTED FROM TWO CONCURRENT ELECTRICAL GROUND FAULTS IN THE MOISTURE SEPARATOR REHEATER HIGH LEVEL SWITCHES.

TABLE 8.61

OCONEE 3

SSF 10/01/1998 LER#: 2691998012 50.72#: 34860
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : CONTAINMENT COOLING SYSTEMS GROUP
SYSTEM : CONTAINMENT SPRAY SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1, 2, AND 3.
DESC : RX BUILDING SPRAY WAS INOPERABLE DUE TO THE POTENTIAL FOR EXCESSIVE FLOW RATES AND INADEQUATE NPSH DURING A LARGE BREAK LOCA. THE CAUSE WAS A HISTORICAL DESIGN INADEQUACY.

SSF 11/19/1998 LER#: 2691998015 50.72#: 35058
PWR HIST: EVENT OCCURRED IN COLD SHUTDOWN
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1, 2, AND 3.
DESC : BOTH TRAINS OF ONSITE EMERGENCY POWER BECAME INOPERABLE WHEN AN OPERATOR MISPOSITIONED A SWITCH ON ONE TRAIN WHILE THE OTHER TRAIN WAS REMOVED FROM SERVICE FOR TESTING.

SSF 11/20/1998 LER#: 2691998015 50.72#: 35066
PWR HIST: EVENT OCCURRED IN COLD SHUTDOWN
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1, 2, AND 3.
DESC : BOTH TRAINS OF ONSITE EMERGENCY POSER BECAME INOPERABLE DUE TO A PROBLEM WITH THE GOVERNOR OIL SYSTEM ON ONE TRAIN WHILE THE OTHER TRAIN WAS REMOVED FROM SERVICE FOR TESTING. THE CAUSE WAS A CRACKED WELD ON THE FLOAT OF A GOVERNOR OIL FLOAT VALVE.

SSF 12/15/1998 LER#: 2871998002 50.72#:
PWR HIST: EVENT OCCURRED IN HOT SHUTDOWN
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : REACTOR CONTAINMENT BUILDING
DESC : PRIMARY CONTAINMENT INTEGRITY WAS NOT ESTABLISHED BEFORE ENTERING A MODE THAT REQUIRED CONTAINMENT. AN OPERATOR FAILED TO PROPERLY MONITOR PRESSURE AND TEMPERATURE WHILE THE PRESSURIZER HEATERS WERE ENERGIZED.

SCRAM 12/31/1998 LER#: 2871998004 50.72#: 35209 PWR HIST: POWER OPERATIONS AT 100%
DESC : A TURBINE TRIP/RX TRIP OCCURRED DURING CONTROL ROD DRIVE BREAKER TESTING. THE CAUSE WAS A PREVIOUSLY BROKEN WIRE TO A CONTROL ROD DRIVE SYSTEM AUXILIARY RELAY.

SSF 04/08/1999 LER#: 2871999001 50.72#:
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 100% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
DESC : THE CONTROL ROOM VENTILATION SYSTEM WAS INOPERABLE BECAUSE OF AN AIR BOUND CHILLED WATER SYSTEM. THE MAKEUP VALVES FOR THE CHILLED WATER SYSTEM WERE MISPOSITIONED SHUT, WHICH RESULTED IN AN EMPTY MAKEUP TANK AND SYSTEM AIR ENTRAINMENT.

TABLE 8.62

OYSTER CREEK

SSF 10/23/1998 LER#: 2191998018 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE 1994
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
DESC : AN EDG WAS INOPERABLE FOR APPENDIX R SAFE SHUTDOWN DUE TO INCORRECTLY DESIGNED WIRING ASSOCIATED WITH THE ALTERNATE CONTROL POWER FUSES AND TRANSFER SWITCHES. THE CAUSE WAS INADEQUATE MODIFICATION DESIGN CONTROL AND POST MODIFICATION TESTING.

TABLE 8.63

PALISADES

SSA 12/22/1998 LER#: 2551998013 50.72#: 35187 PWR HIST: COLD SHUTDOWN
DESC : THE EDGS STARTED AND LOADED WHEN THE SAFEGUARDS TRANSFORMER AUTOMATIC TAP CHANGER FAILED AND CAUSED VOLTAGE TO BE LOWERED ON BOTH SAFETY BUSES. THE CAUSE WAS A FAILED MOTOR CONTACTOR IN THE TAP CHANGER.

TABLE 8.64

PALO VERDE 1

SCRAM 03/10/1999 LER#: 5281999001 50.72#: 35456 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP OCCURRED ON HIGH PRESSURIZER PRESSURE DUE TO IMPROPER OPERATOR ACTIONS FOLLOWING A SPURIOUS TURBINE CONTROL VALVE CLOSURE. THE TURBINE BYPASS VALVES RESPONDED CORRECTLY (OPENED), BUT WERE CLOSED BY AN OPERATOR.

TABLE 8.65

PALO VERDE 2

SCRAM 06/18/1999 LER#: 5291999005 50.72#: 35845 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP RESULTED FROM LOW DNBR TRIPS ON ALL FOUR CORE PROTECTION CALCULATORS. THE CAUSE APPEARS TO BE A HARDWARE INDUCED CALCULATIONAL ERROR THAT RESULTED IN THE GENERATION OF AN ERRONEOUS PENALTY FACTOR IN A CONTROL ELEMENT ASSEMBLY CALCULATOR.

TABLE 8.66

PALO VERDE 3

SSF 10/12/1998 LER#: 5301998004 50.72#:
PWR HIST: EVENT OCCURRED DURING REFUELING
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : REACTOR CONTAINMENT BUILDING
DESC : CONTAINMENT INTEGRITY WAS BREACHED WHEN A RX DRAIN TANK DRAIN VALVE WAS OPENED. THE CAUSE WAS PERSONNEL ERROR.

TABLE 8.67

PEACH BOTTOM 2

SSF 01/19/1999 LER#: 2771999001 50.72#: 35283
PWR HIST: EVENT DISCOVERED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS RENDERED INOPERABLE WHEN THE GLAND SEAL CONDENSER LOWER GASKET DEVELOPED A LEAK DURING TESTING. THE CAUSE WAS AN IMPROPERLY ADJUSTED HPCI TURBINE STOP VALVE LOWER LIMIT SWITCH.

SSF 03/18/1999 LER#: 2771999003 50.72#: 35485
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : MULTIPLE SYSTEMS GROUP
SYSTEM : MULTIPLE SYSTEMS
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 2 AND 3.
DESC : A POSTULATED FIRE COULD RESULT IN SPURIOUS OPERATION OF HIGH/LOW PRESSURE INTERFACE VALVES, RESULTING IN FLOODING AND SUBSEQUENT INOPERABILITY OF THE HPCI AND RCIC SYSTEMS. THE CAUSE WAS AN ORIGINAL DESIGN DEFICIENCY.

TABLE 8.67 (CONT.)

PEACH BOTTOM 2

SSF 06/16/1999 LER#: 2771999005 50.72#: 35830
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : FOLLOWING AN INITIAL START, HPCI MAY BE INCAPABLE OF RESTARTING DURING AN APPENDIX R FIRE BECAUSE OF A VACUUM BREAKER ISOLATION VALVE FAILURE. THE CAUSE WAS INADEQUATE ENGINEERING RIGOR IN THE SAFE SHUTDOWN ANALYSIS.

SCRAM 09/30/1999 LER#: 2771999006 50.72#: 36248 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX SCRAM FOLLOWED A TURBINE TRIP AND GENERATOR LOCKOUT. THE CAUSE WAS A FAILED INVERTER IN THE POST ACCIDENT MONITORING PANEL WHICH INDUCED A GROUND ON THE 250 VDC POWER SYSTEM.

TABLE 8.68

PEACH BOTTOM 3

SSF 03/18/1999 LER#: 2771999003 50.72#: 35485
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : MULTIPLE SYSTEMS GROUP
SYSTEM : MULTIPLE SYSTEMS
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 2 AND 3.
DESC : A POSTULATED FIRE COULD RESULT IN SPURIOUS OPERATION OF HIGH/LOW PRESSURE INTERFACE VALVES, RESULTING IN FLOODING AND SUBSEQUENT INOPERABILITY OF THE HPCI AND RCIC SYSTEMS. THE CAUSE WAS AN ORIGINAL DESIGN DEFICIENCY.

SSF 08/14/1999 LER#: 2781999003 50.72#: 36031
PWR HIST: CONDITION OCCURRED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS RENDERED INOPERABLE FOR TROUBLESHOOTING AFTER EXPERIENCING FLOW, PRESSURE, AND SPEED OSCILLATIONS DURING TESTING. THE CAUSE WAS INADEQUATE PROCEDURAL GUIDANCE FOR ADJUSTING THE HYDRAULIC GOVERNOR NEEDLE VALVE.

TABLE 8.69

PERRY

SSF 03/17/1999 LER#: 4401999001 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : MULTIPLE SYSTEMS GROUP
SYSTEM : MULTIPLE SYSTEMS
DESC : SAFETY RELATED EQUIPMENT IN THE CONTROL COMPLEX BUILDING COULD BE RENDERED INOPERABLE DURING A DESIGN BASIS TORNADO. THE ORIGINAL BUILDING DESIGN HAD NOT CONSIDERED TORNADO DIFFERENTIAL PRESSURE LOADS.

SSF 09/16/1999 LER#: 4401999004 50.72#: 36181
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
DESC : CONTROL ROOM VENTILATION WAS RENDERED INOPERABLE WHEN PRESSURE BOUNDARIES WERE INTENTIONALLY BREACHED. AS A RESULT OF A DESIGN DEFICIENCY IN THE CONTROL COMPLEX WALLS, THESE BOUNDARIES ARE BREACHED IN PREPARATION FOR A POTENTIAL TORNADO STRIKE.

TABLE 8.70

PILGRIM

SSF 12/02/1998 LER#: 2931998026 50.72#: 35103
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS DECLARED INOPERABLE AFTER THE HPCI AC INVERTER TRIPPED. THE CAUSE WAS CONTACT ARCING IN A CONTROL SWITCH.

TABLE 8.70 (CONT.)

PILGRIM

SSA 06/08/1999 LER#: 2931999005 50.72#: 35808 PWR HIST: REFUELING
DESC : A LPCI ACTUATION OCCURRED WHEN AN INJECTION VALVE WENT FROM A THROTTLED POSITION TO FULL OPEN WHILE TECHNICIANS WERE BACKING OUT OF A SURVEILLANCE PROCEDURE. THE TECHNICIANS FAILED TO RESET THE CIRCUITRY PRIOR TO EXITING THE SURVEILLANCE PROCEDURE.

SSF 07/05/1999 LER#: 2931999006 50.72#: 35894
PWR HIST: EVENT OCCURRED DURING OPERATION AT 22% POWER
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
DESC : BOTH EDGS WERE DECLARED INOPERABLE WHEN AMBIENT AIR TEMPERATURE EXCEEDED THE EDG DESIGN AND OPERABILITY LIMIT OF 88 DEGREES F. THE CAUSE WAS INADEQUATE EDG COOLING AND BUILDING VENTILATION DESIGN.

SCRAM 08/05/1999 LER#: 2931999008 50.72#: 35992 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX SCRAM FOLLOWED A TURBINE TRIP INITIATED BY A MOISTURE SEPARATOR DRAIN TANK HIGH LEVEL. THE CAUSE WAS A DRAIN TANK LEVEL CONTROLLER MALFUNCTION COMBINED WITH INCORRECT CONTROLLER SETTINGS.

SSF 09/18/1999 LER#: 2931999010 50.72#: 36237
PWR HIST: EVENT OCCURRED DURING STARTUP AT 1% POWER
GROUP : MULTIPLE SYSTEMS GROUP
SYSTEM : MULTIPLE SYSTEMS
DESC : HPCI AND RCIC WERE INOPERABLE FOR 18 MINUTES WHEN REQUIRED DURING A PLANT STARTUP. THE SYSTEMS WERE NOT RESET PRIOR TO EXCEEDING 150 PSI. THE CAUSE WAS PERSONNEL ERROR.

TABLE 8.71

POINT BEACH 1

SSF 11/24/1998 LER#: 2661998030 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : DC POWER SYSTEM - CLASS 1E
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : AN APPENDIX R FIRE COULD POTENTIALLY RENDER THE BATTERY CHARGERS INOPERABLE FOR SAFE SHUTDOWN. THE CAUSE WAS AN INCORRECT ASSUMPTION THAT THE SAFETY RELATED BATTERY CHARGERS WERE NOT NEEDED TO ACHIEVE AND MAINTAIN HOT SAFE SHUTDOWN.

SSF 01/05/1999 LER#: 2661999001 50.72#: 35216
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 100% POWER
GROUP : MULTIPLE SYSTEMS GROUP
SYSTEM : MULTIPLE SYSTEMS
DESC : BOTH TRAINS OF SAFETY INJECTION AND CONTAINMENT SPRAY PUMPS WERE RENDERED INOPERABLE WHEN A PORTION OF THE COMMON RECIRCULATION LINE FROZE. THE LINE'S HEAT TRACING FAILED, MOST LIKELY AS A RESULT OF AGING.

SSF 04/20/1999 LER#: 2661999004 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE THE MID 1990S
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : A FIRE IN THE NORTH HALF OF THE AFW ROOM COULD RENDER THE APPENDIX R SAFE SHUTDOWN CREDITED EDG INOPERABLE. THE CAUSE WAS A DESIGN DEFECT WHICH OCCURRED DURING A MODIFICATION IN THE MID 1990S.

SSA 05/14/1999 LER#: 2661999005 50.72#: 35714 PWR HIST: HOT STANDBY FOLLOWING A RX TRIP
DESC : SAFETY INJECTION WAS MANUALLY INITIATED ON DECREASING PZR LEVEL FOLLOWING A STEAM LINE RUPTURE AND MANUAL RX TRIP. NO ACTUAL INJECTION OCCURRED BECAUSE RCS PRESSURE DID NOT DROP BELOW THE SHUTOFF HEAD OF THE SAFETY INJECTION PUMPS.

TABLE 8.72

POINT BEACH 2

SSF 11/24/1998 LER#: 2661998030 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : DC POWER SYSTEM - CLASS 1E
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : AN APPENDIX R FIRE COULD POTENTIALLY RENDER THE BATTERY CHARGERS INOPERABLE FOR SAFE SHUTDOWN. THE CAUSE WAS AN INCORRECT ASSUMPTION THAT THE SAFETY RELATED BATTERY CHARGERS WERE NOT NEEDED TO ACHIEVE AND MAINTAIN HOT SAFE SHUTDOWN.

SSF 04/20/1999 LER#: 2661999004 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE THE MID 1990S
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : A FIRE IN THE NORTH HALF OF THE AFW ROOM COULD RENDER THE APPENDIX R SAFE SHUTDOWN CREDITED EDG INOPERABLE. THE CAUSE WAS A DESIGN DEFECT WHICH OCCURRED DURING A MODIFICATION IN THE MID 1990S.

TABLE 8.73

PRAIRIE ISLAND 1

SCRAM 10/29/1998 LER#: 2821998016 50.72#: 34975 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP RESULTED FROM A NEGATIVE FLUX RATE SIGNAL WHEN A CONTROL ROD DROPPED. THE CAUSE WAS A SHORT TO GROUND IN THE HEAD AREA PATCH CABLE FOR THE CONTROL ROD.

SCRAM 01/05/1999 LER#: 2821999001 50.72#: 35215 PWR HIST: POWER OPERATIONS AT 100%
DESC : A TURBINE TRIP/RX TRIP RESULTED FROM AN EXPLOSION OF THE MAIN STATION TRANSFORMER. THE CAUSE WAS AN INTERNAL PHASE TO PHASE FAULT ON THE 20 KV WINDING.

SSF 06/25/1999 LER#: 2821999007 50.72#: 35860
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 100% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE CONTROL ROOM VENTILATION SYSTEM WAS INOPERABLE BECAUSE OF A BREACHED VENTILATION BOUNDARY. A CHILLER ROOM DOOR'S LATCHING MECHANISM WAS BROKEN. THE CAUSE WAS A LACK OF TIMELY AND PROPER MAINTENANCE. THIS WAS THE FIRST OF FOUR SIMILAR EVENTS.

SSF 07/29/1999 LER#: 2821999007 50.72#: 35972
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 100% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE CONTROL ROOM VENTILATION SYSTEM WAS INOPERABLE BECAUSE OF A BREACHED VENTILATION BOUNDARY. A CHILLER ROOM DOOR'S LATCHING MECHANISM WAS BROKEN. THE CAUSE WAS A LACK OF TIMELY AND PROPER MAINTENANCE. THIS WAS THE SECOND OF FOUR SIMILAR EVENTS.

SSF 08/05/1999 LER#: 2821999007 50.72#: 35993
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 100% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE CONTROL ROOM VENTILATION SYSTEM WAS INOPERABLE BECAUSE OF A BREACHED VENTILATION BOUNDARY. A CHILLER ROOM DOOR'S LATCHING MECHANISM WAS BROKEN. THE CAUSE WAS A LACK OF TIMELY AND PROPER MAINTENANCE. THIS WAS THE THIRD OF FOUR SIMILAR EVENTS.

SSF 08/12/1999 LER#: 2821999007 50.72#: 36026
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE CONTROL ROOM VENTILATION SYSTEM WAS INOPERABLE DUE TO THE USE OF INADEQUATE CHILLER ROOM DOOR HINGE PINS. THE BRASS PINS WERE NOT STRONG ENOUGH TO WITHSTAND HELB FORCES. THIS WAS THE FOURTH OF FOUR SIMILAR EVENTS.

TABLE 8.74

PRAIRIE ISLAND 2

SCRAM 11/09/1998 LER#: 3061998005 50.72#: 35011 PWR HIST: POWER OPERATIONS AT 22% WHILE SHUTTING DOWN
DESC : A TURBINE TRIP/RX TRIP OCCURRED WHILE SHUTTING DOWN. THE DIRECT CAUSE COULD NOT BE DETERMINED. HOWEVER, THE LICENSEE CONCLUDED A HIGH LEVEL TRIP FROM ONE OF THE LOW PRESSURE FEEDWATER HEATERS WAS THE MOST LIKELY CAUSE.

SSF 06/25/1999 LER#: 2821999007 50.72#: 35860
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 100% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE CONTROL ROOM VENTILATION SYSTEM WAS INOPERABLE BECAUSE OF A BREACHED VENTILATION BOUNDARY. A CHILLER ROOM DOOR'S LATCHING MECHANISM WAS BROKEN. THE CAUSE WAS A LACK OF TIMELY AND PROPER MAINTENANCE. THIS WAS THE FIRST OF FOUR SIMILAR EVENTS.

SSF 07/29/1999 LER#: 2821999007 50.72#: 35972
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 100% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE CONTROL ROOM VENTILATION SYSTEM WAS INOPERABLE BECAUSE OF A BREACHED VENTILATION BOUNDARY. A CHILLER ROOM DOOR'S LATCHING MECHANISM WAS BROKEN. THE CAUSE WAS A LACK OF TIMELY AND PROPER MAINTENANCE. THIS WAS THE SECOND OF FOUR SIMILAR EVENTS.

SSF 08/05/1999 LER#: 2821999007 50.72#: 35993
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 100% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE CONTROL ROOM VENTILATION SYSTEM WAS INOPERABLE BECAUSE OF A BREACHED VENTILATION BOUNDARY. A CHILLER ROOM DOOR'S LATCHING MECHANISM WAS BROKEN. THE CAUSE WAS A LACK OF TIMELY AND PROPER MAINTENANCE. THIS WAS THE THIRD OF FOUR SIMILAR EVENTS.

SSF 08/12/1999 LER#: 2821999007 50.72#: 36026
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE CONTROL ROOM VENTILATION SYSTEM WAS INOPERABLE DUE TO THE USE OF INADEQUATE CHILLER ROOM DOOR HINGE PINS. THE BRASS PINS WERE NOT STRONG ENOUGH TO WITHSTAND HELB FORCES. THIS WAS THE FOURTH OF FOUR SIMILAR EVENTS.

TABLE 8.75

QUAD CITIES 1

SSF 11/02/1998 LER#: 2541998025 50.72#: 34981
PWR HIST: EVENT OCCURRED DURING OPERATION AT 96% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS RENDERED INOPERABLE WHEN A MANUAL ISOLATION VALVE WAS CLOSED DUE TO AN INOPERABLE DRAIN TRAP ISOLATION VALVE. THE CAUSE WAS GALVANIC CORROSION IN THE VALVE BODY.

SCRAM 05/21/1999 LER#: 2541999002 50.72#: 35753 PWR HIST: POWER OPERATIONS AT 100%
DESC : A SCRAM RESULTED FROM A SCRAM DISCHARGE VOLUME HIGH LEVEL SIGNAL DUE TO STEAM INTRUSION FROM THE RWCU SYSTEM VIA COMMON DRAIN PIPING. THE CAUSE WAS INADEQUATE PROCEDURAL GUIDANCE FOR RWCU STARTUP.

SSF 09/07/1999 LER#: 2541999003 50.72#: 36208
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE COOLANT INJECTION SYSTEM
DESC : HPCI WAS ISOLATED AND DECLARED INOPERABLE AFTER THE OUTBOARD STEAM SUPPLY ISOLATION VALVE FAILED TO CLOSE DURING A TEST. THE CAUSE WAS A FAILED ISOLATION VALVE CONTROL SWITCH. THIS WAS THE FIRST OF TWO SIMILAR EVENTS.

TABLE 8.76

QUAD CITIES 2

SSF 08/25/1999 LER#: 50.72#: 36351
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : REACTOR CORE ISOLATION COOLING SYSTEMS GROUP
SYSTEM : REACTOR CORE ISOLATION COOLING SYSTEM
DESC : RCIC WAS DECLARED INOPERABLE WHEN THE RCIC TURBINE TRIPPED ON OVERSPEED DURING POST MAINTENANCE TESTING. RCIC WAS SUBSEQUENTLY REPAIRED.

TABLE 8.77

RIVER BEND

SSF 02/04/1999 LER#: 4581999002 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : CONTAINMENT COOLING SYSTEMS GROUP
SYSTEM : DRYWELL ENVIRONMENTAL CONTROL SYSTEM
DESC : UNQUALIFIED DUST FILTERS WERE INSTALLED ON CONTAINMENT UNIT COOLERS, WHICH COULD RENDER THE COOLERS INOPERABLE DURING ACCIDENT CONDITIONS. THE FILTERS SHOULD HAVE BEEN REMOVED BEFORE INITIAL POWER OPERATION.

SSF 03/24/1999 LER#: 4581999003 50.72#:
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 79% POWER
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
DESC : BOTH DIVISION ONE AND TWO EDGS WERE INOPERABLE. WITH ONE EDG INOPERABLE FOR MAINTENANCE, IT WAS DISCOVERED THAT THE OTHER EDG'S FUEL PUMP WAS INCORRECTLY ASSEMBLED.

SSA 04/18/1999 LER#: 4581999008 50.72#: 35602 PWR HIST: REFUELING
DESC : THE HPCS EDG WAS RUNNING WITH ITS OUTPUT BREAKER OPEN WHEN THE NORMAL POWER SUPPLY BREAKER TO THE ASSOCIATED 4160 VOLT SWITCHGEAR TRIPPED. THE EDG OUTPUT BREAKER SHUT AS DESIGNED. THE CAUSE OF THE BREAKER TRIP WAS MOST LIKELY PERSONNEL ERROR.

SSF 04/28/1999 LER#: 4581999010 50.72#: 35649
PWR HIST: EVENT OCCURRED DURING REFUELING
GROUP : SPENT FUEL SYSTEMS GROUP
SYSTEM : FUEL BUILDING
DESC : FUEL BUILDING INTEGRITY WAS BREACHED DURING THE MOVEMENT OF IRRADIATED FUEL WHEN A DOOR BETWEEN THE FUEL BUILDING AND ANNULUS WAS OPENED FOR A MAINTENANCE ACTIVITY. THE CAUSE WAS PERSONNEL ERROR.

SSA 05/10/1999 LER#: 4581999011 50.72#: 35699 PWR HIST: REFUELING
DESC : LPCI AND LPCS INITIATED AND INJECTED INTO THE RX DUE TO AN INVALID ECCS INITIATION SIGNAL. THE CAUSE WAS A FAILED CAPACITOR ON A ROSEMONT TRIP UNIT.

TABLE 8.78

ROBINSON 2

SCRAM 10/17/1998 LER#: 2611998005 50.72#: 34925 PWR HIST: TRIP FROM 75% FOLLOWING A RUNBACK FROM 100%
DESC : A TURBINE TRIP/RX TRIP RESULTED FROM SG SWELL DURING A TURBINE RUNBACK TRANSIENT. A BLOWN NUCLEAR INSTRUMENTATION CONTROL POWER FUSE DURING SURVEILLANCE TESTING INITIATED THE EVENT.

SSA 09/27/1999 LER#: 2611999001 50.72#: 36233 PWR HIST: COLD SHUTDOWN
DESC : AN EDG STARTED AND ENERGIZED ITS EMERGENCY BUS WHEN THE TRANSFORMER THAT NORMALLY SUPPLIES THE BUS WAS INADVERTENTLY DEENERGIZED. AN ELECTRICIAN BUMPED THE TRANSFORMER SUPPLY BREAKER'S TRIP SWITCH, CAUSING IT TO TRIP.

TABLE 8.79

SALEM 1

SCRAM 02/28/1999 LER#: 2721999001 50.72#: 35420 PWR HIST: POWER OPERATIONS AT 60%
DESC : A TURBINE TRIP/RX TRIP RESULTED FROM LOW TURBINE OIL PRESSURE. DURING MAINTENANCE TROUBLESHOOTING ACTIVITIES, OPERATORS INADVERTENTLY POSITIONED A VALVE OFF ITS CLOSED SEAT RESULTING IN THE LOW TURBINE OIL PRESSURE.

TABLE 8.79 (CONT.)

SALEM 1

SCRAM 05/20/1999 LER#: 2721999004 50.72#: 35748 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP OCCURRED ON A NEGATIVE FLUX RATE SIGNAL RESULTING FROM A DROPPED CONTROL ROD. THE STATIONARY GRIPPER VOLTAGE TO THE CONTROL ROD WAS LOST DUE TO A BLOWN FUSE. THE CAUSE WAS LOW INSULATION RESISTANCE ON THE CONTROL CABLE.

TABLE 8.80

SALEM 2

SSF 04/05/1999 LER#: 3111999002 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : REACTOR CONTAINMENT BUILDING
DESC : CONTAINMENT INTEGRITY WAS DISCOVERED DEGRADED WHEN BOTH INBOARD AND OUTBOARD ISOLATION VALVES IN A SERVICE AIR PENETRATION FAILED A LEAK RATE TEST. THE LEAKAGE COULD NOT BE QUANTIFIED BECAUSE IT EXCEEDED TEST EQUIPMENT CAPABILITIES.

SSF 04/06/1999 LER#: 3111999003 50.72#:
PWR HIST: EVENT OCCURRED IN COLD SHUTDOWN
GROUP : MULTIPLE SYSTEMS GROUP
SYSTEM : MULTIPLE SYSTEMS
DESC : ALL THREE CHILLED WATER SYSTEM CHILLERS WERE INOPERABLE. ONE CHILLER WAS REMOVED FROM SERVICE TO SUPPORT MAINTENANCE WHEN THE SERVICE WATER HEADER SUPPORTING THE OTHER TWO CHILLERS WAS REMOVED FROM SERVICE. THE CAUSE WAS AN INADEQUATE PROCEDURE REVISION.

TABLE 8.81

SAN ONOFRE 2

SSF 11/09/1998 LER#: 3611998024 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 2 AND 3.
DESC : THE CONTROL ROOM VENTILATION SYSTEM HAS BEEN INOPERABLE DURING VARIOUS MAINTENANCE AND INSPECTION ACTIVITIES WHEN DUCT ACCESS PANELS AND CABINET COOLER DOORS WERE OPENED. THE CAUSE WAS INADEQUATE ORIGINAL PLANT DRAWINGS.

SSA 02/01/1999 LER#: 3611999001 50.72#: 35336 PWR HIST: REFUELING
DESC : AN EDG STARTED BUT DID NOT LOAD WHEN THE ASSOCIATED 4.16 KV BUS DEENERGIZED. WHILE RACKING OUT A SUPPLY BREAKER, A WORKER DISCHARGED THE CLOSING SPRINGS. THIS CLOSED THE BREAKER AND CAUSED A PHASE TO GROUND FAULT THROUGH THE GROUND DISCONNECT SWITCH.

SSF 02/10/1999 LER#: 3611999003 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : COMPONENT COOLING WATER SYSTEM GROUP
SYSTEM : CLOSED/COMPONENT COOLING WATER SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 2 AND 3.
DESC : CCW COULD HAVE BEEN RENDERED INOPERABLE BY A SEISMIC EVENT DURING PAST OPERATION WITH ONE CCW TRAIN OUT OF SERVICE WHILE THE REMAINING TRAIN WAS NOT ISOLATED FROM THE NONCRITICAL LOOP. THE CAUSE WAS AN INADEQUATE ORIGINAL SYSTEM DESIGN.

TABLE 8.82

SAN ONOFRE 3

SSF 11/09/1998 LER#: 3611998024 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 2 AND 3.
DESC : THE CONTROL ROOM VENTILATION SYSTEM HAS BEEN INOPERABLE DURING VARIOUS MAINTENANCE AND INSPECTION ACTIVITIES WHEN DUCT ACCESS PANELS AND CABINET COOLER DOORS WERE OPENED. THE CAUSE WAS INADEQUATE ORIGINAL PLANT DRAWINGS.

TABLE 8.82 (CONT.)

SAN ONOFRE 3

SSF 02/10/1999 LER#: 3611999003 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : COMPONENT COOLING WATER SYSTEM GROUP
SYSTEM : CLOSED/COMPONENT COOLING WATER SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 2 AND 3.
DESC : CCW COULD HAVE BEEN RENDERED INOPERABLE BY A SEISMIC EVENT DURING PAST OPERATION WITH ONE CCW TRAIN OUT OF SERVICE WHILE THE REMAINING TRAIN WAS NOT ISOLATED FROM THE NONCRITICAL LOOP. THE CAUSE WAS AN INADEQUATE ORIGINAL SYSTEM DESIGN.

TABLE 8.83

SEABROOK

SCRAM 12/22/1998 LER#: 4431998014 50.72#: 35185 PWR HIST: POWER OPERATIONS AT 100%
DESC : A TURBINE TRIP/RX TRIP OCCURRED WHEN THE MAIN GENERATOR OUTPUT BREAKER OPENED BECAUSE OF A POLE DISAGREEMENT IN A 345 KV BREAKER. THE 345 KV BREAKER AUXILIARY SWITCH LINKAGE PIN FELL OUT AND CAUSED THE POLE DISAGREEMENT.

SSF 03/29/1999 LER#: 4431999001 50.72#: 35535
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE 6/97
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
DESC : BOTH EDGS MAY HAVE BEEN INOPERABLE AT TIMES DURING THE PREVIOUS OPERATING CYCLE. WITH ONE EDG INOPERABLE FOR MAINTENANCE AND TESTING, THE OTHER EDG MAY HAVE BEEN INOPERABLE DUE TO FAILED SEQUENCER RELAYS.

TABLE 8.84

SEQUOYAH 1

SCRAM 11/09/1998 LER#: 3271998003 50.72#: 35012 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP RESULTED FROM AN OVER POWER DELTA TEMPERATURE SIGNAL CAUSED BY A LOSS OF VITAL POWER TO THE POWER RANGE NEUTRON DETECTORS. THE CAUSE WAS THE FAILURE OF A VITAL INVERTER, ATTRIBUTED TO A MANUFACTURING DEFECT.

TABLE 8.85

SEQUOYAH 2

SCRAM 10/15/1998 LER#: 3281998002 50.72#: 34917 PWR HIST: POWER OPERATIONS AT 100%
DESC : A TURBINE TRIP/RX TRIP OCCURRED WHEN A SUDDEN PRESSURE RELAY ACTUATED ON ONE PHASE OF THE MAIN TRANSFORMER. THE RELAY FAILED DUE TO VIBRATION INDUCED FATIGUE.

SSA 09/16/1999 LER#: 3271999002 50.72#: 36174 PWR HIST: POWER OPERATIONS AT 100%
DESC : AN EDG STARTED AND ENERGIZED ITS BUS AFTER A GROUND FAULT TRIPPED THE BUS'S NORMAL FEEDER BREAKER. DURING INSULATION WORK, A CRAFTSMAN INADVERTENTLY CUT INTO A 6.9KV CABLE, CAUSING THE GROUND FAULT. THE ROOT CAUSE WAS AN INADEQUATE PRE-JOB BRIEFING.

TABLE 8.86

SOUTH TEXAS 1

SSF 02/13/1999 LER#: 4981999001 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE 05/04/1987
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : LOW PRESSURE SAFETY INJECTION SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE POSTULATED FAILURE OF NON SAFETY-RELATED VALVE POSITIONERS COULD HAVE PREVENTED IMMEDIATE INITIATION OF LPSI. THE CAUSE WAS INADEQUATE IMPLEMENTATION OF DESIGN REQUIREMENTS.

TABLE 8.86 (CONT.)

SOUTH TEXAS 1

SCRAM 05/16/1999 LER#: 4981999004 50.72#: 35722 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP OCCURRED FOLLOWING AN UNDERVOLTAGE TRIP OF A RCP. THE UNDERVOLTAGE CONDITION RESULTED FROM A DEGRADED FUSE IN A POTENTIAL TRANSFORMER.

SCRAM 06/27/1999 LER#: 4981999006 50.72#: 35872 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP OCCURRED ON OVER TEMPERATURE DELTA TEMPERATURE FOLLOWING A SPURIOUS ACTUATION OF THE TURBINE OVERSPEED PROTECTION CONTROL CIRCUIT. THE CAUSE WAS A DEGRADED POWER SUPPLY CIRCUIT CARD CONNECTION.

SCRAM 09/12/1999 LER#: 4981999008 50.72#: 36148 PWR HIST: POWER OPERATIONS AT 100%
DESC : A TURBINE TRIP/RX TRIP OCCURRED DURING TURBINE TRIP SYSTEM TESTING. THE CAUSE WAS A FAILURE IN THE TURBINE TRIP TEST CIRCUITRY RESULTING FROM LINT AND DUST CONTAMINATION OF THE TURBINE TRIP TEST SELECTOR SWITCH.

TABLE 8.87

SOUTH TEXAS 2

SSF 10/09/1998 LER#: 4991999004 50.72#:
PWR HIST: EVENT OCCURRED DURING REFUELING
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : REACTOR CONTAINMENT BUILDING
DESC : POWER WAS NOT AVAILABLE TO ENABLE CLOSURE OF THE CONTAINMENT PERSONNEL AIR LOCK DURING CORE OFFLOAD. THE CAUSE WAS AN INADEQUATE TEMPORARY MODIFICATION TO PROVIDE POWER DURING A SWITCHGEAR OUTAGE.

SCRAM 01/21/1999 LER#: 4991999002 50.72#: 35289 PWR HIST: POWER OPERATIONS AT 100%
DESC : A TURBINE TRIP/RX TRIP OCCURRED WHEN THE POWER SOURCE TO THE TURBINE TRIP INTERLOCKS WAS INADVERTENTLY DEENERGIZED DURING GROUND ISOLATION ACTIVITIES. PERSONNEL ERROR RESULTED IN OPENING BREAKERS IN THE WRONG DISTRIBUTION PANEL.

SSF 02/13/1999 LER#: 4981999001 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE 05/04/1987
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : LOW PRESSURE SAFETY INJECTION SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE POSTULATED FAILURE OF NON SAFETY-RELATED VALVE POSITIONERS COULD HAVE PREVENTED IMMEDIATE INITIATION OF LPSI. THE CAUSE WAS INADEQUATE IMPLEMENTATION OF DESIGN REQUIREMENTS.

SSA 03/12/1999 LER#: 4991999003 50.72#: 35469 PWR HIST: POWER OPERATIONS AT 100%
DESC : TWO EDGS STARTED IN RESPONSE TO A PARTIAL LOSS OF OFFSITE POWER DUE TO A FAULT IN A SWITCHYARD CIRCUIT BREAKER. ONE EDG OUTPUT BREAKER FAILED TO CLOSE DUE TO A FAILED CELL SWITCH IN THE ESSENTIAL CHILLED WATER SYSTEM.

SSA 08/24/1999 LER#: 4991999005 50.72#: 36066 PWR HIST: POWER OPERATIONS AT 100%
DESC : AN EDG STARTED AND LOADED FOLLOWING A PARTIAL LOSS OF 13.8 KV POWER. A STANDBY TRANSFORMER LOCKED OUT DUE TO AN INTERNAL FAULT IN A LIGHTNING ARRESTER, MOST LIKELY FROM MOISTURE INTRUSION.

TABLE 8.88

ST. LUCIE 1

SSF 05/05/1999 LER#: 3351999002 50.72#: 35681
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : ENGINEERED SAFETY FEATURES INSTRUMENTATION
SYSTEM : ENGINEERED SAFETY FEATURES ACTUATION SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : BOTH SAFETY INJECTION ACTUATION CHANNELS WERE BLOCKED FOR BRIEF PERIODS DURING MONTHLY SURVEILLANCE TESTING. THE CAUSE WAS AN INADEQUATE SURVEILLANCE PROCEDURE.

TABLE 8.89

ST. LUCIE 2

SSF 05/05/1999 LER#: 3351999002 50.72#: 35681
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : ENGINEERED SAFETY FEATURES INSTRUMENTATION
SYSTEM : ENGINEERED SAFETY FEATURES ACTUATION SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : BOTH SAFETY INJECTION ACTUATION CHANNELS WERE BLOCKED FOR BRIEF PERIODS DURING MONTHLY SURVEILLANCE TESTING. THE CAUSE WAS AN INADEQUATE SURVEILLANCE PROCEDURE.

TABLE 8.90

SUMMER

SSF 03/16/1999 LER#: 3951999002 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : LOW PRESSURE SAFETY INJECTION SYSTEM
DESC : LPSI MAY NOT HAVE PROVIDED THE MINIMUM REQUIRED ECCS FLOW RATES IF A LOCA OCCURRED DURING SURVEILLANCE TESTING. THE CAUSE WAS A FAILURE TO CONSIDER DESIGN REQUIREMENTS AND LIMITATIONS WHEN THE SURVEILLANCE AND OPERATING PROCEDURES WERE DEVELOPED.

SCRAM 06/04/1999 LER#: 3951999009 50.72#: 35796 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP OCCURRED ON A SPURIOUS HIGH FLUX SIGNAL DURING POWER RANGE NUCLEAR INSTRUMENTATION (PRNI) CALIBRATION. THE CAUSE WAS THE FAILURE OF A PRNI UPPER DETECTOR CURRENT METER AND ASSOCIATED CIRCUITRY.

SSF 07/30/1999 LER#: 3951999010 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : ULTIMATE HEAT SINK SYSTEM GROUP
SYSTEM : ULTIMATE HEAT SINK SYSTEM
DESC : THE SERVICE WATER POND COULD HAVE BEEN DRAINED BELOW THE MINIMUM LEVEL ASSUMED IN THE ULTIMATE HEAT SINK ANALYSIS. BLANK FLANGES WERE DISCOVERED ON TWO ANTI-SIPHON PIPE STUBS. IT IS NOT KNOWN WHY OR WHEN THESE FLANGES WERE INSTALLED.

TABLE 8.91

SURRY 1

SCRAM 11/22/1998 LER#: 2801998013 50.72#: 35071 PWR HIST: POWER OPERATIONS AT 28%
DESC : A TURBINE TRIP/RX TRIP RESULTED FROM HIGH SG LEVEL. RESPONDING TO AN INVALID HIGH STEAM FLOW SIGNAL, A MAIN FEEDWATER REGULATING VALVE OPENED RAPIDLY, RESULTING IN THE HIGH SG LEVEL. THE CAUSE WAS A SHORT IN THE MAIN STEAM LINE FLOW TRANSMITTER.

SSA 11/22/1998 LER#: 2801998013 50.72#: 35071 PWR HIST: HOT STANDBY FOLLOWING A RX TRIP
DESC : HPSI ACTUATED AND INJECTED APPROXIMATELY 2000 GALLONS DUE TO LOW RCS AVERAGE TEMPERATURE COINCIDENT WITH AN INVALID HIGH STEAM FLOW SIGNAL.

SSF 03/31/1999 LER#: 2801999003 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE SAFETY INJECTION SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : A MAIN CONTROL ROOM FIRE COULD RESULT IN THE LOSS OF BOTH UNITS' CHARGING/HHSI PUMPS DUE TO THE DEPLETION OF THE VOLUME CONTROL TANK. THE MAIN CONTROL ROOM FIRE PROCEDURE WAS INADEQUATE.

SSF 07/14/1999 LER#: 2801999004 50.72#:
PWR HIST: CONDITION EXISTED IN VARIOUS MODES OF OPERATION BETWEEN DECEMBER 1998 AND JUNE 1999
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE CONTROL ROOM VENTILATION SYSTEM COULD NOT MAINTAIN THE MINIMUM REQUIRED DIFFERENTIAL PRESSURE BETWEEN THE CONTROL ROOM AND THE CABLE SPREADING ROOMS WITH THE CABLE SPREADING ROOM FANS RUNNING.

TABLE 8.92

SURRY 2

SSF 03/31/1999 LER#: 2801999003 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE SAFETY INJECTION SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : A MAIN CONTROL ROOM FIRE COULD RESULT IN THE LOSS OF BOTH UNITS' CHARGING/HHSI PUMPS DUE TO THE DEPLETION OF THE VOLUME CONTROL TANK. THE MAIN CONTROL ROOM FIRE PROCEDURE WAS INADEQUATE.

SCRAM 07/05/1999 LER#: 2811999003 50.72#: 35895 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP OCCURRED ON LOW COOLANT FLOW IN LOOP "A". THE "A" COLD LEG STOP VALVE'S DISC SEPARATED FROM THE STEM AND DROPPED INTO THE FLOW STREAM. A RETAINING PIN HAD FAILED DUE TO EXCESSIVE TORQUE APPLIED WHEN CLOSING THE VALVE USING THE MANUAL OPERATOR.

SSF 07/14/1999 LER#: 2801999004 50.72#:
PWR HIST: CONDITION EXISTED IN VARIOUS MODES OF OPERATION BETWEEN DECEMBER 1998 AND JUNE 1999
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE CONTROL ROOM VENTILATION SYSTEM COULD NOT MAINTAIN THE REQUIRED DIFFERENTIAL PRESSURE BETWEEN THE CONTROL ROOM AND THE CABLE SPREADING ROOMS WITH THE CABLE SPREADING ROOM FANS RUNNING.

TABLE 8.93

SUSQUEHANNA 1

SCRAM 10/03/1998 LER#: 3871998016 50.72#: 34869 PWR HIST: POWER OPERATIONS AT 100%
DESC : A TURBINE TRIP/RX TRIP OCCURRED WHEN THE GENERATOR BACKUP LOCKOUT RELAYS TRIPPED. THE CAUSE WAS A PITTED CONTACT ON THE GENERATOR POTENTIAL TRANSFORMER CIRCUITRY, RESULTING IN A FALSE SIGNAL TO THE GENERATOR GROUND CIRCUITRY.

SSF 02/28/1999 LER#: 3871999001 50.72#: 35423
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 100% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : LOW PRESSURE COOLANT INJECTION SYSTEM
DESC : BOTH LOOPS OF LPCI WERE INOPERABLE. THE "A" LOOP WAS REMOVED FROM SERVICE FOR MAINTENANCE WHILE THE "B" LOOP WAS UNKNOWINGLY INOPERABLE DUE TO A FAILED SHUT LPCI THROTTLE VALVE. THE VALVE DISC HAD SEPARATED FROM THE STEM DUE TO CORROSION.

SCRAM 07/01/1999 LER#: 3871999003 50.72#: 35884 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX SCRAM OCCURRED ON HIGH NEUTRON FLUX FOLLOWING AN INADVERTENT MSIV CLOSURE. THE MSIV EXPERIENCED A STEM TO DISC SEPARATION, WHICH ALLOWED THE DISC TO ISOLATE STEAM FLOW. THE CAUSE WAS INADEQUATE DESIGN AND INSUFFICIENT TECHNICAL INFORMATION.

SSA 07/01/1999 LER#: 3871999003 50.72#: 35884 PWR HIST: HOT SHUTDOWN FOLLOWING A SCRAM
DESC : HPCI AND RCIC INJECTED ON LOW RX VESSEL LEVEL FOLLOWING A SCRAM.

SSF 08/08/1999 LER#: 3871999004 50.72#: 36007
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : REACTOR CORE ISOLATION COOLING SYSTEMS GROUP
SYSTEM : REACTOR CORE ISOLATION COOLING SYSTEM
DESC : RCIC WAS MANUALLY ISOLATED AFTER RECEIVING INVALID INDICATIONS OF A STEAM LEAK. A TEMPERATURE MODULE HAD FAILED AFTER ONLY THREE DAYS OF SERVICE. THE MODULE HAD BEEN IN STORAGE FOR 15 YEARS, EXCEEDING THE RECOMMENDED 7 YEAR SHELF LIFE.

TABLE 8.94

SUSQUEHANNA 2

SSF 03/25/1999 LER#: 3881999002 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : PRIMARY CONTAINMENT
DESC : OFFSITE AND CONTROL ROOM DOSE LIMITS COULD HAVE BEEN EXCEEDED DURING AN ACCIDENT. LEAKAGE THROUGH A PRIMARY CONTAINMENT PENETRATION EXCEEDED THE SECONDARY CONTAINMENT BYPASS LEAKAGE AND THE AS-FOUND 10CFR50 APPENDIX J ACCEPTANCE CRITERIA.

TABLE 8.94 (CONT.)

SUSQUEHANNA 2

SCRAM 06/08/1999 LER#: 3881999003 50.72#: 35806 PWR HIST: POWER OPERATIONS AT 100%
DESC : A TURBINE TRIP/RX SCRAM RESULTED FROM A MAIN TRANSFORMER LOCKOUT. THE LOCKOUT WAS CAUSED BY THE FAILURE OF A NEUTRAL BUSHING IN ONE PHASE OF THE MAIN TRANSFORMER.

TABLE 8.95

THREE MILE ISL 1

SSF 03/10/1999 LER#: 2891999003 50.72#:
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 100% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
DESC : THE CONTROL ROOM VENTILATION SYSTEM BECAME INOPERABLE WHEN A MANUAL SUPPLY DAMPER FAILED CLOSED, RENDERING THE SYSTEM INCAPABLE OF MEETING THE UFSAR POSITIVE PRESSURE REQUIREMENT. THE CAUSE WAS A LACK OF PREVENTIVE MAINTENANCE.

SSF 05/14/1999 LER#: 2891999005 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE 1983
GROUP : MULTIPLE SYSTEMS GROUP
SYSTEM : MULTIPLE SYSTEMS
DESC : MULTIPLE SAFETY SYSTEMS COULD BE RENDERED INOPERABLE BY FLOODING. DRAINS WERE INSTALLED WITHOUT ADEQUATELY CONSIDERING FLOOD PROTECTION REQUIREMENTS.

SSA 06/26/1999 LER#: 2891999009 50.72#: 35869 PWR HIST: POWER OPERATIONS AT 100%
DESC : AN EDG STARTED AND ENERGIZED CLASS 1E LOADS AFTER AN AUXILIARY TRANSFORMER TRIPPED. A FAULT RELAY WHICH SENSES TRANSFORMER CASING PRESSURE CHANGES EXPERIENCED AN AGE RELATED FAILURE AND TRIPPED THE TRANSFORMER.

TABLE 8.96

TURKEY POINT 3

NONE

TABLE 8.97

TURKEY POINT 4

NONE

TABLE 8.98

VERMONT YANKEE

SSF 12/11/1998 LER#: 2711998025 50.72#:
PWR HIST: CONDITION POTENTIALLY EXISTED SINCE APRIL 1998 MODIFICATION
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : PRIMARY CONTAINMENT
DESC : THE SCRAM DISCHARGE VOLUME DRAIN VALVE ACTUATORS WERE UNDERSIZED AND WOULD NOT SATISFY REQUIRED CLOSING TIMES. THIS CONDITION COULD COMPROMISE PRIMARY CONTAINMENT ISOLATION REQUIREMENTS. THE VENDOR ACTUATOR SIZING CALCULATION WAS INADEQUATE.

TABLE 8.99

VOGTLE 1

SSF 09/22/1999 LER#: 4241999003 50.72#: 36318
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE CONTROL ROOM VENTILATION SYSTEM WAS INOPERABLE FOR APPROXIMATELY NINE MINUTES WHEN THE INNER AND OUTER CONTROL ROOM DOORS WERE OPEN SIMULTANEOUSLY TO FACILITATE PAINTING OF THE DOOR EDGES. THE CAUSE WAS AN INADEQUATE PRE-JOB BRIEFING.

TABLE 8.100

VOGTLE 2

SSF 09/22/1999 LER#: 4241999003 50.72#: 36318
PWR HIST: EVENT OCCURRED DURING OPERATION AT 98% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
OTH UNIT: THIS EVENT WAS ASSIGNED TO UNITS 1 AND 2.
DESC : THE CONTROL ROOM VENTILATION SYSTEM WAS INOPERABLE FOR APPROXIMATELY NINE MINUTES WHEN THE INNER AND OUTER CONTROL ROOM DOORS WERE OPEN SIMULTANEOUSLY TO FACILITATE PAINTING OF THE DOOR EDGES. THE CAUSE WAS AN INADEQUATE PRE-JOB BRIEFING.

SSF 09/26/1999 LER#: 4251999002 50.72#: 36232
PWR HIST: CONDITION DISCOVERED DURING OPERATION AT 94% POWER
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE SAFETY INJECTION SYSTEM
DESC : BOTH SAFETY INJECTION PUMPS WERE DECLARED INOPERABLE AFTER DISCOVERING EXCESSIVE VOLUMES OF AIR IN THE PUMP CASINGS DURING MONTHLY SURVEILLANCE. THE CAUSE WAS INADEQUATE FILLING AND VENTING FOLLOWING RECENT SYSTEM OUTAGES.

TABLE 8.101

WASH. NUCLEAR 2

NONE

TABLE 8.102

WATERFORD 3

SSF 01/05/1999 LER#: 3821999001 50.72#:
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : MULTIPLE SYSTEMS GROUP
SYSTEM : MULTIPLE SYSTEMS
DESC : BOTH TRAINS OF ESSENTIAL CHILLED WATER SYSTEM WERE DECLARED INOPERABLE. ONE TRAIN WAS OUT OF SERVICE FOR MAINTENANCE WHEN THE OTHER TRAIN TRIPPED. THE CAUSE WAS INADEQUATE CONTROL OF THE CHILLER THERMOSTAT SETTING WHICH WAS FOUND OUT OF ADJUSTMENT LOW.

SCRAM 06/14/1999 LER#: 3821999006 50.72#: 35820 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP OCCURRED FOLLOWING THE LOSS OF POWER TO TWO RCPS. THE BUS THAT SUPPLIES POWER TO THE RCPS WAS LOST, PROBABLY DUE TO THE SPURIOUS ACTUATION OF A RELAY FROM ONE OF THE RCPS.

SSF 07/27/1999 LER#: 3821999009 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : MULTIPLE SYSTEMS GROUP
SYSTEM : MULTIPLE SYSTEMS
DESC : ELECTRIC CABLES SERVING REDUNDANT TRAINS OF EQUIPMENT REQUIRED FOR SAFE SHUTDOWN WERE NOT ROUTED IN FULL COMPLIANCE WITH APPENDIX R SAFE SHUTDOWN REQUIREMENTS. THE CAUSE WAS INADEQUATE DESIGN.

TABLE 8.103

WATTS BAR 1

SSF 01/02/1999 LER#: 3901999001 50.72#:
PWR HIST: EVENT OCCURRED DURING OPERATION AT 80% POWER
GROUP : CONTROL ROOM EMERGENCY VENTILATION SYSTEM GROUP
SYSTEM : CONTROL BUILDING/CONTROL COMPLEX ENVIRONMENTAL CONTROL SYSTEM
DESC : BOTH TRAINS OF ELECTRIC BOARD ROOM CHILLERS WERE OUT OF SERVICE. WITH ONE TRAIN INOPERABLE FROM A REFRIGERANT LEAK, THE OTHER TRAIN'S TEMPERATURE LOAD CONTROLLER EXPERIENCED AN AGE RELATED FAILURE.

SSF 03/09/1999 LER#: 3901999003 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : REACTOR TRIP INSTRUMENTATION
SYSTEM : PLANT PROTECTION SYSTEM
DESC : THE APPENDIX R SAFE SHUTDOWN SOURCE RANGE CHANNEL RX TRIP FUNCTION WAS INOPERABLE DUE TO A BREACHED FIRE BARRIER. THE FIRE BARRIER WAS MOST LIKELY BREACHED DURING THE FIRST REFUELING OUTAGE.

SSF 06/04/1999 LER#: 3901999005 50.72#:
PWR HIST: EVENT OCCURRED DURING OPERATION AT 100% POWER
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : EMERGENCY/STANDBY GAS TREATMENT SYSTEM
DESC : BOTH TRAINS OF THE EMERGENCY STANDBY GAS TREATMENT SYSTEM WERE RENDERED INOPERABLE FOR LESS THAN 30 MINUTES. A TAGOUT ERROR RESULTED IN ISOLATING THE DISCHARGE PATH OF BOTH TRAINS.

