OPERATIONAL QUALITY ASSURANCE PROGRAM DESCRIPTION
PROPOSED REVISION 29, SUMMARY OF CHANGES

ATTACHMENT 1

Section 1 - Organization

Sections 1.3.2 and 1.3.2.4 were revised to eliminate the position of Corporate Chemist. The responsibilities for this position have been transferred to the Chemistry Manager. The Chemistry Manager reports to the Plant General Manager. Eliminating the position of Corporate Chemist is not considered a reduction of commitments because there is no regulatory basis for the position. The position of Corporate Chemist was responsible for oversight and policy and did not perform a quality or safety related function.

Section 1.3.2.1 was revised to eliminate the position of Manager, Engineering Programs. The responsibilities for this position have been transferred to the Manager, Design/Projects Engineering and Manager, Technical Services/System Engineering. The Engineering organization and functional responsibilities of key personnel are described in Chapter 13 of the Final Safety Analysis Report (FSAR) for WNP-2. Eliminating the position of Manager, Engineering Programs is not considered a reduction of commitments.

Section 1.3.2.2 was revised to eliminate the position of Planning/Scheduling/Outage Manager. The responsibilities for this position have been transferred to the Maintenance Manager. The plant organization and functional responsibilities of key plant personnel are described in Chapter 13 of the FSAR for WNP-2. Eliminating the position of Planning/Scheduling/Outage Manager is not considered a reduction of commitments.

Section 1.3.3.1.1 minor editorial changes.

Figure 1-1 was revised to eliminate the position of Corporate Chemist.

Figure 1-2 was revised to eliminate the position of Planning/Scheduling/Outage Manager.

The changes to Section 1 do not reduce commitments because a commitment is an explicit statement to take a specific action. These changes affect the organizational structure only. The actions required to properly manage plant activities will continue to be performed. Also, these changes do not effect the Quality organization.

Section 2 - Quality Assurance (QA) Program

Table 2-2 was revised to add new Site Wide Procedures.

The changes to Section 2 do not reduce commitments.

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ATTACHMENT 1

Section 4 - Procurement Document Control

Section 4.2.2 was revised to change the word "provide" a quality assurance program to "have" a quality assurance program.

Section 4.2.6 was revised to clarify how Quality personnel review procurement documents. The review of procurement documents by Quality personnel will be a sampling, not a 100 percent review. This change removes Quality from in-line review to maintain independence. Procurement documents will continue to receive a review by independent Procurement personnel to assure quality requirements are correctly stated, that they can be inspected and controlled, and the vendor is on the current Supply System Evaluated Supplier List.

The change in Section 4 reduces commitments.

Section 6 - Document Control

Section 6.2.1.g was revised to clarify the type of documents that are considered administrative procedures, which includes Site Wide Procedures.

Section 6.2.2.b was revised to clarify that Quality personnel review administrative procedures for the activity. The purpose of Quality's review of administrative procedures is to assure inclusion of appropriate quality requirements prior to implementation. Review of individual documents such as procurement documents is covered in Section 4 and review of nonconformance reports is covered in Section 15. Quality review of the FSAR and changes thereto is being eliminated. No regulatory basis was identified that requires this review. Quality will review the administrative procedure(s) that control the FSAR, but not the document itself, unless specified by the administrative controls.

The Note listed in Section 6.2.2 was revised to remove the reference to the Test Working Group. This group was disbanded when WNP-2 became operational.

The changes to Section 6 reduces commitments.

Section 12 - Control of Measuring and Test Equipment

Section 12.4 was revised to clarify that the accuracy of calibration standards need not meet the 1/4 tolerance if the basis for acceptance is documented and authorized by the M&TE Standards Supervisor. This clarification is consistent with NUREG-0800, Section 12.6.

This clarification does not reduce commitments.

ATTACHMENT 1

Section 15 - Nonconforming Materials, Parts, or Components

Section 15.2.4 was revised to clarify that Quality personnel review nonconformances on a sampling basis, not a 100 percent review. The purpose of this change is to remove Quality from in-line review to maintain independence.

The change to Section 15 reduces commitments.

Section 18 - Audits

Section 18.2.3 was revised to add, "Surveillances and assessments performed by the Quality organization are performed as an integral part of the evaluation (Audit) program and provide inprocess coverage of the applicable areas to supplement the audit program."

The change to Section 18 does not reduce commitments.

Appendix I - Qualification Requirements

Appendix I.2.b was revised to clarify the experience requirements for the positions of Quality Programs Supervisor or Lead, Supplier Quality. This clarification is consistent with ANSI/ANS-3.1-1978. There is no regulatory basis for these positions and the positions are not described in NUREG-0800.