TABLE 8.104

WOLF CREEK

SSF 10/08/1998 LER#: 4821998004 50.72#:
PWR HIST: CONDITION EXISTED FOR AN INDETERMINATE PERIOD OF TIME
GROUP : EMERGENCY AC/DC POWER SYSTEMS GROUP
SYSTEM : EMERGENCY ONSITE POWER SUPPLY SYSTEM
DESC : THE APPENDIX R SAFE SHUTDOWN EDG COULD BE LOST DURING A CONTROL ROOM FIRE RESULTING IN A STATION BLACKOUT. THE CAUSE WAS AN INADEQUATE PROCEDURE.

SSF 04/12/1999 LER#: 4821999004 50.72#:
PWR HIST: EVENT OCCURRED DURING REFUELING
GROUP : CONTAINMENT AND CONTAINMENT ISOLATION GROUP
SYSTEM : REACTOR CONTAINMENT BUILDING
DESC : CONTAINMENT INTEGRITY WAS BREACHED DURING FUEL MOVEMENT. A VALVE OPENED FOR MAINTENANCE CREATED A DIRECT FLOW PATH BETWEEN THE CONTAINMENT ATMOSPHERE AND THE AUXILIARY BUILDING. THE CAUSE WAS A SERIES OF PERSONNEL ERRORS IN THE WORK CONTROL PROCESS.

SSA 05/12/1999 LER#: 4821999005 50.72#: 35704 PWR HIST: POWER OPERATIONS AT 55%
DESC : AN EDG STARTED AND LOADED AFTER A TRANSFORMER LOCKOUT RESULTED IN A PARTIAL LOSS OF OFFSITE POWER. THE EVENT WAS CAUSED WHEN A RACCOON CAME INTO CONTACT WITH TRANSFORMER LIGHTNING ARRESTERS IN THE SWITCHYARD.

SCRAM 08/05/1999 LER#: 4821999008 50.72#: 35994 PWR HIST: POWER OPERATIONS AT 100%
DESC : A RX TRIP OCCURRED ON LOW SG WATER LEVEL WHEN A FEEDWATER REGULATING VALVE FAILED CLOSED. THE CAUSE WAS A FAILED VALVE CONTROLLER CIRCUIT CARD.

SSF 08/11/1999 LER#: 4821999009 50.72#:
PWR HIST: CONDITION EXISTED IN ALL MODES UP TO 100% POWER SINCE INITIAL OPERATION
GROUP : EMERGENCY CORE COOLING SYSTEMS GROUP
SYSTEM : HIGH PRESSURE SAFETY INJECTION SYSTEM
DESC : HIGH HEAD SAFETY INJECTION COULD BE RENDERED INOPERABLE BY A POSTULATED FIRE DUE TO INADEQUATE APPENDIX R SEPARATION OF VOLUME CONTROL TANK OUTLET ISOLATION VALVES AND LEVEL TRANSMITTERS. THE CAUSE WAS INADEQUATE DESIGN.

9. PLANT DATA TABLES

QUARTERS 96-4 THROUGH 99-3

TABLE 9.1 ARKANSAS 1

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	1	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		10	0	0	2	0	9	0	0	7	6	0	0
EFO/1000 HRS		0.60	0.00	0.00	0.45	0.00	0.53	0.00	0.00	0.97	0.00	0.00	0.00
CRIT. HRS		1654	2160	2183	2208	2209	1896	1261	2208	2060	2046	2183	1729
RAD		63	3	3	2	1	13	107	1	2	2	2	NA
CAUSE CODES:													
Admin.	Operations	1	0	2	0	2	0	0	2	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	0	1	0	2	0	0	1	1	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	0	0	0	0	0	0	0	0	1	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	1	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Refueling	Shutdown	10/01/1996	10/23/1996	23
Start-up	Operation	10/24/1996	11/17/1996	25
Operation	Operation	11/18/1996	01/05/1998	414
Non-Refueling	Shutdown	01/06/1998	01/12/1998	7
Operation	Operation	01/13/1998	03/03/1998	50
Pre-Refueling	Operation	03/04/1998	03/28/1998	25
Refueling	Shutdown	03/29/1998	05/08/1998	41
Start-up	Operation	05/09/1998	06/02/1998	25
Operation	Operation	06/03/1998	12/28/1998	209
Non-Refueling	Shutdown	12/29/1998	01/04/1999	7
Operation	Operation	01/05/1999	08/16/1999	224
Pre-Refueling	Operation	08/17/1999	09/10/1999	25
Refueling	Shutdown	09/11/1999	09/30/1999	20

Time used in calculations

Trend Calculations

Op	12/08/1998-09/10/1999	270 days	(incl. 0 days s/u)
S/D	04/01/1998-09/30/1999	65 days	(incl. 58 days ref)
FOR	12/15/1998-09/11/1999	270 days	

Deviation Calculations

Op	01/31/1998-09/10/1999	540 days	(incl. 25 days s/u)
S/D	10/01/1996-09/30/1999	98 days	(incl. 84 days ref)
FOR	02/04/1998-09/11/1999	540 days	

TABLE 9.2 ARKANSAS 2

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	1	0	0	0	0	0	0	1	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		33	0	0	0	0	5	4	0	0	0	0	0
EFO/1000 HRS		0.67	0.00	0.00	0.00	0.00	0.67	0.47	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		1489	2160	1467	2208	2209	1487	2105	2208	2209	1050	2183	2208
RAD		38	4	104	2	1	26	2	3	2	59	2	NA
CAUSE CODES:													
Admin.	Operations	0	2	0	0	1	0	2	3	1	0	1	0
	Pre-Refueling	0	0	1	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	3	0	0	0	0	0	0	1	0	0
	Non-Refueling	1	0	0	0	0	1	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	2	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	2	0	0	1	0	2	1	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	3	0	0	0	0	0	0	1	0	0
	Non-Refueling	1	0	0	0	0	1	0	0	0	0	0	0
Design	Operations	1	0	0	0	0	0	3	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	1	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	11/16/1996	47
Non-Refueling	Shutdown	11/17/1996	12/15/1996	29
Operation	Operation	12/16/1996	04/14/1997	120
Pre-Refueling	Operation	04/15/1997	05/09/1997	25
Refueling	Shutdown	05/10/1997	06/07/1997	29
Start-up	Operation	06/08/1997	07/02/1997	25
Operation	Operation	07/03/1997	02/21/1998	234
Non-Refueling	Shutdown	02/22/1998	03/20/1998	27
Operation	Operation	03/21/1998	12/15/1998	270
Pre-Refueling	Operation	12/16/1998	01/09/1999	25
Refueling	Shutdown	01/10/1999	02/23/1999	45
Start-up	Operation	02/24/1999	03/20/1999	25
Operation	Operation	03/21/1999	09/30/1999	194

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	11/20/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	01/27/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	01/10/1999-02/23/1999	45 days (incl. 45 days ref)	S/D	11/17/1996-02/23/1999	130 days (incl. 74 days ref)
FOR	11/17/1998-09/30/1999	270 days	FOR	01/26/1998-09/30/1999	540 days

TABLE 9.3 BEAVER VALLEY 1

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	1	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	1	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	2	0	3	0	0	0	0	0	0	2	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	3	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	3	0	4	2	0	0	0	0	0
FOR (%)		0	14	18	37	100	88	100	50	0	15	12	4
EFO/1000 HRS		0.00	1.62	0.00	0.74	0.00	0.00	0.00	0.00	0.00	2.11	0.62	0.94
CRIT. HRS		2209	1854	1802	1358	0	280	0	1129	2209	1896	1603	2134
RAD		3	17	19	25	227	7	8	3	7	1	22	NA
CAUSE CODES:													
Admin.	Operations	1	4	7	2	0	0	0	0	1	4	1	1
	Pre-Refueling	0	0	0	3	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	4	0	1	0	0	0	0
	Refueling	0	0	0	0	8	0	0	0	0	0	0	0
	Non-Refueling	0	3	1	2	0	10	7	1	0	0	1	0
Lic. Oper.	Operations	1	0	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	1	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	1	0
Oth. Per.	Operations	2	2	1	2	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	1	0	0	0	0	0	0
	Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
Maint.	Operations	0	6	4	4	0	0	0	0	1	3	0	1
	Pre-Refueling	0	0	0	4	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	4	0	0	0	0	0	0
	Refueling	0	0	0	0	5	1	0	0	0	0	0	0
	Non-Refueling	0	3	0	1	0	12	7	1	0	0	3	0
Design	Operations	0	3	3	2	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	6	0	0	0	0	0	0	0
	Non-Refueling	0	0	1	4	0	2	2	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	03/19/1997	170
Non-Refueling	Shutdown	03/20/1997	04/12/1997	24
Operation	Operation	04/13/1997	06/28/1997	77
Non-Refueling	Shutdown	06/29/1997	07/30/1997	32
Operation	Operation	07/31/1997	09/03/1997	35
Pre-Refueling	Operation	09/04/1997	09/28/1997	25
Refueling	Shutdown	09/29/1997	01/19/1998	113
Start-up	Operation	01/20/1998	01/31/1998	12
Non-Refueling	Shutdown	02/01/1998	08/10/1998	191
Start-up	Operation	08/11/1998	08/11/1998	1
Non-Refueling	Shutdown	08/12/1998	08/14/1998	3
Start-up	Operation	08/15/1998	08/26/1998	12
Operation	Operation	08/27/1998	02/16/1999	174
Non-Refueling	Shutdown	02/17/1999	02/23/1999	7
Operation	Operation	02/24/1999	04/12/1999	48
Non-Refueling	Shutdown	04/13/1999	04/29/1999	17
Operation	Operation	04/30/1999	05/01/1999	2
Non-Refueling	Shutdown	05/02/1999	05/06/1999	5
Operation	Operation	05/07/1999	09/30/1999	147

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/06/1998-09/30/1999	270 days (incl. 0 days s/u)	Op	03/13/1997-09/30/1999	540 days (incl. 25 days s/u)
S/D	06/14/1998-05/06/1999	90 days (incl. 0 days ref)	S/D	03/16/1998-05/06/1999	180 days (incl. 0 days ref)
FOR	12/19/1998-09/30/1999	270 days	FOR	03/24/1998-09/30/1999	540 days

TABLE 9.4 BEAVER VALLEY 2

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	1	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	1	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	2	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	2	0	0	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	1	0	0	1	0	3	0	0	0	0	0
FOR (%)		79	23	0	14	17	100	100	98	3	0	6	11
EFO/1000 HRS		9.72	1.78	0.00	0.00	0.00	0.00	0.00	27.03	0.47	0.00	0.52	0.51
CRIT. HRS		411	1683	2183	1914	1843	0	0	111	2141	1368	1940	1980
RAD		45	1	1	10	6	8	2	22	2	63	1	NA
CAUSE CODES:													
Admin.	Operations	0	3	4	5	9	0	0	0	3	0	0	2
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	3	0	0	0	0	0	0	0	0	5	0	0
	Non-Refueling	0	4	0	0	1	14	8	0	0	0	0	1
Lic. Oper.	Operations	0	0	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	2	1	1	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	2	0	0	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	1	1	0	0	0	0	0	0
Maint.	Operations	0	4	3	5	7	0	0	0	4	0	0	3
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	1	0	0	0	0	0	0	0	0	0	0
	Refueling	2	0	0	0	0	0	0	0	0	5	0	0
	Non-Refueling	0	4	0	0	1	15	8	0	0	0	0	1
Design	Operations	0	1	1	1	4	0	0	0	0	1	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	1	0	0	0	0	0	0	0	0	0	0
	Refueling	2	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	1	0	0	2	2	5	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Refueling	Shutdown	10/01/1996	12/02/1996	63
Start-up	Operation	12/03/1996	12/03/1996	1
Non-Refueling	Shutdown	12/04/1996	12/14/1996	11
Start-up	Operation	12/15/1996	01/06/1997	23
Non-Refueling	Shutdown	01/07/1997	01/13/1997	7
Start-up	Operation	01/14/1997	01/14/1997	1
Operation	Operation	01/15/1997	03/19/1997	64
Non-Refueling	Shutdown	03/20/1997	03/29/1997	10
Operation	Operation	03/30/1997	07/10/1997	103
Non-Refueling	Shutdown	07/11/1997	07/21/1997	11
Operation	Operation	07/22/1997	12/16/1997	148
Non-Refueling	Shutdown	12/17/1997	09/25/1998	283
Operation	Operation	09/26/1998	02/01/1999	129
Pre-Refueling	Operation	02/02/1999	02/26/1999	25
Refueling	Shutdown	02/27/1999	04/10/1999	43
Start-up	Operation	04/11/1999	05/05/1999	25
Operation	Operation	05/06/1999	07/17/1999	73
Non-Refueling	Shutdown	07/18/1999	07/26/1999	9
Operation	Operation	07/27/1999	09/30/1999	66

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	11/13/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	04/28/1997-09/30/1999	540 days (incl. 25 days s/u)
S/D	08/19/1998-07/26/1999	90 days (incl. 43 days ref)	S/D	05/21/1998-07/26/1999	180 days (incl. 43 days ref)
FOR	11/24/1998-09/30/1999	270 days	FOR	02/27/1998-09/30/1999	540 days

TABLE 9.5 BRAIDWOOD 1

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	0	0	0	0	8	0	4	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.00	0.47	0.00
CRIT. HRS		958	2089	871	2208	2209	2160	2183	1584	1091	2160	2112	2208
RAD		167	18	147	3	2	2	2	132	108	4	3	NA
CAUSE CODES:													
Admin.	Operations	0	0	0	0	2	1	0	1	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	1	0	0	0
	Refueling	0	0	2	0	0	0	0	1	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	0	0	0	2	1	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	1	0	0	0
	Refueling	0	0	4	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	0	0	2	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	1	0	0	0
	Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Non-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	10/12/1996	12
Non-Refueling	Shutdown	10/13/1996	12/02/1996	51
Operation	Operation	12/03/1996	03/04/1997	92
Pre-Refueling	Operation	03/05/1997	03/29/1997	25
Refueling	Shutdown	03/30/1997	05/24/1997	56
Start-up	Operation	05/25/1997	06/18/1997	25
Operation	Operation	06/19/1997	08/11/1998	419
Pre-Refueling	Operation	08/12/1998	09/05/1998	25
Refueling	Shutdown	09/06/1998	11/13/1998	69
Start-up	Operation	11/14/1998	12/08/1998	25
Operation	Operation	12/09/1998	09/30/1999	296

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)	Op	01/30/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	09/06/1998-11/13/1998	69 days (incl. 69 days ref)	S/D	10/13/1996-11/13/1998	176 days (incl. 125 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	01/28/1998-09/30/1999	540 days

TABLE 9.6 BRAIDWOOD 2

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	1	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	1	0	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	0	10	0	0	0	0	5	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.00
CRIT. HRS		2209	2160	2183	2112	1137	1961	2183	2208	2209	2160	1517	2208
RAD		167	3	4	17	116	5	2	3	3	6	124	NA
CAUSE CODES:													
Admin.	Operations	0	0	2	0	0	2	1	1	1	0	0	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	0	0
	Refueling	0	0	0	0	3	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	1	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
Oth. Per.	Operations	1	0	0	0	0	1	1	0	0	0	0	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	2	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	0	3	0	0	2	1	0	2	0	0	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	1	0
	Refueling	0	0	0	0	3	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	0	0	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	0	0
	Refueling	0	0	0	0	2	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	1	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	09/01/1997	336
Pre-Refueling	Operation	09/02/1997	09/26/1997	25
Refueling	Shutdown	09/27/1997	11/13/1997	48
Start-up	Operation	11/14/1997	12/08/1997	25
Operation	Operation	12/09/1997	01/26/1998	49
Non-Refueling	Shutdown	01/27/1998	02/03/1998	8
Operation	Operation	02/04/1998	03/29/1999	419
Pre-Refueling	Operation	03/30/1999	04/23/1999	25
Refueling	Shutdown	04/24/1999	05/18/1999	25
Start-up	Operation	05/19/1999	06/12/1999	25
Operation	Operation	06/13/1999	09/30/1999	110

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/10/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	03/15/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/24/1999-05/18/1999	25 days (incl. 25 days ref)	S/D	09/27/1997-05/18/1999	81 days (incl. 73 days ref)
FOR	12/09/1998-09/30/1999	270 days	FOR	03/14/1998-09/30/1999	540 days

TABLE 9.7 BROWNS FERRY 1

Type	Phase	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	1	1	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	0	0	0	0	0	0	0	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		0	0	0	0	0	0	0	0	0	0	0	0
RAD		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAUSE CODES:													
Admin.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	1	0	0	2	1	3	0	0	1	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
Maint.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	1	0	0	1	1	3	0	1	1	0	0
Design	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	1	0	1	0	0	1	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	1	0

Phase	Phase type	Start	End	Length
Regulatory	Regulatory	10/01/1996	09/30/1999	1095

```
                                  Time used in calculations
                Trend Calculations                               Deviation Calculations
Op    / /   - / /   0 days (incl. 0 days s/u)    Op    / /   - / /   0 days (incl. 0 days s/u)
S/D   / /   - / /   0 days (incl. 0 days ref)    S/D   / /   - / /   0 days (incl. 0 days ref)
FOR   / /   - / /   0 days                       FOR   / /   - / /   0 days
```

TABLE 9.8 BROWNS FERRY 2

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	1	0	1	0	0	0	0	0	1	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	1	0
SSA	Operations	0	0	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		5	0	3	0	2	0	0	0	1	0	4	3
EFO/1000 HRS		0.48	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.46	0.00	0.66	0.93
CRIT. HRS		2099	2160	2125	2121	1751	2160	2183	2208	2184	2160	1510	2157
RAD		22	15	17	83	248	17	28	12	14	32	302	NA
CAUSE CODES:													
Admin.	Operations	1	1	1	0	0	1	3	1	1	1	0	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	2	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	1	0	0	1	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	1	2	1	0	1	3	1	3	2	2	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	2	0	0	0	0	0	1	0
	Refueling	0	0	0	0	1	0	0	0	0	0	1	0
	Non-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	1	0	1	0	0	1	0	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	1	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	10/29/1996	29
Non-Refueling	Shutdown	10/30/1996	11/02/1996	4
Operation	Operation	11/03/1996	09/02/1997	304
Pre-Refueling	Operation	09/03/1997	09/27/1997	25
Refueling	Shutdown	09/28/1997	10/17/1997	20
Start-up	Operation	10/18/1997	11/11/1997	25
Operation	Operation	11/12/1997	03/17/1999	491
Pre-Refueling	Operation	03/18/1999	04/11/1999	25
Refueling	Shutdown	04/12/1999	05/05/1999	24
Start-up	Operation	05/06/1999	05/30/1999	25
Operation	Operation	05/31/1999	09/30/1999	123

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/11/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	03/16/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/12/1999-05/05/1999	24 days (incl. 24 days ref)	S/D	10/30/1996-05/05/1999	48 days (incl. 44 days ref)
FOR	12/08/1998-09/30/1999	270 days	FOR	03/13/1998-09/30/1999	540 days

TABLE 9.9 BROWNS FERRY 3

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	2	0	0	1	1	0	0	0	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	0	0	13	0	0	0	0	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		2209	1720	2183	2208	2209	2160	1915	1953	1879	2160	2183	2208
RAD		16	75	10	12	18	23	28	111	98	13	11	NA
CAUSE CODES:													
Admin.	Operations	2	0	1	1	2	1	2	0	1	1	1	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	1	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
Lic. Oper.	Operations	0	0	1	1	0	0	0	0	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	1	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	1	0	0	1	1	0	0	0	2	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	3	0	3	2	1	1	2	0	3	2	1	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	2	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
Design	Operations	0	0	0	1	0	0	1	0	0	1	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	1	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	01/28/1997	120
Pre-Refueling	Operation	01/29/1997	02/22/1997	25
Refueling	Shutdown	02/23/1997	03/11/1997	17
Start-up	Operation	03/12/1997	04/05/1997	25
Operation	Operation	04/06/1997	04/07/1998	367
Non-Refueling	Shutdown	04/08/1998	04/18/1998	11
Operation	Operation	04/19/1998	08/26/1998	130
Pre-Refueling	Operation	08/27/1998	09/20/1998	25
Refueling	Shutdown	09/21/1998	10/13/1998	23
Start-up	Operation	10/14/1998	11/07/1998	25
Operation	Operation	11/08/1998	09/30/1999	327

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)	Op	03/06/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/08/1998-10/13/1998	34 days (incl. 23 days ref)	S/D	02/23/1997-10/13/1998	51 days (incl. 40 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	03/14/1998-09/30/1999	540 days

TABLE 9.10 BRUNSWICK 1

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	1	0	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	9	0	1	6	0	2	0	9
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.49	0.00	0.68	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		1446	2160	2183	2208	2034	2160	1463	2095	2209	2130	2183	2055
RAD		128	20	19	118	33	27	233	16	12	12	155	NA
CAUSE CODES:													
Admin.	Operations	0	3	2	6	1	0	1	0	0	2	2	1
	Pre-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	2	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	3	1	5	1	0	1	1	0	1	3	2
	Pre-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	2	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	1	1	0	0	0	0	1	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Pre-Refueling	Operation	10/01/1996	10/05/1996	5
Refueling	Shutdown	10/06/1996	11/04/1996	30
Start-up	Operation	11/05/1996	11/29/1996	25
Operation	Operation	11/30/1996	11/06/1997	342
Non-Refueling	Shutdown	11/07/1997	11/12/1997	6
Operation	Operation	11/13/1997	03/31/1998	139
Pre-Refueling	Operation	04/01/1998	04/25/1998	25
Refueling	Shutdown	04/26/1998	05/22/1998	27
Start-up	Operation	05/23/1998	06/16/1998	25
Operation	Operation	06/17/1998	08/25/1998	70
Non-Refueling	Shutdown	08/26/1998	08/29/1998	4
Operation	Operation	08/30/1998	09/15/1999	382
Non-Refueling	Shutdown	09/16/1999	09/18/1999	3
Operation	Operation	09/19/1999	09/30/1999	12

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/01/1999-09/30/1999	270 days (incl. 0 days s/u)	Op	03/06/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/26/1998-09/18/1999	34 days (incl. 27 days ref)	S/D	10/06/1996-09/18/1999	70 days (incl. 57 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	03/06/1998-09/30/1999	540 days

TABLE 9.11 BRUNSWICK 2

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	1	1	0	0
	Pre-Refueling	0	0	0	2	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	0	0	5	5	0	3	3	9
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.47	0.00	0.00
CRIT. HRS		2209	2160	2183	1780	1782	2160	2101	2116	2209	2115	1337	2055
RAD		128	20	19	118	33	27	27	21	11	11	155	NA
CAUSE CODES:													
Admin.	Operations	1	3	1	2	0	0	2	1	1	1	0	3
	Pre-Refueling	0	0	0	2	0	0	0	0	0	0	1	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	0	0	0	0	0	0	2	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	1	0	0	2
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	1	1	0	1
	Pre-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	3	1	2	0	0	2	1	1	2	1	3
	Pre-Refueling	0	0	0	2	0	0	0	0	0	0	1	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	1	0	0	0	0	0	4	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	1	2	0	0	0	1	1	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	08/19/1997	323
Pre-Refueling	Operation	08/20/1997	09/13/1997	25
Refueling	Shutdown	09/14/1997	10/12/1997	29
Start-up	Operation	10/13/1997	10/16/1997	4
Non-Refueling	Shutdown	10/17/1997	10/20/1997	4
Start-up	Operation	10/21/1997	11/10/1997	21
Operation	Operation	11/11/1997	08/25/1998	288
Non-Refueling	Shutdown	08/26/1998	08/28/1998	3
Operation	Operation	08/29/1998	03/22/1999	206
Pre-Refueling	Operation	03/23/1999	04/16/1999	25
Refueling	Shutdown	04/17/1999	05/20/1999	34
Start-up	Operation	05/21/1999	06/14/1999	25
Operation	Operation	06/15/1999	09/15/1999	93
Non-Refueling	Shutdown	09/16/1999	09/18/1999	3
Operation	Operation	09/19/1999	09/30/1999	12

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	11/28/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	02/28/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	08/26/1998-09/18/1999	40 days (incl. 34 days ref)	S/D	09/14/1997-09/18/1999	73 days (incl. 63 days ref)
FOR	11/28/1998-09/30/1999	270 days	FOR	03/03/1998-09/30/1999	540 days

TABLE 9.12 BYRON 1

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
SSA	Operations	0	0	0	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	1	1	1	0	0	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	4	0	14	0	0	0	0	0	7	0
EFO/1000 HRS		0.00	0.00	0.47	0.00	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		2209	1703	2112	2208	772	574	2183	2208	2209	2043	1515	2208
RAD		228	9	6	6	103	107	4	4	2	25	112	NA
CAUSE CODES:													
Admin.	Operations	2	2	4	2	0	0	3	1	0	0	0	0
	Pre-Refueling	0	0	0	0	2	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	2	0	0	0	0	1	0
	Refueling	0	0	0	0	2	5	0	0	0	0	1	0
	Non-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	1	2	0	0	0	2	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	2	2	5	1	1	0	2	1	0	0	0	0
	Pre-Refueling	0	0	0	0	2	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	2	0	0	0	0	2	0
	Refueling	0	0	0	0	1	5	0	0	0	0	1	0
	Non-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
Design	Operations	1	0	1	0	1	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	2	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	2	0
	Refueling	0	0	0	0	2	1	0	0	0	0	0	0
	Non-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	02/14/1997	137
Non-Refueling	Shutdown	02/15/1997	03/04/1997	18
Operation	Operation	03/05/1997	10/09/1997	219
Pre-Refueling	Operation	10/10/1997	10/10/1997	1
Non-Refueling	Shutdown	10/11/1997	10/14/1997	4
Pre-Refueling	Operation	10/15/1997	11/07/1997	24
Refueling	Shutdown	11/08/1997	03/07/1998	120
Start-up	Operation	03/08/1998	04/01/1998	25
Operation	Operation	04/02/1998	03/02/1999	335
Pre-Refueling	Operation	03/03/1999	03/27/1999	25
Refueling	Shutdown	03/28/1999	04/23/1999	27
Start-up	Operation	04/24/1999	05/13/1999	20
Non-Refueling	Shutdown	05/14/1999	05/16/1999	3
Start-up	Operation	05/17/1999	05/21/1999	5
Operation	Operation	05/22/1999	09/30/1999	132

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/05/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	03/10/1998-09/30/1999	540 days (incl. 48 days s/u)
S/D	03/28/1999-05/16/1999	30 days (incl. 27 days ref)	S/D	02/15/1997-05/16/1999	172 days (incl. 147 days ref)
FOR	12/05/1998-09/30/1999	270 days	FOR	03/10/1998-09/30/1999	540 days

TABLE 9.13 BYRON 2

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	1	0	0	1	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	2	0	0	0	0	0	0	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		2136	2049	2183	2208	1935	2160	1295	2208	2209	2160	2183	2208
RAD		228	9	6	6	103	3	150	4	2	3	3	NA
CAUSE CODES:													
Admin.	Operations	1	1	3	3	2	1	2	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	2	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	1	0	0	0	0	1	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	0	0	1	0	0	2	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	1	3	2	2	1	1	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	2	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	2	1	0	3	1	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Refueling	Shutdown	10/01/1996	10/03/1996	3
Start-up	Operation	10/04/1996	10/28/1996	25
Operation	Operation	10/29/1996	03/15/1997	138
Non-Refueling	Shutdown	03/16/1997	03/18/1997	3
Operation	Operation	03/19/1997	10/10/1997	206
Non-Refueling	Shutdown	10/11/1997	10/20/1997	10
Operation	Operation	10/21/1997	03/17/1998	148
Pre-Refueling	Operation	03/18/1998	04/11/1998	25
Refueling	Shutdown	04/12/1998	05/17/1998	36
Start-up	Operation	05/18/1998	06/11/1998	25
Operation	Operation	06/12/1998	09/28/1999	474
Pre-Refueling	Operation	09/29/1999	09/30/1999	2

Time used in calculations

Trend Calculations				Deviation Calculations			
Op	01/04/1999-09/30/1999	270 days	(incl. 0 days s/u)	Op	03/04/1998-09/30/1999	540 days	(incl. 25 days s/u)
S/D	04/12/1998-05/17/1998	36 days	(incl. 36 days ref)	S/D	10/01/1996-05/17/1998	52 days	(incl. 39 days ref)
FOR	01/04/1999-09/30/1999	270 days		FOR	03/02/1998-09/30/1999	540 days	

TABLE 9.14 CALLAWAY

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	2	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		8	0	0	0	0	0	0	0	4	0	0	8
EFO/1000 HRS		0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93	0.00	0.00	0.49
CRIT. HRS		1403	2160	2183	2208	2209	2160	1472	2208	2158	2160	2183	2051
RAD		237	5	3	3	1	5	189	4	4	4	4	NA
CAUSE CODES:													
Admin.	Operations	1	2	1	1	3	2	0	4	1	1	0	2
	Pre-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	1	0	0	0	0	0
	Refueling	0	0	0	0	0	0	2	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	2
Lic. Oper.	Operations	1	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	1	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	1
Maint.	Operations	2	2	2	1	2	1	0	2	1	1	0	2
	Pre-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	1	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	1
Design	Operations	0	1	1	0	2	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	1
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Pre-Refueling	Operation	10/01/1996	10/12/1996	12
Refueling	Shutdown	10/13/1996	11/09/1996	28
Start-up	Operation	11/10/1996	12/04/1996	25
Operation	Operation	12/05/1996	03/09/1998	460
Pre-Refueling	Operation	03/10/1998	04/03/1998	25
Refueling	Shutdown	04/04/1998	05/01/1998	28
Start-up	Operation	05/02/1998	05/26/1998	25
Operation	Operation	05/27/1998	08/11/1999	442
Non-Refueling	Shutdown	08/12/1999	08/16/1999	5
Operation	Operation	08/17/1999	09/07/1999	22
Pre-Refueling	Operation	09/08/1999	09/30/1999	23

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/30/1998-09/30/1999	270 days (incl. 0 days s/u)	Op	03/07/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/04/1998-08/16/1999	33 days (incl. 28 days ref)	S/D	10/13/1996-08/16/1999	61 days (incl. 56 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	03/08/1998-09/30/1999	540 days

TABLE 9.15 CALVERT CLIFFS 1

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	1	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	1	1	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	1	4	0	2	0	0	0	0	0	0	13
EFO/1000 HRS		0.00	0.46	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		2209	2160	2107	2014	2179	2160	659	2208	2209	2160	2009	1954
RAD		5	16	68	7	5	4	86	6	4	38	53	NA
CAUSE CODES:													
Admin.	Operations	0	2	2	0	1	2	0	0	2	1	1	1
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	2	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	2	1	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	1	1	0	2	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	2	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	2	0	0	4	2	0	0	1	1	0	1
	Pre-Refueling	0	0	0	0	0	1	1	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	2	0	0	1	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	09/13/1997	348
Non-Refueling	Shutdown	09/14/1997	09/20/1997	7
Operation	Operation	09/21/1997	03/10/1998	171
Pre-Refueling	Operation	03/11/1998	04/04/1998	25
Refueling	Shutdown	04/05/1998	06/05/1998	62
Start-up	Operation	06/06/1998	06/30/1998	25
Operation	Operation	07/01/1998	05/10/1999	314
Non-Refueling	Shutdown	05/11/1999	05/16/1999	6
Operation	Operation	05/17/1999	07/24/1999	69
Non-Refueling	Shutdown	07/25/1999	08/01/1999	8
Operation	Operation	08/02/1999	09/30/1999	60

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/21/1998-09/30/1999	270 days (incl. 0 days s/u)	Op	01/23/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/05/1998-08/01/1999	76 days (incl. 62 days ref)	S/D	09/14/1997-08/01/1999	83 days (incl. 62 days ref)
FOR	12/27/1998-09/30/1999	270 days	FOR	01/25/1998-09/30/1999	540 days

TABLE 9.16 CALVERT CLIFFS 2

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	1	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		3	0	0	0	0	0	0	17	0	0	0	0
EFO/1000 HRS		0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00
CRIT. HRS		2151	1754	977	2208	2209	2160	2183	1851	2209	1704	1331	2208
RAD		5	64	68	7	5	4	86	6	4	38	53	NA
CAUSE CODES:													
Admin.	Operations	0	1	0	0	0	2	2	0	1	1	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	2	0	0	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	1	0	0	0	1	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	3	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	2	1	0	0	0	3	1	1	0	1	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	2	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
Design	Operations	0	0	0	0	0	1	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	02/18/1997	141
Pre-Refueling	Operation	02/19/1997	03/15/1997	25
Refueling	Shutdown	03/16/1997	05/20/1997	66
Start-up	Operation	05/21/1997	06/14/1997	25
Operation	Operation	06/15/1997	07/23/1998	404
Non-Refueling	Shutdown	07/24/1998	08/06/1998	14
Operation	Operation	08/07/1998	02/15/1999	193
Pre-Refueling	Operation	02/16/1999	03/12/1999	25
Refueling	Shutdown	03/13/1999	05/05/1999	54
Start-up	Operation	05/06/1999	05/30/1999	25
Operation	Operation	05/31/1999	09/30/1999	123

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	11/11/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	01/31/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	07/24/1998-05/05/1999	68 days (incl. 54 days ref)	S/D	03/16/1997-05/05/1999	134 days (incl. 120 days ref)
FOR	11/08/1998-09/30/1999	270 days	FOR	02/11/1998-09/30/1999	540 days

TABLE 9.17 CATAWBA 1

Type	Phase	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	1	0	0	1	1	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		4	0	0	0	0	3	3	27	0	0	0	0
EFO/1000 HRS		0.47	0.00	0.00	0.00	0.00	0.49	0.47	0.61	0.00	0.00	0.00	0.00
CRIT. HRS		2127	2160	2183	2208	1416	2044	2117	1641	2209	2160	1429	2208
RAD		5	15	47	5	69	5	2	57	17	3	51	NA
CAUSE CODES:													
Admin.	Operations	3	0	3	1	0	3	5	5	3	5	0	3
	Pre-Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	2	0
	Refueling	0	0	0	0	1	0	0	0	0	0	4	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	1	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	1	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	1	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	4	0	3	1	0	3	5	6	3	5	0	3
	Pre-Refueling	0	0	0	0	1	0	0	0	0	0	1	0
	Startup	0	0	0	0	0	0	0	0	0	0	2	0
	Refueling	0	0	0	0	2	0	0	0	0	0	4	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	2	1	1	0	1	0	1	0	1	2	0	1
	Pre-Refueling	0	0	0	0	2	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Non-Refueling	Shutdown	10/01/1996	10/01/1996	1
Start-up	Operation	10/02/1996	10/26/1996	25
Operation	Operation	10/27/1996	11/03/1997	373
Pre-Refueling	Operation	11/04/1997	11/28/1997	25
Refueling	Shutdown	11/29/1997	01/04/1998	37
Start-up	Operation	01/05/1998	01/29/1998	25
Operation	Operation	01/30/1998	08/07/1998	190
Non-Refueling	Shutdown	08/08/1998	08/29/1998	22
Operation	Operation	08/30/1998	03/28/1999	211
Pre-Refueling	Operation	03/29/1999	04/22/1999	25
Refueling	Shutdown	04/23/1999	05/22/1999	30
Start-up	Operation	05/23/1999	06/16/1999	25
Operation	Operation	06/17/1999	09/30/1999	106

Time used in calculations

Trend Calculations				Deviation Calculations		
Op	12/05/1998-09/30/1999	270 days (incl. 25 days s/u)		Op	02/16/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	08/08/1998-05/22/1999	52 days (incl. 30 days ref)		S/D	10/01/1996-05/22/1999	90 days (incl. 67 days ref)
FOR	12/02/1998-09/30/1999	270 days		FOR	03/07/1998-09/30/1999	540 days

TABLE 9.18 CATAWBA 2

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Non-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	2	0	1	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		8	0	2	4	0	0	0	0	9	0	46	0
EFO/1000 HRS		0.48	0.00	0.70	0.94	0.00	0.00	0.00	0.00	0.57	0.00	1.60	0.00
CRIT. HRS		2075	1906	1424	2139	2209	2160	2183	1587	1750	2160	1248	2208
RAD		5	15	47	5	69	5	2	57	17	3	51	NA
CAUSE CODES:													
Admin.	Operations	3	1	1	1	2	5	4	4	3	4	3	4
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	2	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	1	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	1	0	0	0	0	0	1	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	1	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	3	2	2	1	2	5	4	5	3	4	4	4
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	2	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	2	1	0	0	3	0	0	0	0	1	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	1	0	0	0
	Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	2	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	1	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	12/14/1996	75
Non-Refueling	Shutdown	12/15/1996	12/19/1996	5
Operation	Operation	12/20/1996	02/24/1997	67
Pre-Refueling	Operation	02/25/1997	03/21/1997	25
Refueling	Shutdown	03/22/1997	04/30/1997	40
Start-up	Operation	05/01/1997	05/25/1997	25
Operation	Operation	05/26/1997	08/11/1998	443
Pre-Refueling	Operation	08/12/1998	09/05/1998	25
Refueling	Shutdown	09/06/1998	10/19/1998	44
Start-up	Operation	10/20/1998	11/13/1998	25
Operation	Operation	11/14/1998	05/05/1999	173
Non-Refueling	Shutdown	05/06/1999	05/14/1999	9
Operation	Operation	05/15/1999	05/16/1999	2
Non-Refueling	Shutdown	05/17/1999	06/13/1999	28
Operation	Operation	06/14/1999	09/30/1999	109

Time used in calculations

	Trend Calculations			Deviation Calculations	
Op	11/28/1998-09/30/1999	270 days (incl. 0 days s/u)	Op	01/18/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	09/06/1998-06/13/1999	81 days (incl. 44 days ref)	S/D	12/15/1996-06/13/1999	126 days (incl. 84 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	02/25/1998-09/30/1999	540 days

TABLE 9.19 CLINTON 1

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	1	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	2	2	3	4	7	4	1	1	0	1	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		100	0	0	0	0	0	0	0	0	0	0	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		0	0	0	0	0	0	0	0	0	0	1149	2208
RAD		307	50	93	70	8	18	23	48	55	36	25	NA
CAUSE CODES:													
Admin.	Operations	0	0	0	0	0	0	0	0	0	0	1	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	6	5	2	3	4	3	5	3	4	1	0	0
	Non-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	3	0	1	1	2	2	0	1	1	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	0	0	0	0	0	0	0	0	0	1	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	6	5	2	3	4	4	4	3	3	2	0	0
	Non-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	1	3	2	1	3	4	1	0	2	1	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Non-Refueling	Shutdown	10/01/1996	10/12/1996	12
Refueling	Shutdown	10/13/1996	05/05/1999	935
Start-up	Operation	05/06/1999	05/30/1999	25
Operation	Operation	05/31/1999	09/30/1999	123

Time used in calculations

Trend Calculations

Op	05/06/1999-09/30/1999	148 days (incl. 25 days s/u)
S/D	02/05/1999-05/05/1999	90 days (incl. 90 days ref)
FOR	05/25/1999-09/30/1999	128 days

Deviation Calculations

Op	05/06/1999-09/30/1999	148 days (incl. 25 days s/u)
S/D	11/07/1998-05/05/1999	180 days (incl. 180 days ref)
FOR	10/01/1996-09/30/1999	140 days

TABLE 9.20 COMANCHE PEAK 1

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	5	0	0	0	0	0	0	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		1216	2160	2183	2208	2116	1898	1558	2208	2209	2160	2183	2065
RAD		75	2	2	2	73	48	69	3	2	19	34	NA
CAUSE CODES:													
Admin.	Operations	0	0	1	2	1	0	0	1	0	0	2	0
	Pre-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	1	0	2	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	0	1	2	1	1	0	2	0	0	5	0
	Pre-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	1	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	2	1	0	1	0	1	1	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Pre-Refueling	Operation	10/01/1996	10/05/1996	5
Refueling	Shutdown	10/06/1996	11/14/1996	40
Start-up	Operation	11/15/1996	12/09/1996	25
Operation	Operation	12/10/1996	02/24/1998	442
Pre-Refueling	Operation	02/25/1998	03/21/1998	25
Refueling	Shutdown	03/22/1998	04/26/1998	36
Start-up	Operation	04/27/1998	05/21/1998	25
Operation	Operation	05/22/1998	08/30/1999	466
Pre-Refueling	Operation	08/31/1999	09/24/1999	25
Refueling	Shutdown	09/25/1999	09/30/1999	6

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/29/1998-09/24/1999	270 days (incl. 0 days s/u)	Op	02/26/1998-09/24/1999	540 days (incl. 25 days s/u)
S/D	04/01/1998-09/30/1999	32 days (incl. 32 days ref)	S/D	10/06/1996-09/30/1999	82 days (incl. 82 days ref)
FOR	12/29/1998-09/25/1999	270 days	FOR	02/24/1998-09/25/1999	540 days

TABLE 9.21 COMANCHE PEAK 2

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	1	0	0	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		1	0	0	0	0	1	0	0	0	3	0	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.55	0.00	0.00
CRIT. HRS		2186	2078	2183	2208	1154	2145	2183	2208	2209	1834	1708	2208
RAD		75	2	2	2	73	48	69	3	2	19	34	NA
CAUSE CODES:													
Admin.	Operations	1	0	1	1	0	0	0	1	1	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	2	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	0	1	1	0	2	0	2	1	0	3	0
	Pre-Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	2	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	2	2	0	0	0	1	1	1	0	0	1
	Pre-Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	01/04/1997	96
Non-Refueling	Shutdown	01/05/1997	01/07/1997	3
Operation	Operation	01/08/1997	09/30/1997	266
Pre-Refueling	Operation	10/01/1997	10/25/1997	25
Refueling	Shutdown	10/26/1997	12/07/1997	43
Start-up	Operation	12/08/1997	01/01/1998	25
Operation	Operation	01/02/1998	02/23/1999	418
Pre-Refueling	Operation	02/24/1999	03/20/1999	25
Refueling	Shutdown	03/21/1999	04/19/1999	30
Start-up	Operation	04/20/1999	05/14/1999	25
Operation	Operation	05/15/1999	09/30/1999	139

Time used in calculations

Trend Calculations		
Op	12/05/1998-09/30/1999	270 days (incl. 25 days s/u)
S/D	03/21/1999-04/19/1999	30 days (incl. 30 days ref)
FOR	12/01/1998-09/30/1999	270 days

Deviation Calculations		
Op	03/10/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	01/05/1997-04/19/1999	76 days (incl. 73 days ref)
FOR	03/06/1998-09/30/1999	540 days

TABLE 9.22 COOK 1

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
SE	Operations	0	0	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
SSF	Operations	0	0	0	2	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	3	0	4	3	3	2	3	3	1
FOR (%)		0	0	0	24	100	100	100	100	100	100	100	100
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		2208	1419	1601	1678	0	0	0	0	0	0	0	0
RAD		4	92	29	122	138	30	8	7	14	13	9	NA
CAUSE CODES:													
Admin.	Operations	0	0	0	3	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	3	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	4	3	14	4	6	7	6	4	3
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	1	0	0	0
Oth. Per.	Operations	2	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	5	0	3	0	0	0	0
Maint.	Operations	1	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	2	3	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	1	2	14	6	5	7	4	3	2
Design	Operations	0	0	0	5	0	0	0	0	0	0	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	2	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	4	1	7	7	3	10	3	6	2
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	02/04/1997	127
Pre-Refueling	Operation	02/05/1997	03/01/1997	25
Refueling	Shutdown	03/02/1997	04/24/1997	54
Start-up	Operation	04/25/1997	05/19/1997	25
Operation	Operation	05/20/1997	09/08/1997	112
Non-Refueling	Shutdown	09/09/1997	09/30/1999	752

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	/ / - / /	0 days (incl. 0 days s/u)	Op	10/01/1996-09/08/1997	289 days (incl. 25 days s/u)
S/D	07/03/1999-09/30/1999	90 days (incl. 0 days ref)	S/D	04/04/1999-09/30/1999	180 days (incl. 0 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	04/09/1998-09/30/1999	540 days

TABLE 9.23 COOK 2

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	1	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
SSF	Operations	0	0	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	2	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	3	0	4	2	3	3	3	3	1
FOR (%)		0	8	7	24	100	100	100	100	100	100	100	100
EFO/1000 HRS		0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		2208	2034	2045	1680	0	0	0	0	0	0	0	0
RAD		4	92	29	122	138	30	8	7	14	13	8	NA
CAUSE CODES:													
Admin.	Operations	0	1	1	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	3	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	3	1	0	0	0	0	0	0
	Non-Refueling	0	0	0	4	1	13	4	4	6	5	4	3
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	0	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	1	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	3	0	1	0	0	0	0
Maint.	Operations	1	1	2	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	3	1	0	0	0	0	0	0
	Non-Refueling	0	0	0	1	0	14	5	4	6	3	3	2
Design	Operations	0	3	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	4	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	3	1	8	6	2	9	3	5	2
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	03/11/1997	162
Non-Refueling	Shutdown	03/12/1997	03/16/1997	5
Operation	Operation	03/17/1997	05/09/1997	54
Non-Refueling	Shutdown	05/10/1997	05/13/1997	4
Operation	Operation	05/14/1997	08/14/1997	93
Pre-Refueling	Operation	08/15/1997	09/08/1997	25
Non-Refueling	Shutdown	09/09/1997	10/11/1997	33
Refueling	Shutdown	10/12/1997	01/06/1998	87
Non-Refueling	Shutdown	01/07/1998	09/30/1999	632

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	/ / - / /	0 days (incl. 0 days s/u)	Op	10/01/1996-09/08/1997	334 days (incl. 0 days s/u)
S/D	07/03/1999-09/30/1999	90 days (incl. 0 days ref)	S/D	04/04/1999-09/30/1999	180 days (incl. 0 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	04/09/1998-09/30/1999	540 days

TABLE 9.24 COOPER STATION

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	1	0	0	1	2	1	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	2	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	2	0	0	0	0	0	0
FOR (%)		0	0	0	6	0	0	0	0	0	0	0	9
EFO/1000 HRS		0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49
CRIT. HRS		2209	2091	997	2098	2209	1849	2183	2208	407	2160	2183	2044
RAD		11	26	136	7	11	20	10	13	170	13	17	NA
CAUSE CODES:													
Admin.	Operations	2	0	2	2	2	1	2	1	0	1	3	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	1	0	0	0
	Refueling	0	0	3	0	0	0	0	0	2	0	0	0
	Non-Refueling	0	0	0	0	0	2	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	1	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	1	0	0	0
	Refueling	0	0	2	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	0	0	2	2	1	2	1	0	1	3	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	2	0	0	0
	Refueling	0	0	3	0	0	0	0	0	2	0	0	0
	Non-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
Design	Operations	2	1	0	1	1	0	1	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
Misc.	Operations	0	0	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	03/04/1997	155
Pre-Refueling	Operation	03/05/1997	03/29/1997	25
Refueling	Shutdown	03/30/1997	05/19/1997	51
Start-up	Operation	05/20/1997	06/13/1997	25
Operation	Operation	06/14/1997	07/29/1997	46
Non-Refueling	Shutdown	07/30/1997	08/02/1997	4
Operation	Operation	08/03/1997	02/28/1998	210
Non-Refueling	Shutdown	03/01/1998	03/12/1998	12
Operation	Operation	03/13/1998	09/07/1998	179
Pre-Refueling	Operation	09/08/1998	10/02/1998	25
Refueling	Shutdown	10/03/1998	12/16/1998	75
Start-up	Operation	12/17/1998	01/10/1999	25
Operation	Operation	01/11/1999	09/17/1999	250
Non-Refueling	Shutdown	09/18/1999	09/23/1999	6
Operation	Operation	09/24/1999	09/30/1999	7

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/29/1998-09/30/1999	270 days (incl. 13 days s/u)	Op	01/06/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	10/03/1998-09/23/1999	81 days (incl. 75 days ref)	S/D	03/30/1997-09/23/1999	148 days (incl. 126 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	01/06/1998-09/30/1999	540 days

TABLE 9.25 CRYSTAL RIVER 3

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	2	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	1	2	3	5	4	0	0	0	0	0	0	0
FOR (%)		100	100	100	100	100	43	0	2	0	0	0	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		0	0	0	0	0	1341	2183	2176	2209	2160	2183	2208
RAD		11	22	32	85	40	9	3	3	5	6	4	NA
CAUSE CODES:													
Admin.	Operations	0	0	0	0	0	1	2	1	3	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	3	5	1	4	3	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	2	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	1	0	1	0	0	0	0	0	0	0	0
Maint.	Operations	0	0	0	0	0	1	2	2	5	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	2	4	1	3	1	0	0	0	0	0	0	0
Design	Operations	0	0	0	0	0	3	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	2	6	8	13	8	1	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Non-Refueling	Shutdown	10/01/1996	01/31/1998	488
Operation	Operation	02/01/1998	09/06/1999	583
Pre-Refueling	Operation	09/07/1999	09/30/1999	24

Time used in calculations

Trend Calculations

Op	01/04/1999-09/30/1999	270 days	(incl. 0 days s/u)
S/D	/ / - / /	0 days	(incl. 0 days ref)
FOR	01/04/1999-09/30/1999	270 days	

Deviation Calculations

Op	04/09/1998-09/30/1999	540 days	(incl. 0 days s/u)
S/D	08/05/1997-01/31/1998	180 days	(incl. 0 days ref)
FOR	04/09/1998-09/30/1999	540 days	

TABLE 9.26 DAVIS-BESSE

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	1	0	0	0	1	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	1	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	2	0	0	2	1	0	0	2	1	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	2	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	26	0	0	0	21	9	6	0	0	0
EFO/1000 HRS		0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.51	0.48	0.00	0.00	0.00
CRIT. HRS		2209	2160	1659	2208	2209	2160	1063	1980	2089	2160	1797	2208
RAD		1	1	7	1	1	1	108	2	4	3	23	NA
CAUSE CODES:													
Admin.	Operations	4	6	0	1	2	0	0	2	1	1	0	1
	Pre-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	1	0	0	0	0	0	0	2	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	1	1	0	0	2	0	2	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	3	5	0	1	2	0	1	2	1	1	0	0
	Pre-Refueling	0	0	0	0	0	0	2	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	2	4	1	2	1	0	0	2	2	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	1	1	0	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	05/04/1997	216
Non-Refueling	Shutdown	05/05/1997	05/25/1997	21
Operation	Operation	05/26/1997	03/16/1998	295
Pre-Refueling	Operation	03/17/1998	04/10/1998	25
Refueling	Shutdown	04/11/1998	05/20/1998	40
Start-up	Operation	05/21/1998	06/14/1998	25
Operation	Operation	06/15/1998	06/24/1998	10
Non-Refueling	Shutdown	06/25/1998	07/01/1998	7
Operation	Operation	07/02/1998	07/02/1998	1
Non-Refueling	Shutdown	07/03/1998	07/05/1998	3
Operation	Operation	07/06/1998	10/14/1998	101
Non-Refueling	Shutdown	10/15/1998	10/17/1998	3
Operation	Operation	10/18/1998	04/24/1999	189
Non-Refueling	Shutdown	04/25/1999	05/09/1999	15
Operation	Operation	05/10/1999	09/30/1999	144

Time used in calculations

Trend Calculations

Op	12/20/1998-09/30/1999	270 days	(incl. 0 days s/u)
S/D	04/11/1998-05/09/1999	68 days	(incl. 40 days ref)
FOR	12/18/1998-09/30/1999	270 days	

Deviation Calculations

Op	01/31/1998-09/30/1999	540 days	(incl. 25 days s/u)
S/D	05/05/1997-05/09/1999	89 days	(incl. 40 days ref)
FOR	02/10/1998-09/30/1999	540 days	

TABLE 9.27 DIABLO CANYON 1

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	1	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	1	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		9	0	0	0	0	0	0	0	9	0	0	2
EFO/1000 HRS		0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00
CRIT. HRS		2026	2160	1170	2208	2209	2160	2183	2208	2024	1346	2183	2168
RAD		3	3	99	2	3	4	3	2	4	311	2	NA
CAUSE CODES:													
Admin.	Operations	1	6	0	5	2	2	2	1	3	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	1	0	0	0	0	2
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	1	0	0
	Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	2	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	2	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	4	0	5	2	0	4	2	3	0	1	2
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	1	0	0
	Refueling	0	0	2	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	1	2	0	1	2	1	1	1	2	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	11/22/1996	53
Non-Refueling	Shutdown	11/23/1996	11/28/1996	6
Operation	Operation	11/29/1996	03/25/1997	117
Pre-Refueling	Operation	03/26/1997	04/19/1997	25
Refueling	Shutdown	04/20/1997	05/29/1997	40
Start-up	Operation	05/30/1997	06/23/1997	25
Operation	Operation	06/24/1997	12/17/1998	542
Non-Refueling	Shutdown	12/18/1998	12/24/1998	7
Operation	Operation	12/25/1998	01/13/1999	20
Pre-Refueling	Operation	01/14/1999	02/07/1999	25
Refueling	Shutdown	02/08/1999	03/12/1999	33
Start-up	Operation	03/13/1999	04/06/1999	25
Operation	Operation	04/07/1999	09/30/1999	177

Time used in calculations

Trend Calculations

Op	11/25/1998-09/30/1999	270 days (incl. 25 days s/u)
S/D	12/18/1998-03/12/1999	40 days (incl. 33 days ref)
FOR	11/29/1998-09/30/1999	270 days

Deviation Calculations

Op	02/28/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	11/23/1996-03/12/1999	86 days (incl. 73 days ref)
FOR	03/04/1998-09/30/1999	540 days

TABLE 9.28 DIABLO CANYON 2

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	1	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	2	0	1	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	3	6	3	2	0	0	0	6	0	0	0
EFO/1000 HRS		0.00	0.48	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		2209	2099	2065	2148	2175	1211	2183	2208	2080	2160	2183	2090
RAD		3	3	99	2	3	155	3	2	2	2	2	NA
CAUSE CODES:													
Admin.	Operations	1	5	0	3	5	0	3	2	3	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	2	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	2	1	1	1	0	1	1	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	5	0	4	3	0	3	2	3	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	2	0	1	3	0	1	1	2	0	0	0
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	03/29/1997	180
Non-Refueling	Shutdown	03/30/1997	04/03/1997	5
Operation	Operation	04/04/1997	01/20/1998	292
Pre-Refueling	Operation	01/21/1998	02/14/1998	25
Refueling	Shutdown	02/15/1998	03/24/1998	38
Start-up	Operation	03/25/1998	04/18/1998	25
Operation	Operation	04/19/1998	12/01/1998	227
Non-Refueling	Shutdown	12/02/1998	12/05/1998	4
Operation	Operation	12/06/1998	08/31/1999	269
Pre-Refueling	Operation	09/01/1999	09/25/1999	25
Refueling	Shutdown	09/26/1999	09/30/1999	5

Time used in calculations

Trend Calculations

Op	12/30/1998-09/25/1999	270 days	(incl. 0 days s/u)
S/D	12/02/1998-09/30/1999	9 days	(incl. 5 days ref)
FOR	12/30/1998-09/26/1999	270 days	

Deviation Calculations

Op	03/31/1998-09/25/1999	540 days	(incl. 19 days s/u)
S/D	03/30/1997-09/30/1999	52 days	(incl. 43 days ref)
FOR	04/04/1998-09/26/1999	540 days	

TABLE 9.29 DRESDEN 2

Type	Phase	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	1	1	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	3	1	2	0	2	2	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	2	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	38	4	4	7	8	1	0	0	0	0
EFO/1000 HRS		0.00	0.00	1.40	0.00	0.47	0.00	0.58	0.45	0.00	0.00	0.00	0.00
CRIT. HRS		2209	2160	1427	2128	2130	1472	1724	2208	2209	2160	2183	2208
RAD		226	30	119	16	19	110	48	18	21	109	16	NA
CAUSE CODES:													
Admin.	Operations	5	4	1	5	1	1	1	2	1	2	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	2	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	3	0	0	0	1	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	1	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
Maint.	Operations	5	4	2	2	1	1	1	1	1	2	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	0	0	0	0	0	2	0	0	0	0	0	0
	Non-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
Design	Operations	5	2	1	1	2	3	0	2	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	2	0	0	0	0	0
	Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	04/11/1997	193
Non-Refueling	Shutdown	04/12/1997	05/01/1997	20
Operation	Operation	05/02/1997	05/06/1997	5
Non-Refueling	Shutdown	05/07/1997	05/09/1997	3
Operation	Operation	05/10/1997	05/11/1997	2
Non-Refueling	Shutdown	05/12/1997	05/15/1997	4
Operation	Operation	05/16/1997	12/23/1997	222
Non-Refueling	Shutdown	12/24/1997	12/26/1997	3
Operation	Operation	12/27/1997	01/13/1998	18
Non-Refueling	Shutdown	01/14/1998	01/16/1998	3
Operation	Operation	01/17/1998	02/10/1998	25
Pre-Refueling	Operation	02/11/1998	03/07/1998	25
Refueling	Shutdown	03/08/1998	04/15/1998	39
Start-up	Operation	04/16/1998	05/10/1998	25
Operation	Operation	05/11/1998	09/06/1999	484
Pre-Refueling	Operation	09/07/1999	09/30/1999	24

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)	Op	03/01/1998-09/30/1999	540 days (incl. 25 days s/u)
S7D	04/01/1998-04/15/1998	15 days (incl. 15 days ref)	S7D	04/12/1997-04/15/1998	72 days (incl. 39 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	02/26/1998-09/30/1999	540 days

TABLE 9.30 DRESDEN 3

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	1	0	0	2	3	3	0	0	1	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		72	35	11	0	5	0	15	0	0	5	0	0
EFO/1000 HRS		1.59	0.00	2.87	0.00	0.47	0.00	1.79	0.00	0.00	0.67	0.00	0.00
CRIT. HRS		628	1396	348	2208	2132	2160	1677	2208	2209	1494	2183	2208
RAD		226	30	119	16	19	110	48	18	21	109	16	NA
CAUSE CODES:													
Admin.	Operations	3	1	0	2	2	0	2	2	2	1	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	1	0	0
	Refueling	0	0	4	0	0	0	0	0	0	2	0	0
	Non-Refueling	3	1	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	1	1	0	0	1	0	0	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	1	0	1	0	1	0	0	1	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	4	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	3	2	0	4	3	0	2	1	2	0	1	1
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	5	0	0	0	0	0	0	2	0	0
	Non-Refueling	2	1	0	0	0	0	1	0	0	0	0	0
Design	Operations	3	1	0	1	1	2	1	1	2	0	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	3	1	0	0	0	0	1	0	0	0	0	0
Misc.	Operations	0	0	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	10/27/1996	27
Non-Refueling	Shutdown	10/28/1996	01/28/1997	93
Operation	Operation	01/29/1997	03/04/1997	35
Pre-Refueling	Operation	03/05/1997	03/29/1997	25
Refueling	Shutdown	03/30/1997	06/15/1997	78
Start-up	Operation	06/16/1997	07/10/1997	25
Operation	Operation	07/11/1997	04/09/1998	273
Non-Refueling	Shutdown	04/10/1998	04/13/1998	4
Operation	Operation	04/14/1998	05/02/1998	19
Non-Refueling	Shutdown	05/03/1998	05/14/1998	12
Operation	Operation	05/15/1998	05/16/1998	2
Non-Refueling	Shutdown	05/17/1998	05/20/1998	4
Operation	Operation	05/21/1998	01/04/1999	229
Pre-Refueling	Operation	01/05/1999	01/29/1999	25
Refueling	Shutdown	01/30/1999	02/23/1999	25
Start-up	Operation	02/24/1999	03/20/1999	25
Operation	Operation	03/21/1999	09/30/1999	194

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/10/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	02/23/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/10/1998-02/23/1999	45 days (incl. 25 days ref)	S/D	12/03/1996-02/23/1999	180 days (incl. 103 days ref)
FOR	12/08/1998-09/30/1999	270 days	FOR	02/27/1998-09/30/1999	540 days

TABLE 9.31 DUANE ARNOLD

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	1	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	5	0	0	0	0	5	0	0	0
EFO/1000 HRS		0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00
CRIT. HRS		1393	1960	2095	2009	2209	2160	1104	2208	2111	2160	1716	2208
RAD		153	18	12	14	9	18	188	17	13	14	13	NA
CAUSE CODES:													
Admin.	Operations	0	3	3	2	1	1	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	1	0	0	0	0	0	2	0	0	0	0	0
	Non-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	0	1	0	0
	Pre-Refueling	1	0	0	0	0	0	1	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	3	3	2	2	0	0	0	0	3	0	0
	Pre-Refueling	1	0	0	0	0	0	1	0	0	0	0	0
	Startup	1	0	0	0	0	0	1	0	0	0	0	0
	Refueling	2	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	0	0	0	0	0	1	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	2	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	1	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Pre-Refueling	Operation	10/01/1996	10/11/1996	11
Refueling	Shutdown	10/12/1996	11/13/1996	33
Start-up	Operation	11/14/1996	12/08/1996	25
Operation	Operation	12/09/1996	01/11/1997	34
Non-Refueling	Shutdown	01/12/1997	01/15/1997	4
Operation	Operation	01/16/1997	03/14/1997	58
Non-Refueling	Shutdown	03/15/1997	03/18/1997	4
Operation	Operation	03/19/1997	05/23/1997	66
Non-Refueling	Shutdown	05/24/1997	05/26/1997	3
Operation	Operation	05/27/1997	08/23/1997	89
Non-Refueling	Shutdown	08/24/1997	08/26/1997	3
Operation	Operation	08/27/1997	09/09/1997	14
Non-Refueling	Shutdown	09/10/1997	09/12/1997	3
Operation	Operation	09/13/1997	03/09/1998	178
Pre-Refueling	Operation	03/10/1998	04/03/1998	25
Refueling	Shutdown	04/04/1998	05/17/1998	44
Start-up	Operation	05/18/1998	06/11/1998	25
Operation	Operation	06/12/1998	12/15/1998	187
Non-Refueling	Shutdown	12/16/1998	12/18/1998	3
Operation	Operation	12/19/1998	04/17/1999	120
Non-Refueling	Shutdown	04/18/1999	04/28/1999	11
Operation	Operation	04/29/1999	06/06/1999	39
Non-Refueling	Shutdown	06/07/1999	06/13/1999	7
Operation	Operation	06/14/1999	09/27/1999	106
Pre-Refueling	Operation	09/28/1999	09/30/1999	3

Time used in calculations

Trend Calculations

Op	12/14/1998-09/30/1999	270 days (incl. 0 days s/u)
S/D	04/04/1998-06/13/1999	65 days (incl. 44 days ref)
FOR	12/12/1998-09/30/1999	270 days

Deviation Calculations

Op	02/03/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	10/12/1996-06/13/1999	115 days (incl. 77 days ref)
FOR	01/28/1998-09/30/1999	540 days

TABLE 9.32 FARLEY 1

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	0	1	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	1	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	0	0	0	21	0	0	3	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.12	0.00	0.00	0.00	0.00
CRIT. HRS		2209	1753	667	2208	2209	2160	2183	1779	500	2160	2145	2208
RAD		111	48	87	2	1	9	91	12	104	3	4	NA
CAUSE CODES:													
Admin.	Operations	0	1	0	2	0	1	0	0	0	1	1	0
	Pre-Refueling	0	2	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	2	0	0	0	0	0	2	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	1	0	0	0	0	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	1	0	1	0	0	0	1	0	1	1	0
	Pre-Refueling	0	2	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	1	0	1	0	1	0	1	0	0	1	0
	Pre-Refueling	0	2	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	2	0	0	0	0	0	2	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	2	1	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	3	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	02/18/1997	141
Pre-Refueling	Operation	02/19/1997	03/15/1997	25
Refueling	Shutdown	03/16/1997	06/02/1997	79
Start-up	Operation	06/03/1997	06/27/1997	25
Operation	Operation	06/28/1997	08/17/1998	416
Non-Refueling	Shutdown	08/18/1998	09/02/1998	16
Operation	Operation	09/03/1998	09/22/1998	20
Pre-Refueling	Operation	09/23/1998	10/17/1998	25
Refueling	Shutdown	10/18/1998	12/26/1998	70
Start-up	Operation	12/27/1998	01/20/1999	25
Operation	Operation	01/21/1999	09/30/1999	253

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 17 days s/u)	Op	01/13/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	08/18/1998-12/26/1998	86 days (incl. 70 days ref)	S/D	03/16/1997-12/26/1998	165 days (incl. 149 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	01/25/1998-09/30/1999	540 days

TABLE 9.33 FARLEY 2

		Year - Calendar Quarter											
Type	**Phase**	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	1	0	1	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	0	0	0	0	0	0	3	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00
CRIT. HRS		639	2160	2183	2208	2209	2065	1069	2208	2209	2160	2125	2208
RAD		111	48	87	2	1	9	91	12	104	3	4	NA
CAUSE CODES:													
Admin.	Operations	0	4	3	1	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	4	0	1	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	4	2	1	0	1	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	1	0	0	0	0	0	2	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	2	2	0	0	0	0	0	1	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Pre-Refueling	Operation	10/01/1996	10/12/1996	12
Refueling	Shutdown	10/13/1996	12/13/1996	62
Start-up	Operation	12/14/1996	01/07/1997	25
Operation	Operation	01/08/1997	03/03/1998	420
Pre-Refueling	Operation	03/04/1998	03/28/1998	25
Refueling	Shutdown	03/29/1998	05/14/1998	47
Start-up	Operation	05/15/1998	06/08/1998	25
Operation	Operation	06/09/1998	09/20/1999	469
Pre-Refueling	Operation	09/21/1999	09/30/1999	10

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)	Op	02/21/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/01/1998-05/14/1998	44 days (incl. 44 days ref)	S/D	10/13/1996-05/14/1998	109 days (incl. 109 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	02/16/1998-09/30/1999	540 days

TABLE 9.34 FERMI 2

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	2	0	0	0	0	0	0	0	1	2
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	2	0	0	0	0	0	0	0	0	0	0
FOR (%)		100	96	39	0	0	16	0	7	8	0	3	0
EFO/1000 HRS		37.57	6.12	0.00	0.00	0.00	0.54	0.00	0.67	0.67	0.00	0.00	0.00
CRIT. HRS		160	327	1420	2208	1876	1837	2183	1488	1494	2160	2139	2208
RAD		135	8	17	6	18	14	9	128	184	11	8	NA
CAUSE CODES:													
Admin.	Operations	0	0	1	0	0	1	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Startup	2	0	0	0	0	0	0	0	0	0	0	0
	Refueling	5	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	5	2	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	1	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	1	0	0	0	0
	Non-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	0	2	0	0	2	0	1	0	0	2	0
	Pre-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Startup	3	0	0	0	0	0	0	0	0	0	0	0
	Refueling	5	0	0	0	0	0	0	3	1	0	0	0
	Non-Refueling	1	5	2	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	0	0	0	1	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	5	0	0	1	0	0	0	0	0	0	0
Misc.	Operations	0	0	1	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Refueling	Shutdown	10/01/1996	11/28/1996	59
Start-up	Operation	11/29/1996	12/02/1996	4
Non-Refueling	Shutdown	12/03/1996	12/06/1996	4
Start-up	Operation	12/07/1996	12/07/1996	1
Non-Refueling	Shutdown	12/08/1996	12/21/1996	14
Start-up	Operation	12/22/1996	12/24/1996	3
Non-Refueling	Shutdown	12/25/1996	12/27/1996	3
Start-up	Operation	12/28/1996	12/28/1996	1
Non-Refueling	Shutdown	12/29/1996	01/01/1997	4
Start-up	Operation	01/02/1997	01/17/1997	16
Non-Refueling	Shutdown	01/18/1997	05/01/1997	104
Operation	Operation	05/02/1997	10/03/1997	155
Non-Refueling	Shutdown	10/04/1997	10/16/1997	13
Operation	Operation	10/17/1997	02/01/1998	108
Non-Refueling	Shutdown	02/02/1998	02/13/1998	12
Operation	Operation	02/14/1998	07/19/1998	156
Non-Refueling	Shutdown	07/20/1998	07/22/1998	3
Operation	Operation	07/23/1998	08/10/1998	19
Pre-Refueling	Operation	08/11/1998	09/04/1998	25
Refueling	Shutdown	09/05/1998	10/25/1998	51
Start-up	Operation	10/26/1998	11/12/1998	18
Non-Refueling	Shutdown	11/13/1998	11/16/1998	4
Start-up	Operation	11/17/1998	11/23/1998	7
Operation	Operation	11/24/1998	09/30/1999	311

Time used in calculations

Trend Calculations

Op 01/04/1999-09/30/1999 270 days (incl. 0 days s/u)
S/D 07/20/1998-11/16/1998 58 days (incl. 51 days ref)
FOR 01/04/1999-09/30/1999 270 days

Deviation Calculations

Op 01/29/1998-09/30/1999 540 days (incl. 25 days s/u)
S/D 01/25/1997-11/16/1998 180 days (incl. 51 days ref)
FOR 02/13/1998-09/30/1999 540 days

TABLE 9.35 FITZPATRICK

Type	Phase	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	1	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	2	1	1	1	0	1	1	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		9	6	7	0	0	0	10	16	3	0	0	5
EFO/1000 HRS		0.91	0.00	0.49	0.00	0.00	0.00	0.50	0.51	1.35	0.00	0.00	0.47
CRIT. HRS		1104	2064	2061	2208	2070	2160	1983	1952	740	2160	2183	2145
RAD		276	25	28	18	20	13	24	24	297	19	12	NA
CAUSE CODES:													
Admin.	Operations	0	1	1	2	2	1	0	3	0	2	2	1
	Pre-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	2	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	1	1	1	0	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	3	1	2	0	0	1	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	0	2	2	4	1	1	3	0	2	3	1
	Pre-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	3	0	0	0	0	0	0	0	4	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	1	1	0	0	0	1	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	1	0	0	0	0	0	2	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	1	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length	Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	10/01/1996	1	Operation	Operation	01/11/1999	09/30/1999	263
Pre-Refueling	Operation	10/02/1996	10/26/1996	25					
Refueling	Shutdown	10/27/1996	12/07/1996	42					
Start-up	Operation	12/08/1996	01/01/1997	25					
Operation	Operation	01/02/1997	01/23/1997	22					
Non-Refueling	Shutdown	01/24/1997	01/27/1997	4					
Operation	Operation	01/28/1997	05/25/1997	118					
Non-Refueling	Shutdown	05/26/1997	05/29/1997	4					
Operation	Operation	05/30/1997	12/07/1997	192					
Non-Refueling	Shutdown	12/08/1997	12/12/1997	5					
Operation	Operation	12/13/1997	05/01/1998	140					
Non-Refueling	Shutdown	05/02/1998	05/09/1998	8					
Operation	Operation	05/10/1998	08/03/1998	86					
Non-Refueling	Shutdown	08/04/1998	08/08/1998	5					
Operation	Operation	08/09/1998	08/12/1998	4					
Non-Refueling	Shutdown	08/13/1998	08/17/1998	5					
Operation	Operation	08/18/1998	09/21/1998	35					
Pre-Refueling	Operation	09/22/1998	10/16/1998	25					
Refueling	Shutdown	10/17/1998	12/16/1998	61					
Start-up	Operation	12/17/1998	01/10/1999	25					

Time used in calculations

Trend Calculations

Op 01/04/1999-09/30/1999 270 days (incl. 7 days s/u)
S/D 05/02/1998-12/16/1998 79 days (incl. 61 days ref)
FOR 01/04/1999-09/30/1999 270 days

Deviation Calculations

Op 01/20/1998-09/30/1999 540 days (incl. 25 days s/u)
S/D 10/27/1996-12/16/1998 134 days (incl. 103 days ref)
FOR 02/03/1998-09/30/1999 540 days

TABLE 9.36 FORT CALHOUN

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	1	0	0	1	2	1	0	0	2	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	4	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		1	0	25	4	0	0	0	0	0	0	0	0
EFO/1000 HRS		1.02	0.00	1.18	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		981	2160	1695	2137	2209	2160	651	2208	2209	2160	2183	2208
RAD		188	5	13	14	10	15	193	9	6	5	16	NA
CAUSE CODES:													
Admin.	Operations	1	0	5	3	0	1	0	4	2	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	5	0	0	0	0	0	2	0	0	0	0	0
	Non-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	2	1	0	0	0	0	0	0	0	0
	Pre-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	1	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	3	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	0	3	3	0	1	0	1	2	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	6	0	0	0	0	0	3	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	1	1	2	1	3	1	0	3	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	2	0	0	0	0	0
	Non-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Pre-Refueling	Operation	10/01/1996	10/05/1996	5
Refueling	Shutdown	10/06/1996	11/24/1996	50
Start-up	Operation	11/25/1996	12/19/1996	25
Operation	Operation	12/20/1996	04/21/1997	123
Non-Refueling	Shutdown	04/22/1997	05/11/1997	20
Operation	Operation	05/12/1997	03/07/1998	300
Pre-Refueling	Operation	03/08/1998	04/01/1998	25
Refueling	Shutdown	04/02/1998	06/02/1998	62
Start-up	Operation	06/03/1998	06/27/1998	25
Operation	Operation	06/28/1998	09/06/1999	436
Pre-Refueling	Operation	09/07/1999	09/30/1999	24

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)	Op	02/06/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/02/1998-06/02/1998	62 days (incl. 62 days ref)	S/D	10/06/1996-06/02/1998	132 days (incl. 112 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	02/02/1998-09/30/1999	540 days

TABLE 9.37 GINNA

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	2	0
SSA	Operations	0	0	0	1	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	1	0	0	0	0	0	1	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	1	0
	Non-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		21	0	0	0	0	0	0	0	0	0	3	0
EFO/1000 HRS		0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00
CRIT. HRS		1746	2160	2183	2208	1494	2160	2183	2208	2209	1425	1653	2208
RAD		5	3	3	3	75	6	4	5	4	102	64	NA
CAUSE CODES:													
Admin.	Operations	0	0	0	1	0	0	0	1	0	0	1	0
	Pre-Refueling	0	0	0	0	1	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	2	0
	Refueling	0	0	0	0	2	0	0	0	0	0	0	0
	Non-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	0	0	1	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	0	0	1	0	0	0	1	1	0	0	0
	Pre-Refueling	0	0	0	0	1	0	0	0	0	2	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	2	0
	Refueling	0	0	0	0	3	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	1	1	0	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	0	0	1	0	0	0	0	0	1	0
	Non-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	1	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	0	0	1	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	10/24/1996	24
Non-Refueling	Shutdown	10/25/1996	11/11/1996	18
Operation	Operation	11/12/1996	09/25/1997	318
Pre-Refueling	Operation	09/26/1997	10/20/1997	25
Refueling	Shutdown	10/21/1997	11/18/1997	29
Start-up	Operation	11/19/1997	12/13/1997	25
Operation	Operation	12/14/1997	02/04/1999	418
Pre-Refueling	Operation	02/05/1999	03/01/1999	25
Refueling	Shutdown	03/02/1999	04/19/1999	49
Start-up	Operation	04/20/1999	05/14/1999	25
Operation	Operation	05/15/1999	09/30/1999	139

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	11/16/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	02/19/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	03/02/1999-04/19/1999	49 days (incl. 49 days ref)	S/D	10/25/1996-04/19/1999	96 days (incl. 78 days ref)
FOR	11/12/1998-09/30/1999	270 days	FOR	02/15/1998-09/30/1999	540 days

TABLE 9.38 GRAND GULF

Type	Phase	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	1	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		17	0	0	0	0	3	2	2	0	28	0	0
EFO/1000 HRS		0.79	0.00	0.00	0.00	0.00	0.47	1.60	0.45	0.00	1.23	0.00	0.00
CRIT. HRS		1265	2160	2183	2208	2209	2118	1249	2208	2209	1626	2183	2208
RAD		291	26	37	28	19	21	248	21	12	14	7	NA
CAUSE CODES:													
Admin.	Operations	0	1	1	1	0	0	1	0	2	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	2	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	1	0	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	1	0	0	1	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	1	0	2	0	0	1	0	1	3	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	2	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Pre-Refueling	Operation	10/01/1996	10/19/1996	19
Refueling	Shutdown	10/20/1996	11/26/1996	38
Start-up	Operation	11/27/1996	12/21/1996	25
Operation	Operation	12/22/1996	03/16/1998	450
Pre-Refueling	Operation	03/17/1998	04/10/1998	25
Refueling	Shutdown	04/11/1998	05/18/1998	38
Start-up	Operation	05/19/1998	06/12/1998	25
Operation	Operation	06/13/1998	01/13/1999	215
Non-Refueling	Shutdown	01/14/1999	01/27/1999	14
Operation	Operation	01/28/1999	02/21/1999	25
Non-Refueling	Shutdown	02/22/1999	02/28/1999	7
Operation	Operation	03/01/1999	09/27/1999	211
Pre-Refueling	Operation	09/28/1999	09/30/1999	3

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/14/1998-09/30/1999	270 days (incl. 0 days s/u)	Op	02/09/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/11/1998-02/28/1999	59 days (incl. 38 days ref)	S/D	10/20/1996-02/28/1999	97 days (incl. 76 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	02/27/1998-09/30/1999	540 days

TABLE 9.39 HARRIS

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	1	0	1	0	0	0	0	0	2	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	0	1	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		3	2	5	10	0	0	0	0	0	11	0	0
EFO/1000 HRS		0.46	0.47	0.00	0.49	0.00	0.00	0.00	0.00	0.73	1.00	0.00	0.00
CRIT. HRS		2161	2125	681	2028	2209	2160	2183	2208	1365	1999	2183	2208
RAD		4	5	135	5	3	3	3	4	123	4	3	NA
CAUSE CODES:													
Admin.	Operations	2	1	0	3	1	2	2	0	0	4	0	1
	Pre-Refueling	0	1	1	0	0	0	0	0	1	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	4	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	1	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
Oth. Per.	Operations	1	0	0	1	0	0	0	0	0	2	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	2	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	3	1	0	3	1	2	2	0	0	3	0	1
	Pre-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Startup	0	0	2	0	0	0	0	0	0	0	0	0
	Refueling	0	0	5	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
Design	Operations	2	2	0	2	0	2	0	0	0	0	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	03/11/1997	162
Pre-Refueling	Operation	03/12/1997	04/05/1997	25
Refueling	Shutdown	04/06/1997	06/05/1997	61
Start-up	Operation	06/06/1997	06/30/1997	25
Operation	Operation	07/01/1997	07/20/1997	20
Non-Refueling	Shutdown	07/21/1997	07/24/1997	4
Operation	Operation	07/25/1997	09/28/1998	431
Pre-Refueling	Operation	09/29/1998	10/23/1998	25
Refueling	Shutdown	10/24/1998	11/26/1998	34
Start-up	Operation	11/27/1998	12/21/1998	25
Operation	Operation	12/22/1998	03/12/1999	81
Non-Refueling	Shutdown	03/13/1999	03/17/1999	5
Operation	Operation	03/18/1999	09/30/1999	197

Time used in calculations

Trend Calculations

Op	12/30/1998-09/30/1999	270 days (incl. 0 days s/u)
S/D	10/24/1998-03/17/1999	39 days (incl. 34 days ref)
FOR	01/04/1999-09/30/1999	270 days

Deviation Calculations

Op	03/01/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/06/1997-03/17/1999	104 days (incl. 95 days ref)
FOR	03/04/1998-09/30/1999	540 days

TABLE 9.40 HATCH 1

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	0	0	0	0	0	0	12	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.26	0.00
CRIT. HRS		2209	2067	2183	2208	1289	2160	2183	2208	2209	1416	1590	2208
RAD		24	97	71	33	153	19	15	72	53	94	51	NA
CAUSE CODES:													
Admin.	Operations	2	3	1	0	0	0	1	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	2	0	0	0	1	1	0	0	0	2	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	3	3	1	0	0	0	2	0	0	0	2	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	2	0	0	0	0	0	2	0
	Refueling	0	0	0	0	1	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	2	1	0	1	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	01/29/1997	121
Non-Refueling	Shutdown	01/30/1997	02/01/1997	3
Operation	Operation	02/02/1997	09/16/1997	227
Pre-Refueling	Operation	09/17/1997	10/11/1997	25
Refueling	Shutdown	10/12/1997	11/15/1997	35
Start-up	Operation	11/16/1997	12/10/1997	25
Operation	Operation	12/11/1997	02/04/1999	421
Pre-Refueling	Operation	02/05/1999	03/01/1999	25
Refueling	Shutdown	03/02/1999	04/23/1999	53
Start-up	Operation	04/24/1999	05/18/1999	25
Operation	Operation	05/19/1999	09/30/1999	135

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	11/12/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	02/15/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	03/02/1999-04/23/1999	53 days (incl. 53 days ref)	S/D	01/30/1997-04/23/1999	91 days (incl. 88 days ref)
FOR	11/05/1998-09/30/1999	270 days	FOR	02/08/1998-09/30/1999	540 days

TABLE 9.41 HATCH 2

		Year - Calendar Quarter											
Type	**Phase**	**96-4**	**97-1**	**97-2**	**97-3**	**97-4**	**98-1**	**98-2**	**98-3**	**98-4**	**99-1**	**99-2**	**99-3**
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	2	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	1	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	1	0	1	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	4	0	7	0	0	0	0	0	20	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	1.06	0.00
CRIT. HRS		2209	1753	1714	2142	2077	2160	2183	1656	1304	2052	1879	2208
RAD		24	97	71	33	153	19	15	72	53	94	51	NA
CAUSE CODES:													
Admin.	Operations	2	2	0	0	0	0	0	0	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	1	0	0	0
	Refueling	0	3	2	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	1	0	1	0	0	0	1	2	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	1	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	2	2	0	1	1	1	0	0	0	2	2	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	1	0	0	0
	Refueling	0	2	1	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	2	0	0	0	0	1	0	0	0	1	2	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	2	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	02/18/1997	141
Pre-Refueling	Operation	02/19/1997	03/15/1997	25
Refueling	Shutdown	03/16/1997	04/18/1997	34
Start-up	Operation	04/19/1997	05/13/1997	25
Operation	Operation	05/14/1997	11/20/1997	191
Non-Refueling	Shutdown	11/21/1997	11/25/1997	5
Operation	Operation	11/26/1997	08/14/1998	262
Pre-Refueling	Operation	08/15/1998	09/08/1998	25
Refueling	Shutdown	09/09/1998	11/06/1998	59
Start-up	Operation	11/07/1998	12/01/1998	25
Operation	Operation	12/02/1998	01/28/1999	58
Non-Refueling	Shutdown	01/29/1999	01/31/1999	3
Operation	Operation	02/01/1999	05/05/1999	94
Non-Refueling	Shutdown	05/06/1999	05/08/1999	3
Operation	Operation	05/09/1999	06/15/1999	38
Non-Refueling	Shutdown	06/16/1999	06/21/1999	6
Operation	Operation	06/22/1999	09/30/1999	101

Time used in calculations

Trend Calculations				Deviation Calculations		
Op	12/23/1998-09/30/1999	270 days (incl. 0 days s/u)		Op	01/28/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	09/09/1998-06/21/1999	71 days (incl. 59 days ref)		S/D	03/16/1997-06/21/1999	110 days (incl. 93 days ref)
FOR	12/28/1998-09/30/1999	270 days		FOR	01/29/1998-09/30/1999	540 days

TABLE 9.42 HOPE CREEK

Type	Phase	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	2	3	2	0	0	0	1	0	0	1	0	1
	Pre-Refueling	0	0	0	2	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	2	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	3	0	0	0	0	10	0	0	0
EFO/1000 HRS		0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00
CRIT. HRS		2086	2160	2183	1715	760	2160	2183	2208	2038	1078	2183	2128
RAD		16	17	10	95	230	12	9	21	17	186	19	NA
CAUSE CODES:													
Admin.	Operations	4	2	2	3	1	2	3	2	3	1	1	1
	Pre-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	2	0	0	0	0	0	0	0
	Refueling	0	0	0	0	3	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	1	0	0	1	0	0	0	0	1	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	2	2	1	0	0	1	0	1	0	1	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	0	0
	Refueling	0	0	0	1	2	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	4	3	5	5	1	2	3	2	3	1	2	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	2	0	0	0	0	0	0	0
	Refueling	0	0	0	1	6	0	0	0	0	2	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	2	3	1	0	0	0	1	0	1	0	0	1
	Pre-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	2	0	0	0	0	0	0	0
	Refueling	0	0	0	1	1	0	0	0	0	2	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	1	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	11/02/1996	33
Non-Refueling	Shutdown	11/03/1996	11/06/1996	4
Operation	Operation	11/07/1996	08/16/1997	283
Pre-Refueling	Operation	08/17/1997	09/10/1997	25
Refueling	Shutdown	09/11/1997	11/28/1997	79
Start-up	Operation	11/29/1997	12/23/1997	25
Operation	Operation	12/24/1997	11/15/1998	327
Non-Refueling	Shutdown	11/16/1998	11/22/1998	7
Operation	Operation	11/23/1998	01/18/1999	57
Pre-Refueling	Operation	01/19/1999	02/12/1999	25
Refueling	Shutdown	02/13/1999	03/29/1999	45
Start-up	Operation	03/30/1999	04/23/1999	25
Operation	Operation	04/24/1999	09/30/1999	160

Time used in calculations

Trend Calculations

Op	11/13/1998-09/30/1999	270 days	(incl. 25 days s/u)
S/D	11/16/1998-03/29/1999	52 days	(incl. 45 days ref)
FOR	11/14/1998-09/30/1999	270 days	

Deviation Calculations

Op	02/16/1998-09/30/1999	540 days	(incl. 25 days s/u)
S/D	11/03/1996-03/29/1999	135 days	(incl. 124 days ref)
FOR	02/17/1998-09/30/1999	540 days	

TABLE 9.43 INDIAN POINT 2

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	1	0	1	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	1	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	2	1	0	0	0	0	0
FOR (%)		0	53	0	19	85	100	100	78	0	0	0	33
EFO/1000 HRS		0.00	0.98	0.00	1.73	2.96	0.00	0.00	1.82	0.00	0.00	0.00	1.35
CRIT. HRS		2209	1022	719	1737	338	0	0	550	2209	2160	2183	1479
RAD		10	28	300	17	24	186	83	43	12	13	6	NA
CAUSE CODES:													
Admin.	Operations	2	2	0	1	0	0	0	2	4	3	4	2
	Pre-Refueling	0	0	2	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	1	0	0	0	0	0	0	0	0
	Refueling	0	0	4	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	1	0	0	2	1	2	3	0	0	0	0
Lic. Oper.	Operations	1	0	0	0	0	0	0	1	1	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
Oth. Per.	Operations	1	2	0	0	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	1	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Non-Refueling	0	1	0	0	1	1	0	0	0	0	0	0
Maint.	Operations	4	4	0	2	0	0	0	1	4	1	3	2
	Pre-Refueling	0	0	2	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	1	0	0	0	0	0	0	0	0
	Refueling	0	0	3	1	0	0	0	0	0	0	0	0
	Non-Refueling	0	2	0	0	2	2	2	5	0	0	0	0
Design	Operations	1	0	1	0	0	0	0	1	0	2	1	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	1	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	1	0	2	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	01/26/1997	118
Non-Refueling	Shutdown	01/27/1997	03/13/1997	46
Operation	Operation	03/14/1997	04/06/1997	24
Pre-Refueling	Operation	04/07/1997	05/01/1997	25
Refueling	Shutdown	05/02/1997	07/07/1997	67
Start-up	Operation	07/08/1997	08/01/1997	25
Operation	Operation	08/02/1997	08/06/1997	5
Non-Refueling	Shutdown	08/07/1997	08/15/1997	9
Operation	Operation	08/16/1997	10/15/1997	61
Non-Refueling	Shutdown	10/16/1997	09/03/1998	323
Operation	Operation	09/04/1998	09/16/1998	13
Non-Refueling	Shutdown	09/17/1998	09/20/1998	4
Operation	Operation	09/21/1998	08/31/1999	345
Non-Refueling	Shutdown	09/01/1999	09/30/1999	30

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/05/1998-08/31/1999	270 days (incl. 0 days s/u)	Op	12/16/1996-08/31/1999	540 days (incl. 25 days s/u)
S/D	07/10/1998-09/30/1999	90 days (incl. 0 days ref)	S/D	04/11/1998-09/30/1999	180 days (incl. 0 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	04/09/1998-09/30/1999	540 days

TABLE 9.44 INDIAN POINT 3

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	0	1	0	1	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	2	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	2	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	2	4	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		1	7	5	26	13	0	0	6	16	3	0	3
EFO/1000 HRS		0.00	0.70	0.95	2.20	0.53	0.00	0.00	0.93	0.00	0.00	0.00	0.60
CRIT. HRS		2209	1423	1048	455	1888	2133	2183	2151	1880	2127	2183	1680
RAD		7	26	121	110	2	4	3	4	4	2	1	NA
CAUSE CODES:													
Admin.	Operations	0	0	0	0	3	0	0	1	3	1	2	2
	Pre-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	2	0	0	0	0	0	0	0	0
	Refueling	0	0	4	4	0	0	0	0	0	0	0	0
	Non-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	1	0	0	1	1	1
	Pre-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	1	1	0	0	0	0	0	0	0
	Refueling	0	0	3	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	1	0	0	2	0	1	2	3	2	3	1
	Pre-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	3	0	0	0	0	0	0	0	0
	Refueling	0	0	4	6	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	1	0	0	2	2	1	1	0	1	0	1
	Pre-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	2	2	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	1	0	0	0	0	0	0	1
	Pre-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	01/18/1997	110
Non-Refueling	Shutdown	01/19/1997	02/17/1997	30
Operation	Operation	02/18/1997	04/19/1997	61
Pre-Refueling	Operation	04/20/1997	05/14/1997	25
Refueling	Shutdown	05/15/1997	09/06/1997	115
Start-up	Operation	09/07/1997	09/15/1997	9
Non-Refueling	Shutdown	09/16/1997	09/18/1997	3
Start-up	Operation	09/19/1997	10/04/1997	16
Operation	Operation	10/05/1997	12/18/1997	75
Non-Refueling	Shutdown	12/19/1997	01/01/1998	14
Operation	Operation	01/02/1998	11/19/1998	322
Non-Refueling	Shutdown	11/20/1998	12/01/1998	12
Operation	Operation	12/02/1998	08/16/1999	258
Pre-Refueling	Operation	08/17/1999	09/10/1999	25
Refueling	Shutdown	09/11/1999	09/30/1999	20

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/15/1998-09/10/1999	270 days (incl. 0 days s/u)	Op	03/08/1998-09/10/1999	540 days (incl. 0 days s/u)
S/D	11/20/1998-09/30/1999	32 days (incl. 20 days ref)	S/D	02/02/1997-09/30/1999	180 days (incl. 135 days ref)
FOR	12/14/1998-09/30/1999	270 days	FOR	03/18/1998-09/30/1999	540 days

TABLE 9.45 KEWAUNEE

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	1	1	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	0	1	0	0	0	0	0	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		0	0	490	2208	2209	2008	2183	2208	1243	2160	2183	2208
RAD		89	23	29	2	2	6	1	1	81	1	2	NA
CAUSE CODES:													
Admin.	Operations	0	0	0	0	1	4	2	2	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	4	1	1	0	0	0	0	0	2	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	1	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	0	0	0	1	4	2	2	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	4	1	1	0	0	0	0	0	4	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	2	1	3	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Refueling	Shutdown	10/01/1996	06/09/1997	252
Start-up	Operation	06/10/1997	07/04/1997	25
Operation	Operation	07/05/1997	02/06/1998	217
Non-Refueling	Shutdown	02/07/1998	02/11/1998	5
Operation	Operation	02/12/1998	09/21/1998	222
Pre-Refueling	Operation	09/22/1998	10/16/1998	25
Refueling	Shutdown	10/17/1998	11/25/1998	40
Start-up	Operation	11/26/1998	12/20/1998	25
Operation	Operation	12/21/1998	09/30/1999	284

Time used in calculations

Trend Calculations				Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)		Op	02/28/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	10/17/1998-11/25/1998	40 days (incl. 40 days ref)		S/D	01/26/1997-11/25/1998	180 days (incl. 175 days ref)
FOR	01/04/1999-09/30/1999	270 days		FOR	02/26/1998-09/30/1999	540 days

TABLE 9.46 LASALLE 1

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	3	2	0	2	2	1	1	0	0	0	0	0
FOR (%)		100	0	0	0	0	100	100	49	0	0	0	3
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.76	0.00	0.00	0.00	0.00
CRIT. HRS		0	0	0	0	0	0	0	1318	2064	2160	2183	2166
RAD		406	29	23	38	73	33	70	32	79	117	29	NA
CAUSE CODES:													
Admin.	Operations	0	0	0	0	0	0	0	2	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	5	11	11	5	10	2	3	2	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	1	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	2	0	0	0	0	1	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	1	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	1	2	1	1	0	1	1	0	0	0	0	0
Maint.	Operations	0	0	0	0	0	0	0	1	0	0	1	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	6	9	10	3	9	2	3	2	0	0	0	0
Design	Operations	0	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	5	5	2	2	4	1	1	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Non-Refueling	Shutdown	10/01/1996	08/06/1998	675
Operation	Operation	08/07/1998	12/04/1998	120
Non-Refueling	Shutdown	12/05/1998	12/10/1998	6
Operation	Operation	12/11/1998	09/27/1999	291
Pre-Refueling	Operation	09/28/1999	09/30/1999	3

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)	Op	08/07/1998-09/30/1999	414 days (incl. 0 days s/u)
S/D	05/15/1998-12/10/1998	90 days (incl. 0 days ref)	S/D	02/14/1998-12/10/1998	100 days (incl. 0 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	04/02/1998-09/30/1999	540 days

TABLE 9.47 LASALLE 2

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	4	2	0	1	2	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	1	1	0	0	0	0	0
FOR (%)		0	0	0	0	0	100	100	100	100	100	11	2
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		0	0	0	0	0	0	0	0	0	0	1975	2169
RAD		406	29	23	38	72	33	70	32	79	117	29	NA
CAUSE CODES:													
Admin.	Operations	0	0	0	0	0	0	0	0	0	0	0	2
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	6	10	10	3	10	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	2	2	1	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	2	1	1	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
Maint.	Operations	0	0	0	0	0	0	0	0	0	0	0	2
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	7	8	9	2	9	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	3	2	1	0	0	0	0
Design	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	5	4	2	2	4	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	1	1	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Refueling	Shutdown	10/01/1996	12/31/1997	457
Non-Refueling	Shutdown	01/01/1998	01/31/1999	396
Refueling	Shutdown	02/01/1999	04/08/1999	67
Start-up	Operation	04/09/1999	05/03/1999	25
Operation	Operation	05/04/1999	09/30/1999	150

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	04/09/1999-09/30/1999	175 days (incl. 25 days s/u)	Op	04/09/1999-09/30/1999	175 days (incl. 25 days s/u)
S/D	01/09/1999-04/08/1999	90 days (incl. 67 days ref)	S/D	10/11/1998-04/08/1999	180 days (incl. 67 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	04/09/1998-09/30/1999	540 days

TABLE 9.48 LIMERICK 1

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	2	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	1	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	1	1	0	1	0	0	2	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	0	0	39	1	0	0	8	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.48	0.00
CRIT. HRS		2209	2160	2082	2208	2209	2010	1101	2208	1959	2160	2065	2208
RAD		13	76	17	9	17	23	130	6	16	15	88	NA
CAUSE CODES:													
Admin.	Operations	1	2	0	0	2	2	0	1	1	2	3	0
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	1	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	2	0	0	0	2	3	0	0	0	0	4	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	2	3	0	1	4	1	0	1	0	1	5	1
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	2	0	0	0	0	0
	Refueling	0	0	0	0	0	0	2	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	1	0	0	0	3	1	0	1	0	0	1	0
	Pre-Refueling	0	0	0	0	0	2	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	06/21/1997	264
Non-Refueling	Shutdown	06/22/1997	06/25/1997	4
Operation	Operation	06/26/1997	01/31/1998	220
Non-Refueling	Shutdown	02/01/1998	02/03/1998	3
Operation	Operation	02/04/1998	03/09/1998	34
Pre-Refueling	Operation	03/10/1998	04/03/1998	25
Refueling	Shutdown	04/04/1998	05/17/1998	44
Start-up	Operation	05/18/1998	06/11/1998	25
Operation	Operation	06/12/1998	12/04/1998	176
Non-Refueling	Shutdown	12/05/1998	12/14/1998	10
Operation	Operation	12/15/1998	09/30/1999	290

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)	Op	02/14/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/04/1998-12/14/1998	54 days (incl. 44 days ref)	S/D	06/22/1997-12/14/1998	61 days (incl. 44 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	03/07/1998-09/30/1999	540 days

TABLE 9.49 LIMERICK 2

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	1	1	0	0	0	1	1	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	2	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		16	0	6	0	0	0	17	0	0	0	0	0
EFO/1000 HRS		2.57	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		1942	1520	2183	2208	2209	2160	1825	2208	2209	2160	1309	2208
RAD		13	76	17	9	17	23	130	6	16	15	88	NA
CAUSE CODES:													
Admin.	Operations	4	0	0	1	4	1	2	2	1	1	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	2	0
	Refueling	0	2	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
Lic. Oper.	Operations	1	0	1	2	0	0	0	0	1	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	0	2	1	1	1	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	2	0	2	1	4	0	1	2	1	0	0	1
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	2	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
Design	Operations	1	0	0	0	2	1	0	1	0	1	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
Misc.	Operations	0	0	0	1	0	0	1	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	12/06/1996	67
Non-Refueling	Shutdown	12/07/1996	12/13/1996	7
Operation	Operation	12/14/1996	12/18/1996	5
Non-Refueling	Shutdown	12/19/1996	12/21/1996	3
Operation	Operation	12/22/1996	01/05/1997	15
Pre-Refueling	Operation	01/06/1997	01/30/1997	25
Refueling	Shutdown	01/31/1997	02/25/1997	26
Start-up	Operation	02/26/1997	03/22/1997	25
Operation	Operation	03/23/1997	05/30/1998	434
Non-Refueling	Shutdown	05/31/1998	06/13/1998	14
Operation	Operation	06/14/1998	03/22/1999	282
Pre-Refueling	Operation	03/23/1999	04/16/1999	25
Refueling	Shutdown	04/17/1999	05/22/1999	36
Start-up	Operation	05/23/1999	06/16/1999	25
Operation	Operation	06/17/1999	09/30/1999	106

Time used in calculations

Trend Calculations				Deviation Calculations			
Op	11/29/1998-09/30/1999	270 days	(incl. 25 days s/u)	Op	02/18/1998-09/30/1999	540 days	(incl. 25 days s/u)
S/D	05/31/1998-05/22/1999	50 days	(incl. 36 days ref)	S/D	12/07/1996-05/22/1999	86 days	(incl. 62 days ref)
FOR	11/26/1998-09/30/1999	270 days		FOR	02/27/1998-09/30/1999	540 days	

TABLE 9.50 MCGUIRE 1

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		11	0	6	3	0	3	0	0	0	0	0	0
EFO/1000 HRS		0.00	0.00	2.85	0.46	0.00	0.94	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		1956	1067	1053	2153	2209	2121	1397	2205	2209	2160	2183	1895
RAD		2	76	40	9	101	2	64	4	1	49	32	NA
CAUSE CODES:													
Admin.	Operations	1	0	0	0	2	1	0	1	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	1	0	0	0	0
	Refueling	0	2	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	2	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	0	0	0	1	2	0	1	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	1	0	0	0	0
	Refueling	0	1	1	0	0	0	1	0	0	0	0	0
	Non-Refueling	3	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	0	1	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	2	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	10/31/1996	31
Non-Refueling	Shutdown	11/01/1996	11/09/1996	9
Operation	Operation	11/10/1996	01/20/1997	72
Pre-Refueling	Operation	01/21/1997	02/14/1997	25
Refueling	Shutdown	02/15/1997	05/17/1997	92
Start-up	Operation	05/18/1997	06/11/1997	25
Operation	Operation	06/12/1997	05/04/1998	327
Pre-Refueling	Operation	05/05/1998	05/29/1998	25
Refueling	Shutdown	05/30/1998	06/30/1998	32
Start-up	Operation	07/01/1998	07/25/1998	25
Operation	Operation	07/26/1998	08/23/1999	394
Pre-Refueling	Operation	08/24/1999	09/17/1999	25
Refueling	Shutdown	09/18/1999	09/30/1999	13

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/22/1998-09/17/1999	270 days (incl. 0 days s/u)	Op	02/23/1998-09/17/1999	540 days (incl. 25 days s/u)
S/D	05/30/1998-09/30/1999	45 days (incl. 45 days ref)	S/D	11/01/1996-09/30/1999	146 days (incl. 137 days ref)
FOR	12/21/1998-09/30/1999	270 days	FOR	02/21/1998-09/30/1999	540 days

TABLE 9.51 MCGUIRE 2

		Year - Calendar Quarter											
Type	**Phase**	**96-4**	**97-1**	**97-2**	**97-3**	**97-4**	**98-1**	**98-2**	**98-3**	**98-4**	**99-1**	**99-2**	**99-3**
SCRAM	Operations	0	0	0	2	0	1	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	1	0	0	0	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		13	0	16	16	0	2	0	0	0	0	0	1
EFO/1000 HRS		0.00	0.00	0.55	1.05	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		1929	2160	1833	1900	411	2127	2183	2208	2209	1705	1858	2187
RAD		2	76	40	9	101	2	64	4	1	49	32	NA
CAUSE CODES:													
Admin.	Operations	0	1	1	0	0	1	0	2	0	0	1	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	2	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	0	1	0	0	1	0	2	0	0	1	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	2	0	0	1	0	0	0	0	0	0	0	0
Design	Operations	0	2	0	2	0	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	**Phase type**	**Start**	**End**	**Length**
Operation	Operation	10/01/1996	10/31/1996	31
Non-Refueling	Shutdown	11/01/1996	11/11/1996	11
Operation	Operation	11/12/1996	06/14/1997	215
Non-Refueling	Shutdown	06/15/1997	06/27/1997	13
Operation	Operation	06/28/1997	07/11/1997	14
Non-Refueling	Shutdown	07/12/1997	07/20/1997	9
Operation	Operation	07/21/1997	09/08/1997	50
Pre-Refueling	Operation	09/09/1997	10/03/1997	25
Refueling	Shutdown	10/04/1997	12/16/1997	74
Start-up	Operation	12/17/1997	01/10/1998	25
Operation	Operation	01/11/1998	02/15/1999	401
Pre-Refueling	Operation	02/16/1999	03/12/1999	25
Refueling	Shutdown	03/13/1999	04/13/1999	32
Start-up	Operation	04/14/1999	05/08/1999	25
Operation	Operation	05/09/1999	09/30/1999	145

Time used in calculations

Trend Calculations

Op	12/03/1998-09/30/1999	270 days (incl. 25 days s/u)
S/D	03/13/1999-04/13/1999	32 days (incl. 32 days ref)
FOR	12/01/1998-09/30/1999	270 days

Deviation Calculations

Op	03/08/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	11/01/1996-04/13/1999	139 days (incl. 106 days ref)
FOR	03/06/1998-09/30/1999	540 days

TABLE 9.52 MILLSTONE 2

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	3	1	3	2	3	3	3	3	0	2	0	0
FOR (%)		100	100	100	100	100	100	100	100	100	100	45	8
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	0.48
CRIT. HRS		0	0	0	0	0	0	0	0	0	0	1160	2077
RAD		11	31	36	36	36	31	21	9	13	53	21	NA
CAUSE CODES:													
Admin.	Operations	0	0	0	0	0	0	0	0	0	0	2	2
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	11	7	11	3	1	2	4	5	1	5	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	1	0	0	0	0	0	2	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	1	1	1	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	0	0	0	0	0	0	0	0	0	2	2
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	9	6	7	3	0	1	5	3	1	5	0	0
Design	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	5	2	6	5	3	5	4	4	2	2	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	2	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Regulatory	Regulatory	10/01/1996	04/28/1999	940
Non-Refueling	Shutdown	04/29/1999	05/08/1999	10
Operation	Operation	05/09/1999	09/17/1999	132
Non-Refueling	Shutdown	09/18/1999	09/22/1999	5
Operation	Operation	09/23/1999	09/30/1999	8

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	05/09/1999-09/30/1999	140 days (incl. 0 days s/u)	Op	05/09/1999-09/30/1999	140 days (incl. 0 days s/u)
S/D	04/29/1999-09/22/1999	15 days (incl. 0 days ref)	S/D	04/29/1999-09/22/1999	15 days (incl. 0 days ref)
FOR	04/29/1999-09/30/1999	144 days	FOR	04/29/1999-09/30/1999	144 days

TABLE 9.53 MILLSTONE 3

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	2	1	2	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	5	5	4	1	2	3	1	0	0	0	0	0
FOR (%)		100	100	100	100	100	100	100	15	29	0	0	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	1.21	0.00	0.00	0.00
CRIT. HRS		0	0	0	0	0	0	1	2008	1656	2160	827	2208
RAD		12	14	17	27	34	12	10	1	3	4	143	NA
CAUSE CODES:													
Admin.	Operations	0	0	0	0	0	0	0	1	2	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	4	0
	Non-Refueling	12	21	10	5	9	16	8	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	2	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	1	0	0	1	0	0	2	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	0	2	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	5	3	0	1	0	1	0	0	0	0	0
Maint.	Operations	0	0	0	0	0	0	0	0	6	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	3	0
	Non-Refueling	8	16	10	5	7	13	10	0	0	0	0	0
Design	Operations	0	0	0	0	0	0	0	2	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	2	0
	Non-Refueling	7	8	6	3	4	5	3	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	1	0	0	0

Phase	Phase type	Start	End	Length
Regulatory	Regulatory	10/01/1996	06/30/1998	638
Operation	Operation	07/01/1998	08/12/1998	43
Non-Refueling	Shutdown	08/13/1998	08/18/1998	6
Operation	Operation	08/19/1998	12/11/1998	115
Non-Refueling	Shutdown	12/12/1998	12/29/1998	18
Operation	Operation	12/30/1998	04/06/1999	98
Pre-Refueling	Operation	04/07/1999	05/01/1999	25
Refueling	Shutdown	05/02/1999	06/25/1999	55
Start-up	Operation	06/26/1999	07/20/1999	25
Operation	Operation	07/21/1999	09/30/1999	72

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	10/23/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	07/01/1998-09/30/1999	378 days (incl. 25 days s/u)
S/D	08/13/1998-06/25/1999	79 days (incl. 55 days ref)	S/D	08/13/1998-06/25/1999	79 days (incl. 55 days ref)
FOR	11/05/1998-09/30/1999	270 days	FOR	07/01/1998-09/30/1999	396 days