This change does not reduce commitments.

Appendix II - Position Statements

Appendix II.10.b was revised to clarify that surveillances or assessments can be used to evaluate the use of supervisors as design verifiers to guard against abuse.

This change does not reduce commitments.

Appendix II.12.4 was added to clarify how Quality Assurance records may be maintained in temporary storage until transferred to the permanent plant file.

This change does not reduce commitments.

Appendix III - Additional Quality Program Requirements

Appendix III.2.1.1, was revised to eliminate the Planning/Scheduling/Outage representation on the Plant Operations Committee (POC).

This change reduces commitments.

OPERATIONAL QUALITY ASSURANCE PROGRAM DESCRIPTION (WPPSS-QA-004)

APPROVED: L.K. Atkinson — *Manager, Quality*

2-17-98 — *Date Effective*

REVISION NO. 28

ORIGINAL ISSUE: May 10, 1978

WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

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1- ORGANIZATION

1.1 PURPOSE

This section provides a description of the authorities and responsibilities assigned to Supply System organizational units and individuals involved in establishing, implementing, verifying implementation, and measuring the overall effectiveness of the administrative controls and quality assurance program during the initial testing (pre-operational and startup testing) and subsequent operations phases of Supply System nuclear power plants.

1.2 SUPPLY SYSTEM ORGANIZATION

The Supply System organization responsible for establishing, implementing, verifying implementation, and measuring the overall effectiveness of the administrative controls and quality assurance program for its nuclear power plants is as depicted in Figures 1-1 and 1-2. Portions of these activities may be delegated to external organizations qualified to the requirements of this Operational QA Program, hereafter referred to as QA Program; however, the responsibility shall remain with the Supply System.

1.3 MANAGEMENT RESPONSIBILITIES

1.3.1 The Chief Executive Officer is responsible for the establishment of policies and for overall management of Supply System operations. The Chief Executive Officer has issued a Management Statement which commits the Supply System to design, construct, and operate its nuclear power plants without jeopardy to the health and safety of the public. The Chief Executive Officer has the responsibilities as the Chief Nuclear Officer, is the ultimate Supply System authority on matters involving Plant Nuclear Safety and Quality, and appoints the members of the Corporate Nuclear Safety Review Board (CNSRB), including the Chairman and Alternate Chairman. The Chief Nuclear Officer operates through the Vice President, Nuclear Operations; Vice President, Operations Support/Public Information Officer; and Vice President, Administration/Chief Financial Officer, to provide for engineering, construction, procurement, quality assurance/quality control, and operations activities for Supply System nuclear power plants.

1.3.2 The Vice President, Nuclear Operations reports to the chief Executive Officer and is responsible for:

- Safe and efficient operation of Supply System nuclear power plants.
- Safe and successful completion of initial testing activities for WNP-2 (through the WNP-2 Plant General Manager).
- Establishing and monitoring maintenance systems common to operational nuclear power plants.
- Training of nuclear plant staff and support personnel.
- Development of programs and procedures to ensure uniform application at operational nuclear power plants.
- Radiological protection, fire protection, and radioactive waste management.
- Engineering design and analysis support for WNP-2.

To accomplish this role, the Vice President, Nuclear Operations operates through the Plant General Manager; Engineering General Manager; Manager, Nuclear Training; and Corporate Chemist.

1.3.2.1 The Engineering General Manager reports to the Vice President, Nuclear Operations and is responsible for providing project engineering and design control, nuclear fuel supply, and maintenance/operation engineering support as required for WNP-2. The Engineering General Manager is specifically responsible for:

- Developing, maintaining, and implementing design control programs and processes by which plant design, and design changes, and modifications are defined, controlled, and verified.
- Developing and maintaining programs for in-service inspection, and materials and welding engineering.
- Providing engineering support for technical resolution of nuclear safety and licensing issues.
- Maintaining a current engineering data base for WNP-2.
- Implementing configuration control by establishing site-specific policy, procedures, and methods that allow control and accountability.

- Management of major plant modifications, major maintenance tasks, and contractor support.
- The supply, engineering, and efficient in-core management of nuclear fuel.
- Transient analysis and licensing issue resolution to support technical specification changes and reload fuel licensing.
- Reliability and availability analysis to improve plant performance, safety, and maintainability.
- Developing and maintaining fire protection programs.
- Training and qualification of engineering and technical support staff.