TABLE 9.54 MONTICELLO

		Year - Calendar Quarter											
Type	**Phase**	**96-4**	**97-1**	**97-2**	**97-3**	**97-4**	**98-1**	**98-2**	**98-3**	**98-4**	**99-1**	**99-2**	**99-3**
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	1	0	0	1	0	0	0	1	0	0	4	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		5	0	57	33	7	0	0	10	0	0	31	0
EFO/1000 HRS		1.40	0.00	0.00	0.00	0.97	0.00	0.00	0.99	0.00	0.00	1.28	0.00
CRIT. HRS		2145	2160	932	1492	2067	1878	1620	2015	2209	2160	1558	2208
RAD		25	13	44	39	13	102	91	8	8	13	25	NA
CAUSE CODES:													
Admin.	Operations	2	2	2	2	1	0	0	0	0	1	2	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	1	0	0	0	0	0	0	0	0	0	2	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	0	1	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	3	0	3	1	2	0	0	2	0	1	4	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	1	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	1	1	0	2	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	1	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	05/09/1997	221
Non-Refueling	Shutdown	05/10/1997	07/29/1997	81
Operation	Operation	07/30/1997	11/25/1997	119
Non-Refueling	Shutdown	11/26/1997	11/30/1997	5
Operation	Operation	12/01/1997	02/23/1998	85
Pre-Refueling	Operation	02/24/1998	03/20/1998	25
Refueling	Shutdown	03/21/1998	04/23/1998	34
Start-up	Operation	04/24/1998	05/18/1998	25
Operation	Operation	05/19/1998	09/09/1998	114
Non-Refueling	Shutdown	09/10/1998	09/14/1998	5
Operation	Operation	09/15/1998	04/22/1999	220
Non-Refueling	Shutdown	04/23/1999	04/28/1999	6
Operation	Operation	04/29/1999	05/08/1999	10
Non-Refueling	Shutdown	05/09/1999	05/25/1999	17
Operation	Operation	05/26/1999	09/30/1999	128

Time used in calculations

Trend Calculations

Op	12/12/1998-09/30/1999	270 days (incl. 0 days s/u)
S/D	04/01/1998-05/25/1999	51 days (incl. 23 days ref)
FOR	01/04/1999-09/30/1999	270 days

Deviation Calculations

Op	02/06/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	05/10/1997-05/25/1999	148 days (incl. 34 days ref)
FOR	03/03/1998-09/30/1999	540 days

TABLE 9.55 NINE MILE PT. 1

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	1	0	0	0	0	0	0	0	0	0	0	2
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	1	2	0	2	3	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	2	0	0	0	0	0
FOR (%)		7	3	29	20	76	0	31	0	0	0	0	15
EFO/1000 HRS		0.49	0.69	4.25	1.12	0.00	0.00	0.65	0.00	0.00	0.00	0.00	0.53
CRIT. HRS		2061	1453	942	1783	548	2160	1532	2208	2209	2160	637	1903
RAD		18	255	74	15	30	9	13	7	5	10	331	NA
CAUSE CODES:													
Admin.	Operations	1	0	2	1	0	2	3	3	1	1	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	1	0	0	1	0	0	1	0	0	0	0	0
Lic. Oper.	Operations	1	0	0	0	0	0	3	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	1	1	0	2	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	1	0	0	0	2	0	1	0	0	0	0	0
Maint.	Operations	1	0	1	2	0	2	1	3	2	1	0	2
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	1	0	0	0	1	0	1	0	0	0	0	0
Design	Operations	2	1	1	2	0	0	4	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	1	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	1	0	0	1	1	0	2	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	11/05/1996	36
Non-Refueling	Shutdown	11/06/1996	11/11/1996	6
Operation	Operation	11/12/1996	02/06/1997	87
Pre-Refueling	Operation	02/07/1997	03/03/1997	25
Refueling	Shutdown	03/04/1997	05/08/1997	66
Start-up	Operation	05/09/1997	05/14/1997	6
Non-Refueling	Shutdown	05/15/1997	05/17/1997	3
Start-up	Operation	05/18/1997	06/05/1997	19
Operation	Operation	06/06/1997	06/14/1997	9
Non-Refueling	Shutdown	06/15/1997	06/20/1997	6
Operation	Operation	06/21/1997	09/15/1997	87
Non-Refueling	Shutdown	09/16/1997	12/08/1997	84
Operation	Operation	12/09/1997	04/29/1998	142
Non-Refueling	Shutdown	04/30/1998	05/25/1998	26
Operation	Operation	05/26/1998	03/17/1999	296
Pre-Refueling	Operation	03/18/1999	04/11/1999	25
Refueling	Shutdown	04/12/1999	06/14/1999	64
Start-up	Operation	06/15/1999	07/09/1999	25
Operation	Operation	07/10/1999	07/23/1999	14
Non-Refueling	Shutdown	07/24/1999	07/31/1999	8
Operation	Operation	08/01/1999	08/01/1999	1
Non-Refueling	Shutdown	08/02/1999	08/04/1999	3
Operation	Operation	08/05/1999	09/30/1999	57

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	10/21/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	12/29/1997-09/30/1999	540 days (incl. 25 days s/u)
S7D	05/11/1998-08/04/1999	90 days (incl. 64 days ref)	S7D	09/21/1997-08/04/1999	180 days (incl. 64 days ref)
FOR	10/29/1998-09/30/1999	270 days	FOR	02/01/1998-09/30/1999	540 days

TABLE 9.56 NINE MILE PT. 2

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	2	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	1	0	0	0	0	2	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	2	1	0	0	0	1	1	1	2	0
	Pre-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	2	0	0	0	0	0	3	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		7	0	0	7	7	0	0	0	8	0	18	25
EFO/1000 HRS		0.00	0.00	0.00	0.48	0.48	0.00	0.00	0.00	0.49	0.00	1.09	0.00
CRIT. HRS		1391	2160	2048	2092	2084	2160	745	2174	2055	2160	1834	1733
RAD		175	13	21	16	18	12	262	20	22	15	12	NA
CAUSE CODES:													
Admin.	Operations	0	1	0	5	3	2	2	2	2	3	5	3
	Pre-Refueling	0	0	0	0	0	0	2	0	0	0	0	0
	Startup	2	0	0	0	0	0	0	0	0	0	0	0
	Refueling	2	0	0	0	0	0	8	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	1	2
Lic. Oper.	Operations	0	0	1	0	0	1	0	0	0	2	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	1	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	1	1	6	3	2	2	2	3	3	5	3
	Pre-Refueling	0	0	0	0	0	0	3	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	2	0	0	0	0	0	8	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	1	2
Design	Operations	1	0	1	1	1	2	0	0	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	5	0	0	0	0	0
	Non-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	1	0	0	0	0	2	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length	Phase	Phase type	Start	End	Length
Refueling	Shutdown	10/01/1996	10/30/1996	30	Operation	Operation	06/30/1999	07/02/1999	3
Start-up	Operation	10/31/1996	11/24/1996	25	Non-Refueling	Shutdown	07/03/1999	07/21/1999	19
Operation	Operation	11/25/1996	12/19/1996	25	Operation	Operation	07/22/1999	09/30/1999	71
Non-Refueling	Shutdown	12/20/1996	12/22/1996	3					
Operation	Operation	12/23/1996	06/02/1997	162					
Non-Refueling	Shutdown	06/03/1997	06/06/1997	4					
Operation	Operation	06/07/1997	08/04/1997	59					
Non-Refueling	Shutdown	08/05/1997	08/08/1997	4					
Operation	Operation	08/09/1997	11/05/1997	89					
Non-Refueling	Shutdown	11/06/1997	11/09/1997	4					
Operation	Operation	11/10/1997	04/07/1998	149					
Pre-Refueling	Operation	04/08/1998	05/02/1998	25					
Refueling	Shutdown	05/03/1998	07/01/1998	60					
Start-up	Operation	07/02/1998	07/26/1998	25					
Operation	Operation	07/27/1998	11/24/1998	121					
Non-Refueling	Shutdown	11/25/1998	11/29/1998	5					
Operation	Operation	11/30/1998	04/24/1999	146					
Non-Refueling	Shutdown	04/25/1999	05/02/1999	8					
Operation	Operation	05/03/1999	06/24/1999	53					
Non-Refueling	Shutdown	06/25/1999	06/29/1999	5					

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/03/1998-09/30/1999	270 days (incl. 0 days s/u)	Op	01/02/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	05/10/1998-07/21/1999	90 days (incl. 53 days ref)	S/D	10/01/1996-07/21/1999	142 days (incl. 90 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	02/03/1998-09/30/1999	540 days

TABLE 9.57 NORTH ANNA 1

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	1	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	0	0	0	0	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	1	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		1	0	0	0	0	0	0	3	0	0	0	0
EFO/1000 HRS		0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		2188	2160	1461	2208	2209	2160	2183	1777	2050	2160	2183	2208
RAD		12	2	47	2	2	2	78	45	8	1	1	NA
CAUSE CODES:													
Admin.	Operations	1	1	0	1	1	2	0	1	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	1	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	2	0	0	0	0	1	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	2	1	0	1	2	2	0	1	0	2	0	1
	Pre-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	3	0	0	0	0	2	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	1	1	0	0	0	0	0	1	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	04/16/1997	198
Pre-Refueling	Operation	04/17/1997	05/11/1997	25
Refueling	Shutdown	05/12/1997	06/09/1997	29
Start-up	Operation	06/10/1997	07/04/1997	25
Operation	Operation	07/05/1997	08/19/1998	411
Pre-Refueling	Operation	08/20/1998	09/13/1998	25
Refueling	Shutdown	09/14/1998	10/06/1998	23
Start-up	Operation	10/07/1998	10/31/1998	25
Operation	Operation	11/01/1998	09/30/1999	334

Time used in calculations

Trend Calculations

Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)
S/D	09/14/1998-10/06/1998	23 days (incl. 23 days ref)
FOR	01/04/1999-09/30/1999	270 days

Deviation Calculations

Op	03/17/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	05/12/1997-10/06/1998	52 days (incl. 52 days ref)
FOR	03/14/1998-09/30/1999	540 days

TABLE 9.58 NORTH ANNA 2

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	1	0	0	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	0	0	0	0	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		56	0	0	0	1	0	0	1	0	0	0	0
EFO/1000 HRS		2.29	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		873	2160	2183	2208	2209	2160	1513	2191	2209	2160	2183	1755
RAD		12	2	47	2	2	2	78	45	8	1	1	NA
CAUSE CODES:													
Admin.	Operations	0	1	0	1	1	1	0	0	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	1	0	1	1	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	1	0	0	0	0	1
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	2	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	1	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Refueling	Shutdown	10/01/1996	10/12/1996	12
Start-up	Operation	10/13/1996	10/21/1996	9
Non-Refueling	Shutdown	10/22/1996	10/24/1996	3
Start-up	Operation	10/25/1996	11/09/1996	16
Operation	Operation	11/10/1996	11/12/1996	3
Non-Refueling	Shutdown	11/13/1996	12/21/1996	39
Operation	Operation	12/22/1996	03/11/1998	445
Pre-Refueling	Operation	03/12/1998	04/05/1998	25
Refueling	Shutdown	04/06/1998	05/02/1998	27
Start-up	Operation	05/03/1998	05/27/1998	25
Operation	Operation	05/28/1998	08/18/1999	448
Pre-Refueling	Operation	08/19/1999	09/12/1999	25
Refueling	Shutdown	09/13/1999	09/30/1999	18

Time used in calculations

Trend Calculations

Op	12/17/1998-09/12/1999	270 days	(incl. 0 days s/u)
S/D	04/06/1998-09/30/1999	45 days	(incl. 45 days ref)
FOR	12/16/1998-09/12/1999	270 days	

Deviation Calculations

Op	02/23/1998-09/12/1999	540 days	(incl. 25 days s/u)
S/D	10/01/1996-09/30/1999	99 days	(incl. 57 days ref)
FOR	02/20/1998-09/12/1999	540 days	

TABLE 9.59 OCONEE 1

		Year - Calendar Quarter											
Type	**Phase**	**96-4**	**97-1**	**97-2**	**97-3**	**97-4**	**98-1**	**98-2**	**98-3**	**98-4**	**99-1**	**99-2**	**99-3**
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	1
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	2	1	0	3	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	1	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	7	31	3	88	50	0	19	0	0	0	14
EFO/1000 HRS		0.00	0.94	0.66	0.00	37.88	1.79	0.00	0.56	0.00	0.00	0.00	3.54
CRIT. HRS		207	1066	1522	1849	132	1117	2183	1795	2209	2160	1177	1975
RAD		37	15	15	12	37	24	39	7	56	4	26	NA
CAUSE CODES:													
Admin.	Operations	0	0	0	0	0	1	2	1	3	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	1	0
	Startup	0	0	0	0	1	2	0	0	0	0	0	1
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	1	0	0	0	2	0	1	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	0	0	0	0	0	1	1	3	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	1	2	0	0	0	0	0	1
	Refueling	0	0	0	0	1	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	3	0	0	0	0	0	0
Design	Operations	0	1	1	0	0	1	1	0	4	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	1	0
	Startup	0	0	0	0	0	1	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	1	0	0	0	0	0	1	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	1	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	10/09/1996	9
Non-Refueling	Shutdown	10/10/1996	02/11/1997	125
Operation	Operation	02/12/1997	03/28/1997	45
Non-Refueling	Shutdown	03/29/1997	04/10/1997	13
Operation	Operation	04/11/1997	06/13/1997	64
Non-Refueling	Shutdown	06/14/1997	07/02/1997	19
Operation	Operation	07/03/1997	08/24/1997	53
Pre-Refueling	Operation	08/25/1997	09/18/1997	25
Refueling	Shutdown	09/19/1997	11/13/1997	56
Non-Refueling	Shutdown	11/14/1997	12/22/1997	39
Start-up	Operation	12/23/1997	12/28/1997	6
Non-Refueling	Shutdown	12/29/1997	02/09/1998	43
Start-up	Operation	02/10/1998	02/28/1998	19
Operation	Operation	03/01/1998	08/08/1998	161
Non-Refueling	Shutdown	08/09/1998	08/24/1998	16
Operation	Operation	08/25/1998	04/25/1999	244
Pre-Refueling	Operation	04/26/1999	05/20/1999	25
Refueling	Shutdown	05/21/1999	07/04/1999	45
Start-up	Operation	07/05/1999	07/29/1999	25
Operation	Operation	07/30/1999	09/30/1999	63

Time used in calculations

Trend Calculations

Op	11/20/1998-09/30/1999	270 days (incl. 25 days s/u)
S/D	08/09/1998-07/04/1999	61 days (incl. 45 days ref)
FOR	11/19/1998-09/30/1999	270 days

Deviation Calculations

Op	12/26/1997-09/30/1999	540 days (incl. 47 days s/u)
S/D	10/08/1997-07/04/1999	180 days (incl. 82 days ref)
FOR	02/22/1998-09/30/1999	540 days

TABLE 9.60 OCONEE 2

Type	Phase	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	1	0	0	0	0	1	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
SSA	Operations	0	0	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	1	1	0	3	0	0	0
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Non-Refueling	1	1	0	0	0	0	0	0	0	0	0	0
FOR (%)		100	38	35	9	0	0	24	0	2	6	5	0
EFO/1000 HRS		0.00	0.72	0.70	0.98	0.00	0.00	4.39	0.00	0.46	0.98	0.48	0.00
CRIT. HRS		0	1380	1429	2045	2209	1719	910	2175	2166	2041	2094	2208
RAD		36	15	15	12	37	24	39	7	56	4	26	NA
CAUSE CODES:													
Admin.	Operations	0	0	1	1	0	3	1	4	3	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Non-Refueling	1	1	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	2	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	0	1	1	0	3	0	3	2	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	2	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	1	0	0	0	1	1	1	4	1	1	0
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Non-Refueling	1	1	1	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Non-Refueling	Shutdown	10/01/1996	02/01/1997	124
Operation	Operation	02/02/1997	04/22/1997	80
Non-Refueling	Shutdown	04/23/1997	05/23/1997	31
Operation	Operation	05/24/1997	09/04/1997	104
Non-Refueling	Shutdown	09/05/1997	09/09/1997	5
Operation	Operation	09/10/1997	02/16/1998	160
Pre-Refueling	Operation	02/17/1998	03/13/1998	25
Refueling	Shutdown	03/14/1998	05/21/1998	69
Start-up	Operation	05/22/1998	06/15/1998	25
Operation	Operation	06/16/1998	09/30/1999	472

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)	Op	01/30/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/01/1998-05/21/1998	51 days (incl. 51 days ref)	S/D	11/19/1996-05/21/1998	180 days (incl. 69 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	01/29/1998-09/30/1999	540 days

TABLE 9.61 OCONEE 3

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	1	0	0	0	0	0	0	1	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	1	0	0	2	1	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	1	0	0	0	0	0	0	2	0	0	0
	Non-Refueling	0	0	1	0	0	0	0	0	1	0	0	0
FOR (%)		0	72	41	9	11	0	0	0	56	2	0	0
EFO/1000 HRS		0.00	3.43	1.33	0.47	0.00	0.00	0.00	0.00	24.45	0.00	0.00	0.00
CRIT. HRS		87	583	1500	2118	1967	2160	2183	2208	532	2134	2140	2208
RAD		36	15	15	12	37	24	39	7	56	4	26	NA
CAUSE CODES:													
Admin.	Operations	0	0	1	0	1	4	2	2	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	1	0	0	0
	Refueling	1	1	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	4	0	0	0
Lic. Oper.	Operations	0	0	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	1	0	0	0	0	0	1	0	0	0
Oth. Per.	Operations	0	0	1	0	1	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	1	0	0	0
	Refueling	2	0	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	1	0	1	0	0	0	0	0	0	0
Maint.	Operations	0	0	2	0	1	3	1	1	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	1	0	0	0
	Refueling	2	0	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	1	0	1	0	0	0	2	0	0	0
Design	Operations	0	0	1	0	0	1	1	1	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	2	0	0	0
	Startup	0	2	0	0	0	0	0	0	2	0	0	0
	Refueling	1	1	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Pre-Refueling	Operation	10/01/1996	10/04/1996	4
Refueling	Shutdown	10/05/1996	01/29/1997	117
Non-Refueling	Shutdown	01/30/1997	03/06/1997	36
Start-up	Operation	03/07/1997	03/31/1997	25
Operation	Operation	04/01/1997	05/02/1997	32
Non-Refueling	Shutdown	05/03/1997	05/30/1997	28
Operation	Operation	05/31/1997	09/27/1997	120
Non-Refueling	Shutdown	09/28/1997	10/10/1997	13
Operation	Operation	10/11/1997	09/13/1998	338
Pre-Refueling	Operation	09/14/1998	10/08/1998	25
Refueling	Shutdown	10/09/1998	11/23/1998	46
Non-Refueling	Shutdown	11/24/1998	12/08/1998	15
Start-up	Operation	12/09/1998	12/11/1998	3
Non-Refueling	Shutdown	12/12/1998	12/17/1998	6
Start-up	Operation	12/18/1998	01/08/1999	22
Operation	Operation	01/09/1999	09/30/1999	265

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 5 days s/u)	Op	02/01/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	10/09/1998-12/17/1998	67 days (incl. 46 days ref)	S/D	12/25/1996-12/17/1998	180 days (incl. 82 days ref)
FOR	01/01/1999-09/30/1999	270 days	FOR	02/18/1998-09/30/1999	540 days

TABLE 9.62 OYSTER CREEK

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	1	1	0	0	0
	Non-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
FOR (%)		21	0	14	14	0	13	9	0	0	0	0	0
EFO/1000 HRS		1.39	0.00	0.52	0.00	0.00	0.53	0.48	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		1444	2160	1935	1953	2209	1875	2079	2091	1173	2160	2183	2208
RAD		100	14	15	11	9	11	15	62	220	10	11	NA
CAUSE CODES:													
Admin.	Operations	0	2	2	2	2	2	2	1	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	1	0	0	0
	Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	1	0	1	1	1	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	2	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Non-Refueling	1	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	2	3	4	2	3	2	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	2	0	0	0	0
	Startup	3	0	0	0	0	0	0	0	1	0	0	0
	Refueling	1	0	0	0	0	0	0	1	1	0	0	0
	Non-Refueling	2	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	2	1	0	1	0	1	0	1	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	2	0	0	0
	Non-Refueling	0	0	0	0	0	2	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Refueling	Shutdown	10/01/1996	10/19/1996	19
Start-up	Operation	10/20/1996	10/25/1996	6
Non-Refueling	Shutdown	10/26/1996	11/05/1996	11
Start-up	Operation	11/06/1996	11/24/1996	19
Operation	Operation	11/25/1996	04/23/1997	150
Non-Refueling	Shutdown	04/24/1997	05/02/1997	9
Operation	Operation	05/03/1997	08/01/1997	91
Non-Refueling	Shutdown	08/02/1997	08/09/1997	8
Operation	Operation	08/10/1997	03/20/1998	223
Non-Refueling	Shutdown	03/21/1998	04/03/1998	14
Operation	Operation	04/04/1998	09/01/1998	151
Pre-Refueling	Operation	09/02/1998	09/26/1998	25
Refueling	Shutdown	09/27/1998	11/12/1998	47
Start-up	Operation	11/13/1998	12/07/1998	25
Operation	Operation	12/08/1998	09/30/1999	297

Time used in calculations

Trend Calculations

Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)
S/D	04/01/1998-11/12/1998	50 days (incl. 47 days ref)
FOR	01/04/1999-09/30/1999	270 days

Deviation Calculations

Op	02/07/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	10/01/1996-11/12/1998	108 days (incl. 66 days ref)
FOR	02/18/1998-09/30/1999	540 days

TABLE 9.63 PALISADES

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	1	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	2	0	2	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	31	0	1	16	0	0	1	20	8	0	0
EFO/1000 HRS		0.00	2.45	0.00	0.46	0.00	0.00	0.00	0.46	0.56	0.00	0.00	0.00
CRIT. HRS		930	1634	2183	2195	1860	2115	1233	2192	1775	2003	1944	2208
RAD		268	17	12	7	16	8	197	4	8	8	9	NA
CAUSE CODES:													
Admin.	Operations	0	0	1	3	1	1	0	1	0	1	0	1
	Pre-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Startup	0	2	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	1	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Startup	0	1	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	1	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	1	2	0	2	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	1	1	1	1	1	0	1	0	1	0	1
	Pre-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Startup	0	1	0	0	0	0	0	0	0	0	0	0
	Refueling	2	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	3	0	0	0
Design	Operations	0	0	0	1	0	5	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	1	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	10/07/1996	7
Pre-Refueling	Operation	10/08/1996	11/01/1996	25
Refueling	Shutdown	11/02/1996	12/24/1996	53
Start-up	Operation	12/25/1996	01/06/1997	13
Non-Refueling	Shutdown	01/07/1997	01/13/1997	7
Start-up	Operation	01/14/1997	01/23/1997	10
Non-Refueling	Shutdown	01/24/1997	02/06/1997	14
Start-up	Operation	02/07/1997	02/08/1997	2
Operation	Operation	02/09/1997	09/30/1997	234
Non-Refueling	Shutdown	10/01/1997	10/14/1997	14
Operation	Operation	10/15/1997	03/31/1998	168
Pre-Refueling	Operation	04/01/1998	04/25/1998	25
Refueling	Shutdown	04/26/1998	06/04/1998	40
Start-up	Operation	06/05/1998	06/29/1998	25
Operation	Operation	06/30/1998	12/13/1998	167
Non-Refueling	Shutdown	12/14/1998	01/06/1999	24
Operation	Operation	01/07/1999	05/07/1999	121
Non-Refueling	Shutdown	05/08/1999	05/16/1999	9
Operation	Operation	05/17/1999	09/20/1999	127
Pre-Refueling	Operation	09/21/1999	09/30/1999	10

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/02/1998-09/30/1999	270 days (incl. 0 days s/u)	Op	01/26/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/26/1998-05/16/1999	73 days (incl. 40 days ref)	S/D	11/02/1996-05/16/1999	161 days (incl. 93 days ref)
FOR	12/24/1998-09/30/1999	270 days	FOR	02/12/1998-09/30/1999	540 days

TABLE 9.64 PALO VERDE 1

Type	Phase	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	1	0	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	5	0	0	3	0	0	0	3	0	0
EFO/1000 HRS		0.66	0.00	0.48	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		1511	2160	2095	2208	2208	1699	1758	2208	2208	2108	2184	2208
RAD		90	5	4	3	4	51	45	5	4	2	2	NA
CAUSE CODES:													
Admin.	Operations	0	0	2	1	1	1	1	0	0	1	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	1
	Startup	1	0	0	0	0	0	2	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	1	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	1
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	0	2	0	1	1	0	1	0	2	0	1
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	2	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	0	1	0	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Refueling	Shutdown	10/01/1996	10/29/1996	29
Start-up	Operation	10/30/1996	11/23/1996	25
Operation	Operation	11/24/1996	02/17/1998	451
Pre-Refueling	Operation	02/18/1998	03/14/1998	25
Refueling	Shutdown	03/15/1998	04/17/1998	34
Start-up	Operation	04/18/1998	05/12/1998	25
Operation	Operation	05/13/1998	09/07/1999	483
Pre-Refueling	Operation	09/08/1999	09/30/1999	23

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)	Op	03/06/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/01/1998-04/17/1998	17 days (incl. 17 days ref)	S/D	10/01/1996-04/17/1998	63 days (incl. 63 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	03/03/1998-09/30/1999	540 days

TABLE 9.65 PALO VERDE 2

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	2	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	11	0	0	0	0	0	2	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.70	0.00
CRIT. HRS		2208	2160	2184	1608	1740	2160	2184	2208	2208	2040	1438	2208
RAD		2	2	4	56	29	2	3	1	1	18	45	NA
CAUSE CODES:													
Admin.	Operations	1	0	1	0	0	1	2	0	0	0	0	1
	Pre-Refueling	0	0	0	1	0	0	0	0	0	2	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	0	0
	Refueling	0	0	0	1	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	1	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	1	1	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	1	1	0	0	2	2	1	0	1	0	2
	Pre-Refueling	0	0	0	1	0	0	0	0	0	2	0	0
	Startup	0	0	0	0	2	0	0	0	0	0	0	0
	Refueling	0	0	0	1	0	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	0	1	0	2	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	1	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	08/11/1997	315
Pre-Refueling	Operation	08/12/1997	09/05/1997	25
Refueling	Shutdown	09/06/1997	10/12/1997	37
Start-up	Operation	10/13/1997	10/20/1997	8
Non-Refueling	Shutdown	10/21/1997	10/27/1997	7
Start-up	Operation	10/28/1997	11/13/1997	17
Operation	Operation	11/14/1997	03/01/1999	473
Pre-Refueling	Operation	03/02/1999	03/26/1999	25
Refueling	Shutdown	03/27/1999	04/30/1999	35
Start-up	Operation	05/01/1999	05/25/1999	25
Operation	Operation	05/26/1999	09/30/1999	128

Time used in calculations

Trend Calculations

Op	11/30/1998-09/30/1999	270 days (incl. 25 days s/u)
S/D	03/27/1999-04/30/1999	35 days (incl. 35 days ref)
FOR	11/28/1998-09/30/1999	270 days

Deviation Calculations

Op	03/05/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	09/06/1997-04/30/1999	79 days (incl. 72 days ref)
FOR	03/03/1998-09/30/1999	540 days

TABLE 9.66 PALO VERDE 3

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	0	0	0	2	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	1	0	0	0	0	0	0	0	0	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		2208	1294	2159	2208	2208	2160	2184	1920	1606	2160	2184	2208
RAD		6	139	8	5	2	1	2	31	50	2	1	NA
CAUSE CODES:													
Admin.	Operations	1	0	1	1	1	0	1	1	0	2	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	1	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	0	1	0	1	0	1	1	0	2	0	1
	Pre-Refueling	0	1	0	0	0	0	0	1	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	1	1	0	1	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	01/28/1997	120
Pre-Refueling	Operation	01/29/1997	02/22/1997	25
Refueling	Shutdown	02/23/1997	03/29/1997	35
Start-up	Operation	03/30/1997	04/23/1997	25
Operation	Operation	04/24/1997	08/24/1998	488
Pre-Refueling	Operation	08/25/1998	09/18/1998	25
Refueling	Shutdown	09/19/1998	10/23/1998	35
Start-up	Operation	10/24/1998	11/17/1998	25
Operation	Operation	11/18/1998	09/30/1999	317

Time used in calculations

Trend Calculations

Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)
S/D	09/19/1998-10/23/1998	35 days (incl. 35 days ref)
FOR	01/04/1999-09/30/1999	270 days

Deviation Calculations

Op	03/05/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	02/23/1997-10/23/1998	70 days (incl. 70 days ref)
FOR	03/01/1998-09/30/1999	540 days

TABLE 9.67 PEACH BOTTOM 2

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	1	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	2	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	1	1	0	0	0	0	0	2	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		7	0	0	0	2	0	0	0	0	0	0	0
EFO/1000 HRS		1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45
CRIT. HRS		2155	2160	2183	2208	2121	2142	2183	2200	1455	2160	2183	2203
RAD		23	25	32	24	27	22	13	22	192	18	18	NA
CAUSE CODES:													
Admin.	Operations	0	2	0	3	0	0	2	1	1	2	1	0
	Pre-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	1	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	1	1	1	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	1	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	1	0	3	1	0	1	0	1	2	1	0
	Pre-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	1	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	0	0	0	0	0	0	1	2	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Start-up	Operation	10/01/1996	10/25/1996	25
Operation	Operation	10/26/1996	09/05/1998	680
Pre-Refueling	Operation	09/06/1998	09/30/1998	25
Refueling	Shutdown	10/01/1998	10/31/1998	31
Start-up	Operation	11/01/1998	11/25/1998	25
Operation	Operation	11/26/1998	09/30/1999	309

Time used in calculations

Trend Calculations

Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)
S/D	10/01/1998-10/31/1998	31 days (incl. 31 days ref)
FOR	01/04/1999-09/30/1999	270 days

Deviation Calculations

Op	03/09/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	10/01/1998-10/31/1998	31 days (incl. 31 days ref)
FOR	03/07/1998-09/30/1999	540 days

TABLE 9.68 PEACH BOTTOM 3

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	0	0	1	0	0	1	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	3	0	0	0	0	0	0	5	0	0	0
EFO/1000 HRS		0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00
CRIT. HRS		2209	2101	2183	2208	1480	1780	2183	2208	2185	2160	2183	2180
RAD		23	25	32	29	321	50	13	20	16	18	18	NA
CAUSE CODES:													
Admin.	Operations	0	2	1	2	0	0	2	1	1	2	2	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	1	1	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	2	0	2	0	0	2	1	2	1	1	2
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
Design	Operations	0	0	0	0	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	09/08/1997	343
Pre-Refueling	Operation	09/09/1997	10/03/1997	25
Refueling	Shutdown	10/04/1997	11/01/1997	29
Start-up	Operation	11/02/1997	11/26/1997	25
Operation	Operation	11/27/1997	03/13/1998	107
Non-Refueling	Shutdown	03/14/1998	03/28/1998	15
Operation	Operation	03/29/1998	09/04/1999	525
Pre-Refueling	Operation	09/05/1999	09/29/1999	25
Refueling	Shutdown	09/30/1999	09/30/1999	1

Time used in calculations

Trend Calculations				Deviation Calculations			
Op	01/03/1999-09/29/1999	270 days	(incl. 0 days s/u)	Op	04/08/1998-09/29/1999	540 days	(incl. 0 days s/u)
S/D	09/30/1999-09/30/1999	1 days	(incl. 1 days ref)	S/D	10/04/1997-09/30/1999	45 days	(incl. 30 days ref)
FOR	01/02/1999-09/30/1999	270 days		FOR	04/06/1998-09/30/1999	540 days	

TABLE 9.69 PERRY

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	1	1	0	1	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	1	0	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	1	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	4	17	1	5	0	0	3	0	0	0	0
EFO/1000 HRS		0.00	0.48	0.54	0.57	1.16	0.00	0.00	0.47	0.00	0.00	0.00	0.00
CRIT. HRS		2209	2104	1838	1753	1720	2160	2183	2150	2209	2041	1419	2208
RAD		8	7	15	152	99	8	14	9	10	65	236	NA
CAUSE CODES:													
Admin.	Operations	0	1	1	1	0	0	1	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	2	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	2	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	1	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	0	2	0	0	0	1	0	1	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	2	2	0	0	0	0	0	0	0
	Non-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
Design	Operations	1	1	0	1	1	0	1	1	0	0	0	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	1	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	06/05/1997	248
Non-Refueling	Shutdown	06/06/1997	06/18/1997	13
Operation	Operation	06/19/1997	08/18/1997	61
Pre-Refueling	Operation	08/19/1997	09/12/1997	25
Refueling	Shutdown	09/13/1997	10/19/1997	37
Start-up	Operation	10/20/1997	11/13/1997	25
Operation	Operation	11/14/1997	03/01/1999	473
Pre-Refueling	Operation	03/02/1999	03/26/1999	25
Refueling	Shutdown	03/27/1999	05/01/1999	36
Start-up	Operation	05/02/1999	05/26/1999	25
Operation	Operation	05/27/1999	09/30/1999	127

Time used in calculations

Trend Calculations

Op	11/29/1998-09/30/1999	270 days (incl. 25 days s/u)
S/D	03/27/1999-05/01/1999	36 days (incl. 36 days ref)
FOR	11/27/1998-09/30/1999	270 days

Deviation Calculations

Op	03/04/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	06/06/1997-05/01/1999	86 days (incl. 73 days ref)
FOR	03/02/1998-09/30/1999	540 days

TABLE 9.70 PILGRIM

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	1	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	1	0
	Non-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	3	3	1	2	1	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	1
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
FOR (%)		0	6	22	0	16	0	0	0	0	0	0	10
EFO/1000 HRS		0.00	0.93	0.00	0.00	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.49
CRIT. HRS		2209	1081	1851	2208	1928	2160	2183	2208	2209	2160	964	2058
RAD		46	459	61	18	46	19	16	18	19	17	304	NA
CAUSE CODES:													
Admin.	Operations	2	0	0	2	8	1	1	2	2	0	1	3
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	1	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	1	0
	Non-Refueling	0	2	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	1	0	0	0	1
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	1	1	0	0	0	1	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	1	0
	Non-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	2	0	0	2	4	0	1	2	5	0	1	2
	Pre-Refueling	0	3	0	0	0	0	0	0	0	0	1	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	3	0
	Non-Refueling	0	3	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	0	1	6	6	6	3	3	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	2
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	1	1	0	1	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	1	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	01/21/1997	113
Pre-Refueling	Operation	01/22/1997	02/15/1997	25
Refueling	Shutdown	02/16/1997	03/06/1997	19
Non-Refueling	Shutdown	03/07/1997	04/13/1997	38
Start-up	Operation	04/14/1997	05/08/1997	25
Operation	Operation	05/09/1997	11/23/1997	199
Non-Refueling	Shutdown	11/24/1997	12/02/1997	9
Operation	Operation	12/03/1997	04/13/1999	497
Pre-Refueling	Operation	04/14/1999	05/08/1999	25
Refueling	Shutdown	05/09/1999	06/27/1999	50
Start-up	Operation	06/28/1999	07/22/1999	25
Operation	Operation	07/23/1999	09/13/1999	53
Non-Refueling	Shutdown	09/14/1999	09/17/1999	4
Operation	Operation	09/18/1999	09/30/1999	13

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	11/11/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	02/14/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	05/09/1999-09/17/1999	54 days (incl. 50 days ref)	S/D	02/16/1997-09/17/1999	120 days (incl. 69 days ref)
FOR	11/05/1998-09/30/1999	270 days	FOR	02/08/1998-09/30/1999	540 days

TABLE 9.71 POINT BEACH 1

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	1	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	1	1	0	0	0	1	0	1	1	1	1	0
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	2	0	0	0	0	0
	Non-Refueling	0	1	8	2	1	0	0	0	0	0	0	0
FOR (%)		0	47	100	100	67	0	0	0	0	3	10	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00
CRIT. HRS		2209	1174	0	0	744	1065	74	2208	2209	2113	1919	2208
RAD		21	16	19	8	9	22	46	3	15	50	5	NA
CAUSE CODES:													
Admin.	Operations	4	4	0	0	1	3	0	1	3	1	1	1
	Pre-Refueling	0	0	0	0	0	4	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	3	0	0	0	0
	Refueling	0	0	0	0	0	1	5	0	0	0	0	0
	Non-Refueling	0	4	7	0	2	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	1	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	0	0	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	2	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	1	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	1	3	0	0	0	0	0	0	0	0	0
Maint.	Operations	5	3	0	0	1	2	0	0	3	2	2	0
	Pre-Refueling	0	0	0	0	0	5	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	2	0	0	0	0
	Refueling	0	0	0	0	0	1	6	0	0	0	0	0
	Non-Refueling	0	4	3	1	2	0	0	0	0	0	0	0
Design	Operations	2	5	0	0	0	3	0	1	1	0	1	2
	Pre-Refueling	0	0	0	0	0	2	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	1	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	2	10	3	2	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	02/18/1997	141
Non-Refueling	Shutdown	02/19/1997	11/29/1997	284
Operation	Operation	11/30/1997	01/20/1998	52
Pre-Refueling	Operation	01/21/1998	02/14/1998	25
Refueling	Shutdown	02/15/1998	06/26/1998	132
Start-up	Operation	06/27/1998	07/21/1998	25
Operation	Operation	07/22/1998	04/22/1999	275
Non-Refueling	Shutdown	04/23/1999	04/26/1999	4
Operation	Operation	04/27/1999	05/14/1999	18
Non-Refueling	Shutdown	05/15/1999	05/19/1999	5
Operation	Operation	05/20/1999	09/20/1999	124
Pre-Refueling	Operation	09/21/1999	09/30/1999	10

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/26/1998-09/30/1999	270 days (incl. 0 days s/u)	Op	02/08/1997-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/07/1998-05/19/1999	90 days (incl. 81 days ref)	S/D	10/22/1997-05/19/1999	180 days (incl. 132 days ref)
FOR	12/29/1998-09/30/1999	270 days	FOR	11/18/1997-09/30/1999	540 days

TABLE 9.72 POINT BEACH 2

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	1	1	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Startup	0	0	0	1	0	0	0	0	0	0	0	0
	Refueling	1	2	7	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	3	0	0	0	0	0	0
FOR (%)		0	0	0	36	50	70	0	0	0	0	0	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		101	0	0	794	1103	704	2183	2208	1561	793	2183	2208
RAD		21	16	19	8	9	22	46	3	15	50	5	NA
CAUSE CODES:													
Admin.	Operations	0	0	0	0	1	2	5	2	1	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	3	7	8	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	1	6	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	1	1	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	2	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
Maint.	Operations	0	0	0	1	1	3	5	0	1	0	2	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	5	6	2	2	0	0	0	0	1	1	0	0
	Non-Refueling	0	0	0	0	1	5	0	0	0	0	0	0
Design	Operations	0	0	0	0	0	0	0	2	0	1	1	1
	Pre-Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Startup	0	0	0	2	0	0	0	0	0	0	0	0
	Refueling	2	7	10	1	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	4	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Pre-Refueling	Operation	10/01/1996	10/05/1996	5
Refueling	Shutdown	10/06/1996	08/12/1997	311
Start-up	Operation	08/13/1997	09/06/1997	25
Non-Refueling	Shutdown	09/07/1997	09/20/1997	14
Operation	Operation	09/21/1997	11/15/1997	56
Non-Refueling	Shutdown	11/16/1997	02/06/1998	83
Operation	Operation	02/07/1998	03/05/1998	27
Non-Refueling	Shutdown	03/06/1998	03/27/1998	22
Operation	Operation	03/28/1998	11/09/1998	227
Pre-Refueling	Operation	11/10/1998	12/04/1998	25
Refueling	Shutdown	12/05/1998	02/25/1999	83
Start-up	Operation	02/26/1999	03/22/1999	25
Operation	Operation	03/23/1999	09/30/1999	192

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	10/13/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	10/03/1997-09/30/1999	540 days (incl. 25 days s/u)
S/D	12/05/1998-02/25/1999	83 days (incl. 83 days ref)	S/D	11/24/1997-02/25/1999	180 days (incl. 83 days ref)
FOR	10/03/1998-09/30/1999	270 days	FOR	01/06/1998-09/30/1999	540 days

TABLE 9.73 PRAIRIE ISLAND 1

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	1	0	0	0	1	0	1	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	2	0	0	4	0	4	0	0	1	3
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	2	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	16	0	0	0	14	0	22	7	0	0
EFO/1000 HRS		0.00	0.00	0.55	0.00	0.00	0.00	0.53	0.00	0.57	0.50	0.00	0.00
CRIT. HRS		2209	2160	1804	2208	864	2160	1890	2208	1753	2017	1267	2208
RAD		2	47	1	1	37	17	1	2	39	1	29	NA
CAUSE CODES:													
Admin.	Operations	2	2	4	0	0	1	1	3	1	0	1	0
	Pre-Refueling	0	0	0	0	3	0	0	0	0	0	1	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	2	0	0	0	0	0	2	0
	Non-Refueling	0	0	1	0	0	0	0	0	2	1	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	1	0
	Non-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	1	1	0	0	0	0	1	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	2	2	4	0	0	3	2	3	1	1	1	0
	Pre-Refueling	0	0	0	0	1	0	0	0	0	0	1	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	2	0	0	0	0	0	2	0
	Non-Refueling	0	0	0	0	0	0	0	0	2	1	0	0
Design	Operations	1	1	2	0	0	4	0	4	2	0	1	0
	Pre-Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	2	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	06/02/1997	245
Non-Refueling	Shutdown	06/03/1997	06/15/1997	13
Operation	Operation	06/16/1997	09/23/1997	100
Pre-Refueling	Operation	09/24/1997	10/18/1997	25
Refueling	Shutdown	10/19/1997	12/12/1997	55
Start-up	Operation	12/13/1997	01/06/1998	25
Operation	Operation	01/07/1998	06/05/1998	150
Non-Refueling	Shutdown	06/06/1998	06/16/1998	11
Operation	Operation	06/17/1998	10/29/1998	135
Non-Refueling	Shutdown	10/30/1998	11/17/1998	19
Operation	Operation	11/18/1998	01/05/1999	49
Non-Refueling	Shutdown	01/06/1999	01/10/1999	5
Operation	Operation	01/11/1999	03/22/1999	71
Pre-Refueling	Operation	03/23/1999	04/16/1999	25
Refueling	Shutdown	04/17/1999	05/24/1999	38
Start-up	Operation	05/25/1999	06/18/1999	25
Operation	Operation	06/19/1999	09/30/1999	104

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	11/22/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	01/26/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	06/06/1998-05/24/1999	73 days (incl. 38 days ref)	S/D	06/03/1997-05/24/1999	141 days (incl. 93 days ref)
FOR	11/25/1998-09/30/1999	270 days	FOR	02/28/1998-09/30/1999	540 days

TABLE 9.74 PRAIRIE ISLAND 2

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	1	3	0	4	0	0	1	3
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	2	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	48	1	1	0	43	0	0	0	0	0	0
EFO/1000 HRS		0.00	0.00	0.00	0.46	0.00	0.81	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		2209	664	2167	2193	2209	1237	2183	2208	968	2126	2183	2208
RAD		2	47	1	1	37	17	1	2	39	2	29	NA
CAUSE CODES:													
Admin.	Operations	2	0	2	1	4	1	0	2	0	0	2	0
	Pre-Refueling	0	1	0	0	0	0	0	0	1	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	0	2	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	1	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	0	0	0	0	1	0	0	0	1	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	1	0	0
	Refueling	0	2	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	4	0	0	1	3	3	0	2	0	1	2	0
	Pre-Refueling	0	1	0	0	0	0	0	0	2	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	0	2	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	1	0	0	0	2	3	1	4	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	12/31/1996	92
Pre-Refueling	Operation	01/01/1997	01/25/1997	25
Refueling	Shutdown	01/26/1997	03/27/1997	61
Start-up	Operation	03/28/1997	04/21/1997	25
Operation	Operation	04/22/1997	01/24/1998	278
Non-Refueling	Shutdown	01/25/1998	03/03/1998	38
Operation	Operation	03/04/1998	10/15/1998	226
Pre-Refueling	Operation	10/16/1998	11/09/1998	25
Refueling	Shutdown	11/10/1998	12/29/1998	50
Start-up	Operation	12/30/1998	01/23/1999	25
Operation	Operation	01/24/1999	09/30/1999	250

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 20 days s/u)	Op	01/11/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	11/10/1998-12/29/1998	50 days (incl. 50 days ref)	S/D	01/26/1997-12/29/1998	149 days (incl. 111 days ref)
FOR	01/02/1999-09/30/1999	270 days	FOR	02/12/1998-09/30/1999	540 days

TABLE 9.75 QUAD CITIES 1

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	1	1	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	1	1	5	1	2	0	1	1	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	1	0	0	3	0	0	0	0	0	0
FOR (%)		0	15	17	0	13	100	13	1	2	0	3	0
EFO/1000 HRS		0.00	1.06	0.54	0.00	0.00	0.00	2.88	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		2209	1881	1844	2208	1934	0	694	2186	1541	2160	1669	2208
RAD		52	123	152	25	30	71	49	25	236	32	32	NA
CAUSE CODES:													
Admin.	Operations	5	3	5	4	3	0	1	2	1	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	2	1	0	1	7	1	0	0	0	0	0
Lic. Oper.	Operations	0	0	1	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	2	2	0	0	0	0	1	2	1	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	1	0	0	2	0	0	0	0	0	0
Maint.	Operations	6	5	7	2	3	0	2	5	1	0	0	2
	Pre-Refueling	0	0	0	0	0	0	0	0	2	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	1	2	0	1	7	1	0	0	0	0	0
Design	Operations	1	1	3	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	1	0	0	2	1	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	03/11/1997	162
Non-Refueling	Shutdown	03/12/1997	03/16/1997	5
Operation	Operation	03/17/1997	03/22/1997	6
Non-Refueling	Shutdown	03/23/1997	03/27/1997	5
Operation	Operation	03/28/1997	04/10/1997	14
Non-Refueling	Shutdown	04/11/1997	04/23/1997	13
Operation	Operation	04/24/1997	12/20/1997	241
Non-Refueling	Shutdown	12/21/1997	05/30/1998	161
Operation	Operation	05/31/1998	10/13/1998	136
Pre-Refueling	Operation	10/14/1998	11/07/1998	25
Refueling	Shutdown	11/08/1998	12/03/1998	26
Start-up	Operation	12/04/1998	12/28/1998	25
Operation	Operation	12/29/1998	04/09/1999	102
Non-Refueling	Shutdown	04/10/1999	04/28/1999	19
Operation	Operation	04/29/1999	09/30/1999	155

Time used in calculations

Trend Calculations				Deviation Calculations			
Op	12/16/1998-09/30/1999	270 days	(incl. 13 days s/u)	Op	09/15/1997-09/30/1999	540 days	(incl. 25 days s/u)
S/D	04/16/1998-04/28/1999	90 days	(incl. 26 days ref)	S/D	01/16/1998-04/28/1999	180 days	(incl. 26 days ref)
FOR	12/14/1998-09/30/1999	270 days		FOR	09/21/1997-09/30/1999	540 days	

TABLE 9.76 QUAD CITIES 2

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	2	0	0	1	0	0	1	1	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	2	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	2	0	0	0	0	0	0
FOR (%)		5	0	6	4	100	0	12	0	4	0	0	0
EFO/1000 HRS		0.91	0.00	4.11	0.47	0.00	0.00	3.43	0.00	0.47	0.00	0.00	0.00
CRIT. HRS		2209	1408	244	2129	0	0	875	2208	2147	1962	2183	2208
RAD		52	123	152	25	30	71	49	25	236	32	32	NA
CAUSE CODES:													
Admin.	Operations	6	0	0	4	0	0	2	2	1	1	1	0
	Pre-Refueling	0	2	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	3	0	0	0	0	0	0	0	0	0
	Refueling	0	4	3	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	6	3	1	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	2	0	0	1	0	0	1	0	1	0	0	1
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
Maint.	Operations	8	0	0	2	0	0	2	3	1	1	0	1
	Pre-Refueling	0	2	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	3	0	0	0	0	0	0	0	0	0
	Refueling	0	3	4	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	6	4	1	0	0	0	0	0
Design	Operations	1	1	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	4	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	1	1	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	02/03/1997	126
Pre-Refueling	Operation	02/04/1997	02/28/1997	25
Refueling	Shutdown	03/01/1997	06/08/1997	100
Start-up	Operation	06/09/1997	06/11/1997	3
Non-Refueling	Shutdown	06/12/1997	06/19/1997	8
Start-up	Operation	06/20/1997	07/11/1997	22
Operation	Operation	07/12/1997	09/27/1997	78
Non-Refueling	Shutdown	09/28/1997	05/22/1998	237
Operation	Operation	05/23/1998	02/20/1999	274
Non-Refueling	Shutdown	02/21/1999	02/27/1999	7
Operation	Operation	02/28/1999	09/30/1999	215

Time used in calculations

Trend Calculations				Deviation Calculations			
Op	12/28/1998-09/30/1999	270 days	(incl. 0 days s/u)	Op	08/08/1997-09/30/1999	540 days	(incl. 0 days s/u)
S/D	04/01/1998-02/27/1999	59 days	(incl. 0 days ref)	S/D	12/01/1997-02/27/1999	180 days	(incl. 0 days ref)
FOR	12/25/1998-09/30/1999	270 days		FOR	08/22/1997-09/30/1999	540 days	

TABLE 9.77 RIVER BEND

		Year - Calendar Quarter											
Type	**Phase**	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	2	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	0	0	0	1	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	2	0	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
FOR (%)		0	0	12	8	0	0	16	0	0	0	96	2
EFO/1000 HRS		0.00	0.00	0.00	1.22	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		2209	2160	1988	1642	1774	2160	1853	2208	2209	2160	75	2208
RAD		13	13	43	159	93	14	13	12	15	14	256	NA
CAUSE CODES:													
Admin.	Operations	1	0	1	1	0	0	1	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	2	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	2	0	0	0	0	0	3	0
	Non-Refueling	0	0	0	0	0	0	1	0	0	0	1	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	0	0	0	0	0	0	0	0	2	0	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	2	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	2	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	0	2	1	0	0	0	0	0	2	0	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	2	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	1	0	0	0	0	0	5	0
	Non-Refueling	0	0	0	0	0	0	1	0	0	0	1	0
Design	Operations	0	0	0	2	0	0	1	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	05/06/1997	218
Non-Refueling	Shutdown	05/07/1997	05/14/1997	8
Operation	Operation	05/15/1997	08/18/1997	96
Pre-Refueling	Operation	08/19/1997	09/12/1997	25
Refueling	Shutdown	09/13/1997	10/18/1997	36
Start-up	Operation	10/19/1997	11/12/1997	25
Operation	Operation	11/13/1997	04/14/1998	153
Non-Refueling	Shutdown	04/15/1998	04/27/1998	13
Operation	Operation	04/28/1998	03/09/1999	316
Pre-Refueling	Operation	03/10/1999	04/03/1999	25
Refueling	Shutdown	04/04/1999	05/12/1999	39
Non-Refueling	Shutdown	05/13/1999	06/28/1999	47
Start-up	Operation	06/29/1999	07/23/1999	25
Operation	Operation	07/24/1999	09/30/1999	69

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	10/10/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	12/31/1997-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/24/1998-06/28/1999	90 days (incl. 39 days ref)	S/D	05/07/1997-06/28/1999	143 days (incl. 75 days ref)
FOR	11/24/1998-09/30/1999	270 days	FOR	02/27/1998-09/30/1999	540 days

TABLE 9.78 ROBINSON 2

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	1	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	1	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	1
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	1	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		1	0	0	0	4	0	2	0	2	0	0	0
EFO/1000 HRS		0.57	0.00	0.00	0.00	0.47	0.00	0.54	0.00	0.46	0.00	0.00	0.00
CRIT. HRS		1761	2160	2183	2208	2119	1560	1844	2208	2174	2130	2183	2064
RAD		61	4	3	4	3	139	26	2	4	3	2	NA
CAUSE CODES:													
Admin.	Operations	0	3	2	1	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	2	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	1	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	1	0	1	1	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	3	1	1	1	0	0	0	2	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	1	0	0	0	0	2	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	2	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Refueling	Shutdown	10/01/1996	10/18/1996	18
Start-up	Operation	10/19/1996	11/12/1996	25
Operation	Operation	11/13/1996	02/10/1998	455
Pre-Refueling	Operation	02/11/1998	03/07/1998	25
Refueling	Shutdown	03/08/1998	04/13/1998	37
Start-up	Operation	04/14/1998	05/08/1998	25
Operation	Operation	05/09/1998	08/30/1999	479
Pre-Refueling	Operation	08/31/1999	09/24/1999	25
Refueling	Shutdown	09/25/1999	09/30/1999	6

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/29/1998-09/24/1999	270 days (incl. 0 days s/u)	Op	02/25/1998-09/24/1999	540 days (incl. 25 days s/u)
S/D	04/01/1998-09/30/1999	19 days (incl. 19 days ref)	S/D	10/01/1996-09/30/1999	61 days (incl. 61 days ref)
FOR	12/27/1998-09/24/1999	270 days	FOR	02/21/1998-09/24/1999	540 days

TABLE 9.79 SALEM 1

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	2	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	1	1	1	0	0	1	1	0	0	0	0	0
FOR (%)		100	100	100	100	100	100	18	0	0	4	4	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00
CRIT. HRS		0	0	0	0	0	0	2023	2208	2209	2083	2120	1896
RAD		120	82	23	19	27	16	2	4	2	4	3	NA
CAUSE CODES:													
Admin.	Operations	0	0	0	0	0	0	1	3	0	0	2	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	12	5	4	4	3	5	1	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	1	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	1	0	1	1	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	3	1	2	2	1	1	0	0	0	0	0	0
Maint.	Operations	0	0	0	0	0	0	1	4	0	0	4	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	13	6	3	6	2	6	1	0	0	0	0	0
Design	Operations	0	0	0	0	0	0	0	1	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	5	3	1	2	0	2	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Non-Refueling	Shutdown	10/01/1996	04/06/1998	553
Start-up	Operation	04/07/1998	05/01/1998	25
Operation	Operation	05/02/1998	08/23/1999	479
Pre-Refueling	Operation	08/24/1999	09/17/1999	25
Refueling	Shutdown	09/18/1999	09/30/1999	13

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/22/1998-09/17/1999	270 days (incl. 0 days s/u)	Op	04/07/1998-09/17/1999	529 days (incl. 25 days s/u)
S/D	04/01/1998-09/30/1999	19 days (incl. 13 days ref)	S/D	10/22/1997-09/30/1999	180 days (incl. 13 days ref)
FOR	12/22/1998-09/17/1999	270 days	FOR	03/27/1998-09/17/1999	540 days

TABLE 9.80 SALEM 2

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	2	0	0	0	0	0	0	1	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	1	2	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	2	0
	Non-Refueling	1	1	1	0	0	1	0	1	0	0	0	0
FOR (%)		100	100	100	65	6	30	3	17	12	0	0	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.94	1.40	0.00	0.00	0.51	0.00	0.00	0.00
CRIT. HRS		0	0	0	1003	2120	1428	2183	1846	1956	2160	910	2208
RAD		15	10	10	8	8	7	3	8	4	2	111	NA
CAUSE CODES:													
Admin.	Operations	0	0	0	0	3	0	2	3	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	2	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	3	0
	Non-Refueling	14	6	5	5	0	3	0	2	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	2	0	2	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	1	0
	Non-Refueling	3	1	2	1	0	0	0	0	0	0	0	0
Maint.	Operations	0	0	0	0	2	1	2	4	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	3	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	1	0
	Non-Refueling	16	7	4	6	0	3	0	3	0	0	0	0
Design	Operations	0	0	0	0	0	0	0	1	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	1	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	6	3	2	1	0	1	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Non-Refueling	Shutdown	10/01/1996	08/16/1997	320
Start-up	Operation	08/17/1997	08/19/1997	3
Non-Refueling	Shutdown	08/20/1997	08/22/1997	3
Start-up	Operation	08/23/1997	09/13/1997	22
Operation	Operation	09/14/1997	10/02/1997	19
Non-Refueling	Shutdown	10/03/1997	10/05/1997	3
Operation	Operation	10/06/1997	02/12/1998	130
Non-Refueling	Shutdown	02/13/1998	03/13/1998	29
Operation	Operation	03/14/1998	07/25/1998	134
Non-Refueling	Shutdown	07/26/1998	08/08/1998	14
Operation	Operation	08/09/1998	12/01/1998	115
Non-Refueling	Shutdown	12/02/1998	12/10/1998	9
Operation	Operation	12/11/1998	03/09/1999	89
Pre-Refueling	Operation	03/10/1999	04/03/1999	25
Refueling	Shutdown	04/04/1999	05/25/1999	52
Start-up	Operation	05/26/1999	06/19/1999	25
Operation	Operation	06/20/1999	09/30/1999	103

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	11/04/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	12/26/1997-09/30/1999	540 days (incl. 25 days s/u)
S/D	07/26/1998-05/25/1999	75 days (incl. 52 days ref)	S/D	06/08/1997-05/25/1999	180 days (incl. 52 days ref)
FOR	11/09/1998-09/30/1999	270 days	FOR	02/06/1998-09/30/1999	540 days

TABLE 9.81 SAN ONOFRE 2

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	0	1	0	2	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
FOR (%)		0	0	1	17	0	0	0	12	0	0	0	0
EFO/1000 HRS		0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.00
CRIT. HRS		1442	54	2151	1851	2209	1464	2183	1956	2209	905	2183	2208
RAD		55	53	92	17	3	84	3	6	3	69	93	NA
CAUSE CODES:													
Admin.	Operations	0	0	0	0	5	2	4	5	4	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	3	2	0	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	1	0	1	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	1	2	1	3	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	1	0	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	0	0	0	3	1	2	6	4	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	3	4	0	0	0	0	0	0	0	2	0	0
	Non-Refueling	0	0	0	0	0	2	0	0	0	0	0	0
Design	Operations	0	0	1	1	0	2	0	3	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	1	0	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	11/05/1996	36
Pre-Refueling	Operation	11/06/1996	11/30/1996	25
Refueling	Shutdown	12/01/1996	03/28/1997	118
Start-up	Operation	03/29/1997	04/22/1997	25
Operation	Operation	04/23/1997	06/29/1997	68
Non-Refueling	Shutdown	06/30/1997	07/14/1997	15
Operation	Operation	07/15/1997	01/24/1998	194
Non-Refueling	Shutdown	01/25/1998	02/21/1998	28
Operation	Operation	02/22/1998	09/18/1998	209
Non-Refueling	Shutdown	09/19/1998	09/28/1998	10
Operation	Operation	09/29/1998	12/08/1998	71
Pre-Refueling	Operation	12/09/1998	01/02/1999	25
Refueling	Shutdown	01/03/1999	02/22/1999	51
Start-up	Operation	02/23/1999	03/19/1999	25
Operation	Operation	03/20/1999	09/30/1999	195

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	11/14/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	01/10/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	09/19/1998-02/22/1999	61 days (incl. 51 days ref)	S/D	01/12/1997-02/22/1999	180 days (incl. 127 days ref)
FOR	11/10/1998-09/30/1999	270 days	FOR	01/14/1998-09/30/1999	540 days

TABLE 9.82 SAN ONOFRE 3

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	0	1	0	3	1	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	0	0	0	0	0	0	6	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.60	0.00
CRIT. HRS		1945	2160	264	1876	2209	1714	2183	2208	2209	2052	1253	2208
RAD		55	53	92	17	3	84	3	6	3	69	93	NA
CAUSE CODES:													
Admin.	Operations	2	1	0	0	6	1	4	5	4	0	1	0
	Pre-Refueling	0	1	1	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	2	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	1	0	0	1	1	1	3	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	2	2	0	0	5	1	2	5	4	0	2	1
	Pre-Refueling	0	1	2	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	2	0
	Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	1	0	1	0	2	0	3	1	2	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Non-Refueling	Shutdown	10/01/1996	10/11/1996	11
Operation	Operation	10/12/1996	03/18/1997	158
Pre-Refueling	Operation	03/19/1997	04/12/1997	25
Refueling	Shutdown	04/13/1997	07/13/1997	92
Start-up	Operation	07/14/1997	08/07/1997	25
Operation	Operation	08/08/1997	03/07/1998	212
Non-Refueling	Shutdown	03/08/1998	03/25/1998	18
Operation	Operation	03/26/1998	03/02/1999	342
Pre-Refueling	Operation	03/03/1999	03/27/1999	25
Refueling	Shutdown	03/28/1999	05/05/1999	39
Start-up	Operation	05/06/1999	05/30/1999	25
Operation	Operation	05/31/1999	09/30/1999	123

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	11/26/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	02/11/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	03/28/1999-05/05/1999	39 days (incl. 39 days ref)	S/D	10/01/1996-05/05/1999	160 days (incl. 131 days ref)
FOR	11/22/1998-09/30/1999	270 days	FOR	02/06/1998-09/30/1999	540 days

TABLE 9.83 SEABROOK

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	2	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	1	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	29	18	22	11	16	0	4	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.63	0.00	0.59	0.00	1.05	0.00	0.00	0.00
CRIT. HRS		2209	2160	1042	2208	1579	1796	1709	1993	1901	2045	1204	2208
RAD		3	4	169	4	8	5	6	3	5	10	90	NA
CAUSE CODES:													
Admin.	Operations	0	2	0	1	1	1	1	1	1	0	0	0
	Pre-Refueling	0	0	2	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	1	1	2	0	1	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	1	0	0	0
Oth. Per.	Operations	1	0	0	1	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
Maint.	Operations	1	2	0	1	1	1	1	1	1	0	0	0
	Pre-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	2	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	1	1	2	0	1	0	0	0
Design	Operations	2	3	1	0	3	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	3	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	1	0	0	0	1	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	04/15/1997	197
Pre-Refueling	Operation	04/16/1997	05/10/1997	25
Refueling	Shutdown	05/11/1997	06/25/1997	46
Start-up	Operation	06/26/1997	07/20/1997	25
Operation	Operation	07/21/1997	12/05/1997	138
Non-Refueling	Shutdown	12/06/1997	01/15/1998	41
Operation	Operation	01/16/1998	06/11/1998	147
Non-Refueling	Shutdown	06/12/1998	07/08/1998	27
Operation	Operation	07/09/1998	11/12/1998	127
Non-Refueling	Shutdown	11/13/1998	11/22/1998	10
Operation	Operation	11/23/1998	03/02/1999	100
Pre-Refueling	Operation	03/03/1999	03/27/1999	25
Refueling	Shutdown	03/28/1999	05/10/1999	44
Start-up	Operation	05/11/1999	06/04/1999	25
Operation	Operation	06/05/1999	09/30/1999	118

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	11/11/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	01/18/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	06/12/1998-05/10/1999	81 days (incl. 44 days ref)	S/D	05/11/1997-05/10/1999	168 days (incl. 90 days ref)
FOR	11/17/1998-09/30/1999	270 days	FOR	02/20/1998-09/30/1999	540 days

TABLE 9.84 SEQUOYAH 1

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	1	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	2	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	2	0	0	2	0	2	0	0	0
EFO/1000 HRS		0.00	0.00	0.00	0.46	0.00	0.00	0.46	0.00	0.49	0.00	0.00	0.00
CRIT. HRS		2169	1921	1220	2183	2209	2160	2151	1681	2029	2160	2183	2208
RAD		5	77	165	3	4	5	7	204	21	11	3	NA
CAUSE CODES:													
Admin.	Operations	1	1	0	1	0	0	1	1	0	0	0	0
	Pre-Refueling	0	4	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	1	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	2	2	1	1	0	0	1	1	2	0	1	0
	Pre-Refueling	0	5	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	1	0	0	0	0	0	0	0	1	0	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	02/25/1997	148
Pre-Refueling	Operation	02/26/1997	03/22/1997	25
Refueling	Shutdown	03/23/1997	05/10/1997	49
Start-up	Operation	05/11/1997	06/04/1997	25
Operation	Operation	06/05/1997	08/15/1998	437
Pre-Refueling	Operation	08/16/1998	09/09/1998	25
Refueling	Shutdown	09/10/1998	10/06/1998	27
Start-up	Operation	10/07/1998	10/31/1998	25
Operation	Operation	11/01/1998	09/30/1999	334

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)	Op	03/13/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	09/10/1998-10/06/1998	27 days (incl. 27 days ref)	S/D	03/23/1997-10/06/1998	76 days (incl. 76 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	03/10/1998-09/30/1999	540 days

TABLE 9.85 SEQUOYAH 2

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	1	0	0	0	0	0	0	1	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	1	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	1	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		30	0	0	1	0	0	0	3	1	0	0	0
EFO/1000 HRS		1.24	0.00	0.00	0.45	0.67	0.00	0.00	0.47	0.46	0.00	0.00	0.00
CRIT. HRS		1613	2160	2183	2208	1503	2160	2183	2141	2191	2160	1649	2208
RAD		10	6	9	5	143	3	3	2	5	7	151	NA
CAUSE CODES:													
Admin.	Operations	1	5	1	1	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	2	0	2	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	2	6	3	0	0	0	0	2	2	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	1	1	0	0	0	0	0	2	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	10/11/1996	11
Non-Refueling	Shutdown	10/12/1996	11/02/1996	22
Operation	Operation	11/03/1996	09/10/1997	312
Pre-Refueling	Operation	09/11/1997	10/05/1997	25
Refueling	Shutdown	10/06/1997	11/02/1997	28
Start-up	Operation	11/03/1997	11/27/1997	25
Operation	Operation	11/28/1997	03/24/1999	482
Pre-Refueling	Operation	03/25/1999	04/18/1999	25
Refueling	Shutdown	04/19/1999	05/09/1999	21
Start-up	Operation	05/10/1999	06/03/1999	25
Operation	Operation	06/04/1999	09/30/1999	119

Time used in calculations

Trend Calculations

Op	12/14/1998-09/30/1999	270 days (incl. 25 days s/u)
S/D	04/19/1999-05/09/1999	21 days (incl. 21 days ref)
FOR	12/11/1998-09/30/1999	270 days

Deviation Calculations

Op	03/19/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	10/12/1996-05/09/1999	71 days (incl. 49 days ref)
FOR	03/16/1998-09/30/1999	540 days

TABLE 9.86 SOUTH TEXAS 1

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	1	0	0	0	0	0	1	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	6	0	0	0	0	0	4	2
EFO/1000 HRS		0.00	0.00	0.00	0.00	1.42	0.00	0.00	0.00	0.00	0.00	1.35	0.46
CRIT. HRS		2209	2120	2150	1776	2110	2160	2183	2208	2209	2042	1481	2169
RAD		1	4	3	111	7	1	2	2	1	28	79	NA
CAUSE CODES:													
Admin.	Operations	2	2	2	1	1	2	0	6	0	0	0	1
	Pre-Refueling	0	0	0	1	0	0	0	0	0	2	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	0	1	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	2	3	1	1	1	1	5	0	0	1	2
	Pre-Refueling	0	0	0	1	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	2	0
	Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	2	0	0	0	0	1	1	1	0	0	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	08/18/1997	322
Pre-Refueling	Operation	08/19/1997	09/12/1997	25
Refueling	Shutdown	09/13/1997	10/02/1997	20
Start-up	Operation	10/03/1997	10/27/1997	25
Operation	Operation	10/28/1997	03/02/1999	491
Pre-Refueling	Operation	03/03/1999	03/27/1999	25
Refueling	Shutdown	03/28/1999	04/27/1999	31
Start-up	Operation	04/28/1999	05/22/1999	25
Operation	Operation	05/23/1999	09/30/1999	131

Time used in calculations

Trend Calculations				Deviation Calculations			
Op	12/04/1998-09/30/1999	270 days	(incl. 25 days s/u)	Op	03/09/1998-09/30/1999	540 days	(incl. 25 days s/u)
S/D	03/28/1999-04/27/1999	31 days	(incl. 31 days ref)	S/D	09/13/1997-04/27/1999	51 days	(incl. 51 days ref)
FOR	12/02/1998-09/30/1999	270 days		FOR	03/06/1998-09/30/1999	540 days	

TABLE 9.87 SOUTH TEXAS 2

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Startup	0	1	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	1	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	5	3	0	4	2	0	1	3	1	0	2
EFO/1000 HRS		0.00	1.18	0.93	0.00	0.92	0.00	0.00	0.00	0.59	0.00	0.00	0.45
CRIT. HRS		2209	1700	2146	2208	2184	2160	2183	2172	1695	2141	2183	2208
RAD		2	132	2	1	1	1	2	1	171	1	2	NA
CAUSE CODES:													
Admin.	Operations	0	0	2	2	0	2	0	2	0	4	1	1
	Pre-Refueling	0	1	0	0	0	0	0	1	0	0	0	0
	Startup	0	1	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	2	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	0	0	0	0	0	0	0	0	2	0	0
	Pre-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	1	3	2	0	1	0	2	0	4	1	0
	Pre-Refueling	0	2	0	0	0	0	0	1	0	0	0	0
	Startup	0	2	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	0	1	0	0	0	1	0	1	0	0
	Pre-Refueling	0	2	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	1	0	1	1	0	0	1	0	0	2
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	01/14/1997	106
Pre-Refueling	Operation	01/15/1997	02/08/1997	25
Refueling	Shutdown	02/09/1997	02/24/1997	16
Start-up	Operation	02/25/1997	03/21/1997	25
Operation	Operation	03/22/1997	09/08/1998	536
Pre-Refueling	Operation	09/09/1998	10/03/1998	25
Refueling	Shutdown	10/04/1998	10/23/1998	20
Start-up	Operation	10/24/1998	11/17/1998	25
Operation	Operation	11/18/1998	09/17/1999	304
Pre-Refueling	Operation	09/18/1999	09/30/1999	13

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)	Op	03/20/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	10/04/1998-10/23/1998	20 days (incl. 20 days ref)	S/D	02/09/1997-10/23/1998	36 days (incl. 36 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	03/17/1998-09/30/1999	540 days

TABLE 9.88 ST. LUCIE 1

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	1	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	1	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	3	5	0	0	2	0	0	0	0	0	11
EFO/1000 HRS		0.45	0.48	0.48	0.00	0.00	1.09	0.00	0.00	0.00	0.00	0.00	0.59
CRIT. HRS		2209	2102	2092	2208	457	1843	2183	2208	2209	2160	2183	1706
RAD		4	4	81	3	235	11	2	1	53	1	2	NA
CAUSE CODES:													
Admin.	Operations	1	1	2	1	0	0	3	0	1	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	1	0	0	0	0	0	0
	Refueling	0	0	0	0	1	1	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	2	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	1	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	2	3	2	0	0	0	1	0	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	2
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	2	2	0	1	0	0	1	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	2	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	09/25/1997	360
Pre-Refueling	Operation	09/26/1997	10/20/1997	25
Refueling	Shutdown	10/21/1997	01/06/1998	78
Start-up	Operation	01/07/1998	01/31/1998	25
Operation	Operation	02/01/1998	02/17/1998	17
Non-Refueling	Shutdown	02/18/1998	02/22/1998	5
Operation	Operation	02/23/1998	08/18/1999	542
Pre-Refueling	Operation	08/19/1999	09/12/1999	25
Refueling	Shutdown	09/13/1999	09/30/1999	18

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/17/1998-09/12/1999	270 days (incl. 0 days s/u)	Op	03/22/1998-09/12/1999	540 days (incl. 0 days s/u)
S/D	09/13/1999-09/30/1999	18 days (incl. 18 days ref)	S/D	10/21/1997-09/30/1999	101 days (incl. 96 days ref)
FOR	12/22/1998-09/17/1999	270 days	FOR	03/27/1998-09/17/1999	540 days

TABLE 9.89 ST. LUCIE 2

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	1	1	1	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	0	0	0	0	0	0	8	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00
CRIT. HRS		2209	2160	1218	2208	2209	2160	2183	2208	1507	2160	2016	2208
RAD		4	4	82	3	235	11	2	1	53	1	2	NA
CAUSE CODES:													
Admin.	Operations	3	1	2	1	2	2	3	1	1	2	2	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	3	0	0	0	0	0	2	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	1	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	1	0
Oth. Per.	Operations	0	1	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	3	1	2	0	2	1	1	1	0	2	4	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	4	0	0	0	0	0	2	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	0	1	0	3	0	2	0	1	1	0
	Pre-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	2	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	03/20/1997	171
Pre-Refueling	Operation	03/21/1997	04/14/1997	25
Refueling	Shutdown	04/15/1997	05/23/1997	39
Start-up	Operation	05/24/1997	06/17/1997	25
Operation	Operation	06/18/1997	10/15/1998	485
Pre-Refueling	Operation	10/16/1998	11/09/1998	25
Refueling	Shutdown	11/10/1998	12/07/1998	28
Start-up	Operation	12/08/1998	01/01/1999	25
Operation	Operation	01/02/1999	06/04/1999	154
Non-Refueling	Shutdown	06/05/1999	06/09/1999	5
Operation	Operation	06/10/1999	09/30/1999	113

Time used in calculations

Trend Calculations		
Op	12/30/1998-09/30/1999	270 days (incl. 3 days s/u)
S/D	11/10/1998-06/09/1999	33 days (incl. 28 days ref)
FOR	01/04/1999-09/30/1999	270 days

Deviation Calculations		
Op	03/07/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/15/1997-06/09/1999	72 days (incl. 67 days ref)
FOR	03/08/1998-09/30/1999	540 days

TABLE 9.90 SUMMER

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	1	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	6	0	0	6	0	0	0	0	5	0
EFO/1000 HRS		0.00	0.00	0.96	0.00	0.00	0.49	0.00	0.00	0.00	0.00	1.60	0.00
CRIT. HRS		2209	2160	2079	2208	1423	2057	2183	2208	2209	2160	1253	2208
RAD		2	1	2	9	176	4	3	2	5	8	120	NA
CAUSE CODES:													
Admin.	Operations	1	0	1	1	0	1	2	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	2	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	0	0	1	0	0	0	0	0	2	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	0	0	0	0	1	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	0	0
	Refueling	0	0	0	0	2	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	0	1	1	0	3	2	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	2	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	2	0
	Refueling	0	0	0	0	2	0	0	0	0	0	3	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	0	0	0	2	0	1	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	09/09/1997	344
Pre-Refueling	Operation	09/10/1997	10/04/1997	25
Refueling	Shutdown	10/05/1997	11/04/1997	31
Start-up	Operation	11/05/1997	11/29/1997	25
Operation	Operation	11/30/1997	01/02/1998	34
Non-Refueling	Shutdown	01/03/1998	01/06/1998	4
Operation	Operation	01/07/1998	03/09/1999	427
Pre-Refueling	Operation	03/10/1999	04/03/1999	25
Refueling	Shutdown	04/04/1999	05/09/1999	36
Start-up	Operation	05/10/1999	06/03/1999	25
Operation	Operation	06/04/1999	09/30/1999	119

Time used in calculations

Trend Calculations

Op	11/29/1998-09/30/1999	270 days (incl. 25 days s/u)
S/D	04/04/1999-05/09/1999	36 days (incl. 36 days ref)
FOR	11/26/1998-09/30/1999	270 days

Deviation Calculations

Op	03/04/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	10/05/1997-05/09/1999	71 days (incl. 67 days ref)
FOR	03/01/1998-09/30/1999	540 days

TABLE 9.91 SURRY 1

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	1	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	1	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	1	0	0	0	0	0	1	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	18	0	0	0	3	18	0	6	0	0	0
EFO/1000 HRS		0.00	1.54	0.00	0.00	0.00	0.54	0.55	0.00	1.42	0.00	0.00	0.00
CRIT. HRS		2209	1301	1473	2208	2209	1859	1813	2208	1410	2160	2183	2208
RAD		8	79	45	4	42	9	10	4	69	4	53	NA
CAUSE CODES:													
Admin.	Operations	1	1	0	0	3	3	0	0	1	2	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	1	0	0	0
	Refueling	0	1	0	0	0	0	0	0	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	1	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	0	0	0	1	2	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	1	0	0	5	4	1	1	1	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	1	0	0	0
	Startup	0	0	1	0	0	0	0	0	2	0	0	0
	Refueling	0	2	0	0	0	0	0	0	2	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	1	0	1	0	1	0	1	0	0	0	2
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	2	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	01/24/1997	116
Non-Refueling	Shutdown	01/25/1997	01/31/1997	7
Operation	Operation	02/01/1997	02/10/1997	10
Pre-Refueling	Operation	02/11/1997	03/07/1997	25
Refueling	Shutdown	03/08/1997	04/27/1997	51
Start-up	Operation	04/28/1997	05/22/1997	25
Operation	Operation	05/23/1997	03/21/1998	303
Non-Refueling	Shutdown	03/22/1998	03/30/1998	9
Operation	Operation	03/31/1998	05/09/1998	40
Non-Refueling	Shutdown	05/10/1998	05/24/1998	15
Operation	Operation	05/25/1998	09/24/1998	123
Pre-Refueling	Operation	09/25/1998	10/19/1998	25
Refueling	Shutdown	10/20/1998	11/18/1998	30
Start-up	Operation	11/19/1998	12/13/1998	25
Operation	Operation	12/14/1998	09/30/1999	291

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)	Op	02/14/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	05/10/1998-11/18/1998	45 days (incl. 30 days ref)	S/D	01/25/1997-11/18/1998	112 days (incl. 81 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	02/23/1998-09/30/1999	540 days

TABLE 9.92 SURRY 2

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	1	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	1
FOR (%)		0	3	0	0	2	0	0	0	0	0	0	11
EFO/1000 HRS		0.00	0.48	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.51
CRIT. HRS		1968	2096	2183	2208	1588	2160	2183	2208	2209	2160	1284	1966
RAD		8	79	45	4	42	9	10	4	69	4	53	NA
CAUSE CODES:													
Admin.	Operations	1	2	0	0	0	2	0	0	1	2	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	3	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	1	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	0	0	0	1	1	0	0	0	1	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	2	0	0	1	1	0	1	3	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	6	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	1
Design	Operations	0	1	0	1	0	2	0	1	0	0	0	2
	Pre-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	1	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	12/13/1996	74
Non-Refueling	Shutdown	12/14/1996	12/22/1996	9
Operation	Operation	12/23/1996	09/11/1997	263
Pre-Refueling	Operation	09/12/1997	10/06/1997	25
Refueling	Shutdown	10/07/1997	10/30/1997	24
Start-up	Operation	10/31/1997	11/24/1997	25
Operation	Operation	11/25/1997	03/24/1999	485
Pre-Refueling	Operation	03/25/1999	04/18/1999	25
Refueling	Shutdown	04/19/1999	05/24/1999	36
Start-up	Operation	05/25/1999	06/18/1999	25
Operation	Operation	06/19/1999	07/05/1999	17
Non-Refueling	Shutdown	07/06/1999	07/14/1999	9
Operation	Operation	07/15/1999	09/30/1999	78

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	11/20/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	02/23/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/19/1999-07/14/1999	45 days (incl. 36 days ref)	S/D	12/14/1996-07/14/1999	78 days (incl. 60 days ref)
FOR	11/22/1998-09/30/1999	270 days	FOR	02/25/1998-09/30/1999	540 days

TABLE 9.93 SUSQUEHANNA 1

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	1	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	2	1	0	0	0	0	1	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	1	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		8	22	0	0	0	0	0	9	13	0	8	16
EFO/1000 HRS		0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.49	0.00	0.49	0.53
CRIT. HRS		1616	1816	2183	2208	2209	2160	967	2050	2055	2160	2034	1876
RAD		36	94	59	21	24	11	120	22	15	91	59	NA
CAUSE CODES:													
Admin.	Operations	1	4	2	5	2	4	0	1	1	1	0	3
	Pre-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Startup	1	0	0	0	0	0	1	0	0	0	0	0
	Refueling	2	0	0	0	0	0	4	0	0	0	0	0
	Non-Refueling	0	2	0	0	0	0	0	0	0	0	1	0
Lic. Oper.	Operations	0	1	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	2	4	1	1	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	1	0	0	0	0	0	1	0	0	0	0
Maint.	Operations	2	7	2	6	2	5	0	1	2	1	0	2
	Pre-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Startup	1	0	0	0	0	0	1	0	0	0	0	0
	Refueling	2	0	0	0	0	0	6	0	0	0	0	0
	Non-Refueling	0	2	0	0	0	0	0	0	0	0	1	0
Design	Operations	1	1	0	2	2	0	0	1	0	1	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	1	0
Misc.	Operations	0	1	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Refueling	Shutdown	10/01/1996	10/18/1996	18
Start-up	Operation	10/19/1996	10/29/1996	11
Non-Refueling	Shutdown	10/30/1996	11/01/1996	3
Start-up	Operation	11/02/1996	11/15/1996	14
Operation	Operation	11/16/1996	02/25/1997	102
Non-Refueling	Shutdown	02/26/1997	03/03/1997	6
Operation	Operation	03/04/1997	03/05/1997	2
Non-Refueling	Shutdown	03/06/1997	03/08/1997	3
Operation	Operation	03/09/1997	03/12/1997	4
Non-Refueling	Shutdown	03/13/1997	03/15/1997	3
Operation	Operation	03/16/1997	03/20/1998	370
Pre-Refueling	Operation	03/21/1998	04/14/1998	25
Refueling	Shutdown	04/15/1998	06/02/1998	49
Start-up	Operation	06/03/1998	06/27/1998	25
Operation	Operation	06/28/1998	07/08/1998	11
Non-Refueling	Shutdown	07/09/1998	07/14/1998	6
Operation	Operation	07/15/1998	10/03/1998	81
Non-Refueling	Shutdown	10/04/1998	10/09/1998	6
Operation	Operation	10/10/1998	05/29/1999	232
Non-Refueling	Shutdown	05/30/1999	06/03/1999	5

Phase	Phase type	Start	End	Length
Operation	Operation	06/04/1999	07/01/1999	28
Non-Refueling	Shutdown	07/02/1999	07/13/1999	12
Operation	Operation	07/14/1999	09/30/1999	79

Time used in calculations

Trend Calculations

Op	12/18/1998-09/30/1999	270 days (incl. 0 days s/u)
S/D	04/15/1998-07/13/1999	78 days (incl. 49 days ref)
FOR	01/04/1999-09/30/1999	270 days

Deviation Calculations

Op	01/21/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	10/01/1996-07/13/1999	111 days (incl. 67 days ref)
FOR	02/20/1998-09/30/1999	540 days

TABLE 9.94 SUSQUEHANNA 2

		Year - Calendar Quarter											
Type	**Phase**	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	1	1	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	1	1	0	2	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	9	0	0	17	4	0	0	13	0
EFO/1000 HRS		0.00	0.00	0.00	0.49	0.00	0.00	1.73	0.00	0.00	0.00	0.70	0.00
CRIT. HRS		2209	1754	1289	2026	2209	2160	1737	2141	2209	1705	1433	2208
RAD		36	94	59	21	24	11	120	22	15	91	59	NA
CAUSE CODES:													
Admin.	Operations	2	4	0	3	3	5	6	1	2	0	2	1
	Pre-Refueling	0	1	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	2	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	1	0	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	2	0	1	1	0	2	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	3	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	3	5	0	3	3	4	9	0	2	0	2	0
	Pre-Refueling	0	2	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	3	1	0	0	0	0	0	0	2	0	0
	Non-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
Design	Operations	2	2	0	2	1	1	2	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	02/18/1997	141
Pre-Refueling	Operation	02/19/1997	03/15/1997	25
Refueling	Shutdown	03/16/1997	05/07/1997	53
Start-up	Operation	05/08/1997	06/01/1997	25
Operation	Operation	06/02/1997	09/17/1997	108
Non-Refueling	Shutdown	09/18/1997	09/23/1997	6
Operation	Operation	09/24/1997	04/04/1998	193
Non-Refueling	Shutdown	04/05/1998	04/10/1998	6
Operation	Operation	04/11/1998	06/07/1998	58
Non-Refueling	Shutdown	06/08/1998	06/11/1998	4
Operation	Operation	06/12/1998	06/22/1998	11
Non-Refueling	Shutdown	06/23/1998	06/26/1998	4
Operation	Operation	06/27/1998	02/15/1999	234
Pre-Refueling	Operation	02/16/1999	03/12/1999	25
Refueling	Shutdown	03/13/1999	04/23/1999	42
Start-up	Operation	04/24/1999	05/18/1999	25
Operation	Operation	05/19/1999	06/08/1999	21
Non-Refueling	Shutdown	06/09/1999	06/13/1999	5
Operation	Operation	06/14/1999	09/30/1999	109

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	11/18/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	02/07/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/05/1998-06/13/1999	61 days (incl. 42 days ref)	S/D	03/16/1997-06/13/1999	120 days (incl. 95 days ref)
FOR	11/17/1998-09/30/1999	270 days	FOR	02/14/1998-09/30/1999	540 days

TABLE 9.95 THREE MILE ISL 1

Type	Phase	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	1	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	2	0	1	0	0	1	0	2	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	8	0	10	0	0	0	0	0	0	0
EFO/1000 HRS		0.00	0.00	0.50	0.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		2209	2160	2006	1604	1614	2160	2183	2208	2209	2160	2183	1729
RAD		4	4	3	115	82	4	4	3	6	5	3	NA
CAUSE CODES:													
Admin.	Operations	1	3	0	0	0	0	1	5	1	3	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	1	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	1	0	0	0	1	0	3	0	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	3	2	0	0	1	1	4	1	3	3	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	1	0	1	0	2	1	4	0	1	2	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	1
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	06/21/1997	264
Non-Refueling	Shutdown	06/22/1997	06/27/1997	6
Operation	Operation	06/28/1997	08/11/1997	45
Pre-Refueling	Operation	08/12/1997	09/05/1997	25
Refueling	Shutdown	09/06/1997	10/17/1997	42
Start-up	Operation	10/18/1997	11/03/1997	17
Non-Refueling	Shutdown	11/04/1997	11/09/1997	6
Start-up	Operation	11/10/1997	11/17/1997	8
Operation	Operation	11/18/1997	08/16/1999	637
Pre-Refueling	Operation	08/17/1999	09/10/1999	25
Refueling	Shutdown	09/11/1999	09/30/1999	20

Time used in calculations

Trend Calculations				Deviation Calculations		
Op	12/15/1998-09/10/1999	270 days (incl. 0 days s/u)		Op	03/20/1998-09/10/1999	540 days (incl. 0 days s/u)
S/D	09/11/1999-09/30/1999	20 days (incl. 20 days ref)		S/D	06/22/1997-09/30/1999	74 days (incl. 62 days ref)
FOR	12/14/1998-09/30/1999	270 days		FOR	03/19/1998-09/30/1999	540 days

TABLE 9.96 TURKEY POINT 3

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	1	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	2	0	4	0	4	0	0	4	0	1	0
EFO/1000 HRS		0.00	0.69	0.00	1.85	0.00	0.48	0.00	0.00	0.00	0.00	0.46	0.00
CRIT. HRS		2209	1442	1851	2164	2209	2080	2183	1968	1562	2160	2157	2208
RAD		4	70	12	96	29	3	3	15	58	48	11	NA
CAUSE CODES:													
Admin.	Operations	2	1	0	1	1	1	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	1	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	1	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	1	0	1	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	1	0	2	0	1	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	1	1	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	1	0	0	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	1	0	0	0	0	0	0	1	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	02/06/1997	129
Pre-Refueling	Operation	02/07/1997	03/03/1997	25
Refueling	Shutdown	03/04/1997	04/13/1997	41
Start-up	Operation	04/14/1997	05/08/1997	25
Operation	Operation	05/09/1997	08/27/1998	476
Pre-Refueling	Operation	08/28/1998	09/21/1998	25
Refueling	Shutdown	09/22/1998	10/26/1998	35
Start-up	Operation	10/27/1998	11/20/1998	25
Operation	Operation	11/21/1998	09/30/1999	314

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)	Op	03/05/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	09/22/1998-10/26/1998	35 days (incl. 35 days ref)	S/D	03/04/1997-10/26/1998	76 days (incl. 76 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	03/04/1998-09/30/1999	540 days

TABLE 9.97 TURKEY POINT 4

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	1	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	1	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	4	0	0	0	0	0	0	0	0	0
EFO/1000 HRS		0.00	0.46	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		2209	2160	2109	1656	1930	2160	2183	2208	2209	1752	2038	2208
RAD		4	70	12	96	29	3	3	15	58	48	12	NA
CAUSE CODES:													
Admin.	Operations	1	0	1	0	0	1	1	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	1	0	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	1	1	0	0	1	1	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	1	0	0	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	08/13/1997	317
Pre-Refueling	Operation	08/14/1997	09/07/1997	25
Refueling	Shutdown	09/08/1997	10/11/1997	34
Start-up	Operation	10/12/1997	11/05/1997	25
Operation	Operation	11/06/1997	02/18/1999	470
Pre-Refueling	Operation	02/19/1999	03/15/1999	25
Refueling	Shutdown	03/16/1999	04/06/1999	22
Start-up	Operation	04/07/1999	05/01/1999	25
Operation	Operation	05/02/1999	09/30/1999	152

Time used in calculations

Trend Calculations

Op	12/13/1998-09/30/1999	270 days (incl. 25 days s/u)
S/D	03/16/1999-04/06/1999	22 days (incl. 22 days ref)
FOR	12/11/1998-09/30/1999	270 days

Deviation Calculations

Op	03/18/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	09/08/1997-04/06/1999	56 days (incl. 56 days ref)
FOR	03/16/1998-09/30/1999	540 days

TABLE 9.98 VERMONT YANKEE

		Year - Calendar Quarter											
Type	**Phase**	**96-4**	**97-1**	**97-2**	**97-3**	**97-4**	**98-1**	**98-2**	**98-3**	**98-4**	**99-1**	**99-2**	**99-3**
SCRAM	Operations	0	0	1	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	5	0	1	1	1	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	2	0	0	0	0	0
	Refueling	1	0	0	0	0	0	3	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		2	0	12	0	3	0	19	0	3	0	0	0
EFO/1000 HRS		1.34	0.00	0.00	0.00	0.00	0.00	1.61	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		1490	2160	1878	2208	2168	1884	622	2208	2107	2160	2183	2208
RAD		82	15	18	14	12	61	119	9	17	12	9	NA
CAUSE CODES:													
Admin.	Operations	1	2	3	4	2	1	0	2	0	1	0	0
	Pre-Refueling	0	0	0	0	0	2	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	2	0	0	0	0	0
	Refueling	2	0	0	0	0	1	4	0	0	0	0	0
	Non-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	0	1	1	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	0	0	0	0	0	1	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	2	0	3	3	1	0	0	2	1	1	0	0
	Pre-Refueling	0	0	0	0	0	3	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	2	0	0	0	0	0
	Refueling	2	0	0	0	0	1	3	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	1	6	1	3	3	2	0	0	1	1	0	0
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	2	0	0	0	0	0
	Refueling	2	0	0	0	0	0	3	0	0	0	0	0
	Non-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	1	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Refueling	Shutdown	10/01/1996	10/29/1996	29
Start-up	Operation	10/30/1996	11/23/1996	25
Operation	Operation	11/24/1996	04/24/1997	152
Non-Refueling	Shutdown	04/25/1997	05/06/1997	12
Operation	Operation	05/07/1997	02/23/1998	293
Pre-Refueling	Operation	02/24/1998	03/20/1998	25
Refueling	Shutdown	03/21/1998	05/31/1998	72
Start-up	Operation	06/01/1998	06/09/1998	9
Non-Refueling	Shutdown	06/10/1998	06/12/1998	3
Start-up	Operation	06/13/1998	06/28/1998	16
Operation	Operation	06/29/1998	10/16/1998	110
Non-Refueling	Shutdown	10/17/1998	10/20/1998	4
Operation	Operation	10/21/1998	09/30/1999	345

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)	Op	01/20/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/01/1998-10/20/1998	68 days (incl. 61 days ref)	S/D	10/01/1996-10/20/1998	120 days (incl. 101 days ref)
FOR	01/04/1999-09/30/1999	270 days	FOR	01/20/1998-09/30/1999	540 days

TABLE 9.99 VOGTLE 1

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	1	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	1	1	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		1	0	16	0	0	0	0	0	0	0	0	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		2192	2090	1806	1632	1728	2160	2183	2208	2209	1532	2183	2208
RAD		59	4	4	33	42	48	27	4	3	56	4	NA
CAUSE CODES:													
Admin.	Operations	2	1	0	1	0	2	1	0	2	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	3	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	2	3	0	0	0	0	0	1	1	0	0	0
	Pre-Refueling	0	0	0	1	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	3	4	0	1	0	2	1	1	2	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	1	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	1	0	0	0	0	1	0	1	1	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	03/29/1997	180
Non-Refueling	Shutdown	03/30/1997	04/04/1997	6
Operation	Operation	04/05/1997	04/19/1997	15
Non-Refueling	Shutdown	04/20/1997	04/29/1997	10
Operation	Operation	04/30/1997	08/12/1997	105
Pre-Refueling	Operation	08/13/1997	09/06/1997	25
Refueling	Shutdown	09/07/1997	10/20/1997	44
Start-up	Operation	10/21/1997	11/14/1997	25
Operation	Operation	11/15/1997	02/02/1999	445
Pre-Refueling	Operation	02/03/1999	02/27/1999	25
Refueling	Shutdown	02/28/1999	03/25/1999	26
Start-up	Operation	03/26/1999	04/19/1999	25
Operation	Operation	04/20/1999	09/30/1999	164

Time used in calculations

Trend Calculations

Op	12/09/1998-09/30/1999	270 days (incl. 25 days s/u)
S/D	02/28/1999-03/25/1999	26 days (incl. 26 days ref)
FOR	12/07/1998-09/30/1999	270 days

Deviation Calculations

Op	03/14/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	03/30/1997-03/25/1999	86 days (incl. 70 days ref)
FOR	03/11/1998-09/30/1999	540 days

TABLE 9.100 VOGTLE 2

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	1	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	1	0	0	0	0	1	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	2
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		3	0	0	0	0	0	17	3	0	2	0	0
EFO/1000 HRS		0.52	0.00	0.00	0.00	0.00	0.00	0.68	0.46	0.00	0.00	0.00	0.00
CRIT. HRS		1923	2160	2183	2208	2209	1584	1470	2151	2209	2135	2183	2208
RAD		59	4	4	33	42	48	27	4	3	56	4	NA
CAUSE CODES:													
Admin.	Operations	0	2	0	1	0	2	1	1	3	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	3	0	0	0	0	0	2	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	2	0	0	0	0	0	0	1	1	0	0
	Pre-Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Startup	2	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	0	3	0	1	0	2	2	1	3	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	4	0	0	0	0	0	1	0	0	0	0	0
	Refueling	0	0	0	0	0	1	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	0	0	0	1	1	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	1	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	1	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Refueling	Shutdown	10/01/1996	10/11/1996	11
Start-up	Operation	10/12/1996	11/05/1996	25
Operation	Operation	11/06/1996	02/11/1998	463
Pre-Refueling	Operation	02/12/1998	03/08/1998	25
Refueling	Shutdown	03/09/1998	04/18/1998	41
Start-up	Operation	04/19/1998	05/09/1998	21
Non-Refueling	Shutdown	05/10/1998	05/13/1998	4
Start-up	Operation	05/14/1998	05/17/1998	4
Operation	Operation	05/18/1998	06/09/1998	23
Non-Refueling	Shutdown	06/10/1998	06/13/1998	4
Operation	Operation	06/14/1998	09/08/1999	452
Pre-Refueling	Operation	09/09/1999	09/30/1999	22

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	01/04/1999-09/30/1999	270 days (incl. 0 days s/u)	Op	02/19/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/01/1998-06/13/1998	26 days (incl. 18 days ref)	S/D	10/01/1996-06/13/1998	60 days (incl. 52 days ref)
FOR	01/03/1999-09/30/1999	270 days	FOR	02/24/1998-09/30/1999	540 days

TABLE 9.101 WASH. NUCLEAR 2

		Year - Calendar Quarter											
Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	1	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
SSF	Operations	1	0	0	0	1	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	1	0	0	0	10	45	20	0	0	0	0
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.50	1.74	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		2209	2049	0	2115	2209	1981	575	1831	2209	2160	389	1899
RAD		19	19	200	14	15	20	238	17	13	12	26	NA
CAUSE CODES:													
Admin.	Operations	3	2	0	0	0	1	0	1	0	0	0	0
	Pre-Refueling	0	2	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	1	0	0	0	1	0	0	0	0
	Refueling	0	0	1	0	0	0	3	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	1	0	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	1	0	0	0	0	0
	Refueling	0	0	0	0	0	0	1	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
Maint.	Operations	1	2	0	0	0	0	0	1	0	0	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	2	0	0	1	1	0	0	0	0
	Refueling	0	0	1	0	0	0	3	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
Design	Operations	3	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	3	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	1	0	0	0	0	0
Misc.	Operations	0	0	0	0	1	0	0	1	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	1	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	03/02/1997	153
Pre-Refueling	Operation	03/03/1997	03/27/1997	25
Non-Refueling	Shutdown	03/28/1997	04/18/1997	22
Refueling	Shutdown	04/19/1997	07/03/1997	76
Start-up	Operation	07/04/1997	07/28/1997	25
Operation	Operation	07/29/1997	03/11/1998	226
Non-Refueling	Shutdown	03/12/1998	03/17/1998	6
Operation	Operation	03/18/1998	03/24/1998	7
Pre-Refueling	Operation	03/25/1998	04/18/1998	25
Refueling	Shutdown	04/19/1998	06/08/1998	51
Start-up	Operation	06/09/1998	06/15/1998	7
Non-Refueling	Shutdown	06/16/1998	07/02/1998	17
Start-up	Operation	07/03/1998	07/20/1998	18
Operation	Operation	07/21/1998	08/07/1998	18
Non-Refueling	Shutdown	08/08/1998	08/20/1998	13
Operation	Operation	08/21/1998	04/17/1999	240
Non-Refueling	Shutdown	04/18/1999	06/29/1999	73
Operation	Operation	06/30/1999	08/24/1999	56
Pre-Refueling	Operation	08/25/1999	09/18/1999	25
Refueling	Shutdown	09/19/1999	09/30/1999	12

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	10/11/1998-09/18/1999	270 days (incl. 0 days s/u)	Op	10/19/1997-09/18/1999	540 days (incl. 25 days s/u)
S/D	08/16/1998-09/30/1999	90 days (incl. 12 days ref)	S/D	06/26/1997-09/30/1999	180 days (incl. 71 days ref)
FOR	10/05/1998-09/30/1999	270 days	FOR	11/13/1997-09/30/1999	540 days

TABLE 9.102 WATERFORD 3

Type	Phase	Year - Calendar Quarter											
		96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	1	2	0	0	2	1	1	2	0	1	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	3	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	0	0	0	0	0	17	17	0	2	30
EFO/1000 HRS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08	0.54	0.00	0.47	1.28
CRIT. HRS		2209	2160	264	1606	2209	2160	2183	1854	1850	1200	2124	1565
RAD		4	6	132	10	1	2	1	6	15	89	11	NA
CAUSE CODES:													
Admin.	Operations	1	3	0	0	6	4	1	4	2	0	1	1
	Pre-Refueling	0	2	3	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	3	1	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	1	0	0	0	1	1	1	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	0	1	0	0	0	0	1	1	1	1	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	1	2	0	0	4	4	4	5	2	0	2	1
	Pre-Refueling	0	2	3	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	2	1	0	0	0	0	0	2	0	0
	Non-Refueling	0	0	0	0	0	0	0	1	0	0	0	0
Design	Operations	1	3	0	0	6	1	3	1	0	0	1	3
	Pre-Refueling	0	0	1	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	4	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	1	0	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	03/18/1997	169
Pre-Refueling	Operation	03/19/1997	04/12/1997	25
Refueling	Shutdown	04/13/1997	07/25/1997	104
Start-up	Operation	07/26/1997	08/19/1997	25
Operation	Operation	08/20/1997	09/17/1998	394
Non-Refueling	Shutdown	09/18/1998	09/30/1998	13
Operation	Operation	10/01/1998	11/18/1998	49
Non-Refueling	Shutdown	11/19/1998	12/02/1998	14
Operation	Operation	12/03/1998	01/25/1999	54
Pre-Refueling	Operation	01/26/1999	02/19/1999	25
Refueling	Shutdown	02/20/1999	03/31/1999	40
Start-up	Operation	04/01/1999	04/25/1999	25
Operation	Operation	04/26/1999	08/01/1999	98
Non-Refueling	Shutdown	08/02/1999	08/09/1999	8
Operation	Operation	08/10/1999	09/10/1999	32
Non-Refueling	Shutdown	09/11/1999	09/28/1999	18
Operation	Operation	09/29/1999	09/30/1999	2

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	10/16/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	01/06/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	09/21/1998-09/28/1999	90 days (incl. 40 days ref)	S/D	04/30/1997-09/28/1999	180 days (incl. 127 days ref)
FOR	11/23/1998-09/30/1999	270 days	FOR	02/24/1998-09/30/1999	540 days

TABLE 9.103 WATTS BAR 1

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	2	1	0	0	1	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
SSA	Operations	0	2	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	1	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	0	0	1	0	0	0	0	0	0	1	1	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	18	2	0	0	4	0	0	0	0	0	0
EFO/1000 HRS		0.00	1.65	0.47	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00
CRIT. HRS		1845	1815	2146	1608	1773	2084	2183	2208	2209	1368	1858	2208
RAD		NA	3	3	86	27	2	1	1	1	91	7	NA
CAUSE CODES:													
Admin.	Operations	2	6	3	1	0	0	1	2	1	1	0	2
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	0	2	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	3	0	0	1	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	3	7	4	0	0	1	1	2	2	1	0	2
	Pre-Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	1	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	1	1	0	1	0	0	0	0	1	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Non-Refueling	Shutdown	10/01/1996	10/15/1996	15
Operation	Operation	10/16/1996	03/06/1997	142
Non-Refueling	Shutdown	03/07/1997	03/15/1997	9
Operation	Operation	03/16/1997	08/12/1997	150
Pre-Refueling	Operation	08/13/1997	09/06/1997	25
Refueling	Shutdown	09/07/1997	10/17/1997	41
Start-up	Operation	10/18/1997	11/11/1997	25
Operation	Operation	11/12/1997	02/02/1999	448
Pre-Refueling	Operation	02/03/1999	02/27/1999	25
Refueling	Shutdown	02/28/1999	04/13/1999	45
Start-up	Operation	04/14/1999	05/08/1999	25
Operation	Operation	05/09/1999	09/30/1999	145

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	11/20/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	02/23/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	02/28/1999-04/13/1999	45 days (incl. 45 days ref)	S/D	10/01/1996-04/13/1999	110 days (incl. 86 days ref)
FOR	11/16/1998-09/30/1999	270 days	FOR	02/19/1998-09/30/1999	540 days

TABLE 9.104 WOLF CREEK

Type	Phase	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
		Year - Calendar Quarter											
SCRAM	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	0	0
SSA	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SE	Operations	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
SSF	Operations	1	0	0	0	0	0	0	0	1	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	1	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
FOR (%)		0	0	5	0	0	0	0	0	0	0	0	1
EFO/1000 HRS		0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46
CRIT. HRS		2209	2160	2113	2208	862	2160	2183	2208	2209	2160	1329	2192
RAD		4	3	5	8	253	4	2	2	2	2	145	NA
CAUSE CODES:													
Admin.	Operations	11	1	7	5	0	0	2	0	6	1	0	2
	Pre-Refueling	0	0	0	1	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	1	0	0	0	0	0	1	0
	Refueling	0	0	0	0	7	0	0	0	0	0	2	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Lic. Oper.	Operations	1	0	0	0	0	0	0	0	0	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	0	0	0	0	0	0	0	0	1	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Oth. Per.	Operations	1	0	2	0	0	0	0	0	3	0	0	0
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	1	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Maint.	Operations	10	1	6	2	0	0	1	0	3	1	0	2
	Pre-Refueling	0	0	0	1	0	0	0	0	0	1	0	0
	Startup	0	0	0	0	2	0	0	0	0	0	3	0
	Refueling	0	0	0	0	6	0	0	0	0	0	2	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Design	Operations	0	0	0	0	0	0	0	0	1	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	3	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	Operations	0	0	0	0	0	0	0	0	0	0	0	1
	Pre-Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Startup	0	0	0	0	0	0	0	0	0	0	0	0
	Refueling	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Refueling	0	0	0	0	0	0	0	0	0	0	0	0

Phase	Phase type	Start	End	Length
Operation	Operation	10/01/1996	09/08/1997	343
Pre-Refueling	Operation	09/09/1997	10/03/1997	25
Refueling	Shutdown	10/04/1997	11/27/1997	55
Start-up	Operation	11/28/1997	12/22/1997	25
Operation	Operation	12/23/1997	03/09/1999	442
Pre-Refueling	Operation	03/10/1999	04/03/1999	25
Refueling	Shutdown	04/04/1999	05/07/1999	34
Start-up	Operation	05/08/1999	06/01/1999	25
Operation	Operation	06/02/1999	09/30/1999	121

Time used in calculations

Trend Calculations			Deviation Calculations		
Op	12/01/1998-09/30/1999	270 days (incl. 25 days s/u)	Op	03/06/1998-09/30/1999	540 days (incl. 25 days s/u)
S/D	04/04/1999-05/07/1999	34 days (incl. 34 days ref)	S/D	10/04/1997-05/07/1999	89 days (incl. 89 days ref)
FOR	11/27/1998-09/30/1999	270 days	FOR	03/02/1998-09/30/1999	540 days

10. PEER GROUP SUMMARY

PERFORMANCE INDICATORS

CRITICAL HOURS

Table 10.1 Peer Group Summary

Actual Values = Indicated Values x 10E-2

PI	Phase Type	BW Median	CN Median	CY Median	GO Median	GN Median	WS Median	W3 Median	W4 Median	WN Median	NP Median	2nd % Trends	98th % Trends	2nd % Dev	98th % Dev
Scram	Start/Ops	0.19	0.00	0.00	0.19	0.19	0.09	0.19	0.30	0.19	NA	-6.67	8.33	-0.44	0.30
SSA	Start/Ops Shutdown	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.28	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	NA NA	-1.67 -6.67	3.33 30.00	-0.37 -2.33	0.00 0.28
SE	Start/Ops Shutdown	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.19 0.00	0.00 0.00	NA NA	0.00 0.00	1.67 0.00	-0.19 -0.56	0.19 0.00
SSF	Start/Ops Shutdown	0.93 0.00	0.37 0.75	0.37 0.00	0.56 0.56	0.37 0.79	0.93 1.54	0.19 0.00	0.56 2.22	0.19 0.00	NA NA	-8.33 -30.00	15.00 30.00	-1.11 -2.78	0.56 1.11
Cause Codes															
Admin	Start/Ops Shutdown	1.67 1.35	1.11 2.24	1.48 2.22	1.48 2.78	1.31 3.23	1.57 3.13	0.46 2.11	1.67 4.72	1.30 3.71	NA NA	-16.67 -100.0	13.33 100.00	-3.33 -5.93	1.11 3.71
Lic. Per.	Start/Ops Shutdown	0.19 0.00	0.00 0.75	0.19 0.00	0.19 0.00	0.19 0.00	0.28 0.56	0.19 0.00	0.19 0.28	0.19 0.00	NA NA	-10.00 -50.00	8.33 100.00	-0.56 -2.33	0.19 0.56
Oth. Per.	Start/Ops Shutdown	0.19 0.56	0.00 2.24	0.56 0.00	0.37 0.87	0.37 1.11	0.46 1.11	0.28 1.10	0.74 1.39	0.37 0.73	NA NA	-11.67 -50.00	6.67 30.00	-0.56 -2.86	0.37 1.39
Maint.	Start/Ops Shutdown	1.67 1.11	0.93 2.24	1.48 2.86	1.67 4.17	1.13 4.85	1.85 4.44	0.56 3.76	1.89 5.28	1.48 3.60	NA NA	-20.00 -100.0	13.33 50.00	-3.33 -5.86	0.93 3.82
Design	Start/Ops Shutdown	1.67 1.67	0.56 1.24	0.74 0.77	0.56 1.40	0.56 1.65	1.39 2.78	0.28 0.46	1.39 1.67	0.37 0.94	NA NA	-8.33 -30.00	8.33 50.00	-1.01 -2.64	1.30 1.65
Misc.	Start/Ops Shutdown	0.19 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	NA NA	-6.67 -7.14	6.67 30.00	-0.56 -1.27	0.19 0.00
Shutdowns															
EFO		0.37	0.19	0.19	0.37	0.31	0.19	0.19	0.30	0.37	NA	-11.67	13.33	-1.67	0.37
FOR		429.55	254.32	54.01	266.05	712.93	413.85	69.44	1030.1	87.42	NA	-410.0	339.79	-6135	570.91

Scram = Reactor Scram
SSA = Safety System Actuation
SE = Significant Event
SSF = Safety System Failure
Admin = Administrative Control Problems
Lic. Per. = Licensed Personnel Errors
Oth. Per. = Other Personnel Errors
Maint. = Maintenance Problems
Design = Design/Construction/Installation/Fabrication Problems
Misc. = Miscellaneous

BW = Babcock and Wilcox Plants
CN = Combustion Engineering Plants without CPC
CY = Combustion Engineering Plants with CPC
GO = General Electric Pre-TMI Plants
GN = General Electric Post-TMI Plants
WS = Westinghouse 2-Loop and Small 3 and 4-Loop Plants
W3 = Westinghouse Older 3-Loop Plants
W4 = Westinghouse Older 4-Loop Plants
WN = Westinghouse New 3 and 4-Loop Plants
NP = New Plants Since 1/1/87

NA - No plants are classified as "new plants" in this report.