The Engineering General Manager operates through the Manager, Design/Projects Engineering; Manager, Engineering Programs; Manager, Technical Services/ Systems Engineering; and Manager, Reactor/Fuels Engineering. The Engineering organization and functional responsibilities of key personnel are described in Chapter 13 of the Final Safety Analysis Report for WNP-2.

1.3.2.2 The Plant General Manager for WNP-2 reports to the Vice President, Nuclear Operations and is directly responsible for safe and efficient operation of the plant in accordance with the requirements of the Operating License, the Plant Technical Specifications, and the Plant Procedures Manual. Some of the specific responsibilities of the Plant General Manager are:

- Planning, coordinating, and directing all test, operation, modification, inspection, maintenance, and refueling activities subsequent to the issuance of an Operating License.
- Authorizing all plant modifications subsequent to the issuance of an Operating License.
- Qualifying and training plant staff.
- Ensuring calibrated measuring and test equipment (including installed instruments covered by the Plant Technical Specifications) is utilized at WNP-2.
- Dispositioning of nonconforming items.
- Implementing the in-service testing program.
- Implementing a fire protection program.

- Off-Site Dose Calculation Manual (ODCM).
- The Radiological Environmental Monitoring Program and Bioassay Program.
- Environmental sciences function which performs nonradiological monitoring and fitness for duty chemical analysis.

The Plant General Manager operates through the Operations Manager, Maintenance Manager, Radiation Protection Manager, Chemistry Manager, and Planning/Scheduling/Outage Manager. The plant organization and functional responsibilities of key plant personnel are described in Chapter 13 of the Final Safety Analysis Report for WNP-2.

1.3.2.3 The Manager, Nuclear Training reports to the Vice President, Nuclear Operations and is responsible for nuclear training policy and implementation, fire prevention and protection training, technical maintenance of the simulator to support operator training and testing, and training records management for nuclear plant operations.

1.3.2.4 The Corporate Chemist reports to the Vice President, Nuclear Operations and is responsible for policy development, oversight, and integration of matters pertaining to chemistry at WNP-2.

1.3.3 The Vice President, Operations Support/Public Information Officer reports to the Chief Executive Officer and is responsible for the development and implementation of policies and programs which support operation of Supply System nuclear power plants in the areas of:

- Quality Assurance program definition, implementation and effectiveness.
- Maintaining cognizance of changing regulatory requirements and providing controlled interface between the Supply System and regulatory agencies to assure that commitment documents receive the necessary degree and depth of reviews prior to transmittal.
- Providing licensing support functions in such areas as acquisition and maintenance of nuclear power plant construction permits and operating licenses.
- Safeguards, physical plant security and fitness for duty.
- Emergency preparedness, safety and health.
- Procurement, inventory, spare parts engineering, vendor quality, and warehousing.

- Reviewing in-house and external events for determination of cause and necessary corrective action to minimize potential for recurrence at Supply System nuclear facilities.

- Establishing, managing, and administering the implementation and effectiveness of the Nuclear Safety Issues Program (NSIP).

To accomplish this role, the Vice President operates through the Manager, Quality; Manager, Regulatory Affairs; Manager, Security; and Manager, Procurement.

1.3.3.1 The Manager, Quality reports to the Vice President, Operations Support/PIO and is directly responsible for the definition, direction, and effectiveness of the overall Quality Assurance Program during design, construction, and operation phases of all Supply System nuclear power plants. Major functions of the Quality organization are:

- Establishing and maintaining assurance programs, Nuclear Operation Standards, and department procedures and instructions which incorporate nuclear safety considerations and comply with the Quality Assurance (QA) criteria delineated in Appendix B to 10CFR 50.

- Assuring through reviews, surveillances, assessments, inspections, nondestructive examinations, and audits that Supply System and its suppliers' activities are being performed in a safe and legal manner in accordance with written and approved documents which comply with applicable requirements defined by the assurance programs and Nuclear Operation Standards or Site Wide Procedures.

- Assessing the overall effectiveness of assurance programs' implementation, including evaluation of plant performance and reporting conclusions to the Chief Executive Officer.

- Stopping unsatisfactory work and controlling further processing, delivery, or installation of nonconforming material.

- Establishing and maintaining adequate and qualified assurance staffing levels.

- Providing trending of deficiencies to identify areas where corrective actions have not minimized recurrence.

- Establishing, maintaining, and controlling the Operational QA Program Description (WPPSS-QA-004) and the Supply System Functional Manual for Nuclear Operation.