TABLE 10.2 AUTOMATIC SCRAMS WHILE CRITICAL

Plant Name	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
ARKANSAS 1	0	0	0	0	0	0	0	0	0	0	0	0
ARKANSAS 2	0	0	0	0	0	0	0	0	0	0	0	0
BEAVER VALLEY 1	0	1	0	1	0	0	0	1	0	0	0	0
BEAVER VALLEY 2	0	2	0	0	0	0	0	0	0	0	0	0
BIG ROCK POINT	1	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA
BRAIDWOOD 1	0	0	0	0	0	0	0	0	0	0	0	0
BRAIDWOOD 2	0	0	0	0	0	1	0	0	0	0	2	0
BROWNS FERRY 1	0	0	0	0	0	0	0	0	0	0	0	0
BROWNS FERRY 2	1	0	1	0	1	0	0	0	1	0	1	1
BROWNS FERRY 3	0	0	0	0	0	0	0	0	0	0	0	0
BRUNSWICK 1	0	0	0	0	0	0	0	0	0	0	0	0
BRUNSWICK 2	0	0	0	0	0	0	0	0	0	1	1	0
BYRON 1	0	0	0	0	0	0	0	0	0	0	1	0
BYRON 2	0	0	0	0	1	0	0	0	0	0	0	0
CALLAWAY	0	0	0	0	0	0	0	0	0	0	0	0
CALVERT CLIFFS 1	0	0	0	0	1	0	0	0	0	0	0	1
CALVERT CLIFFS 2	1	0	0	0	0	0	0	0	0	0	0	0
CATAWBA 1	0	0	0	0	0	0	0	0	0	0	0	0
CATAWBA 2	0	0	1	0	0	0	0	0	0	0	0	0
CLINTON 1	0	0	0	0	0	0	0	0	0	0	0	0
COMANCHE PEAK 1	0	0	0	0	1	0	0	0	0	0	0	0
COMANCHE PEAK 2	1	0	0	0	0	1	0	0	0	0	0	0
COOK 1	0	0	0	0	0	0	0	0	0	0	0	0
COOK 2	0	1	0	0	0	0	0	0	0	0	0	0
COOPER STATION	0	0	0	0	0	0	0	0	0	0	0	0
CRYSTAL RIVER 3	0	0	0	0	0	1	0	0	0	0	0	0
DAVIS-BESSE	0	0	1	0	0	0	1	0	1	0	0	0
DIABLO CANYON 1	1	0	0	0	0	0	0	0	0	0	0	1
DIABLO CANYON 2	0	1	0	0	1	0	0	0	0	0	0	0
DRESDEN 2	0	0	0	0	1	1	2	0	0	0	0	0
DRESDEN 3	0	0	0	0	0	0	1	0	0	0	0	0
DUANE ARNOLD	0	0	0	0	0	0	0	0	0	0	0	0
FARLEY 1	0	0	0	0	0	0	0	1	0	0	1	0
FARLEY 2	0	0	0	0	0	0	0	0	0	0	0	0
FERMI 2	1	0	0	0	0	1	0	0	0	0	0	0
FITZPATRICK	0	0	0	0	0	0	0	1	0	0	0	0
FORT CALHOUN	0	0	0	0	0	0	0	0	0	0	0	0
GINNA	0	0	0	0	0	0	0	0	0	0	2	0
GRAND GULF	0	0	0	0	0	0	0	0	0	0	0	0
HADDAM NECK	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HARRIS	0	1	1	1	0	0	0	0	0	2	0	0
HATCH 1	0	0	0	0	0	0	0	0	0	0	1	0
HATCH 2	0	0	1	0	0	0	0	0	0	0	2	0
HOPE CREEK	0	0	0	0	0	0	0	0	1	0	0	0
INDIAN POINT 2	0	1	0	2	0	0	0	0	0	0	0	1
INDIAN POINT 3	0	0	0	2	0	0	0	1	0	1	0	1
KEWAUNEE	0	0	0	0	0	1	0	0	0	0	0	0
LASALLE 1	0	0	0	0	0	0	0	0	0	0	0	1
LASALLE 2	0	0	0	0	0	0	0	0	0	0	0	1
LIMERICK 1	0	0	0	0	0	0	0	0	0	0	2	0
LIMERICK 2	0	0	0	0	0	0	0	0	0	0	0	0
MAINE YANKEE	1	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA
MCGUIRE 1	0	0	0	1	0	0	0	0	0	0	0	0
MCGUIRE 2	0	0	0	2	0	1	0	0	0	0	0	1
MILLSTONE 1	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
MILLSTONE 2	0	0	0	0	0	0	0	0	0	0	0	0
MILLSTONE 3	0	0	0	0	0	0	0	0	1	0	0	0
MONTICELLO	0	0	0	0	0	0	0	0	0	0	1	0
NINE MILE PT. 1	1	0	0	0	0	0	0	0	0	0	0	2

TABLE 10.2 AUTOMATIC SCRAMS WHILE CRITICAL (CONTINUED)

Plant Name	Year - Calendar Quarter											
	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
NINE MILE PT. 2	0	0	0	0	0	0	0	0	0	0	2	0
NORTH ANNA 1	1	0	0	0	0	0	0	0	0	0	0	0
NORTH ANNA 2	1	0	0	0	0	0	0	1	0	0	0	0
OCONEE 1	0	0	0	0	0	0	0	0	0	0	0	2
OCONEE 2	0	0	0	1	0	0	1	0	1	1	1	0
OCONEE 3	0	1	0	0	0	0	0	0	1	0	0	0
OYSTER CREEK	0	0	0	0	0	0	0	0	0	0	0	0
PALISADES	0	0	0	0	0	0	0	0	0	0	0	0
PALO VERDE 1	0	0	1	0	0	1	0	0	0	1	0	0
PALO VERDE 2	0	0	0	0	0	0	0	0	0	0	1	0
PALO VERDE 3	0	0	1	0	0	0	0	0	0	0	0	0
PEACH BOTTOM 2	2	0	0	0	1	0	0	0	0	0	0	1
PEACH BOTTOM 3	0	0	0	0	0	0	0	0	0	0	0	0
PERRY	0	1	1	0	1	0	0	1	0	0	0	0
PILGRIM	0	0	0	0	1	0	0	0	0	0	0	1
POINT BEACH 1	0	0	0	0	0	0	0	0	0	0	0	0
POINT BEACH 2	0	0	0	0	0	0	0	0	0	0	0	0
PRAIRIE ISLAND 1	0	0	1	0	0	0	1	0	1	1	0	0
PRAIRIE ISLAND 2	0	0	0	0	0	0	0	0	1	0	0	0
QUAD CITIES 1	0	0	0	0	0	0	1	1	0	0	1	0
QUAD CITIES 2	0	0	0	0	0	0	1	0	0	0	0	0
RIVER BEND	0	0	0	1	0	0	0	0	0	0	0	0
ROBINSON 2	1	0	0	0	1	0	1	0	1	0	0	0
SALEM 1	0	0	0	0	0	0	0	0	0	1	1	0
SALEM 2	0	0	0	0	0	0	0	0	0	0	0	0
SAN ONOFRE 2	0	0	0	0	0	0	0	0	0	0	0	0
SAN ONOFRE 3	0	0	0	0	0	0	0	0	0	0	0	0
SEABROOK	0	0	1	0	0	0	0	0	1	0	0	0
SEQUOYAH 1	0	0	0	0	0	0	1	0	1	0	0	0
SEQUOYAH 2	1	0	0	0	0	0	0	1	1	0	0	0
SOUTH TEXAS 1	0	0	0	0	1	0	0	0	0	0	2	1
SOUTH TEXAS 2	0	1	0	0	0	0	0	1	0	1	0	0
ST. LUCIE 1	0	1	0	0	0	0	0	0	0	0	0	0
ST. LUCIE 2	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER	0	0	1	0	0	0	0	0	0	0	1	0
SURRY 1	0	0	0	0	0	1	0	0	1	0	0	0
SURRY 2	1	0	0	0	0	0	0	0	0	0	0	1
SUSQUEHANNA 1	0	0	0	0	0	0	0	0	1	0	0	1
SUSQUEHANNA 2	0	0	0	0	0	0	1	1	0	0	1	0
THREE MILE ISL 1	0	0	1	0	0	0	0	0	0	0	0	0
TURKEY POINT 3	0	0	0	1	0	0	0	1	0	0	0	0
TURKEY POINT 4	0	0	1	0	0	0	0	0	0	0	0	0
VERMONT YANKEE	0	0	1	0	1	0	1	0	0	0	0	0
VOGTLE 1	1	0	0	0	0	0	0	0	0	0	0	0
VOGTLE 2	1	0	0	0	0	0	2	0	0	0	0	0
WASH. NUCLEAR 2	0	0	0	0	0	1	0	0	0	0	0	0
WATERFORD 3	0	0	0	0	0	0	0	0	0	0	1	0
WATTS BAR 1	0	2	1	0	0	1	0	0	0	0	0	0
WOLF CREEK	0	0	0	0	1	0	0	0	0	0	0	1
ZION 1	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA
ZION 2	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA
TOTAL	17	13	15	12	13	11	14	11	14	9	25	18

NA - The plant is not yet critical.
- The plant is permanently shutdown.

TABLE 10.3 AUTOMATIC SCRAMS > 15% POWER/1000 CRITICAL HOURS

	Year - Calendar Quarter											
Plant Name	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
ARKANSAS 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ARKANSAS 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BEAVER VALLEY 1	0.00	0.54	0.00	0.74	0.00	0.00	0.00	0.89	0.00	0.00	0.00	0.00
BEAVER VALLEY 2	0.00	1.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BIG ROCK POINT	0.72	0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA
BRAIDWOOD 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BRAIDWOOD 2	0.00	0.00	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.66	0.00
BROWNS FERRY 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BROWNS FERRY 2	0.48	0.00	0.47	0.00	0.57	0.00	0.00	0.00	0.46	0.00	0.66	0.46
BROWNS FERRY 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BRUNSWICK 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BRUNSWICK 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.75	0.00
BYRON 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.00
BYRON 2	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALLAWAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALVERT CLIFFS 1	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.51
CALVERT CLIFFS 2	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CATAWBA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CATAWBA 2	0.00	0.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CLINTON 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COMANCHE PEAK 1	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COMANCHE PEAK 2	0.46	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00
COOK 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COOK 2	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COOPER STATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRYSTAL RIVER 3	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00
DAVIS-BESSE	0.00	0.00	0.60	0.00	0.00	0.00	0.94	0.00	0.00	0.00	0.00	0.00
DIABLO CANYON 1	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46
DIABLO CANYON 2	0.00	0.48	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DRESDEN 2	0.00	0.00	0.00	0.00	0.47	0.68	1.16	0.00	0.00	0.00	0.00	0.00
DRESDEN 3	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00
DUANE ARNOLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FARLEY 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.47	0.00
FARLEY 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FERMI 2	6.26	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00
FITZPATRICK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.00
FORT CALHOUN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GINNA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.21	0.00
GRAND GULF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HADDAM NECK	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HARRIS	0.00	0.47	1.47	0.49	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
HATCH 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.63	0.00
HATCH 2	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.06	0.00
HOPE CREEK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00
INDIAN POINT 2	0.00	0.00	0.00	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68
INDIAN POINT 3	0.00	0.00	0.00	2.20	0.00	0.00	0.00	0.46	0.00	0.47	0.00	0.60
KEWAUNEE	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00
LASALLE 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46
LASALLE 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46
LIMERICK 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97	0.00
LIMERICK 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAINE YANKEE	0.66	0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA
MCGUIRE 1	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MCGUIRE 2	0.00	0.00	0.00	1.05	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.46
MILLSTONE 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	NA	NA
MILLSTONE 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MILLSTONE 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00
MONTICELLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.00
NINE MILE PT. 1	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53

TABLE 10.3 AUTOMATIC SCRAMS > 15%/1000 HOURS (CONTINUED)

	Year - Calendar Quarter											
Plant Name	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
NINE MILE PT. 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.09	0.00
NORTH ANNA 1	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NORTH ANNA 2	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00
OCONEE 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51
OCONEE 2	0.00	0.00	0.00	0.49	0.00	0.00	1.10	0.00	0.46	0.49	0.48	0.00
OCONEE 3	0.00	1.72	0.00	0.00	0.00	0.00	0.00	0.00	1.88	0.00	0.00	0.00
OYSTER CREEK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PALISADES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PALO VERDE 1	0.00	0.00	0.48	0.00	0.00	0.59	0.00	0.00	0.00	0.47	0.00	0.00
PALO VERDE 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00
PALO VERDE 3	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PEACH BOTTOM 2	0.93	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.45
PEACH BOTTOM 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PERRY	0.00	0.48	0.54	0.00	0.58	0.00	0.00	0.47	0.00	0.00	0.00	0.00
PILGRIM	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.49
POINT BEACH 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POINT BEACH 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRAIRIE ISLAND 1	0.00	0.00	0.55	0.00	0.00	0.00	0.53	0.00	0.57	0.50	0.00	0.00
PRAIRIE ISLAND 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00
QUAD CITIES 1	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.46	0.00	0.00	0.60	0.00
QUAD CITIES 2	0.00	0.00	0.00	0.00	0.00	0.00	1.14	0.00	0.00	0.00	0.00	0.00
RIVER BEND	0.00	0.00	0.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROBINSON 2	0.57	0.00	0.00	0.00	0.47	0.00	0.54	0.00	0.46	0.00	0.00	0.00
SALEM 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.47	0.00
SALEM 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SAN ONOFRE 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SAN ONOFRE 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEABROOK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00
SEQUOYAH 1	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.49	0.00	0.00	0.00
SEQUOYAH 2	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.46	0.00	0.00	0.00
SOUTH TEXAS 1	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	1.35	0.46
SOUTH TEXAS 2	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.47	0.00	0.00
ST. LUCIE 1	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ST. LUCIE 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUMMER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.00
SURRY 1	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.71	0.00	0.00	0.00
SURRY 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51
SUSQUEHANNA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.53
SUSQUEHANNA 2	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.70	0.00
THREE MILE ISL 1	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TURKEY POINT 3	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TURKEY POINT 4	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VERMONT YANKEE	0.00	0.00	0.53	0.00	0.46	0.00	1.61	0.00	0.00	0.00	0.00	0.00
VOGTLE 1	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VOGTLE 2	0.52	0.00	0.00	0.00	0.00	0.00	1.36	0.00	0.00	0.00	0.00	0.00
WASH. NUCLEAR 2	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00
WATERFORD 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00
WATTS BAR 1	0.00	1.10	0.47	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00
WOLF CREEK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46
ZION 1	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA
ZION 2	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA
AVERAGE	0.09	0.07	0.08	0.06	0.07	0.06	0.08	0.04	0.07	0.05	0.13	0.07

NA - The plant is not yet critical.
- The plant is permanently shutdown.

TABLE 10.4 AUTOMATIC SCRAMS <= 15% POWER

	Year - Calendar Quarter											
Plant Name	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
ARKANSAS 1	0	0	0	0	0	0	0	0	0	0	0	0
ARKANSAS 2	0	0	0	0	0	0	0	0	0	0	0	0
BEAVER VALLEY 1	0	0	0	0	0	0	0	0	0	0	0	0
BEAVER VALLEY 2	0	0	0	0	0	0	0	0	0	0	0	0
BIG ROCK POINT	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA
BRAIDWOOD 1	0	0	0	0	0	0	0	0	0	0	0	0
BRAIDWOOD 2	0	0	0	0	0	0	0	0	0	0	1	0
BROWNS FERRY 1	0	0	0	0	0	0	0	0	0	0	0	0
BROWNS FERRY 2	0	0	0	0	0	0	0	0	0	0	0	0
BROWNS FERRY 3	0	0	0	0	0	0	0	0	0	0	0	0
BRUNSWICK 1	0	0	0	0	0	0	0	0	0	0	0	0
BRUNSWICK 2	0	0	0	0	0	0	0	0	0	0	0	0
BYRON 1	0	0	0	0	0	0	0	0	0	0	0	0
BYRON 2	0	0	0	0	0	0	0	0	0	0	0	0
CALLAWAY	0	0	0	0	0	0	0	0	0	0	0	0
CALVERT CLIFFS 1	0	0	0	0	0	0	0	0	0	0	0	0
CALVERT CLIFFS 2	0	0	0	0	0	0	0	0	0	0	0	0
CATAWBA 1	0	0	0	0	0	0	0	0	0	0	0	0
CATAWBA 2	0	0	0	0	0	0	0	0	0	0	0	0
CLINTON 1	0	0	0	0	0	0	0	0	0	0	0	0
COMANCHE PEAK 1	0	0	0	0	0	0	0	0	0	0	0	0
COMANCHE PEAK 2	0	0	0	0	0	0	0	0	0	0	0	0
COOK 1	0	0	0	0	0	0	0	0	0	0	0	0
COOK 2	0	0	0	0	0	0	0	0	0	0	0	0
COOPER STATION	0	0	0	0	0	0	0	0	0	0	0	0
CRYSTAL RIVER 3	0	0	0	0	0	0	0	0	0	0	0	0
DAVIS-BESSE	0	0	0	0	0	0	0	0	1	0	0	0
DIABLO CANYON 1	0	0	0	0	0	0	0	0	0	0	0	0
DIABLO CANYON 2	0	0	0	0	0	0	0	0	0	0	0	0
DRESDEN 2	0	0	0	0	0	0	0	0	0	0	0	0
DRESDEN 3	0	0	0	0	0	0	0	0	0	0	0	0
DUANE ARNOLD	0	0	0	0	0	0	0	0	0	0	0	0
FARLEY 1	0	0	0	0	0	0	0	0	0	0	0	0
FARLEY 2	0	0	0	0	0	0	0	0	0	0	0	0
FERMI 2	0	0	0	0	0	0	0	0	0	0	0	0
FITZPATRICK	0	0	0	0	0	0	0	0	0	0	0	0
FORT CALHOUN	0	0	0	0	0	0	0	0	0	0	0	0
GINNA	0	0	0	0	0	0	0	0	0	0	0	0
GRAND GULF	0	0	0	0	0	0	0	0	0	0	0	0
HADDAM NECK	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HARRIS	0	0	0	0	0	0	0	0	0	0	0	0
HATCH 1	0	0	0	0	0	0	0	0	0	0	0	0
HATCH 2	0	0	0	0	0	0	0	0	0	0	0	0
HOPE CREEK	0	0	0	0	0	0	0	0	0	0	0	0
INDIAN POINT 2	0	1	0	0	0	0	0	0	0	0	0	0
INDIAN POINT 3	0	0	0	1	0	0	0	0	0	0	0	0
KEWAUNEE	0	0	0	0	0	0	0	0	0	0	0	0
LASALLE 1	0	0	0	0	0	0	0	0	0	0	0	0
LASALLE 2	0	0	0	0	0	0	0	0	0	0	0	0
LIMERICK 1	0	0	0	0	0	0	0	0	0	0	0	0
LIMERICK 2	0	0	0	0	0	0	0	0	0	0	0	0
MAINE YANKEE	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA
MCGUIRE 1	0	0	0	0	0	0	0	0	0	0	0	0
MCGUIRE 2	0	0	0	0	0	0	0	0	0	0	0	0
MILLSTONE 1	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
MILLSTONE 2	0	0	0	0	0	0	0	0	0	0	0	0
MILLSTONE 3	0	0	0	0	0	0	0	0	0	0	0	0
MONTICELLO	0	0	0	0	0	0	0	0	0	0	0	0
NINE MILE PT. 1	0	0	0	0	0	0	0	0	0	0	0	1

TABLE 10.4 AUTOMATIC SCRAMS <= 15% POWER (CONTINUED)

Plant Name	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
NINE MILE PT. 2	0	0	0	0	0	0	0	0	0	0	0	0
NORTH ANNA 1	0	0	0	0	0	0	0	0	0	0	0	0
NORTH ANNA 2	0	0	0	0	0	0	0	0	0	0	0	0
OCONEE 1	0	0	0	0	0	0	0	0	0	0	0	1
OCONEE 2	0	0	0	0	0	0	0	0	0	0	0	0
OCONEE 3	0	0	0	0	0	0	0	0	0	0	0	0
OYSTER CREEK	0	0	0	0	0	0	0	0	0	0	0	0
PALISADES	0	0	0	0	0	0	0	0	0	0	0	0
PALO VERDE 1	0	0	0	0	0	0	0	0	0	0	0	0
PALO VERDE 2	0	0	0	0	0	0	0	0	0	0	0	0
PALO VERDE 3	0	0	0	0	0	0	0	0	0	0	0	0
PEACH BOTTOM 2	0	0	0	0	0	0	0	0	0	0	0	0
PEACH BOTTOM 3	0	0	0	0	0	0	0	0	0	0	0	0
PERRY	0	0	0	0	0	0	0	0	0	0	0	0
PILGRIM	0	0	0	0	0	0	0	0	0	0	0	0
POINT BEACH 1	0	0	0	0	0	0	0	0	0	0	0	0
POINT BEACH 2	0	0	0	0	0	0	0	0	0	0	0	0
PRAIRIE ISLAND 1	0	0	0	0	0	0	0	0	0	0	0	0
PRAIRIE ISLAND 2	0	0	0	0	0	0	0	0	0	0	0	0
QUAD CITIES 1	0	0	0	0	0	0	0	0	0	0	0	0
QUAD CITIES 2	0	0	0	0	0	0	0	0	0	0	0	0
RIVER BEND	0	0	0	0	0	0	0	0	0	0	0	0
ROBINSON 2	0	0	0	0	0	0	0	0	0	0	0	0
SALEM 1	0	0	0	0	0	0	0	0	0	0	0	0
SALEM 2	0	0	0	0	0	0	0	0	0	0	0	0
SAN ONOFRE 2	0	0	0	0	0	0	0	0	0	0	0	0
SAN ONOFRE 3	0	0	0	0	0	0	0	0	0	0	0	0
SEABROOK	0	0	1	0	0	0	0	0	0	0	0	0
SEQUOYAH 1	0	0	0	0	0	0	0	0	0	0	0	0
SEQUOYAH 2	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH TEXAS 1	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH TEXAS 2	0	0	0	0	0	0	0	0	0	0	0	0
ST. LUCIE 1	0	0	0	0	0	0	0	0	0	0	0	0
ST. LUCIE 2	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER	0	0	1	0	0	0	0	0	0	0	0	0
SURRY 1	0	0	0	0	0	0	0	0	0	0	0	0
SURRY 2	1	0	0	0	0	0	0	0	0	0	0	0
SUSQUEHANNA 1	0	0	0	0	0	0	0	0	0	0	0	0
SUSQUEHANNA 2	0	0	0	0	0	0	0	1	0	0	0	0
THREE MILE ISL 1	0	0	0	0	0	0	0	0	0	0	0	0
TURKEY POINT 3	0	0	0	0	0	0	0	1	0	0	0	0
TURKEY POINT 4	0	0	0	0	0	0	0	0	0	0	0	0
VERMONT YANKEE	0	0	0	0	0	0	0	0	0	0	0	0
VOGTLE 1	0	0	0	0	0	0	0	0	0	0	0	0
VOGTLE 2	0	0	0	0	0	0	0	0	0	0	0	0
WASH. NUCLEAR 2	0	0	0	0	0	0	0	0	0	0	0	0
WATERFORD 3	0	0	0	0	0	0	0	0	0	0	0	0
WATTS BAR 1	0	0	0	0	0	0	0	0	0	0	0	0
WOLF CREEK	0	0	0	0	1	0	0	0	0	0	0	0
ZION 1	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA
ZION 2	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA
TOTAL	1	1	2	1	1	0	0	2	1	0	1	2

NA - The plant is not yet critical.
- The plant is permanently shutdown.

TABLE 10.5 SAFETY SYSTEM ACTUATIONS

Plant Name	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
ARKANSAS 1	0	0	0	0	0	0	0	0	0	0	0	0
ARKANSAS 2	0	0	0	0	0	0	0	0	0	0	0	0
BEAVER VALLEY 1	0	0	0	0	0	0	0	0	0	0	0	0
BEAVER VALLEY 2	0	0	0	0	0	0	0	0	0	1	0	1
BIG ROCK POINT	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA
BRAIDWOOD 1	0	0	0	0	0	0	0	1	0	0	0	0
BRAIDWOOD 2	0	0	0	0	0	0	0	0	0	0	0	0
BROWNS FERRY 1	0	0	0	0	0	0	0	0	0	0	0	0
BROWNS FERRY 2	0	0	1	0	1	0	0	0	0	0	0	0
BROWNS FERRY 3	0	1	0	0	0	0	0	0	1	0	0	0
BRUNSWICK 1	1	0	1	0	0	0	0	0	0	0	0	0
BRUNSWICK 2	0	0	0	0	0	0	0	0	0	0	0	0
BYRON 1	0	0	0	0	0	0	0	1	0	0	0	0
BYRON 2	0	0	0	0	0	0	0	0	0	0	0	0
CALLAWAY	0	0	0	0	0	0	0	0	0	0	0	0
CALVERT CLIFFS 1	0	0	0	0	0	0	0	0	0	0	0	0
CALVERT CLIFFS 2	0	0	0	0	0	0	0	0	0	0	0	0
CATAWBA 1	0	0	0	0	1	0	0	0	0	0	0	0
CATAWBA 2	1	0	0	0	0	0	0	1	0	0	0	0
CLINTON 1	0	0	0	0	0	0	0	0	1	1	0	0
COMANCHE PEAK 1	0	0	0	0	0	0	0	0	0	0	0	0
COMANCHE PEAK 2	0	0	0	0	0	0	0	0	0	0	1	0
COOK 1	0	0	0	0	0	0	0	1	0	0	0	0
COOK 2	0	0	0	0	0	0	0	1	0	0	0	0
COOPER STATION	0	0	0	0	0	0	0	0	0	0	0	0
CRYSTAL RIVER 3	0	0	0	0	0	0	0	0	0	0	0	0
DAVIS-BESSE	0	0	0	0	0	0	1	0	1	0	0	0
DIABLO CANYON 1	0	0	1	0	0	0	0	0	0	1	0	0
DIABLO CANYON 2	0	0	0	0	1	0	0	0	0	0	0	0
DRESDEN 2	0	0	0	0	0	0	0	0	0	0	0	0
DRESDEN 3	0	0	0	0	0	0	0	0	0	0	0	0
DUANE ARNOLD	0	0	0	0	0	0	0	0	0	0	0	0
FARLEY 1	0	0	0	0	0	0	0	0	0	0	0	0
FARLEY 2	0	0	0	0	0	0	0	0	0	0	0	0
FERMI 2	0	0	0	0	0	0	0	1	0	0	0	0
FITZPATRICK	0	0	0	0	0	0	1	1	0	0	0	0
FORT CALHOUN	0	0	0	0	0	0	1	0	0	0	0	0
GINNA	0	0	0	1	1	0	0	0	1	0	1	0
GRAND GULF	0	0	0	0	0	0	0	0	0	0	0	0
HADDAM NECK	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HARRIS	0	0	1	0	0	0	0	0	0	0	0	0
HATCH 1	0	0	0	0	0	0	0	0	0	0	0	0
HATCH 2	0	0	2	0	1	0	0	0	0	0	1	0
HOPE CREEK	0	0	0	0	0	0	0	0	0	0	0	0
INDIAN POINT 2	0	0	0	1	0	0	0	1	0	0	0	1
INDIAN POINT 3	0	0	2	0	0	0	1	0	0	0	0	0
KEWAUNEE	0	0	0	0	0	0	0	0	0	0	0	0
LASALLE 1	0	0	0	0	0	0	0	1	0	0	0	0
LASALLE 2	0	0	0	0	0	0	0	0	0	0	0	0
LIMERICK 1	0	0	0	0	0	1	0	0	0	0	1	0
LIMERICK 2	0	0	0	0	0	0	0	0	0	0	0	0
MAINE YANKEE	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA
MCGUIRE 1	0	0	0	0	0	0	0	0	0	0	0	0
MCGUIRE 2	1	0	1	0	0	0	0	0	0	0	0	0
MILLSTONE 1	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
MILLSTONE 2	0	0	0	0	0	0	0	0	0	0	0	0
MILLSTONE 3	0	0	0	0	0	0	0	0	0	0	0	0
MONTICELLO	0	0	1	0	0	0	0	0	0	0	0	0
NINE MILE PT. 1	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 10.5 SAFETY SYSTEM ACTUATIONS (CONTINUED)

	Year - Calendar Quarter											
Plant Name	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
NINE MILE PT. 2	0	0	0	0	0	1	1	0	0	0	2	0
NORTH ANNA 1	0	0	0	0	0	0	0	1	0	0	0	0
NORTH ANNA 2	0	0	0	0	0	0	0	0	0	0	0	0
OCONEE 1	0	0	0	0	0	0	0	0	0	0	0	0
OCONEE 2	0	0	0	1	0	0	0	0	0	0	0	0
OCONEE 3	0	0	0	0	0	0	0	0	0	0	0	0
OYSTER CREEK	0	0	0	1	0	0	0	1	0	0	0	0
PALISADES	0	0	0	0	0	0	0	0	1	0	0	0
PALO VERDE 1	0	0	0	0	0	0	0	0	0	0	0	0
PALO VERDE 2	0	0	0	2	0	0	0	0	0	0	0	0
PALO VERDE 3	0	0	0	0	0	0	0	0	0	0	0	0
PEACH BOTTOM 2	0	0	0	1	0	0	0	0	0	0	0	0
PEACH BOTTOM 3	0	0	0	0	0	0	0	0	0	0	0	0
PERRY	0	1	1	2	0	0	0	1	0	0	0	0
PILGRIM	0	1	0	0	0	0	0	0	0	0	1	0
POINT BEACH 1	0	0	0	0	0	1	0	0	0	0	1	0
POINT BEACH 2	0	0	0	0	0	0	0	0	0	0	0	0
PRAIRIE ISLAND 1	0	0	0	0	0	0	0	0	0	0	0	0
PRAIRIE ISLAND 2	0	0	0	0	0	0	0	0	0	0	0	0
QUAD CITIES 1	0	0	0	0	0	0	0	0	0	0	0	0
QUAD CITIES 2	0	1	0	0	0	0	0	0	0	0	0	0
RIVER BEND	0	0	0	0	0	0	0	0	0	0	2	0
ROBINSON 2	0	0	0	0	0	0	0	0	0	0	0	1
SALEM 1	0	0	0	0	0	0	0	0	0	0	0	0
SALEM 2	2	0	0	0	0	0	0	1	0	0	0	0
SAN ONOFRE 2	0	0	0	0	0	0	0	0	0	1	0	0
SAN ONOFRE 3	0	0	0	0	0	0	0	0	0	0	0	0
SEABROOK	0	0	0	0	0	0	0	0	0	0	0	0
SEQUOYAH 1	0	0	2	0	0	0	0	0	0	0	0	0
SEQUOYAH 2	1	0	0	0	0	0	0	0	0	0	0	1
SOUTH TEXAS 1	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH TEXAS 2	0	0	0	0	0	0	0	0	0	1	0	1
ST. LUCIE 1	0	0	0	0	0	0	0	0	0	0	0	0
ST. LUCIE 2	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER	0	0	0	0	0	0	0	0	0	0	0	0
SURRY 1	0	0	0	0	0	0	0	0	1	0	0	0
SURRY 2	0	0	0	0	1	0	0	0	0	0	0	0
SUSQUEHANNA 1	0	0	0	0	0	0	0	0	0	0	0	1
SUSQUEHANNA 2	0	0	0	0	0	0	0	0	0	0	0	0
THREE MILE ISL 1	0	0	1	0	0	0	0	0	0	0	1	0
TURKEY POINT 3	0	0	0	0	0	0	0	0	0	0	0	0
TURKEY POINT 4	0	0	0	0	0	0	0	0	0	0	0	0
VERMONT YANKEE	0	0	0	0	0	0	1	0	0	0	0	0
VOGTLE 1	0	0	0	0	0	0	0	0	0	0	0	0
VOGTLE 2	0	0	0	0	0	0	1	0	0	0	0	0
WASH. NUCLEAR 2	0	0	0	0	0	1	1	1	0	0	0	0
WATERFORD 3	0	0	0	0	0	0	0	0	0	0	0	0
WATTS BAR 1	0	3	0	0	0	0	0	0	0	0	0	0
WOLF CREEK	0	0	0	0	0	0	0	0	0	0	1	0
ZION 1	0	1	0	0	0	NA	NA	NA	NA	NA	NA	NA
ZION 2	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA
TOTAL	6	8	14	9	6	4	8	14	6	5	12	6

NA - The plant is not yet licensed.
- The plant is permanently shutdown.

TABLE 10.6 SIGNIFICANT EVENTS

	Year - Calendar Quarter											
Plant Name	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
ARKANSAS 1	0	0	0	0	0	0	0	0	0	0	0	0
ARKANSAS 2	0	0	0	0	0	0	0	0	0	0	0	0
BEAVER VALLEY 1	0	0	0	0	0	0	0	0	0	0	0	0
BEAVER VALLEY 2	1	0	0	0	0	0	0	0	0	0	0	1
BIG ROCK POINT	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA
BRAIDWOOD 1	0	0	0	0	0	0	0	0	0	0	0	0
BRAIDWOOD 2	0	0	0	0	0	0	0	0	0	0	0	0
BROWNS FERRY 1	0	0	0	0	0	0	0	0	0	0	0	0
BROWNS FERRY 2	0	0	0	0	0	0	0	0	0	0	0	0
BROWNS FERRY 3	0	0	0	0	0	0	0	0	0	0	0	0
BRUNSWICK 1	0	0	0	0	0	0	0	0	0	0	0	0
BRUNSWICK 2	0	0	0	0	0	0	0	0	0	0	0	0
BYRON 1	0	0	0	0	0	0	0	0	0	0	0	0
BYRON 2	0	0	0	0	0	0	0	0	0	0	0	0
CALLAWAY	0	0	0	0	0	0	0	0	0	0	0	0
CALVERT CLIFFS 1	0	0	0	0	0	0	0	0	0	0	0	0
CALVERT CLIFFS 2	0	0	1	0	0	0	0	0	0	0	0	0
CATAWBA 1	0	0	0	0	0	0	0	0	0	0	0	0
CATAWBA 2	0	0	0	0	0	0	0	0	0	0	0	0
CLINTON 1	0	0	0	0	0	0	0	0	0	0	0	0
COMANCHE PEAK 1	0	0	0	0	0	0	0	0	0	0	0	0
COMANCHE PEAK 2	0	0	0	0	0	0	0	0	0	0	0	0
COOK 1	0	0	0	1	0	1	0	0	0	0	0	0
COOK 2	0	0	0	1	0	1	0	0	0	0	0	0
COOPER STATION	0	0	0	0	0	0	0	0	0	0	0	0
CRYSTAL RIVER 3	0	0	0	0	0	0	0	0	0	0	0	0
DAVIS-BESSE	0	0	0	0	0	0	0	0	0	0	0	0
DIABLO CANYON 1	0	0	0	0	0	0	0	0	0	0	0	0
DIABLO CANYON 2	0	0	0	0	0	0	0	0	0	0	0	0
DRESDEN 2	0	0	0	0	0	0	0	0	0	0	0	0
DRESDEN 3	0	0	0	0	0	0	0	0	0	0	0	0
DUANE ARNOLD	0	0	0	0	0	0	0	0	0	0	0	0
FARLEY 1	0	0	0	0	0	0	0	0	0	0	0	0
FARLEY 2	0	0	0	0	0	0	0	0	0	0	0	0
FERMI 2	0	0	0	0	0	0	0	0	0	0	0	0
FITZPATRICK	0	0	0	0	0	0	0	0	0	0	0	0
FORT CALHOUN	0	0	0	0	0	0	0	0	0	0	0	0
GINNA	0	0	0	0	0	0	0	0	0	0	0	0
GRAND GULF	0	0	0	0	0	0	0	0	0	0	0	0
HADDAM NECK	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HARRIS	0	0	0	0	0	0	0	0	0	0	0	0
HATCH 1	0	0	0	0	0	0	0	0	0	0	0	0
HATCH 2	0	0	0	0	0	0	0	0	0	0	1	0
HOPE CREEK	0	0	0	0	0	0	0	0	0	0	0	0
INDIAN POINT 2	0	0	0	0	0	0	0	0	0	0	0	1
INDIAN POINT 3	0	0	0	0	0	0	0	0	0	0	0	0
KEWAUNEE	0	0	0	0	0	0	0	0	0	0	0	0
LASALLE 1	0	0	0	0	0	0	0	0	0	0	0	0
LASALLE 2	0	0	0	0	0	0	0	0	0	0	0	0
LIMERICK 1	0	0	0	0	0	0	0	0	0	0	0	0
LIMERICK 2	0	0	0	0	0	0	0	0	0	0	0	0
MAINE YANKEE	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA
MCGUIRE 1	0	0	0	0	0	0	0	0	0	0	0	0
MCGUIRE 2	0	0	0	0	0	0	0	0	0	0	0	0
MILLSTONE 1	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
MILLSTONE 2	0	0	0	0	0	0	0	0	0	0	0	0
MILLSTONE 3	0	0	0	0	0	0	0	0	0	0	0	0
MONTICELLO	0	0	0	0	0	0	0	0	0	0	0	0
NINE MILE PT. 1	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 10.6 SIGNIFICANT EVENTS (CONTINUED)

Plant Name	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
NINE MILE PT. 2	0	0	0	0	0	0	0	0	0	0	0	0
NORTH ANNA 1	0	0	0	0	0	0	0	0	0	0	0	0
NORTH ANNA 2	0	0	0	0	0	0	0	0	0	0	0	0
OCONEE 1	0	0	0	0	0	0	0	0	0	0	0	0
OCONEE 2	0	0	1	0	0	0	0	0	0	0	0	0
OCONEE 3	0	0	1	0	0	0	0	0	0	0	0	0
OYSTER CREEK	0	0	0	0	0	0	0	0	0	0	0	0
PALISADES	0	0	0	0	0	0	0	0	0	0	0	0
PALO VERDE 1	0	0	0	0	0	0	0	0	0	0	0	0
PALO VERDE 2	0	0	0	0	0	0	0	0	0	0	0	0
PALO VERDE 3	0	0	0	0	0	0	0	0	0	0	0	0
PEACH BOTTOM 2	0	0	0	0	0	0	0	0	0	0	0	0
PEACH BOTTOM 3	0	0	0	0	0	0	0	0	0	0	0	0
PERRY	0	0	0	0	0	0	0	0	0	0	0	0
PILGRIM	0	0	0	0	0	0	0	0	0	0	0	0
POINT BEACH 1	0	0	0	0	0	0	0	0	0	0	0	0
POINT BEACH 2	0	0	0	0	0	0	0	0	0	0	0	0
PRAIRIE ISLAND 1	0	0	0	0	0	0	0	0	0	0	0	0
PRAIRIE ISLAND 2	0	0	0	0	0	0	0	0	0	0	0	0
QUAD CITIES 1	0	0	0	0	0	0	0	0	0	0	0	0
QUAD CITIES 2	0	0	0	0	0	0	0	0	0	0	0	0
RIVER BEND	0	0	0	0	0	0	0	0	0	0	0	0
ROBINSON 2	0	0	0	0	0	0	0	0	0	0	0	0
SALEM 1	0	0	0	0	0	0	0	0	0	0	0	0
SALEM 2	0	0	0	0	0	0	0	0	0	0	0	0
SAN ONOFRE 2	0	0	0	0	0	0	0	0	0	0	0	0
SAN ONOFRE 3	0	0	0	0	0	0	0	0	0	0	0	0
SEABROOK	0	0	0	0	0	0	0	0	0	0	0	0
SEQUOYAH 1	0	1	0	0	0	0	0	0	0	0	0	0
SEQUOYAH 2	1	0	0	0	0	0	0	0	0	0	0	0
SOUTH TEXAS 1	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH TEXAS 2	0	0	0	0	0	0	0	0	0	0	0	0
ST. LUCIE 1	0	0	0	0	0	0	0	0	0	0	0	0
ST. LUCIE 2	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER	0	0	0	0	0	0	0	0	0	0	0	0
SURRY 1	0	0	0	0	0	0	0	0	0	0	0	0
SURRY 2	0	0	0	0	0	0	0	0	0	0	0	0
SUSQUEHANNA 1	0	0	0	0	0	0	0	0	0	0	0	0
SUSQUEHANNA 2	0	0	0	0	0	0	0	1	0	0	0	0
THREE MILE ISL 1	0	0	0	0	0	0	0	0	0	0	0	0
TURKEY POINT 3	0	0	0	0	0	0	0	0	0	0	0	0
TURKEY POINT 4	0	0	0	0	0	0	0	0	0	0	0	0
VERMONT YANKEE	0	0	0	0	0	0	0	0	0	0	0	0
VOGTLE 1	0	0	0	0	0	0	0	0	0	0	0	0
VOGTLE 2	0	0	0	0	0	0	0	0	0	0	0	0
WASH. NUCLEAR 2	0	0	0	0	0	0	1	0	0	0	0	0
WATERFORD 3	0	0	0	0	0	0	0	0	0	0	0	0
WATTS BAR 1	0	0	0	0	0	0	0	0	0	0	0	0
WOLF CREEK	0	0	0	0	0	0	0	0	0	0	0	0
ZION 1	0	1	0	0	0	NA	NA	NA	NA	NA	NA	NA
ZION 2	0	1	0	0	0	NA	NA	NA	NA	NA	NA	NA
TOTAL	2	3	3	2	0	2	1	1	0	0	1	2

NA - The plant is not yet licensed.
- The plant is permanently shutdown.

TABLE 10.7 SAFETY SYSTEM FAILURES

Plant Name	Year - Calendar Quarter											
	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
ARKANSAS 1	0	0	0	0	0	0	0	0	1	0	0	1
ARKANSAS 2	0	1	0	0	0	0	0	0	1	0	0	1
BEAVER VALLEY 1	2	0	3	3	3	4	2	0	0	2	1	0
BEAVER VALLEY 2	2	1	0	1	3	0	3	0	0	1	0	0
BIG ROCK POINT	0	0	1	0	NA	NA	NA	NA	NA	NA	NA	NA
BRAIDWOOD 1	0	0	1	0	0	0	0	0	0	0	1	0
BRAIDWOOD 2	0	0	1	0	0	0	0	0	1	0	0	0
BROWNS FERRY 1	0	0	0	1	1	0	0	0	0	0	0	0
BROWNS FERRY 2	0	0	0	1	2	0	0	0	0	0	0	1
BROWNS FERRY 3	2	0	0	1	1	0	0	0	0	1	1	0
BRUNSWICK 1	0	0	0	1	0	0	0	0	0	0	0	0
BRUNSWICK 2	0	0	0	2	0	0	0	0	1	1	0	0
BYRON 1	1	2	1	0	1	0	1	0	0	0	0	0
BYRON 2	1	1	0	0	1	0	1	0	0	0	0	0
CALLAWAY	0	0	0	0	0	0	0	2	0	0	0	0
CALVERT CLIFFS 1	0	0	0	0	1	1	0	0	0	1	0	0
CALVERT CLIFFS 2	0	0	1	0	0	0	0	0	0	1	0	0
CATAWBA 1	0	0	1	0	0	1	1	1	0	0	1	0
CATAWBA 2	0	0	1	0	0	2	0	1	0	0	1	0
CLINTON 1	2	2	3	4	7	4	1	1	0	1	1	0
COMANCHE PEAK 1	0	0	0	0	1	0	0	0	0	0	0	0
COMANCHE PEAK 2	0	0	0	0	2	0	0	0	0	0	0	0
COOK 1	0	0	1	5	0	4	3	3	2	3	3	1
COOK 2	0	0	1	5	0	4	2	3	3	3	3	1
COOPER STATION	1	0	1	1	2	3	0	0	2	0	0	1
CRYSTAL RIVER 3	1	2	3	5	4	0	0	0	2	0	0	0
DAVIS-BESSE	2	0	0	2	1	0	2	2	1	1	0	0
DIABLO CANYON 1	0	0	0	1	1	0	0	0	1	0	0	0
DIABLO CANYON 2	0	0	0	1	2	0	1	0	1	0	0	0
DRESDEN 2	3	1	2	0	2	2	2	1	0	0	0	0
DRESDEN 3	2	0	2	2	3	3	0	0	1	0	0	1
DUANE ARNOLD	1	0	1	0	1	0	0	0	0	0	0	0
FARLEY 1	0	1	0	1	0	0	0	0	1	0	0	0
FARLEY 2	0	1	0	1	0	0	0	0	1	0	0	0
FERMI 2	1	2	2	0	0	0	0	0	0	0	1	2
FITZPATRICK	0	0	0	1	2	1	1	1	0	1	1	1
FORT CALHOUN	5	0	0	1	2	1	1	0	2	0	0	0
GINNA	2	0	0	0	0	0	1	0	0	0	1	1
GRAND GULF	0	0	0	0	0	0	1	0	0	0	0	1
HADDAM NECK	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HARRIS	0	0	0	1	0	1	0	0	0	0	0	1
HATCH 1	0	0	0	1	0	1	0	0	0	0	1	0
HATCH 2	0	1	0	1	0	1	0	0	0	0	0	0
HOPE CREEK	2	3	2	2	3	0	1	0	0	1	0	1
INDIAN POINT 2	0	0	2	0	0	2	1	0	0	0	1	0
INDIAN POINT 3	0	0	2	4	0	1	0	0	0	0	0	0
KEWAUNEE	1	0	0	0	0	0	0	1	2	0	0	0
LASALLE 1	3	2	0	2	2	1	1	1	0	0	0	0
LASALLE 2	4	2	0	1	2	1	1	0	0	0	0	0
LIMERICK 1	0	0	0	1	1	1	1	1	0	0	2	0
LIMERICK 2	0	0	1	1	0	0	0	1	1	1	2	0
MAINE YANKEE	2	1	1	0	NA	NA	NA	NA	NA	NA	NA	NA
MCGUIRE 1	0	0	0	0	0	0	0	0	0	0	0	0
MCGUIRE 2	0	1	0	0	0	0	1	0	0	0	0	0
MILLSTONE 1	3	2	2	2	2	1	0	NA	NA	NA	NA	NA
MILLSTONE 2	3	1	3	2	3	3	3	3	0	2	0	0
MILLSTONE 3	5	5	4	1	2	3	1	2	1	2	0	0
MONTICELLO	1	0	0	1	0	0	0	1	0	0	4	0
NINE MILE PT. 1	0	0	1	2	0	2	5	1	0	0	0	0

TABLE 10.7 SAFETY SYSTEM FAILURES (CONTINUED)

Plant Name	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
NINE MILE PT. 2	2	0	2	1	0	0	4	1	1	1	2	0
NORTH ANNA 1	0	0	1	1	0	0	0	0	1	1	1	0
NORTH ANNA 2	0	0	0	1	0	0	0	0	0	1	1	0
OCONEE 1	0	1	0	0	0	3	1	0	3	0	0	0
OCONEE 2	1	1	0	0	0	3	1	0	3	0	0	0
OCONEE 3	1	1	2	0	0	2	1	0	4	0	1	0
OYSTER CREEK	1	0	0	0	1	1	0	1	1	0	0	0
PALISADES	1	0	0	2	0	2	1	0	0	0	0	0
PALO VERDE 1	0	0	0	1	0	0	0	0	0	0	0	0
PALO VERDE 2	0	0	0	1	0	0	0	0	0	0	0	0
PALO VERDE 3	0	0	0	1	0	0	0	2	1	0	0	0
PEACH BOTTOM 2	1	0	1	1	0	0	0	0	0	2	1	0
PEACH BOTTOM 3	0	0	0	1	0	0	1	0	0	1	0	1
PERRY	1	0	0	0	0	0	0	0	0	1	0	1
PILGRIM	0	0	2	1	3	3	1	2	1	0	0	2
POINT BEACH 1	1	2	8	2	1	2	2	1	1	1	1	0
POINT BEACH 2	1	2	7	1	0	3	1	1	1	0	1	0
PRAIRIE ISLAND 1	0	0	2	0	2	4	0	4	0	0	1	3
PRAIRIE ISLAND 2	0	0	2	0	1	3	0	4	0	0	1	3
QUAD CITIES 1	1	1	6	1	2	3	1	1	1	0	0	1
QUAD CITIES 2	2	0	2	1	0	2	1	1	0	0	0	1
RIVER BEND	0	0	0	3	0	0	1	1	0	2	1	0
ROBINSON 2	0	0	1	1	0	0	0	0	0	0	0	0
SALEM 1	1	1	1	0	0	1	1	2	0	0	0	0
SALEM 2	1	1	1	0	0	1	1	3	0	0	2	0
SAN ONOFRE 2	1	0	0	1	0	2	0	2	1	1	0	0
SAN ONOFRE 3	0	0	0	1	0	1	0	3	1	1	0	0
SEABROOK	0	0	0	0	1	0	2	0	0	1	0	0
SEQUOYAH 1	0	1	0	0	0	0	0	0	0	0	0	0
SEQUOYAH 2	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH TEXAS 1	0	0	0	0	0	0	0	0	0	1	0	0
SOUTH TEXAS 2	0	0	0	0	0	0	0	0	1	1	0	0
ST. LUCIE 1	0	0	0	0	1	0	1	0	0	0	1	0
ST. LUCIE 2	0	0	0	0	0	1	1	1	0	0	1	0
SUMMER	0	0	0	0	0	0	0	0	0	1	0	1
SURRY 1	0	0	0	1	0	0	0	0	0	1	0	1
SURRY 2	0	0	0	1	0	0	0	0	0	1	0	1
SUSQUEHANNA 1	2	0	0	2	1	0	1	0	0	1	0	1
SUSQUEHANNA 2	1	1	0	2	1	0	0	0	0	1	0	0
THREE MILE ISL 1	2	0	1	0	0	1	0	2	0	1	1	0
TURKEY POINT 3	0	0	0	0	0	0	0	0	0	0	0	0
TURKEY POINT 4	0	1	0	0	0	0	0	0	0	0	0	0
VERMONT YANKEE	1	5	0	1	1	2	5	0	1	0	0	0
VOGTLE 1	1	1	0	0	1	0	0	0	0	0	0	1
VOGTLE 2	0	1	0	0	0	1	1	0	0	0	0	2
WASH. NUCLEAR 2	1	0	0	0	1	0	1	0	0	0	0	0
WATERFORD 3	1	2	3	0	2	1	1	2	0	1	0	1
WATTS BAR 1	0	0	1	0	1	0	0	0	0	2	1	0
WOLF CREEK	1	0	0	0	1	0	0	0	1	0	1	1
ZION 1	0	2	1	2	1	NA	NA	NA	NA	NA	NA	NA
ZION 2	0	1	1	2	2	NA	NA	NA	NA	NA	NA	NA
TOTAL	79	57	89	95	82	90	69	60	48	46	43	35

NA - The plant is not yet licensed.
- The plant is permanently shutdown.

TABLE 10.8 FORCED OUTAGE RATE(%)

Plant Name	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
ARKANSAS 1	10	0	0	2	0	9	0	0	7	6	0	0
ARKANSAS 2	33	0	0	0	0	5	4	0	0	0	0	0
BEAVER VALLEY 1	0	14	18	37	100	88	100	50	0	15	12	4
BEAVER VALLEY 2	79	23	0	14	17	100	100	98	3	0	6	11
BIG ROCK POINT	38	68	38	0	NA	NA	NA	NA	NA	NA	NA	NA
BRAIDWOOD 1	0	0	0	0	0	0	0	0	8	0	4	0
BRAIDWOOD 2	0	0	0	0	0	10	0	0	0	0	5	0
BROWNS FERRY 1	0	0	0	0	0	0	0	0	0	0	0	0
BROWNS FERRY 2	5	0	3	0	2	0	0	0	1	0	4	3
BROWNS FERRY 3	0	0	0	0	0	0	13	0	0	0	0	0
BRUNSWICK 1	0	0	0	0	9	0	1	6	0	2	0	9
BRUNSWICK 2	0	0	0	0	0	0	5	5	0	3	3	9
BYRON 1	0	0	4	0	14	0	0	0	0	0	7	0
BYRON 2	0	0	0	0	2	0	0	0	0	0	0	0
CALLAWAY	8	0	0	0	0	0	0	0	4	0	0	8
CALVERT CLIFFS 1	0	1	4	0	2	0	0	0	0	0	0	13
CALVERT CLIFFS 2	3	0	0	0	0	0	0	17	0	0	0	0
CATAWBA 1	4	0	0	0	0	3	3	27	0	0	0	0
CATAWBA 2	8	0	2	4	0	0	0	0	9	0	46	0
CLINTON 1	100	0	0	0	0	0	0	0	0	0	0	0
COMANCHE PEAK 1	0	0	0	0	5	0	0	0	0	0	0	0
COMANCHE PEAK 2	1	0	0	0	0	1	0	0	0	3	0	0
COOK 1	0	0	0	24	100	100	100	100	100	100	100	100
COOK 2	0	8	7	24	100	100	100	100	100	100	100	100
COOPER STATION	0	0	0	6	0	0	0	0	0	0	0	9
CRYSTAL RIVER 3	100	100	100	100	100	43	0	2	0	0	0	0
DAVIS-BESSE	0	0	26	0	0	0	21	9	6	0	0	0
DIABLO CANYON 1	9	0	0	0	0	0	0	0	9	0	0	2
DIABLO CANYON 2	0	3	6	3	2	0	0	0	6	0	0	0
DRESDEN 2	0	0	38	4	4	7	8	1	0	0	0	0
DRESDEN 3	72	35	11	0	5	0	15	0	0	5	0	0
DUANE ARNOLD	0	0	0	5	0	0	0	0	5	0	0	0
FARLEY 1	0	0	0	0	0	0	0	21	0	0	3	0
FARLEY 2	0	0	0	0	0	0	0	0	0	0	3	0
FERMI 2	100	96	39	0	0	16	0	7	8	0	3	0
FITZPATRICK	9	6	7	0	0	0	10	16	3	0	0	5
FORT CALHOUN	1	0	25	4	0	0	0	0	0	0	0	0
GINNA	21	0	0	0	0	0	0	0	0	0	3	0
GRAND GULF	17	0	0	0	0	3	2	2	0	28	0	0
HADDAM NECK	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HARRIS	3	2	5	10	0	0	0	0	0	11	0	0
HATCH 1	0	0	0	0	0	0	0	0	0	0	12	0
HATCH 2	0	0	4	0	7	0	0	0	0	0	20	0
HOPE CREEK	0	0	0	3	0	0	0	0	10	0	0	0
INDIAN POINT 2	0	53	0	19	85	100	100	78	0	0	0	33
INDIAN POINT 3	1	7	5	26	13	0	0	6	16	3	0	3
KEWAUNEE	0	0	0	0	0	1	0	0	0	0	0	0
LASALLE 1	100	0	0	0	0	100	100	49	0	0	0	3
LASALLE 2	0	0	0	0	0	100	100	100	100	100	11	2
LIMERICK 1	0	0	0	0	0	0	39	1	0	0	8	0
LIMERICK 2	16	0	6	0	0	0	17	0	0	0	0	0
MAINE YANKEE	32	100	0	0	NA	NA	NA	NA	NA	NA	NA	NA
MCGUIRE 1	11	0	6	3	0	3	0	0	0	0	0	0
MCGUIRE 2	13	0	16	16	0	2	0	0	0	0	0	1
MILLSTONE 1	100	100	100	100	100	100	100	NA	NA	NA	NA	NA
MILLSTONE 2	100	100	100	100	100	100	100	100	100	100	45	8
MILLSTONE 3	100	100	100	100	100	100	100	15	29	0	0	0
MONTICELLO	5	0	57	33	7	0	0	10	0	0	31	0
NINE MILE PT. 1	7	3	29	20	76	0	31	0	0	0	0	15

TABLE 10.8 FORCED OUTAGE RATE(%) (CONTINUED)

Plant Name	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
NINE MILE PT. 2	7	0	0	7	7	0	0	0	8	0	18	25
NORTH ANNA 1	1	0	0	0	0	0	0	3	0	0	0	0
NORTH ANNA 2	56	0	0	0	1	0	0	1	0	0	0	0
OCONEE 1	0	7	31	3	88	50	0	19	0	0	0	14
OCONEE 2	100	38	35	9	0	0	24	0	2	6	5	0
OCONEE 3	0	72	41	9	11	0	0	0	56	2	0	0
OYSTER CREEK	21	0	14	14	0	13	9	0	0	0	0	0
PALISADES	0	31	0	1	16	0	0	1	20	8	0	0
PALO VERDE 1	0	0	5	0	0	3	0	0	0	3	0	0
PALO VERDE 2	0	0	0	0	11	0	0	0	0	0	2	0
PALO VERDE 3	0	0	1	0	0	0	0	0	0	0	0	0
PEACH BOTTOM 2	7	0	0	0	2	0	0	0	0	0	0	0
PEACH BOTTOM 3	0	3	0	0	0	0	0	0	5	0	0	0
PERRY	0	4	17	1	5	0	0	3	0	0	0	0
PILGRIM	0	6	22	0	16	0	0	0	0	0	0	10
POINT BEACH 1	0	47	100	100	67	0	0	0	0	3	10	0
POINT BEACH 2	0	0	0	36	50	70	0	0	0	0	0	0
PRAIRIE ISLAND 1	0	0	16	0	0	0	14	0	22	7	0	0
PRAIRIE ISLAND 2	0	48	1	1	0	43	0	0	0	0	0	0
QUAD CITIES 1	0	15	17	0	13	100	13	1	2	0	3	0
QUAD CITIES 2	5	0	6	4	100	0	12	0	4	0	0	0
RIVER BEND	0	0	12	8	0	0	16	0	0	0	96	2
ROBINSON 2	1	0	0	0	4	0	2	0	2	0	0	0
SALEM 1	100	100	100	100	100	100	18	0	0	4	4	0
SALEM 2	100	100	100	65	6	30	3	17	12	0	0	0
SAN ONOFRE 2	0	0	1	17	0	0	0	12	0	0	0	0
SAN ONOFRE 3	0	0	0	0	0	0	0	0	0	0	6	0
SEABROOK	0	0	0	0	29	18	22	11	16	0	4	0
SEQUOYAH 1	0	0	0	2	0	0	2	0	2	0	0	0
SEQUOYAH 2	30	0	0	1	0	0	0	3	1	0	0	0
SOUTH TEXAS 1	0	0	0	0	6	0	0	0	0	0	4	2
SOUTH TEXAS 2	0	5	3	0	4	2	0	1	3	1	0	2
ST. LUCIE 1	0	3	5	0	0	2	0	0	0	0	0	11
ST. LUCIE 2	0	0	0	0	0	0	0	0	0	0	8	0
SUMMER	0	0	6	0	0	6	0	0	0	0	5	0
SURRY 1	0	18	0	0	0	3	18	0	6	0	0	0
SURRY 2	0	3	0	0	2	0	0	0	0	0	0	11
SUSQUEHANNA 1	8	22	0	0	0	0	0	9	13	0	8	16
SUSQUEHANNA 2	0	0	0	9	0	0	17	4	0	0	13	0
THREE MILE ISL 1	0	0	8	0	10	0	0	0	0	0	0	0
TURKEY POINT 3	0	2	0	4	0	4	0	0	4	0	1	0
TURKEY POINT 4	0	0	4	0	0	0	0	0	0	0	0	0
VERMONT YANKEE	2	0	12	0	3	0	19	0	3	0	0	0
VOGTLE 1	1	0	16	0	0	0	0	0	0	0	0	0
VOGTLE 2	3	0	0	0	0	0	17	3	0	2	0	0
WASH. NUCLEAR 2	0	1	0	0	0	10	45	20	0	0	0	0
WATERFORD 3	0	0	0	0	0	0	0	17	17	0	2	30
WATTS BAR 1	0	18	2	0	0	4	0	0	0	0	0	0
WOLF CREEK	0	0	5	0	0	0	0	0	0	0	0	1
ZION 1	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA
ZION 2	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA
AVERAGE	14	13	15	10	14	15	15	9	7	5	6	5

NA - The plant is not yet commercial.
- The plant is permanently shutdown.

TABLE 10.9 EQUIPMENT FORCED OUTAGES/1000 COMM. CRIT. HOURS

	Year - Calendar Quarter											
Plant Name	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
ARKANSAS 1	0.60	0.00	0.00	0.45	0.00	0.53	0.00	0.00	0.97	0.00	0.00	0.00
ARKANSAS 2	0.67	0.00	0.00	0.00	0.00	0.67	0.47	0.00	0.00	0.00	0.00	0.00
BEAVER VALLEY 1	0.00	1.62	0.00	0.74	0.00	0.00	0.00	0.00	0.00	2.11	0.62	0.94
BEAVER VALLEY 2	9.72	1.78	0.00	0.00	0.00	0.00	0.00	27.03	0.47	0.00	0.52	0.51
BIG ROCK POINT	0.72	1.43	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA
BRAIDWOOD 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.00	0.47	0.00
BRAIDWOOD 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.00
BROWNS FERRY 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BROWNS FERRY 2	0.48	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.46	0.00	0.66	0.93
BROWNS FERRY 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BRUNSWICK 1	0.00	0.00	0.00	0.00	0.49	0.00	0.68	0.00	0.00	0.00	0.00	0.00
BRUNSWICK 2	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.47	0.00	0.00
BYRON 1	0.00	0.00	0.47	0.00	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BYRON 2	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALLAWAY	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93	0.00	0.00	0.49
CALVERT CLIFFS 1	0.00	0.46	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALVERT CLIFFS 2	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00
CATAWBA 1	0.47	0.00	0.00	0.00	0.00	0.49	0.47	0.61	0.00	0.00	0.00	0.00
CATAWBA 2	0.48	0.00	0.70	0.94	0.00	0.00	0.00	0.00	0.57	0.00	1.60	0.00
CLINTON 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COMANCHE PEAK 1	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COMANCHE PEAK 2	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.55	0.00	0.00
COOK 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COOK 2	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COOPER STATION	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49
CRYSTAL RIVER 3	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00
DAVIS-BESSE	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.51	0.48	0.00	0.00	0.00
DIABLO CANYON 1	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00
DIABLO CANYON 2	0.00	0.48	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DRESDEN 2	0.00	0.00	1.40	0.00	0.47	0.00	0.58	0.45	0.00	0.00	0.00	0.00
DRESDEN 3	1.59	0.00	2.87	0.00	0.47	0.00	1.79	0.00	0.00	0.67	0.00	0.00
DUANE ARNOLD	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00
FARLEY 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.12	0.00	0.00	0.00	0.00
FARLEY 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00
FERMI 2	37.57	6.12	0.00	0.00	0.00	0.54	0.00	0.67	0.67	0.00	0.00	0.00
FITZPATRICK	0.91	0.00	0.49	0.00	0.00	0.00	0.50	0.51	1.35	0.00	0.00	0.47
FORT CALHOUN	1.02	0.00	1.18	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GINNA	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00
GRAND GULF	0.79	0.00	0.00	0.00	0.00	0.47	1.60	0.45	0.00	1.23	0.00	0.00
HADDAM NECK	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HARRIS	0.46	0.47	0.00	0.49	0.00	0.00	0.00	0.00	0.73	1.00	0.00	0.00
HATCH 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.26	0.00
HATCH 2	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	1.06	0.00
HOPE CREEK	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00
INDIAN POINT 2	0.00	0.98	0.00	1.73	2.96	0.00	0.00	1.82	0.00	0.00	0.00	1.35
INDIAN POINT 3	0.00	0.70	0.95	2.20	0.53	0.00	0.00	0.93	0.00	0.00	0.00	0.60
KEWAUNEE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LASALLE 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.76	0.00	0.00	0.00	0.00
LASALLE 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LIMERICK 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.48	0.00
LIMERICK 2	2.57	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00
MAINE YANKEE	0.66	0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA
MCGUIRE 1	0.00	0.00	2.85	0.46	0.00	0.94	0.00	0.00	0.00	0.00	0.00	0.00
MCGUIRE 2	0.00	0.00	0.55	1.05	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00
MILLSTONE 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	NA	NA
MILLSTONE 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	0.48
MILLSTONE 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	1.21	0.00	0.00	0.00
MONTICELLO	1.40	0.00	0.00	0.00	0.97	0.00	0.00	0.99	0.00	0.00	1.28	0.00
NINE MILE PT. 1	0.49	0.69	4.25	1.12	0.00	0.00	0.65	0.00	0.00	0.00	0.00	0.53

TABLE 10.9 EQUIPMENT FORCED OUTAGES/1000 HOURS (CONTINUED)

	Year - Calendar Quarter											
Plant Name	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
NINE MILE PT. 2	0.00	0.00	0.00	0.48	0.48	0.00	0.00	0.00	0.49	0.00	1.09	0.00
NORTH ANNA 1	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NORTH ANNA 2	2.29	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCONEE 1	0.00	0.94	0.66	0.00	37.88	1.79	0.00	0.56	0.00	0.00	0.00	3.54
OCONEE 2	0.00	0.72	0.70	0.98	0.00	0.00	4.39	0.00	0.46	0.98	0.48	0.00
OCONEE 3	0.00	3.43	1.33	0.47	0.00	0.00	0.00	0.00	24.45	0.00	0.00	0.00
OYSTER CREEK	1.39	0.00	0.52	0.00	0.00	0.53	0.48	0.00	0.00	0.00	0.00	0.00
PALISADES	0.00	2.45	0.00	0.46	0.00	0.00	0.00	0.46	0.56	0.00	0.00	0.00
PALO VERDE 1	0.66	0.00	0.48	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.00
PALO VERDE 2	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.70	0.00
PALO VERDE 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PEACH BOTTOM 2	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45
PEACH BOTTOM 3	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00
PERRY	0.00	0.48	0.54	0.57	1.16	0.00	0.00	0.47	0.00	0.00	0.00	0.00
PILGRIM	0.00	0.93	0.00	0.00	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.49
POINT BEACH 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00
POINT BEACH 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRAIRIE ISLAND 1	0.00	0.00	0.55	0.00	0.00	0.00	0.53	0.00	0.57	0.50	0.00	0.00
PRAIRIE ISLAND 2	0.00	0.00	0.00	0.46	0.00	0.81	0.00	0.00	0.00	0.00	0.00	0.00
QUAD CITIES 1	0.00	1.06	0.54	0.00	0.00	0.00	2.88	0.00	0.00	0.00	0.00	0.00
QUAD CITIES 2	0.91	0.00	4.11	0.47	0.00	0.00	3.43	0.00	0.47	0.00	0.00	0.00
RIVER BEND	0.00	0.00	0.00	1.22	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.00
ROBINSON 2	0.57	0.00	0.00	0.00	0.47	0.00	0.54	0.00	0.46	0.00	0.00	0.00
SALEM 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00
SALEM 2	0.00	0.00	0.00	0.00	0.94	1.40	0.00	0.00	0.51	0.00	0.00	0.00
SAN ONOFRE 2	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.00
SAN ONOFRE 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.60	0.00
SEABROOK	0.00	0.00	0.00	0.00	0.63	0.00	0.59	0.00	1.05	0.00	0.00	0.00
SEQUOYAH 1	0.00	0.00	0.00	0.46	0.00	0.00	0.46	0.00	0.49	0.00	0.00	0.00
SEQUOYAH 2	1.24	0.00	0.00	0.45	0.67	0.00	0.00	0.47	0.46	0.00	0.00	0.00
SOUTH TEXAS 1	0.00	0.00	0.00	0.00	1.42	0.00	0.00	0.00	0.00	0.00	1.35	0.46
SOUTH TEXAS 2	0.00	1.18	0.93	0.00	0.92	0.00	0.00	0.00	0.59	0.00	0.00	0.45
ST. LUCIE 1	0.45	0.48	0.48	0.00	0.00	1.09	0.00	0.00	0.00	0.00	0.00	0.59
ST. LUCIE 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00
SUMMER	0.00	0.00	0.96	0.00	0.00	0.49	0.00	0.00	0.00	0.00	1.60	0.00
SURRY 1	0.00	1.54	0.00	0.00	0.00	0.54	0.55	0.00	1.42	0.00	0.00	0.00
SURRY 2	0.00	0.48	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.51
SUSQUEHANNA 1	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.49	0.00	0.49	0.53
SUSQUEHANNA 2	0.00	0.00	0.00	0.49	0.00	0.00	1.73	0.00	0.00	0.00	0.70	0.00
THREE MILE ISL 1	0.00	0.00	0.50	0.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TURKEY POINT 3	0.00	0.69	0.00	1.85	0.00	0.48	0.00	0.00	0.00	0.00	0.46	0.00
TURKEY POINT 4	0.00	0.46	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VERMONT YANKEE	1.34	0.00	0.00	0.00	0.00	0.00	1.61	0.00	0.00	0.00	0.00	0.00
VOGTLE 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VOGTLE 2	0.52	0.00	0.00	0.00	0.00	0.00	0.68	0.46	0.00	0.00	0.00	0.00
WASH. NUCLEAR 2	0.00	0.00	0.00	0.00	0.00	0.50	1.74	0.00	0.00	0.00	0.00	0.00
WATERFORD 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08	0.54	0.00	0.47	1.28
WATTS BAR 1	0.00	1.65	0.47	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00
WOLF CREEK	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46
ZION 1	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA
ZION 2	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA
AVERAGE	0.31	0.23	0.24	0.19	0.22	0.15	0.21	0.14	0.24	0.07	0.18	0.14

NA - The plant is not yet commercial.
- The plant is permanently shutdown.

TABLE 10.10 CRITICAL HOURS

Plant Name	Year - Calendar Quarter											
	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
ARKANSAS 1	1654	2160	2183	2208	2209	1896	1261	2208	2060	2046	2183	1729
ARKANSAS 2	1489	2160	1467	2208	2209	1487	2105	2208	2209	1050	2183	2208
BEAVER VALLEY 1	2209	1854	1802	1358	0	280	0	1129	2209	1896	1603	2134
BEAVER VALLEY 2	411	1683	2183	1914	1843	0	0	111	2141	1368	1940	1980
BIG ROCK POINT	1398	698	1421	1427	NA	NA	NA	NA	NA	NA	NA	NA
BRAIDWOOD 1	958	2089	871	2208	2209	2160	2183	1584	1091	2160	2112	2208
BRAIDWOOD 2	2209	2160	2183	2112	1137	1961	2183	2208	2209	2160	1517	2208
BROWNS FERRY 1	0	0	0	0	0	0	0	0	0	0	0	0
BROWNS FERRY 2	2099	2160	2125	2121	1751	2160	2183	2208	2184	2160	1510	2157
BROWNS FERRY 3	2209	1720	2183	2208	2209	2160	1915	1953	1879	2160	2183	2208
BRUNSWICK 1	1446	2160	2183	2208	2034	2160	1463	2095	2209	2130	2183	2055
BRUNSWICK 2	2209	2160	2183	1780	1782	2160	2101	2116	2209	2115	1337	2055
BYRON 1	2209	1703	2112	2208	772	574	2183	2208	2209	2043	1515	2208
BYRON 2	2136	2049	2183	2208	1935	2160	1295	2208	2209	2160	2183	2208
CALLAWAY	1403	2160	2183	2208	2209	2160	1472	2208	2158	2160	2183	2051
CALVERT CLIFFS 1	2209	2160	2107	2014	2179	2160	659	2208	2209	2160	2009	1954
CALVERT CLIFFS 2	2151	1754	977	2208	2209	2160	2183	1851	2209	1704	1331	2208
CATAWBA 1	2127	2160	2183	2208	1416	2044	2117	1641	2209	2160	1429	2208
CATAWBA 2	2075	1906	1424	2139	2209	2160	2183	1587	1750	2160	1248	2208
CLINTON 1	0	0	0	0	0	0	0	0	0	0	1149	2208
COMANCHE PEAK 1	1216	2160	2183	2208	2116	1898	1558	2208	2209	2160	2183	2065
COMANCHE PEAK 2	2186	2078	2183	2208	1154	2145	2183	2208	2209	1834	1708	2208
COOK 1	2208	1419	1601	1678	0	0	0	0	0	0	0	0
COOK 2	2208	2034	2045	1680	0	0	0	0	0	0	0	0
COOPER STATION	2209	2091	997	2098	2209	1849	2183	2208	407	2160	2183	2044
CRYSTAL RIVER 3	0	0	0	0	0	1341	2183	2176	2209	2160	2183	2208
DAVIS-BESSE	2209	2160	1659	2208	2209	2160	1063	1980	2089	2160	1797	2208
DIABLO CANYON 1	2026	2160	1170	2208	2209	2160	2183	2208	2024	1346	2183	2168
DIABLO CANYON 2	2209	2099	2065	2148	2175	1211	2183	2208	2080	2160	2183	2090
DRESDEN 2	2209	2160	1427	2128	2130	1472	1724	2208	2209	2160	2183	2208
DRESDEN 3	628	1396	348	2208	2132	2160	1677	2208	2209	1494	2183	2208
DUANE ARNOLD	1393	1960	2095	2009	2209	2160	1104	2208	2111	2160	1716	2208
FARLEY 1	2209	1753	667	2208	2209	2160	2183	1779	500	2160	2145	2208
FARLEY 2	639	2160	2183	2208	2209	2065	1069	2208	2209	2160	2125	2208
FERMI 2	160	327	1420	2208	1876	1837	2183	1488	1494	2160	2139	2208
FITZPATRICK	1104	2064	2061	2208	2070	2160	1983	1952	740	2160	2183	2145
FORT CALHOUN	981	2160	1695	2137	2209	2160	651	2208	2209	2160	2183	2208
GINNA	1746	2160	2183	2208	1494	2160	2183	2208	2209	1425	1653	2208
GRAND GULF	1265	2160	2183	2208	2209	2118	1249	2208	2209	1626	2183	2208
HADDAM NECK	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HARRIS	2161	2125	681	2028	2209	2160	2183	2208	1365	1999	2183	2208
HATCH 1	2209	2067	2183	2208	1289	2160	2183	2208	2209	1416	1590	2208
HATCH 2	2209	1753	1714	2142	2077	2160	2183	1656	1304	2052	1879	2208
HOPE CREEK	2086	2160	2183	1715	760	2160	2183	2208	2038	1078	2183	2128
INDIAN POINT 2	2209	1022	719	1737	338	0	0	550	2209	2160	2183	1479
INDIAN POINT 3	2209	1423	1048	455	1888	2133	2183	2151	1880	2127	2183	1680
KEWAUNEE	0	0	490	2208	2209	2008	2183	2208	1243	2160	2183	2208
LASALLE 1	0	0	0	0	0	0	0	1318	2064	2160	2183	2166
LASALLE 2	0	0	0	0	0	0	0	0	0	0	1975	2169
LIMERICK 1	2209	2160	2082	2208	2209	2010	1101	2208	1959	2160	2065	2208
LIMERICK 2	1942	1520	2183	2208	2209	2160	1825	2208	2209	2160	1309	2208
MAINE YANKEE	1508	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA
MCGUIRE 1	1956	1067	1053	2153	2209	2121	1397	2205	2209	2160	2183	1895
MCGUIRE 2	1929	2160	1833	1900	411	2127	2183	2208	2209	1705	1858	2187
MILLSTONE 1	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
MILLSTONE 2	0	0	0	0	0	0	0	0	0	0	1160	2077
MILLSTONE 3	0	0	0	0	0	0	1	2008	1656	2160	827	2208
MONTICELLO	2145	2160	932	1492	2067	1878	1620	2015	2209	2160	1558	2208
NINE MILE PT. 1	2061	1453	942	1783	548	2160	1532	2208	2209	2160	637	1903

TABLE 10.10 CRITICAL HOURS (CONTINUED)

	Year - Calendar Quarter											
Plant Name	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
NINE MILE PT. 2	1391	2160	2048	2092	2084	2160	745	2174	2055	2160	1834	1733
NORTH ANNA 1	2188	2160	1461	2208	2209	2160	2183	1777	2050	2160	2183	2208
NORTH ANNA 2	873	2160	2183	2208	2209	2160	1513	2191	2209	2160	2183	1755
OCONEE 1	207	1066	1522	1849	132	1117	2183	1795	2209	2160	1177	1975
OCONEE 2	0	1380	1429	2045	2209	1719	910	2175	2166	2041	2094	2208
OCONEE 3	87	583	1500	2118	1967	2160	2183	2208	532	2134	2140	2208
OYSTER CREEK	1444	2160	1935	1953	2209	1875	2079	2091	1173	2160	2183	2208
PALISADES	930	1634	2183	2195	1860	2115	1233	2192	1775	2003	1944	2208
PALO VERDE 1	1511	2160	2095	2208	2208	1699	1758	2208	2208	2108	2184	2208
PALO VERDE 2	2208	2160	2184	1608	1740	2160	2184	2208	2208	2040	1438	2208
PALO VERDE 3	2208	1294	2159	2208	2208	2160	2184	1920	1606	2160	2184	2208
PEACH BOTTOM 2	2155	2160	2183	2208	2121	2142	2183	2200	1455	2160	2183	2203
PEACH BOTTOM 3	2209	2101	2183	2208	1480	1780	2183	2208	2185	2160	2183	2180
PERRY	2209	2104	1838	1753	1720	2160	2183	2150	2209	2041	1419	2208
PILGRIM	2209	1081	1851	2208	1928	2160	2183	2208	2209	2160	964	2058
POINT BEACH 1	2209	1174	0	0	744	1065	74	2208	2209	2113	1919	2208
POINT BEACH 2	101	0	0	794	1103	704	2183	2208	1561	793	2183	2208
PRAIRIE ISLAND 1	2209	2160	1804	2208	864	2160	1890	2208	1753	2017	1267	2208
PRAIRIE ISLAND 2	2209	664	2167	2193	2209	1237	2183	2208	968	2126	2183	2208
QUAD CITIES 1	2209	1881	1844	2208	1934	0	694	2186	1541	2160	1669	2208
QUAD CITIES 2	2209	1408	244	2129	0	0	875	2208	2147	1962	2183	2208
RIVER BEND	2209	2160	1988	1642	1774	2160	1853	2208	2209	2160	75	2208
ROBINSON 2	1761	2160	2183	2208	2119	1560	1844	2208	2174	2130	2183	2064
SALEM 1	0	0	0	0	0	0	2023	2208	2209	2083	2120	1896
SALEM 2	0	0	0	1003	2120	1428	2183	1846	1956	2160	910	2208
SAN ONOFRE 2	1442	54	2151	1851	2209	1464	2183	1956	2209	905	2183	2208
SAN ONOFRE 3	1945	2160	264	1876	2209	1714	2183	2208	2209	2052	1253	2208
SEABROOK	2209	2160	1042	2208	1579	1796	1709	1993	1901	2045	1204	2208
SEQUOYAH 1	2169	1921	1220	2183	2209	2160	2151	1681	2029	2160	2183	2208
SEQUOYAH 2	1613	2160	2183	2208	1503	2160	2183	2141	2191	2160	1649	2208
SOUTH TEXAS 1	2209	2120	2150	1776	2110	2160	2183	2208	2209	2042	1481	2169
SOUTH TEXAS 2	2209	1700	2146	2208	2184	2160	2183	2172	1695	2141	2183	2208
ST. LUCIE 1	2209	2102	2092	2208	457	1843	2183	2208	2209	2160	2183	1706
ST. LUCIE 2	2209	2160	1218	2208	2209	2160	2183	2208	1507	2160	2016	2208
SUMMER	2209	2160	2079	2208	1423	2057	2183	2208	2209	2160	1253	2208
SURRY 1	2209	1301	1473	2208	2209	1859	1813	2208	1410	2160	2183	2208
SURRY 2	1968	2096	2183	2208	1588	2160	2183	2208	2209	2160	1284	1966
SUSQUEHANNA 1	1616	1816	2183	2208	2209	2160	967	2050	2055	2160	2034	1876
SUSQUEHANNA 2	2209	1754	1289	2026	2209	2160	1737	2141	2209	1705	1433	2208
THREE MILE ISL 1	2209	2160	2006	1604	1614	2160	2183	2208	2209	2160	2183	1729
TURKEY POINT 3	2209	1442	1851	2164	2209	2080	2183	1968	1562	2160	2157	2208
TURKEY POINT 4	2209	2160	2109	1656	1930	2160	2183	2208	2209	1752	2038	2208
VERMONT YANKEE	1490	2160	1878	2208	2168	1884	622	2208	2107	2160	2183	2208
VOGTLE 1	2192	2090	1806	1632	1728	2160	2183	2208	2209	1532	2183	2208
VOGTLE 2	1923	2160	2183	2208	2209	1584	1470	2151	2209	2135	2183	2208
WASH. NUCLEAR 2	2209	2049	0	2115	2209	1981	575	1831	2209	2160	389	1899
WATERFORD 3	2209	2160	264	1606	2209	2160	2183	1854	1850	1200	2124	1565
WATTS BAR 1	1845	1815	2146	1608	1773	2084	2183	2208	2209	1368	1858	2208
WOLF CREEK	2209	2160	2113	2208	862	2160	2183	2208	2209	2160	1329	2192
ZION 1	2209	1238	0	0	0	NA	NA	NA	NA	NA	NA	NA
ZION 2	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA
TOTAL	176522	175695	161174	193395	169923	176762	169446	201212	191860	195722	185184	214381

NA - The plant is not yet critical.
   - The plant is permanently shutdown.

TABLE 10.11 COLLECTIVE RADIATION EXPOSURE

Plant Name	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
ARKANSAS 1	63	3	3	2	1	13	107	1	2	2	2	NA
ARKANSAS 2	38	4	104	2	1	26	2	3	2	59	2	NA
BEAVER VALLEY 1	3	17	19	25	227	7	8	3	7	1	22	NA
BEAVER VALLEY 2	45	1	1	10	6	8	2	22	2	63	1	NA
BIG ROCK POINT	9	12	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
BRAIDWOOD 1	167	18	147	3	2	2	2	132	108	4	3	NA
BRAIDWOOD 2	167	3	4	17	116	5	2	3	3	6	124	NA
BROWNS FERRY 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROWNS FERRY 2	22	15	17	83	248	17	28	12	14	32	302	NA
BROWNS FERRY 3	16	75	10	12	18	23	28	111	98	13	11	NA
BRUNSWICK 1	128	20	19	118	33	27	233	16	12	12	155	NA
BRUNSWICK 2	128	20	19	118	33	27	27	21	11	11	155	NA
BYRON 1	228	9	6	6	103	107	4	4	2	25	112	NA
BYRON 2	228	9	6	6	103	3	150	4	2	3	3	NA
CALLAWAY	237	5	3	3	1	5	189	4	4	4	4	NA
CALVERT CLIFFS 1	5	16	68	7	5	4	86	6	4	38	53	NA
CALVERT CLIFFS 2	5	64	68	7	5	4	86	6	4	38	53	NA
CATAWBA 1	5	15	47	5	69	5	2	57	17	3	51	NA
CATAWBA 2	5	15	47	5	69	5	2	57	17	3	51	NA
CLINTON 1	307	50	93	70	8	18	23	48	55	36	25	NA
COMANCHE PEAK 1	75	2	2	2	73	48	69	3	2	19	34	NA
COMANCHE PEAK 2	75	2	2	2	73	48	69	3	2	19	34	NA
COOK 1	4	92	29	122	138	30	8	7	14	13	9	NA
COOK 2	4	92	29	122	138	30	8	7	14	13	8	NA
COOPER STATION	11	26	136	7	11	20	10	13	170	13	17	NA
CRYSTAL RIVER 3	11	22	32	85	40	9	3	3	5	6	4	NA
DAVIS-BESSE	1	1	7	1	1	1	108	2	4	3	23	NA
DIABLO CANYON 1	3	3	99	2	3	4	3	2	4	311	2	NA
DIABLO CANYON 2	3	3	99	2	3	155	3	2	2	2	2	NA
DRESDEN 2	226	30	119	16	19	110	48	18	21	109	16	NA
DRESDEN 3	226	30	119	16	19	110	48	18	21	109	16	NA
DUANE ARNOLD	153	18	12	14	9	18	188	17	13	14	13	NA
FARLEY 1	111	48	87	2	1	9	91	12	104	3	4	NA
FARLEY 2	111	48	87	2	1	9	91	12	104	3	4	NA
FERMI 2	135	8	17	6	18	14	9	128	184	11	8	NA
FITZPATRICK	276	25	28	18	20	13	24	24	297	19	12	NA
FORT CALHOUN	188	5	13	14	10	15	193	9	6	5	16	NA
GINNA	5	3	3	3	75	6	4	5	4	102	64	NA
GRAND GULF	291	26	37	28	19	21	248	21	12	14	7	NA
HADDAM NECK	42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HARRIS	4	5	135	5	3	3	3	4	123	4	3	NA
HATCH 1	24	97	71	33	153	19	15	72	53	94	51	NA
HATCH 2	24	97	71	33	153	19	15	72	53	94	51	NA
HOPE CREEK	16	17	10	95	230	12	9	21	17	186	19	NA
INDIAN POINT 2	10	28	300	17	24	186	83	43	12	13	6	NA
INDIAN POINT 3	7	26	121	110	2	4	3	4	4	2	1	NA
KEWAUNEE	89	23	29	2	2	6	1	1	81	1	2	NA
LASALLE 1	406	29	23	38	73	33	70	32	79	117	29	NA
LASALLE 2	406	29	23	38	72	33	70	32	79	117	29	NA
LIMERICK 1	13	76	17	9	17	23	130	6	16	15	88	NA
LIMERICK 2	13	76	17	9	17	23	130	6	16	15	88	NA
MAINE YANKEE	12	49	81	NA	NA	NA	NA	NA	NA	NA	NA	NA
MCGUIRE 1	2	76	40	9	101	2	64	4	1	49	32	NA
MCGUIRE 2	2	76	40	9	101	2	64	4	1	49	32	NA
MILLSTONE 1	41	79	82	5	5	NA	NA	NA	NA	NA	NA	NA
MILLSTONE 2	11	31	36	36	36	31	21	9	13	53	21	NA
MILLSTONE 3	12	14	17	27	34	12	10	1	3	4	143	NA
MONTICELLO	25	13	44	39	13	102	91	8	8	13	25	NA
NINE MILE PT. 1	18	255	74	15	30	9	13	7	5	10	331	NA

TABLE 10.11 COLLECTIVE RADIATION EXPOSURE (CONTINUED)

Plant Name	Year - Calendar Quarter											
	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
NINE MILE PT. 2	175	13	21	16	18	12	262	20	22	15	12	NA
NORTH ANNA 1	12	2	47	2	2	2	78	45	8	1	1	NA
NORTH ANNA 2	12	2	47	2	2	2	78	45	8	1	1	NA
OCONEE 1	37	15	15	12	37	24	39	7	56	4	26	NA
OCONEE 2	36	15	15	12	37	24	39	7	56	4	26	NA
OCONEE 3	36	15	15	12	37	24	39	7	56	4	26	NA
OYSTER CREEK	100	14	15	11	9	11	15	62	220	10	11	NA
PALISADES	268	17	12	7	16	8	197	4	8	8	9	NA
PALO VERDE 1	90	5	4	3	4	51	45	5	4	2	2	NA
PALO VERDE 2	2	2	4	56	29	2	3	1	1	18	45	NA
PALO VERDE 3	6	139	8	5	2	1	2	31	50	2	1	NA
PEACH BOTTOM 2	23	25	32	24	27	22	13	22	192	18	18	NA
PEACH BOTTOM 3	23	25	32	29	321	50	13	20	16	18	18	NA
PERRY	8	7	15	152	99	8	14	9	10	65	236	NA
PILGRIM	46	459	61	18	46	19	16	18	19	17	304	NA
POINT BEACH 1	21	16	19	8	9	22	46	3	15	50	5	NA
POINT BEACH 2	21	16	19	8	9	22	46	3	15	50	5	NA
PRAIRIE ISLAND 1	2	47	1	1	37	17	1	2	39	1	29	NA
PRAIRIE ISLAND 2	2	47	1	1	37	17	1	2	39	2	29	NA
QUAD CITIES 1	52	123	152	25	30	71	49	25	236	32	32	NA
QUAD CITIES 2	52	123	152	25	30	71	49	25	236	32	32	NA
RIVER BEND	13	13	43	159	93	14	13	12	15	14	256	NA
ROBINSON 2	61	4	3	4	3	139	26	2	4	3	2	NA
SALEM 1	120	82	23	19	27	16	2	4	2	4	3	NA
SALEM 2	15	10	10	8	8	7	3	8	4	2	111	NA
SAN ONOFRE 2	55	53	92	17	3	84	3	6	3	69	93	NA
SAN ONOFRE 3	55	53	92	17	3	84	3	6	3	69	93	NA
SEABROOK	3	4	169	4	8	5	6	3	5	10	90	NA
SEQUOYAH 1	5	77	165	3	4	5	7	204	21	11	3	NA
SEQUOYAH 2	10	6	9	5	143	3	3	2	5	7	151	NA
SOUTH TEXAS 1	1	4	3	111	7	1	2	2	1	28	79	NA
SOUTH TEXAS 2	2	132	2	1	1	1	2	1	171	1	2	NA
ST. LUCIE 1	4	4	81	3	235	11	2	1	53	1	2	NA
ST. LUCIE 2	4	4	82	3	235	11	2	1	53	1	2	NA
SUMMER	2	1	2	9	176	4	3	2	5	8	120	NA
SURRY 1	8	79	45	4	42	9	10	4	69	4	53	NA
SURRY 2	8	79	45	4	42	9	10	4	69	4	53	NA
SUSQUEHANNA 1	36	94	59	21	24	11	120	22	15	91	59	NA
SUSQUEHANNA 2	36	94	59	21	24	11	120	22	15	91	59	NA
THREE MILE ISL 1	4	4	3	115	82	4	4	3	6	5	3	NA
TURKEY POINT 3	4	70	12	96	29	3	3	15	58	48	11	NA
TURKEY POINT 4	4	70	12	96	29	3	3	15	58	48	12	NA
VERMONT YANKEE	82	15	18	14	12	61	119	9	17	12	9	NA
VOGTLE 1	59	4	4	33	42	48	27	4	3	56	4	NA
VOGTLE 2	59	4	4	33	42	48	27	4	3	56	4	NA
WASH. NUCLEAR 2	19	19	200	14	15	20	238	17	13	12	26	NA
WATERFORD 3	4	6	132	10	1	2	1	6	15	89	11	NA
WATTS BAR 1	NA	3	3	86	27	2	1	1	1	91	7	NA
WOLF CREEK	4	3	5	8	253	4	2	2	2	2	145	NA
ZION 1	157	21	22	11	7	NA	NA	NA	NA	NA	NA	NA
ZION 2	157	21	22	11	7	NA	NA	NA	NA	NA	NA	NA
TOTAL	6907	4111	4988	2861	5247	2595	4805	1887	3906	3168	4704	NA

NA - The plant has not yet been commercial for one calendar year.
- The latest quarter data are not available.
- In the case of Browns Ferry 1, beginning with quarter 95-4, INPO no longer provides radiation exposure data.
- The plant is permanently shutdown.

TABLE 10.12 CAUSE CODES

ADMINISTRATIVE CONTROL PROBLEMS

	Year - Calendar Quarter											
Plant Name	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
ARKANSAS 1	1	0	2	0	2	0	1	2	0	0	0	1
ARKANSAS 2	1	2	4	0	1	1	2	3	1	2	1	0
BEAVER VALLEY 1	1	7	8	7	8	14	7	2	1	4	2	1
BEAVER VALLEY 2	4	7	4	5	10	14	8	0	3	5	0	3
BIG ROCK POINT	0	2	0	0	NA	NA	NA	NA	NA	NA	NA	NA
BRAIDWOOD 1	0	0	3	0	2	1	0	2	1	0	1	0
BRAIDWOOD 2	0	0	2	1	4	3	1	1	1	0	1	0
BROWNS FERRY 1	0	1	0	0	2	1	3	0	0	1	0	0
BROWNS FERRY 2	1	1	1	1	2	1	3	1	1	1	1	0
BROWNS FERRY 3	2	1	1	1	2	1	3	0	1	1	1	1
BRUNSWICK 1	2	3	2	6	1	0	3	0	0	2	2	1
BRUNSWICK 2	1	3	1	5	0	0	2	1	1	1	3	3
BYRON 1	2	3	4	2	4	7	3	1	0	0	2	0
BYRON 2	2	1	3	3	2	2	4	0	0	0	0	0
CALLAWAY	3	2	1	1	3	2	3	4	1	1	0	4
CALVERT CLIFFS 1	0	2	2	0	1	3	2	0	2	1	1	1
CALVERT CLIFFS 2	0	2	2	0	0	2	2	0	1	1	1	0
CATAWBA 1	3	0	3	1	2	3	5	5	3	5	6	3
CATAWBA 2	3	1	2	1	2	5	4	6	4	4	4	4
CLINTON 1	7	5	2	3	4	3	5	3	4	1	2	1
COMANCHE PEAK 1	2	0	1	2	1	0	1	1	0	0	2	0
COMANCHE PEAK 2	1	0	1	1	1	0	0	1	1	0	2	0
COOK 1	0	1	3	7	3	14	4	6	7	6	4	3
COOK 2	0	1	1	8	4	14	4	4	6	5	4	3
COOPER STATION	2	0	5	2	2	3	2	1	3	1	3	1
CRYSTAL RIVER 3	3	5	1	4	3	1	2	1	3	1	0	0
DAVIS-BESSE	4	6	0	1	2	0	2	2	1	1	0	1
DIABLO CANYON 1	1	6	1	5	2	2	2	1	3	1	1	0
DIABLO CANYON 2	1	5	0	3	5	2	3	2	3	0	1	0
DRESDEN 2	5	4	3	5	1	1	2	2	1	2	1	0
DRESDEN 3	6	3	5	2	2	0	2	2	2	4	0	0
DUANE ARNOLD	1	4	3	2	1	1	4	0	0	1	0	0
FARLEY 1	0	3	2	2	0	1	0	0	2	1	1	0
FARLEY 2	0	4	3	1	0	1	2	0	0	0	0	0
FERMI 2	7	5	3	0	0	1	0	1	0	0	1	0
FITZPATRICK	1	1	1	2	2	1	0	4	2	2	2	1
FORT CALHOUN	6	0	6	3	0	1	2	4	2	1	0	0
GINNA	1	0	0	1	3	0	0	1	0	1	3	0
GRAND GULF	2	1	1	1	0	0	1	0	2	1	0	0
HADDAM NECK	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HARRIS	2	2	6	3	1	2	2	0	2	5	0	1
HATCH 1	2	3	1	0	2	0	1	0	0	0	2	0
HATCH 2	2	5	2	0	0	0	0	0	1	1	1	0
HOPE CREEK	4	2	2	4	6	2	3	2	3	2	1	1
INDIAN POINT 2	2	3	6	2	2	1	2	5	4	3	4	2
INDIAN POINT 3	0	1	5	6	3	0	0	1	3	1	2	2
KEWAUNEE	4	1	1	0	1	4	2	2	3	1	1	0
LASALLE 1	5	11	11	5	10	2	3	4	0	0	0	1
LASALLE 2	6	10	10	3	10	2	2	1	0	0	0	2
LIMERICK 1	1	2	0	0	2	3	2	1	1	2	3	0
LIMERICK 2	4	3	0	1	4	1	3	2	1	1	2	0
MAINE YANKEE	5	3	1	0	NA	NA	NA	NA	NA	NA	NA	NA
MCGUIRE 1	2	2	0	0	2	1	0	2	0	1	1	0
MCGUIRE 2	0	1	1	0	2	1	0	2	0	1	1	1
MILLSTONE 1	6	14	5	7	1	5	0	NA	NA	NA	NA	NA
MILLSTONE 2	11	7	11	3	1	2	4	5	1	5	2	2
MILLSTONE 3	12	21	10	5	9	16	8	1	2	1	4	0
MONTICELLO	2	2	2	2	1	0	1	0	0	1	2	0
NINE MILE PT. 1	2	0	3	2	0	2	4	3	1	1	0	1

TABLE 10.12 CAUSE CODES (CONTINUED)

ADMINISTRATIVE CONTROL PROBLEMS

	Year - Calendar Quarter											
Plant Name	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
NINE MILE PT. 2	4	1	0	5	3	2	12	2	2	3	6	5
NORTH ANNA 1	1	1	0	1	1	2	0	2	1	1	1	0
NORTH ANNA 2	1	1	0	1	1	1	0	0	0	1	1	0
OCONEE 1	0	1	0	0	1	5	2	2	3	1	1	1
OCONEE 2	1	1	1	1	0	4	2	4	3	1	1	0
OCONEE 3	1	1	1	0	1	4	2	2	6	1	1	0
OYSTER CREEK	1	2	2	2	2	2	2	2	2	1	1	0
PALISADES	1	2	1	3	2	1	2	1	0	1	0	1
PALO VERDE 1	1	0	2	1	1	1	3	0	0	1	0	2
PALO VERDE 2	1	0	1	2	2	1	2	0	0	2	0	1
PALO VERDE 3	1	0	1	1	1	0	1	1	1	2	0	1
PEACH BOTTOM 2	1	2	0	3	0	0	2	2	1	2	1	0
PEACH BOTTOM 3	0	2	1	2	1	1	2	1	1	2	2	1
PERRY	0	1	1	3	1	0	1	0	1	0	0	0
PILGRIM	2	3	1	2	8	1	1	2	2	0	3	3
POINT BEACH 1	4	8	7	0	3	8	5	4	3	1	1	1
POINT BEACH 2	3	7	8	0	2	8	5	2	2	0	1	0
PRAIRIE ISLAND 1	2	2	5	0	5	1	1	3	3	1	4	0
PRAIRIE ISLAND 2	2	2	3	1	4	1	0	2	3	0	2	0
QUAD CITIES 1	5	5	6	4	4	7	2	2	2	0	1	0
QUAD CITIES 2	6	6	6	4	6	3	3	2	1	1	1	0
RIVER BEND	1	0	1	2	2	0	2	0	0	3	4	0
ROBINSON 2	1	3	2	1	0	2	0	0	1	0	0	0
SALEM 1	12	5	4	4	3	5	2	3	0	0	2	1
SALEM 2	14	6	5	7	3	3	2	5	0	0	3	1
SAN ONOFRE 2	3	2	1	1	5	3	4	5	4	1	0	0
SAN ONOFRE 3	2	2	1	1	6	3	4	5	4	0	1	0
SEABROOK	0	2	3	1	2	2	3	1	2	0	0	0
SEQUOYAH 1	1	5	2	1	0	0	1	1	0	0	0	0
SEQUOYAH 2	1	5	1	1	0	0	0	1	0	0	0	0
SOUTH TEXAS 1	2	2	2	3	1	2	0	6	0	3	1	1
SOUTH TEXAS 2	0	2	2	2	0	2	0	3	1	4	1	1
ST. LUCIE 1	1	1	2	1	1	2	3	0	1	1	1	0
ST. LUCIE 2	3	1	5	1	2	2	3	1	3	2	3	0
SUMMER	1	0	1	1	1	1	2	1	0	2	3	0
SURRY 1	1	2	0	0	3	3	0	0	3	2	0	1
SURRY 2	1	2	0	0	3	2	0	0	1	3	0	1
SUSQUEHANNA 1	4	6	2	5	2	4	6	1	1	1	1	3
SUSQUEHANNA 2	2	5	2	4	3	5	6	1	2	1	2	1
THREE MILE ISL 1	1	3	0	0	1	0	1	5	1	3	1	0
TURKEY POINT 3	2	1	1	1	1	1	1	2	1	0	0	0
TURKEY POINT 4	1	0	1	1	0	1	1	1	0	0	0	0
VERMONT YANKEE	3	2	4	4	2	4	6	2	0	1	0	0
VOGTLE 1	2	1	0	2	3	2	1	0	2	1	1	0
VOGTLE 2	3	2	0	1	0	2	3	1	3	0	1	0
WASH. NUCLEAR 2	3	4	1	1	0	1	3	2	0	0	0	0
WATERFORD 3	1	5	6	1	6	4	1	4	2	1	2	1
WATTS BAR 1	2	6	3	1	1	0	1	2	1	1	0	2
WOLF CREEK	11	1	7	6	8	0	2	0	6	2	3	2
ZION 1	2	5	4	6	5	NA	NA	NA	NA	NA	NA	NA
ZION 2	4	2	4	6	7	NA	NA	NA	NA	NA	NA	NA
TOTAL	273	316	278	234	261	259	239	184	161	138	137	76

NA - The plant is not yet licensed.
- The plant is permanently shutdown.

TABLE 10.13 CAUSE CODES

LICENSED OPERATOR ERRORS

Plant Name	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
ARKANSAS 1	0	0	0	0	0	0	0	0	0	0	0	0
ARKANSAS 2	0	0	1	0	0	0	1	0	0	0	0	0
BEAVER VALLEY 1	1	0	1	1	0	0	0	1	0	0	1	0
BEAVER VALLEY 2	1	0	1	0	0	0	0	0	0	1	0	0
BIG ROCK POINT	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA
BRAIDWOOD 1	0	0	0	0	0	0	0	1	0	0	0	0
BRAIDWOOD 2	0	0	0	0	1	1	1	1	0	0	0	0
BROWNS FERRY 1	0	0	0	0	0	0	0	0	0	0	0	0
BROWNS FERRY 2	0	0	0	0	0	0	0	0	0	0	1	0
BROWNS FERRY 3	0	0	1	1	0	0	0	0	1	1	1	0
BRUNSWICK 1	0	0	0	0	0	0	1	0	0	1	0	0
BRUNSWICK 2	0	0	0	0	0	0	0	0	1	0	0	2
BYRON 1	0	0	0	0	0	0	1	0	0	0	0	0
BYRON 2	0	1	0	0	0	0	2	1	0	0	0	0
CALLAWAY	1	0	0	0	0	0	0	0	0	0	0	0
CALVERT CLIFFS 1	0	0	2	1	0	0	0	0	1	0	0	0
CALVERT CLIFFS 2	0	0	1	1	0	0	0	0	0	0	0	0
CATAWBA 1	0	0	0	0	0	0	1	0	0	1	0	0
CATAWBA 2	1	0	0	0	0	0	0	0	0	1	0	0
CLINTON 1	0	1	0	0	0	0	0	0	1	0	0	0
COMANCHE PEAK 1	0	0	0	0	0	0	0	0	0	0	0	0
COMANCHE PEAK 2	0	0	0	0	1	2	0	0	0	0	0	0
COOK 1	0	0	0	0	0	0	0	0	1	0	0	0
COOK 2	0	0	0	0	0	0	0	0	0	0	0	0
COOPER STATION	0	0	1	1	0	0	0	0	1	0	0	0
CRYSTAL RIVER 3	0	0	0	0	0	0	0	0	1	0	0	0
DAVIS-BESSE	0	1	0	0	0	0	1	0	2	1	0	0
DIABLO CANYON 1	0	0	0	0	0	0	1	0	0	2	0	2
DIABLO CANYON 2	0	0	0	0	0	0	0	0	0	0	0	0
DRESDEN 2	0	0	0	3	0	0	0	1	0	1	0	0
DRESDEN 3	0	1	0	1	1	0	0	1	0	0	0	0
DUANE ARNOLD	0	0	0	0	0	0	1	0	0	0	0	0
FARLEY 1	0	0	0	1	0	0	0	0	0	1	1	0
FARLEY 2	0	0	0	0	0	0	0	0	0	0	0	0
FERMI 2	2	0	0	0	0	0	0	0	0	0	0	0
FITZPATRICK	0	0	0	0	1	1	1	0	0	1	1	0
FORT CALHOUN	2	0	2	1	0	0	0	0	0	0	0	0
GINNA	0	0	0	0	1	0	0	0	0	1	2	0
GRAND GULF	1	0	1	0	0	0	0	0	1	0	0	0
HADDAM NECK	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HARRIS	0	1	2	0	0	0	0	0	1	2	0	0
HATCH 1	0	0	1	0	2	0	0	0	0	0	0	0
HATCH 2	0	0	1	0	0	0	0	0	0	0	0	0
HOPE CREEK	1	0	0	1	0	0	0	0	1	0	1	0
INDIAN POINT 2	1	0	1	0	0	0	0	2	1	1	0	0
INDIAN POINT 3	0	0	0	1	1	0	0	0	0	0	0	0
KEWAUNEE	1	0	1	0	0	0	0	0	2	1	0	0
LASALLE 1	0	0	2	0	0	0	0	1	0	0	1	1
LASALLE 2	0	0	1	0	0	0	0	1	0	0	0	1
LIMERICK 1	0	0	0	0	0	0	0	0	0	0	1	1
LIMERICK 2	1	0	1	2	0	0	0	0	1	0	0	1
MAINE YANKEE	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA
MCGUIRE 1	0	0	0	0	0	0	0	0	0	0	1	0
MCGUIRE 2	0	0	0	0	0	0	0	0	0	1	1	0
MILLSTONE 1	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
MILLSTONE 2	0	0	0	1	0	0	0	0	0	2	0	1
MILLSTONE 3	1	0	0	1	0	0	2	0	2	0	0	1
MONTICELLO	1	0	0	0	0	0	0	0	0	0	2	0
NINE MILE PT. 1	1	0	0	0	0	0	3	0	0	0	0	0

TABLE 10.13 CAUSE CODES (CONTINUED)

LICENSED OPERATOR ERRORS

	Year - Calendar Quarter											
Plant Name	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
NINE MILE PT. 2	0	0	1	0	0	1	1	0	0	2	0	0
NORTH ANNA 1	0	0	1	0	0	0	0	0	0	1	0	0
NORTH ANNA 2	0	0	0	0	0	0	0	0	0	0	0	0
OCONEE 1	0	0	0	0	1	0	0	0	1	0	0	0
OCONEE 2	0	0	0	0	0	0	0	0	0	0	0	0
OCONEE 3	0	0	1	0	1	0	0	0	1	0	0	0
OYSTER CREEK	0	0	0	0	0	0	0	0	0	0	0	0
PALISADES	0	1	0	0	1	0	1	0	0	0	0	0
PALO VERDE 1	0	0	0	0	0	1	0	0	0	1	0	1
PALO VERDE 2	0	0	0	0	0	1	0	0	0	1	0	0
PALO VERDE 3	0	0	0	0	0	0	0	1	0	0	0	0
PEACH BOTTOM 2	1	0	0	0	0	0	0	0	0	0	1	0
PEACH BOTTOM 3	0	0	0	0	0	0	0	0	0	1	1	0
PERRY	0	0	0	1	2	0	0	0	0	0	0	0
PILGRIM	0	1	0	0	0	0	0	1	0	0	0	1
POINT BEACH 1	0	0	0	0	0	1	0	0	0	1	0	0
POINT BEACH 2	0	0	0	0	0	1	0	0	0	0	0	0
PRAIRIE ISLAND 1	0	0	1	0	0	0	1	0	0	0	1	0
PRAIRIE ISLAND 2	1	0	0	0	0	0	0	0	0	0	0	0
QUAD CITIES 1	0	0	1	0	0	0	0	1	0	0	0	0
QUAD CITIES 2	0	0	1	1	0	0	0	0	0	0	0	0
RIVER BEND	0	0	0	0	0	0	0	0	0	0	1	0
ROBINSON 2	0	1	0	0	0	0	1	0	0	0	0	0
SALEM 1	0	0	1	0	1	1	0	1	0	0	1	0
SALEM 2	0	0	0	0	1	0	0	1	0	0	1	0
SAN ONOFRE 2	0	1	0	1	0	0	0	0	0	0	0	0
SAN ONOFRE 3	0	0	0	1	0	0	0	0	0	0	1	0
SEABROOK	0	0	1	0	0	0	1	0	1	0	0	0
SEQUOYAH 1	0	0	0	1	0	0	0	0	0	0	0	0
SEQUOYAH 2	0	0	0	1	0	0	0	0	0	0	0	0
SOUTH TEXAS 1	0	0	0	0	1	0	0	0	0	1	0	0
SOUTH TEXAS 2	0	0	0	0	0	0	0	0	0	2	0	0
ST. LUCIE 1	0	0	0	0	0	2	0	0	0	0	0	0
ST. LUCIE 2	0	0	0	0	0	0	0	0	1	0	1	0
SUMMER	0	0	1	0	0	0	0	0	0	0	0	0
SURRY 1	0	0	1	0	1	0	0	0	0	0	0	0
SURRY 2	1	0	0	0	1	0	0	0	0	0	0	1
SUSQUEHANNA 1	1	1	0	0	0	0	1	0	0	0	0	0
SUSQUEHANNA 2	0	1	0	0	0	0	0	1	0	0	0	0
THREE MILE ISL 1	0	0	0	0	0	1	0	0	1	0	0	0
TURKEY POINT 3	1	0	0	0	0	0	0	1	0	0	0	0
TURKEY POINT 4	0	0	0	0	0	0	0	0	0	0	0	0
VERMONT YANKEE	0	0	0	0	0	0	0	0	0	0	0	0
VOGTLE 1	0	0	0	0	1	0	0	0	1	0	0	0
VOGTLE 2	0	0	0	0	0	0	0	1	0	0	0	0
WASH. NUCLEAR 2	0	0	0	0	0	0	0	0	0	0	0	0
WATERFORD 3	1	0	1	0	1	1	1	0	1	0	0	0
WATTS BAR 1	0	2	0	0	0	0	0	0	0	0	0	0
WOLF CREEK	1	0	0	0	0	0	0	0	0	0	2	0
ZION 1	0	1	1	0	0	NA	NA	NA	NA	NA	NA	NA
ZION 2	0	0	1	0	0	NA	NA	NA	NA	NA	NA	NA
TOTAL	23	14	34	23	20	14	23	18	25	29	24	13

NA - The plant is not yet licensed.
- The plant is permanently shutdown.

TABLE 10.14 CAUSE CODES

OTHER PERSONNEL ERRORS

	Year - Calendar Quarter											
Plant Name	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
ARKANSAS 1	0	0	0	0	0	0	0	1	0	0	0	0
ARKANSAS 2	0	2	0	0	1	0	0	0	0	1	0	0
BEAVER VALLEY 1	2	2	1	2	0	3	0	0	0	1	0	0
BEAVER VALLEY 2	2	2	1	1	1	1	0	0	1	1	0	0
BIG ROCK POINT	1	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA
BRAIDWOOD 1	1	0	0	0	0	0	0	0	0	0	0	0
BRAIDWOOD 2	1	0	0	1	2	1	1	0	0	0	0	0
BROWNS FERRY 1	0	0	0	0	0	1	0	0	0	0	0	0
BROWNS FERRY 2	0	0	1	0	0	1	0	0	0	0	1	0
BROWNS FERRY 3	0	1	1	0	0	1	1	0	0	0	2	0
BRUNSWICK 1	1	0	0	0	0	0	0	0	0	0	0	1
BRUNSWICK 2	0	0	0	1	0	0	0	0	1	1	1	1
BYRON 1	1	1	2	0	0	0	2	1	0	0	1	0
BYRON 2	1	0	0	1	0	0	2	0	0	0	0	0
CALLAWAY	1	1	1	0	0	0	0	0	0	0	0	1
CALVERT CLIFFS 1	0	1	1	0	2	0	2	0	0	0	0	0
CALVERT CLIFFS 2	1	1	3	0	0	1	1	0	0	0	0	0
CATAWBA 1	0	0	0	0	0	0	0	1	0	1	1	0
CATAWBA 2	0	1	1	0	0	0	0	2	0	0	1	0
CLINTON 1	3	0	1	1	2	2	0	1	1	1	0	0
COMANCHE PEAK 1	0	0	0	0	0	0	0	0	1	0	2	0
COMANCHE PEAK 2	0	0	0	0	0	0	0	0	0	0	2	0
COOK 1	2	1	1	0	0	5	0	3	0	0	0	0
COOK 2	1	0	1	1	1	4	0	1	0	0	0	0
COOPER STATION	0	0	2	0	1	0	0	0	1	0	0	1
CRYSTAL RIVER 3	0	1	0	1	0	2	0	1	0	0	0	0
DAVIS-BESSE	0	0	0	1	1	0	0	2	0	2	0	0
DIABLO CANYON 1	0	2	2	1	0	0	0	0	0	0	0	0
DIABLO CANYON 2	0	2	1	1	1	0	1	1	0	1	0	0
DRESDEN 2	0	1	1	1	0	0	0	0	0	0	0	0
DRESDEN 3	0	1	5	1	0	1	0	0	1	1	0	1
DUANE ARNOLD	2	0	0	0	0	0	1	0	0	1	0	0
FARLEY 1	0	3	0	1	0	0	0	1	1	1	1	0
FARLEY 2	1	4	0	1	0	0	1	0	1	0	0	0
FERMI 2	2	0	1	0	0	1	0	1	0	0	1	0
FITZPATRICK	2	0	3	1	2	0	0	1	0	0	1	0
FORT CALHOUN	3	0	1	1	0	0	1	0	0	0	0	0
GINNA	1	0	0	0	2	0	0	0	0	0	1	1
GRAND GULF	2	0	0	1	0	0	2	0	0	1	0	0
HADDAM NECK	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HARRIS	1	0	3	1	0	0	0	0	0	2	0	0
HATCH 1	0	2	0	0	0	1	1	0	0	0	3	0
HATCH 2	0	1	0	1	0	1	0	1	1	1	2	0
HOPE CREEK	0	2	2	3	3	0	1	0	1	1	1	0
INDIAN POINT 2	1	3	1	2	1	1	0	0	0	1	0	0
INDIAN POINT 3	0	0	4	1	1	0	1	0	0	1	1	1
KEWAUNEE	0	1	0	0	0	1	0	0	1	0	0	0
LASALLE 1	1	2	1	1	0	1	1	1	0	0	0	1
LASALLE 2	1	2	1	1	0	1	0	0	0	0	0	0
LIMERICK 1	2	0	0	0	2	3	0	0	0	0	4	0
LIMERICK 2	1	0	2	1	1	1	0	0	0	0	1	1
MAINE YANKEE	2	1	0	0	NA	NA	NA	NA	NA	NA	NA	NA
MCGUIRE 1	0	0	2	0	0	0	2	0	0	1	0	0
MCGUIRE 2	0	0	0	0	0	0	0	0	0	1	0	1
MILLSTONE 1	0	0	1	0	0	0	0	NA	NA	NA	NA	NA
MILLSTONE 2	1	1	1	0	0	0	0	0	0	0	0	0
MILLSTONE 3	0	5	3	0	1	0	1	0	0	2	0	0
MONTICELLO	1	0	1	0	0	1	0	1	0	0	0	0
NINE MILE PT. 1	1	0	0	0	2	0	2	1	0	2	0	0

TABLE 10.14 CAUSE CODES (CONTINUED)

OTHER PERSONNEL ERRORS

	Year - Calendar Quarter											
Plant Name	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
NINE MILE PT. 2	1	0	1	0	0	0	1	1	0	0	0	0
NORTH ANNA 1	0	0	2	0	0	0	0	1	0	1	1	0
NORTH ANNA 2	0	0	0	0	0	0	0	0	0	0	1	0
OCONEE 1	0	0	0	0	1	0	0	0	1	0	0	0
OCONEE 2	2	0	0	0	0	0	0	0	1	0	0	0
OCONEE 3	2	0	2	0	2	0	0	0	2	0	1	0
OYSTER CREEK	3	1	0	1	1	1	0	1	0	1	0	0
PALISADES	1	0	1	2	0	2	0	0	0	0	0	0
PALO VERDE 1	1	0	0	0	0	0	1	0	0	0	0	0
PALO VERDE 2	0	0	0	0	0	1	1	0	0	1	0	1
PALO VERDE 3	0	1	0	0	0	0	1	0	1	1	0	0
PEACH BOTTOM 2	0	0	1	1	1	0	0	1	1	0	0	0
PEACH BOTTOM 3	0	0	0	0	0	0	0	1	1	0	0	1
PERRY	0	1	1	1	0	0	0	0	0	0	0	0
PILGRIM	0	1	1	1	1	0	0	0	1	0	1	1
POINT BEACH 1	1	1	3	0	0	3	1	1	0	0	0	0
POINT BEACH 2	0	1	2	0	0	2	1	0	0	0	1	0
PRAIRIE ISLAND 1	0	1	1	0	0	0	0	1	0	1	0	0
PRAIRIE ISLAND 2	1	3	1	0	0	1	0	0	1	2	0	0
QUAD CITIES 1	2	2	1	0	0	2	1	2	1	0	0	1
QUAD CITIES 2	2	1	1	1	0	1	1	0	1	0	0	1
RIVER BEND	1	0	0	1	1	0	0	0	0	4	2	0
ROBINSON 2	1	1	0	1	1	0	0	0	1	0	0	0
SALEM 1	3	1	2	2	1	1	0	0	0	1	1	0
SALEM 2	3	1	2	1	0	2	0	2	1	0	1	0
SAN ONOFRE 2	1	1	0	0	1	2	1	3	0	1	0	0
SAN ONOFRE 3	0	1	0	0	1	1	1	3	0	0	0	0
SEABROOK	1	0	1	1	0	0	1	0	1	0	0	0
SEQUOYAH 1	0	1	1	1	0	0	0	0	0	0	0	0
SEQUOYAH 2	2	0	2	0	0	0	0	0	0	0	0	0
SOUTH TEXAS 1	1	0	0	1	0	0	0	0	0	0	0	0
SOUTH TEXAS 2	0	1	0	0	0	0	0	1	0	2	0	0
ST. LUCIE 1	1	1	0	0	1	0	0	0	0	0	0	0
ST. LUCIE 2	0	1	1	0	1	0	0	0	1	0	0	0
SUMMER	1	0	0	0	3	1	0	0	0	0	1	1
SURRY 1	1	0	0	0	1	2	1	0	0	0	0	0
SURRY 2	1	0	0	0	2	1	0	0	0	1	0	1
SUSQUEHANNA 1	3	5	1	1	0	0	0	2	0	0	0	0
SUSQUEHANNA 2	1	5	0	1	1	0	2	1	0	0	0	0
THREE MILE ISL 1	1	1	0	0	0	1	0	3	0	1	0	0
TURKEY POINT 3	0	1	1	1	0	1	0	0	0	0	0	0
TURKEY POINT 4	0	1	0	1	0	1	0	0	0	0	0	0
VERMONT YANKEE	1	0	1	1	1	2	2	0	0	0	0	0
VOGTLE 1	2	3	0	1	1	0	0	1	1	0	0	0
VOGTLE 2	2	2	0	0	0	2	0	0	1	1	0	0
WASH. NUCLEAR 2	0	1	0	0	0	1	3	0	0	0	0	0
WATERFORD 3	0	1	0	0	0	0	1	1	1	1	0	0
WATTS BAR 1	1	3	0	0	1	0	0	0	0	1	0	1
WOLF CREEK	1	0	2	0	0	0	0	0	3	0	1	0
ZION 1	0	1	0	3	1	NA	NA	NA	NA	NA	NA	NA
ZION 2	1	1	0	3	2	NA	NA	NA	NA	NA	NA	NA
TOTAL	90	94	85	57	53	66	44	47	32	45	38	18

NA - The plant is not yet licensed.
- The plant is permanently shutdown.

TABLE 10.15 CAUSE CODES

MAINTENANCE PROBLEMS

	Year - Calendar Quarter											
Plant Name	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
ARKANSAS 1	1	0	1	0	2	0	1	1	1	0	0	1
ARKANSAS 2	1	2	3	0	1	1	2	1	0	2	1	0
BEAVER VALLEY 1	0	9	4	9	5	17	7	1	1	3	3	1
BEAVER VALLEY 2	3	9	3	5	8	15	8	0	4	5	0	4
BIG ROCK POINT	2	2	0	0	NA	NA	NA	NA	NA	NA	NA	NA
BRAIDWOOD 1	1	0	5	0	2	1	0	1	2	0	1	0
BRAIDWOOD 2	1	0	3	1	4	2	1	0	2	0	1	0
BROWNS FERRY 1	0	1	0	0	1	1	3	0	1	1	0	0
BROWNS FERRY 2	2	1	2	2	3	1	3	1	3	2	4	0
BROWNS FERRY 3	3	3	3	2	1	1	3	0	4	2	1	1
BRUNSWICK 1	3	3	1	5	1	0	3	1	0	1	3	2
BRUNSWICK 2	0	3	1	5	1	0	2	1	1	2	6	3
BYRON 1	2	3	5	1	4	7	2	1	0	0	3	0
BYRON 2	2	1	3	2	2	2	3	1	0	0	0	0
CALLAWAY	4	2	2	1	2	1	2	2	1	1	0	3
CALVERT CLIFFS 1	0	2	0	0	4	3	2	0	1	1	0	1
CALVERT CLIFFS 2	2	2	2	0	0	3	1	2	0	1	0	0
CATAWBA 1	4	0	3	1	3	3	5	6	3	5	7	3
CATAWBA 2	3	2	4	1	2	5	4	7	4	4	4	4
CLINTON 1	7	5	2	3	4	4	4	3	3	2	2	1
COMANCHE PEAK 1	2	0	1	2	1	1	2	2	0	0	5	0
COMANCHE PEAK 2	1	0	1	1	2	2	0	2	1	0	5	0
COOK 1	1	3	3	1	2	14	6	5	7	4	3	2
COOK 2	1	1	2	1	3	15	5	4	6	3	3	2
COOPER STATION	1	0	3	2	2	2	2	1	4	1	3	1
CRYSTAL RIVER 3	2	4	1	3	1	1	2	2	5	1	0	0
DAVIS-BESSE	3	5	0	1	2	0	5	2	1	1	0	0
DIABLO CANYON 1	1	4	2	5	2	0	4	2	3	2	1	2
DIABLO CANYON 2	1	5	0	4	3	1	3	2	3	1	1	0
DRESDEN 2	5	4	3	2	1	3	2	1	1	2	1	0
DRESDEN 3	5	4	6	4	3	0	3	1	2	2	1	1
DUANE ARNOLD	4	4	3	2	2	0	3	0	0	3	0	0
FARLEY 1	0	3	2	1	0	1	0	1	2	0	1	0
FARLEY 2	1	4	2	1	0	2	3	0	1	0	0	0
FERMI 2	9	5	4	0	0	2	0	5	1	0	2	0
FITZPATRICK	4	0	2	2	4	1	1	4	4	2	3	1
FORT CALHOUN	6	0	3	3	0	1	3	1	2	1	0	0
GINNA	0	0	0	1	4	0	0	1	1	2	3	0
GRAND GULF	3	1	0	2	0	0	1	0	1	3	0	0
HADDAM NECK	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HARRIS	3	1	8	3	1	2	2	0	1	4	0	1
HATCH 1	3	3	1	0	3	0	2	0	0	0	5	0
HATCH 2	2	4	2	1	1	1	0	0	2	2	2	0
HOPE CREEK	4	3	5	7	9	2	3	2	3	3	2	0
INDIAN POINT 2	4	6	5	4	2	2	2	6	4	1	3	2
INDIAN POINT 3	1	1	5	9	2	0	1	2	3	2	3	1
KEWAUNEE	4	1	1	0	1	4	2	2	5	1	1	0
LASALLE 1	6	9	10	3	9	2	3	3	0	0	1	1
LASALLE 2	7	8	9	2	9	3	2	1	0	0	0	2
LIMERICK 1	2	3	0	1	4	2	4	1	0	1	5	1
LIMERICK 2	2	3	2	1	4	0	2	2	1	0	1	1
MAINE YANKEE	7	2	2	0	NA	NA	NA	NA	NA	NA	NA	NA
MCGUIRE 1	4	1	1	0	1	2	2	2	0	1	1	0
MCGUIRE 2	2	0	1	1	1	1	0	2	0	1	1	1
MILLSTONE 1	5	14	4	4	1	4	0	NA	NA	NA	NA	NA
MILLSTONE 2	9	6	7	3	0	1	5	3	1	5	2	2
MILLSTONE 3	8	16	10	5	7	13	10	0	6	0	3	1
MONTICELLO	3	0	3	1	2	1	1	2	0	1	4	0
NINE MILE PT. 1	2	0	1	2	1	2	2	3	2	2	0	2

TABLE 10.15 CAUSE CODES (CONTINUED)

MAINTENANCE PROBLEMS

Plant Name	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
NINE MILE PT. 2	3	1	1	6	3	2	13	2	3	3	6	5
NORTH ANNA 1	2	1	3	1	2	2	0	4	0	2	0	1
NORTH ANNA 2	2	1	0	1	1	1	3	0	0	0	0	1
OCONEE 1	0	0	0	0	2	5	1	1	3	1	1	1
OCONEE 2	2	0	1	1	0	3	1	3	2	0	1	0
OCONEE 3	2	0	3	0	2	3	1	1	4	0	1	0
OYSTER CREEK	6	2	3	4	2	3	2	4	2	0	0	0
PALISADES	2	2	1	1	1	1	2	1	3	1	0	1
PALO VERDE 1	2	0	2	0	1	2	2	1	0	2	0	1
PALO VERDE 2	1	1	1	2	2	2	2	1	0	3	1	2
PALO VERDE 3	1	2	1	0	1	0	1	2	1	2	0	1
PEACH BOTTOM 2	1	1	0	3	1	0	1	1	2	2	1	0
PEACH BOTTOM 3	0	2	0	2	1	1	2	1	2	1	1	2
PERRY	0	0	3	2	2	0	1	0	1	1	0	0
PILGRIM	2	6	1	2	4	0	1	2	5	0	5	2
POINT BEACH 1	5	7	3	1	3	8	6	2	3	2	2	0
POINT BEACH 2	5	6	2	3	2	8	5	0	2	1	2	0
PRAIRIE ISLAND 1	2	2	4	0	3	3	2	3	3	2	4	0
PRAIRIE ISLAND 2	4	2	1	1	3	3	0	2	4	1	2	0
QUAD CITIES 1	6	6	9	2	4	7	3	5	3	0	0	2
QUAD CITIES 2	8	5	7	2	6	4	3	3	1	1	0	1
RIVER BEND	1	0	2	3	1	0	1	0	0	4	6	0
ROBINSON 2	1	3	1	1	1	2	1	0	2	0	0	0
SALEM 1	13	6	3	6	2	6	2	4	0	0	4	1
SALEM 2	16	7	4	9	2	4	2	7	0	1	1	1
SAN ONOFRE 2	3	4	1	0	3	3	2	6	5	2	0	1
SAN ONOFRE 3	2	3	2	1	5	1	2	5	4	0	4	1
SEABROOK	1	2	3	1	2	2	3	1	2	1	0	0
SEQUOYAH 1	2	7	3	1	0	0	1	1	2	0	1	0
SEQUOYAH 2	2	6	3	0	0	0	0	2	2	0	0	0
SOUTH TEXAS 1	1	2	3	3	2	1	1	5	0	1	3	2
SOUTH TEXAS 2	0	6	3	2	0	1	0	3	1	4	1	0
ST. LUCIE 1	2	3	2	0	1	0	1	0	0	1	1	2
ST. LUCIE 2	3	1	6	0	2	1	1	1	2	2	4	0
SUMMER	1	0	1	1	3	3	2	1	0	2	5	0
SURRY 1	1	3	1	0	5	4	1	1	6	0	0	1
SURRY 2	1	2	0	0	7	1	0	1	3	1	1	1
SUSQUEHANNA 1	5	9	2	6	2	5	8	1	2	1	1	2
SUSQUEHANNA 2	3	10	1	4	3	4	9	0	2	3	2	0
THREE MILE ISL 1	1	3	2	0	0	1	1	4	1	3	3	0
TURKEY POINT 3	1	1	1	2	0	1	1	1	1	0	0	0
TURKEY POINT 4	0	1	1	1	0	1	1	1	0	0	0	0
VERMONT YANKEE	4	0	3	3	1	4	5	2	1	1	0	0
VOGTLE 1	3	4	0	2	1	2	1	1	2	1	1	0
VOGTLE 2	4	3	0	1	0	3	3	1	3	1	1	0
WASH. NUCLEAR 2	1	3	1	2	0	0	4	3	0	0	0	0
WATERFORD 3	1	4	5	1	4	4	4	6	2	2	3	1
WATTS BAR 1	3	7	4	0	1	1	1	2	2	3	0	2
WOLF CREEK	10	1	6	3	8	0	1	0	3	2	5	2
ZION 1	1	7	3	7	4	NA	NA	NA	NA	NA	NA	NA
ZION 2	3	5	3	7	8	NA	NA	NA	NA	NA	NA	NA
TOTAL	318	338	278	224	254	268	255	195	196	145	176	85

NA - The plant is not yet licensed.
- The plant is permanently shutdown.

TABLE 10.16 CAUSE CODES

DESIGN/CONSTRUCTION/INSTALLATION/FABRICATION PROBLEMS

	Year - Calendar Quarter											
Plant Name	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
ARKANSAS 1	1	0	0	0	0	0	1	0	0	0	1	1
ARKANSAS 2	1	0	1	0	0	0	3	0	0	0	1	0
BEAVER VALLEY 1	0	3	4	6	6	2	2	0	0	1	0	0
BEAVER VALLEY 2	2	3	1	1	6	2	5	0	0	1	0	1
BIG ROCK POINT	0	1	1	0	NA	NA	NA	NA	NA	NA	NA	NA
BRAIDWOOD 1	1	0	0	0	2	0	0	1	1	0	0	0
BRAIDWOOD 2	0	0	0	0	3	0	0	0	1	0	0	0
BROWNS FERRY 1	0	1	0	1	0	0	1	0	0	0	0	0
BROWNS FERRY 2	0	1	0	1	0	0	1	0	0	1	1	0
BROWNS FERRY 3	0	2	0	1	0	0	1	0	0	1	0	0
BRUNSWICK 1	0	0	1	1	0	0	0	0	1	1	1	0
BRUNSWICK 2	0	0	1	2	0	0	0	1	1	1	1	0
BYRON 1	1	1	1	0	5	1	0	0	1	0	2	0
BYRON 2	1	2	1	0	3	1	0	0	1	0	0	0
CALLAWAY	0	1	1	0	2	0	0	1	0	0	0	1
CALVERT CLIFFS 1	0	0	2	0	0	2	0	0	1	0	0	0
CALVERT CLIFFS 2	0	0	1	0	0	1	1	0	0	0	0	0
CATAWBA 1	2	1	1	0	3	0	1	0	1	2	0	1
CATAWBA 2	2	1	1	0	3	0	0	1	1	1	0	1
CLINTON 1	1	3	2	1	3	4	1	0	2	1	2	0
COMANCHE PEAK 1	0	2	1	0	1	0	1	1	0	0	0	1
COMANCHE PEAK 2	0	2	2	0	1	0	1	1	1	0	0	1
COOK 1	0	3	0	9	1	7	7	3	10	3	6	2
COOK 2	0	3	0	8	2	8	6	2	9	3	5	2
COOPER STATION	2	1	1	1	1	1	1	0	0	0	1	0
CRYSTAL RIVER 3	2	6	8	13	8	4	0	0	1	0	0	0
DAVIS-BESSE	2	4	1	2	1	0	1	2	2	0	0	0
DIABLO CANYON 1	1	2	1	1	2	1	1	1	2	0	0	0
DIABLO CANYON 2	0	2	0	1	3	1	1	1	2	0	0	0
DRESDEN 2	5	2	1	1	2	4	2	2	0	0	0	0
DRESDEN 3	6	3	1	1	1	2	2	1	2	0	0	0
DUANE ARNOLD	0	0	0	0	0	0	2	1	0	1	0	0
FARLEY 1	2	2	3	0	0	0	0	0	1	0	0	0
FARLEY 2	2	2	2	0	0	0	0	0	1	0	1	0
FERMI 2	2	5	0	0	1	1	0	0	1	0	1	0
FITZPATRICK	1	2	1	0	0	0	1	2	0	1	0	0
FORT CALHOUN	2	1	3	1	3	1	2	3	0	0	0	0
GINNA	2	1	0	0	1	1	0	0	0	1	2	0
GRAND GULF	0	0	1	0	0	0	0	0	0	0	0	0
HADDAM NECK	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HARRIS	2	3	1	2	0	2	0	0	0	0	0	0
HATCH 1	2	1	0	1	1	0	0	0	0	0	2	0
HATCH 2	2	2	0	0	0	1	0	0	0	1	2	0
HOPE CREEK	2	3	1	2	3	0	1	0	1	2	0	1
INDIAN POINT 2	1	0	1	1	1	0	2	1	0	2	1	1
INDIAN POINT 3	0	1	3	2	2	2	1	1	0	1	0	1
KEWAUNEE	2	1	3	0	0	0	0	0	1	0	0	0
LASALLE 1	5	5	2	2	4	1	1	0	0	0	1	0
LASALLE 2	5	4	2	2	4	1	1	0	0	0	1	0
LIMERICK 1	1	0	0	0	3	3	1	1	0	0	1	0
LIMERICK 2	1	1	0	0	2	1	1	1	0	1	1	1
MAINE YANKEE	4	5	1	0	NA	NA	NA	NA	NA	NA	NA	NA
MCGUIRE 1	0	2	0	1	1	0	0	0	0	0	0	0
MCGUIRE 2	0	2	0	2	1	0	1	0	0	0	1	0
MILLSTONE 1	7	9	3	2	2	1	0	NA	NA	NA	NA	NA
MILLSTONE 2	5	2	6	5	3	5	4	4	2	2	0	0
MILLSTONE 3	7	8	6	3	4	5	3	2	0	0	2	0
MONTICELLO	1	1	0	2	0	0	1	0	0	0	1	0
NINE MILE PT. 1	3	2	3	3	1	0	6	0	0	1	0	1

TABLE 10.16 CAUSE CODES (CONTINUED)

DESIGN/CONSTRUCTION/INSTALLATION/FABRICATION PROBLEMS

	Year - Calendar Quarter											
Plant Name	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
NINE MILE PT. 2	2	0	1	1	1	2	6	0	0	1	1	0
NORTH ANNA 1	1	1	0	0	0	0	0	1	0	0	1	0
NORTH ANNA 2	1	1	0	0	0	0	0	0	0	0	1	0
OCONEE 1	0	2	1	0	0	2	1	1	4	1	1	0
OCONEE 2	1	2	1	0	0	3	1	1	4	1	1	0
OCONEE 3	1	3	2	0	0	1	1	1	5	1	1	0
OYSTER CREEK	2	1	0	1	0	3	0	2	2	1	1	0
PALISADES	1	0	0	1	0	5	0	0	1	0	0	0
PALO VERDE 1	1	0	0	1	0	1	1	0	0	0	0	0
PALO VERDE 2	0	0	0	1	1	2	0	0	0	0	0	0
PALO VERDE 3	0	0	1	1	0	1	0	1	0	0	0	0
PEACH BOTTOM 2	0	0	0	0	0	0	0	0	1	2	1	0
PEACH BOTTOM 3	0	0	0	0	0	0	0	0	0	1	0	0
PERRY	1	1	0	2	1	0	1	1	0	1	0	0
PILGRIM	0	1	2	1	7	6	6	3	3	0	0	2
POINT BEACH 1	2	7	10	3	2	5	0	2	1	0	1	2
POINT BEACH 2	2	7	10	3	0	4	0	2	1	2	1	1
PRAIRIE ISLAND 1	1	1	2	0	3	4	0	4	2	0	1	0
PRAIRIE ISLAND 2	1	1	1	0	2	4	1	4	1	0	1	0
QUAD CITIES 1	1	1	4	0	0	2	1	0	0	0	1	0
QUAD CITIES 2	1	1	4	0	0	1	1	0	0	0	1	0
RIVER BEND	0	0	0	3	0	0	1	0	0	1	0	0
ROBINSON 2	0	0	2	0	1	0	0	0	0	0	0	0
SALEM 1	5	3	1	2	0	2	0	1	0	0	0	1
SALEM 2	6	3	2	2	0	1	0	1	0	0	0	1
SAN ONOFRE 2	1	1	1	1	0	2	0	3	1	1	0	0
SAN ONOFRE 3	0	1	1	1	0	2	0	3	1	2	0	0
SEABROOK	2	3	4	0	4	0	1	0	1	1	0	0
SEQUOYAH 1	1	1	0	0	0	0	0	0	1	0	0	0
SEQUOYAH 2	0	1	1	0	0	0	0	0	2	0	0	0
SOUTH TEXAS 1	0	2	0	1	0	0	1	1	1	1	0	0
SOUTH TEXAS 2	0	3	0	1	0	0	0	1	0	1	0	0
ST. LUCIE 1	0	0	2	2	0	3	0	0	1	1	0	0
ST. LUCIE 2	0	0	4	1	0	3	0	2	0	1	1	0
SUMMER	0	0	0	0	0	2	0	1	1	0	1	0
SURRY 1	0	2	0	1	0	3	0	1	0	0	0	2
SURRY 2	0	1	0	2	0	2	0	1	0	0	0	2
SUSQUEHANNA 1	2	1	0	2	2	0	1	1	0	1	1	1
SUSQUEHANNA 2	2	2	0	3	1	1	2	0	0	1	1	0
THREE MILE ISL 1	0	1	0	1	1	2	1	4	0	1	2	1
TURKEY POINT 3	0	0	1	0	0	0	1	0	0	0	0	0
TURKEY POINT 4	0	0	1	0	0	0	1	0	0	0	0	0
VERMONT YANKEE	3	6	2	3	3	3	5	0	1	1	0	0
VOGTLE 1	1	0	0	0	0	1	0	1	1	1	0	0
VOGTLE 2	1	0	0	0	0	1	1	1	0	0	0	0
WASH. NUCLEAR 2	3	1	0	0	0	0	4	0	0	0	0	0
WATERFORD 3	1	3	5	0	6	1	3	1	0	0	1	3
WATTS BAR 1	1	1	0	1	1	0	0	0	1	0	0	0
WOLF CREEK	0	0	0	0	3	0	0	0	1	0	0	1
ZION 1	1	1	1	1	2	NA	NA	NA	NA	NA	NA	NA
ZION 2	2	1	1	1	2	NA	NA	NA	NA	NA	NA	NA
TOTAL	144	183	145	126	139	141	110	80	85	54	59	33

NA - The plant is not yet licensed.
- The plant is permanently shutdown.

TABLE 10.17 CAUSE CODES

MISCELLANEOUS

	Year - Calendar Quarter											
Plant Name	96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
ARKANSAS 1	0	0	0	1	0	0	0	0	1	0	0	0
ARKANSAS 2	0	0	0	0	0	0	0	0	1	1	0	0
BEAVER VALLEY 1	0	0	0	0	0	0	0	0	0	0	0	1
BEAVER VALLEY 2	0	0	0	0	0	0	0	0	0	0	0	0
BIG ROCK POINT	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA
BRAIDWOOD 1	0	0	1	0	0	0	0	0	0	0	0	0
BRAIDWOOD 2	0	0	0	1	0	0	0	0	0	0	1	0
BROWNS FERRY 1	0	0	0	0	0	0	0	0	0	0	1	0
BROWNS FERRY 2	0	0	0	0	1	0	0	0	0	0	1	1
BROWNS FERRY 3	1	0	0	0	0	0	0	0	0	0	1	0
BRUNSWICK 1	0	0	0	0	0	0	0	0	0	0	0	0
BRUNSWICK 2	0	0	0	0	0	0	0	0	0	0	0	0
BYRON 1	0	0	0	0	0	0	0	1	0	0	0	0
BYRON 2	0	0	0	0	0	1	0	0	0	0	0	0
CALLAWAY	0	0	0	0	0	0	0	0	0	0	0	0
CALVERT CLIFFS 1	0	0	0	0	0	0	0	0	0	0	0	1
CALVERT CLIFFS 2	0	0	0	0	0	1	0	0	0	0	0	0
CATAWBA 1	0	0	0	0	1	0	0	1	0	0	0	0
CATAWBA 2	0	0	0	2	0	0	0	1	1	0	0	0
CLINTON 1	0	0	0	0	0	0	1	0	0	1	0	0
COMANCHE PEAK 1	0	0	0	0	1	0	0	0	0	0	0	0
COMANCHE PEAK 2	0	0	0	0	0	0	0	0	0	1	0	0
COOK 1	0	0	0	0	0	0	0	0	0	0	0	0
COOK 2	0	0	0	0	1	0	0	0	0	0	0	0
COOPER STATION	0	0	0	1	0	0	0	0	1	0	0	0
CRYSTAL RIVER 3	0	0	0	0	0	0	0	0	0	0	0	0
DAVIS-BESSE	0	1	1	0	0	0	0	0	1	0	0	0
DIABLO CANYON 1	0	0	1	0	0	0	0	0	0	0	0	1
DIABLO CANYON 2	0	0	0	0	0	0	0	0	0	0	0	0
DRESDEN 2	0	0	0	0	0	0	0	0	0	1	0	0
DRESDEN 3	0	0	0	0	1	0	0	0	0	0	0	0
DUANE ARNOLD	0	0	0	1	0	0	0	0	0	1	0	0
FARLEY 1	0	0	0	0	0	0	0	1	0	0	0	0
FARLEY 2	0	0	0	0	0	0	0	0	0	0	0	0
FERMI 2	0	0	1	0	0	0	0	0	0	0	0	1
FITZPATRICK	0	0	0	0	0	0	1	0	0	0	0	1
FORT CALHOUN	0	0	0	0	0	0	0	0	0	0	0	0
GINNA	0	0	0	1	1	0	0	1	0	0	2	0
GRAND GULF	0	0	0	0	0	1	0	0	0	0	0	0
HADDAM NECK	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HARRIS	0	0	0	0	0	0	0	0	0	0	0	0
HATCH 1	0	0	0	0	0	0	0	0	0	0	0	0
HATCH 2	0	0	0	0	0	0	0	0	0	1	0	0
HOPE CREEK	0	0	1	0	0	0	0	0	0	0	0	1
INDIAN POINT 2	0	0	0	0	0	0	0	0	0	0	0	0
INDIAN POINT 3	0	0	1	0	1	0	0	0	0	0	0	1
KEWAUNEE	0	0	0	0	0	0	0	0	0	0	0	0
LASALLE 1	0	0	0	0	0	0	0	1	0	0	0	0
LASALLE 2	0	0	0	0	0	0	0	0	0	0	0	0
LIMERICK 1	0	0	0	1	0	0	0	0	0	0	0	0
LIMERICK 2	0	0	0	1	0	0	1	0	0	0	0	1
MAINE YANKEE	2	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA
MCGUIRE 1	0	0	0	0	0	0	0	0	0	0	0	0
MCGUIRE 2	0	0	0	0	0	1	0	0	0	0	0	0
MILLSTONE 1	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
MILLSTONE 2	0	0	0	2	0	0	0	0	0	0	0	0
MILLSTONE 3	0	0	0	0	0	0	0	0	2	0	0	0
MONTICELLO	0	0	0	1	0	0	0	0	0	0	1	0
NINE MILE PT. 1	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 10.17 CAUSE CODES (CONTINUED)

MISCELLANEOUS

Plant Name	Year - Calendar Quarter 96-4	97-1	97-2	97-3	97-4	98-1	98-2	98-3	98-4	99-1	99-2	99-3
NINE MILE PT. 2	0	0	0	0	0	1	0	0	0	0	2	1
NORTH ANNA 1	0	0	0	1	0	0	0	0	0	0	0	0
NORTH ANNA 2	0	0	0	0	0	0	0	1	0	0	0	0
OCONEE 1	0	0	0	1	0	0	0	0	0	0	0	1
OCONEE 2	0	0	0	0	0	0	0	0	0	1	0	0
OCONEE 3	0	0	0	0	0	0	0	0	0	0	0	0
OYSTER CREEK	0	0	0	0	0	0	0	0	0	0	0	0
PALISADES	0	0	0	0	0	0	0	0	0	0	0	0
PALO VERDE 1	0	0	1	0	0	1	0	0	0	0	0	0
PALO VERDE 2	0	0	0	1	0	1	0	0	0	0	1	0
PALO VERDE 3	0	1	0	0	0	0	0	0	0	0	0	0
PEACH BOTTOM 2	1	0	0	0	0	0	1	0	0	0	0	0
PEACH BOTTOM 3	0	0	0	0	0	0	0	0	0	0	0	0
PERRY	0	1	0	0	0	0	0	0	0	1	0	0
PILGRIM	0	0	0	0	0	1	0	0	1	0	0	0
POINT BEACH 1	0	0	0	0	0	0	0	0	0	0	0	0
POINT BEACH 2	0	0	0	0	0	0	0	0	0	0	0	0
PRAIRIE ISLAND 1	0	0	0	0	0	0	0	0	0	0	0	0
PRAIRIE ISLAND 2	0	0	0	0	0	0	0	0	0	0	0	0
QUAD CITIES 1	0	0	0	0	0	0	0	0	0	0	0	0
QUAD CITIES 2	0	0	0	0	0	0	0	0	0	0	0	0
RIVER BEND	0	0	0	0	0	0	0	0	0	0	0	0
ROBINSON 2	1	0	0	0	0	0	0	0	0	0	0	0
SALEM 1	0	0	0	0	0	0	0	0	0	0	0	0
SALEM 2	0	0	0	0	1	0	0	0	0	0	0	0
SAN ONOFRE 2	0	0	1	0	0	0	0	0	0	0	0	0
SAN ONOFRE 3	0	0	1	0	0	0	0	0	0	0	0	0
SEABROOK	0	0	0	0	0	0	0	0	0	0	0	0
SEQUOYAH 1	0	0	0	0	0	0	0	0	0	0	0	0
SEQUOYAH 2	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH TEXAS 1	0	0	0	0	1	0	0	0	0	0	0	0
SOUTH TEXAS 2	0	0	1	0	1	1	0	0	1	0	0	2
ST. LUCIE 1	0	0	0	0	0	0	0	0	0	0	0	0
ST. LUCIE 2	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER	0	0	0	0	0	0	0	0	0	0	1	0
SURRY 1	0	1	0	0	0	0	0	0	0	0	0	0
SURRY 2	0	1	0	0	0	0	0	0	0	0	0	0
SUSQUEHANNA 1	0	1	0	0	0	0	0	0	0	0	0	0
SUSQUEHANNA 2	0	0	0	0	1	0	0	0	0	0	0	0
THREE MILE ISL 1	0	0	0	0	0	0	0	0	0	0	0	0
TURKEY POINT 3	0	1	0	1	0	0	0	0	0	0	1	0
TURKEY POINT 4	0	0	0	0	0	0	0	0	0	0	0	0
VERMONT YANKEE	0	0	0	0	1	0	1	0	0	0	0	1
VOGTLE 1	0	0	0	0	1	0	0	0	0	0	0	0
VOGTLE 2	0	0	0	0	0	0	1	1	1	0	0	0
WASH. NUCLEAR 2	0	0	0	0	1	0	0	1	0	0	1	0
WATERFORD 3	0	1	0	0	0	1	0	0	0	0	0	0
WATTS BAR 1	0	0	0	0	0	0	0	0	0	0	1	0
WOLF CREEK	0	0	0	0	0	0	0	0	0	0	0	1
ZION 1	0	0	0	1	0	NA	NA	NA	NA	NA	NA	NA
ZION 2	0	0	0	1	0	NA	NA	NA	NA	NA	NA	NA
TOTAL	5	8	10	18	14	10	6	9	10	8	14	15

NA - The plant is not yet licensed.
- The plant is permanently shutdown.

11. REVISION OF DATA
CONTAINED IN THE
THIRD QUARTER 1998 REPORT

11. REVISION OF DATA CONTAINED IN THE THIRD QUARTER 1998 REPORT

An intensive review of data sources and application of detailed screening criteria have resulted in some changes to the data previously reported in the third quarter 1998 report. These changes are summarized in Tables 11.1 through 11.10. In aggregate, they do not significantly alter the overall picture presented in the third quarter 1998 report.

TABLE 11.1 REVISIONS TO SAFETY SYSTEM FAILURES (TABLE 10.7 OF THE THIRD QUARTER 1998 REPORT)

Plant Name	Year-Quarter	Old Value	Revised Value
CALVERT CLIFFS 1	97-4	0	1
COOK 1	98-2	2	3
COOK 1	98-3	2	3
COOK 2	98-2	1	2
COOK 2	98-3	2	3
GRAND GULF	98-2	0	1
MILLSTONE 2	97-2	4	3
MONTICELLO	98-3	0	1
QUAD CITIES 1	97-2	5	6
QUAD CITIES 2	97-2	1	2
QUAD CITIES 2	97-3	2	1
SALEM 1	98-3	1	2
SALEM 2	98-3	2	3
SAN ONOFRE 2	98-3	1	2
SAN ONOFRE 3	98-3	2	3
THREE MILE ISL 1	98-3	3	2
VERMONT YANKEE	98-1	3	2

TABLE 11.2 REVISIONS TO EQUIPMENT FORCED OUTAGES/1000 COMMERCIAL CRITICAL HOURS (TABLE 10.9 OF THE THIRD QUARTER 1998 REPORT)

Plant Name	Year-Quarter	Old Value	Revised Value
CATAWBA 1	98-3	1.83	0.61
OCONEE 1	98-1	2.69	1.79
OCONEE 3	97-4	0.51	0.00
PILGRIM	97-4	1.56	1.04
PRAIRIE ISLAND 2	98-1	1.62	0.81
SUSQUEHANNA 2	98-3	0.47	0.00

TABLE 11.3 REVISIONS TO CRITICAL HOURS (TABLE 10.10 OF THE THIRD QUARTER 1998 REPORT)

Plant Name	Year-Quarter	Old Value	Revised Value
VOGTLE 1	98-1	1416	2160

TABLE 11.4 REVISIONS TO COLLECTIVE RADIATION EXPOSURE (TABLE 10.11 OF THE THIRD QUARTER 1998 REPORT)

Plant Name	Year-Quarter	Old Value	Revised Value
COMANCHE PEAK 1	98-2	68	69
COMANCHE PEAK 2	98-2	68	69
FORT CALHOUN	98-2	204	193

TABLE 11.5 REVISIONS TO CAUSE CODES ADMINISTRATIVE CONTROL PROBLEMS (TABLE 10.12 OF THE THIRD QUARTER 1998 REPORT)

Plant Name	Year-Quarter	Old Value	Revised Value
BROWNS FERRY 1	98-2	2	3
BROWNS FERRY 2	98-2	2	3
BROWNS FERRY 3	98-2	2	3
BRUNSWICK 1	97-3	5	6
BRUNSWICK 1	98-2	2	3
BRUNSWICK 2	97-3	4	5
BYRON 1	98-1	6	7
CALVERT CLIFFS 1	97-4	0	1
CALVERT CLIFFS 1	98-2	0	2
CALVERT CLIFFS 2	98-2	1	2
CLINTON 1	98-2	4	5
COOK 1	97-4	2	3
COOK 1	98-3	7	6
COOK 2	97-4	3	4
COOK 2	98-3	5	4
DAVIS-BESSE	98-2	1	2
DAVIS-BESSE	98-3	1	2
DIABLO CANYON 1	98-1	1	2
DIABLO CANYON 2	98-1	1	2
DRESDEN 2	96-4	4	5
FORT CALHOUN	98-3	2	4
GINNA	98-3	0	1
HARRIS	97-2	5	6
HOPE CREEK	97-3	3	4

TABLE 11.5 REVISIONS TO CAUSE CODES (CONTINUED) ADMINISTRATIVE CONTROL PROBLEMS (TABLE 10.12 OF THE THIRD QUARTER 1998 REPORT)

Plant Name	Year-Quarter	Old Value	Revised Value
INDIAN POINT 2	98-3	3	5
LASALLE 1	97-4	9	10
LASALLE 2	97-4	9	10
MILLSTONE 2	97-3	2	3
MILLSTONE 2	98-1	1	2
MILLSTONE 2	98-3	4	5
QUAD CITIES 1	97-3	3	4
QUAD CITIES 1	98-3	1	2
SALEM 1	98-3	2	3
SALEM 2	98-3	4	5
SAN ONOFRE 2	98-3	4	5
SAN ONOFRE 3	98-3	4	5
VERMONT YANKEE	98-1	3	4
WATERFORD 3	98-3	3	4
WOLF CREEK	97-4	7	8

TABLE 11.6 REVISIONS TO CAUSE CODES LICENSED OPERATOR ERRORS (TABLE 10.13 OF THE THIRD QUARTER 1998 REPORT)

Plant Name	Year-Quarter	Old Value	Revised Value
INDIAN POINT 2	98-3	1	2
QUAD CITIES 1	98-3	0	1
SUSQUEHANNA 1	97-1	0	1
SUSQUEHANNA 2	97-1	0	1

TABLE 11.7 REVISIONS TO CAUSE CODES OTHER PERSONNEL ERRORS (TABLE 10.14 OF THE THIRD QUARTER 1998 REPORT)

Plant Name	Year-Quarter	Old Value	Revised Value
ARKANSAS 2	96-4	1	0
CALVERT CLIFFS 1	98-2	0	2
CALVERT CLIFFS 2	98-2	0	1
DAVIS-BESSE	98-3	0	2
GINNA	97-4	1	2
NORTH ANNA 1	98-3	0	1
OYSTER CREEK	98-3	0	1

TABLE 11.7 REVISIONS TO CAUSE CODES (CONTINUED)
OTHER PERSONNEL ERRORS
(TABLE 10.14 OF THE THIRD QUARTER 1998 REPORT)

Plant Name	Year-Quarter	Old Value	Revised Value
PALO VERDE 1	96-4	0	1
SUSQUEHANNA 1	97-1	6	5
SUSQUEHANNA 2	97-1	6	5
VERMONT YANKEE	98-1	1	2
VERMONT YANKEE	98-2	1	2

TABLE 11.8 REVISIONS TO CAUSE CODES
MAINTENANCE PROBLEMS
(TABLE 10.15 OF THE THIRD QUARTER 1998 REPORT)

Plant Name	Year-Quarter	Old Value	Revised Value
ARKANSAS 2	96-4	2	1
BROWNS FERRY 1	98-2	2	3
BROWNS FERRY 2	98-2	2	3
BROWNS FERRY 3	98-2	2	3
BRUNSWICK 1	97-3	4	5
BRUNSWICK 2	97-3	4	5
CALVERT CLIFFS 1	97-4	3	4
CALVERT CLIFFS 1	98-2	1	2
CLINTON 1	98-2	5	4
COOK 1	97-4	1	2
COOK 2	97-4	2	3
DAVIS-BESSE	98-3	0	2
DRESDEN 3	97-4	2	3
GINNA	97-4	3	4
HARRIS	97-2	7	8
HOPE CREEK	97-3	6	7
INDIAN POINT 2	97-3	3	4
INDIAN POINT 2	98-3	5	6
MILLSTONE 2	97-4	1	0
MILLSTONE 2	98-3	1	3
MONTICELLO	98-3	1	2
NINE MILE PT. 2	96-4	2	3
NORTH ANNA 1	98-3	3	4
OYSTER CREEK	98-3	3	4
PALO VERDE 1	96-4	1	2
QUAD CITIES 1	97-3	1	2
QUAD CITIES 1	98-3	4	5
SALEM 1	98-3	3	4
SALEM 2	98-3	6	7
SAN ONOFRE 2	98-3	5	6

TABLE 11.8 REVISIONS TO CAUSE CODES (CONTINUED) MAINTENANCE PROBLEMS (TABLE 10.15 OF THE THIRD QUARTER 1998 REPORT)

Plant Name	Year-Quarter	Old Value	Revised Value
SAN ONOFRE 3	98-3	4	5
ST. LUCIE 2	97-2	5	6
SUSQUEHANNA 1	97-3	5	6
SUSQUEHANNA 2	98-2	8	9
VERMONT YANKEE	98-2	6	5
WATERFORD 3	98-3	5	6
WOLF CREEK	97-4	6	8

TABLE 11.9 REVISIONS TO CAUSE CODES DESIGN/CONSTRUCTION/INSTALLATION/FABRICATION PROBLEMS (TABLE 10.16 OF THE THIRD QUARTER 1998 REPORT)

Plant Name	Year-Quarter	Old Value	Revised Value
ARKANSAS 2	96-4	0	1
BRUNSWICK 1	97-3	0	1
BRUNSWICK 2	97-3	1	2
CLINTON 1	98-1	5	4
CLINTON 1	98-2	0	1
CLINTON 1	98-3	1	0
COOK 1	98-2	8	7
COOK 1	98-3	1	3
COOK 2	98-1	7	8
COOK 2	98-3	1	2
DIABLO CANYON 1	97-4	1	2
FORT CALHOUN	98-3	2	3
MILLSTONE 2	97-2	5	6
MILLSTONE 2	97-4	2	3
MILLSTONE 2	98-1	4	5
PILGRIM	98-1	5	6
SOUTH TEXAS 1	97-3	0	1
SOUTH TEXAS 2	97-3	0	1
SUSQUEHANNA 1	98-3	0	1
WOLF CREEK	97-4	2	3

TABLE 11.10 REVISIONS TO CAUSE CODES MISCELLANEOUS (TABLE 10.17 OF THE THIRD QUARTER 1998 REPORT)

Plant Name	Year-Quarter	Old Value	Revised Value
DRESDEN 3	97-4	2	1
GINNA	98-3	0	1
INDIAN POINT 2	97-3	1	0
PILGRIM	98-1	2	1
SUSQUEHANNA 1	97-3	1	0
SUSQUEHANNA 2	98-2	1	0

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(See instructions on the reverse)

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10. SUPPLEMENTARY NOTES

11. ABSTRACT *(200 words or less)*

This Nuclear Regulatory Commission (NRC) report provides performance indicator data, accounting for the different operational conditions, through September 1999 for 104 reactors. There are eight NRC Performance Indicators for Operating Commercial Nuclear Power Plants: (1) automatic scrams while critical; (2) safety system actuations; (3) significant events; (4) safety system failures; (5) forced outage rate; (6) equipment forced outages per 1000 commercial critical hours; (7) collective radiation exposure; and (8) cause codes. This report is based on data extracted from Licensee Event Reports (LERs) submitted in accordance with 10 CFR 50.73, immediate notifications to the NRC Operations Center in accordance with 10 CFR 50.72, monthly operating reports in accordance with plant technical specifications, and screening of operating experience by NRC staff. Radiation exposure data are obtained from the Institute of Nuclear Power Operations (INPO). Graphical presentation of each plant's data, including trends and deviations analyses, are provided, as well as tabulated summaries of the data. The trends and deviations analyses and tabulated summaries have been presented and calculated accounting for the plant's operational conditions.

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