- Certifying Supply System examination personnel for non-destructive examinations (NDE).
- Qualifying and certifying Supply System Audit Team Leaders, QC inspection and test personnel.
- Acquiring and maintaining ASME Certificates of Authorization and/or Owners Certificates.
- Ensuring that a written agreement with an Authorized Inspection Agency is obtained to provide for Authorized Nuclear In-Service Inspection Services.
- Administering the WNP-2 industry and in-plant operating experience programs.
- Providing the Independent Safety Engineering Group (ISEG) functions for assessing programs, processes and activities of various areas and operations that affect plant nuclear safety and reliability.
- Administering the nonconforming condition and corrective action processing including assisting the cognizant organization in evaluation and determination of the root cause for plant-related events.
- Providing the review and concurrence of selected programs, procedures, and/or instructions affecting safety, including changes thereto, to assure that applicable quality assurance requirements have been identified and specified therein.

The Manager, Quality has effective communication channels with all Supply System senior management positions and has no duties or responsibilities unrelated to quality assurance that would prevent his full attention to Quality Assurance Program matters. To accomplish the above defined role, the Manager, Quality operates through the Supervisors, Quality Services; Supervisor, Quality Programs; and Lead, Supplier Quality.

The qualification requirements for this position are as described in Appendix I, Qualification Requirements.

A management representative from the Quality Organization is a member of the Plant Operations Committee (see Appendix III) and has sufficient authority and organizational freedom to identify problems; to initiate, recommend, or provide solutions; and to verify implementation of solutions. The representative has no duties or responsibilities unrelated to quality assurance matters and has effective communication channels with all plant supervisory and management personnel.

1.3.3.1.1 The Supervisors, Quality Services reports to the Manager, Quality and are directly responsible for performing internal Supply System quality assurance functions that are necessary to verify that the QA Program is being effectively implemented. This includes maintaining a sufficient number of qualified auditors to perform QA audits, as required.

Each Supervisor has the authority and responsibility to stop unsatisfactory work and control further processing, delivery, or installation of nonconforming material. When the unit is operating, the Supervisors may recommend that the unit be shut down; the Plant General Manager, however, has the final responsibility for the overall evaluation of all aspects and implications of shutting down the operating unit.

Qualification requirements for this position is described in Appendix I, Qualification Requirements. The Supervisors, Quality Services are specifically responsible for:

a. Verifying internal Supply System activities to assure that they are being conducted in a safe and legal manner in accordance with approved programs, plans, procedures, or instructions. Such verifications will be in the form of audits, technical assessments, or quality assurance surveillances. Included in the scope of these verifications are: (i) control room operations; post modification/major maintenance testing and operational tests; maintenance, modification, repair, and calibration; personnel training; and refueling activities; (ii) activities associated with satisfying technical specifications and in-service inspection and testing; (iii) activities associated with the implementation of security, fire protection, and radiological protection programs; (iv) activities including engineering, maintenance, modifications, operational problem resolution, technical support activities, and operational analysis that affect plant nuclear safety and reliability; and (v) activities related to procurement, storage and issuance of parts, materials, and services to assure implementation of QA Program and management requirements.

b. Providing the Independent Safety Engineering Group (ISEG) functions involving:

i. Assessing programs, processes and activities including engineering, maintenance, modifications, operational problems, technical support activities and operational analysis that affect plant nuclear safety and reliability.

ii. Assessing plant operations and performance regarding conformance to regulatory requirements.

iii. Evaluating industry operating experience, including recommendations for improvements in overall plant performance involving plant practices, procedures and equipment.

iv. Providing certain key operating experience information to operators and other plant personnel.

1.3.3.1.2 The Supervisor, Quality Programs reports to the Manager, Quality and is directly responsible for:

- Administration of the nonconforming condition and corrective action program.
- In-plant QC functions and nondestructive examinations.
- Certifying Supply System nondestructive examination, QC, and test personnel.
- Maintaining Quality Program documents.

Qualification requirements for this position are described in Appendix I, Qualification Requirements.

1.3.3.1.3 The Lead, Supplier Quality reports to the Manager, Quality and is directly responsible for the source surveillance/audit program and for assuring that items received for WNP-2 meet the required quality standards, including:

- Establishing vendor witness points for inspection and release of material/ equipment for shipment.
- QC receipt inspection of materials and equipment received by the Supply System.
- Establishing and maintaining evaluated vendors list.
- Planning, coordinating, and performing source surveillances, source inspections, and external audits to verify implementation of vendors' QA/QC programs.
- Reviewing and approving vendor furnished QA/QC procedures and programs.
- Reviewing for acceptance other utility audits furnished through the Nuclear Procurement Issues Committee (NUPIC).

Qualification requirements for this position are described in Appendix I, Qualification Requirements.

1.3.3.2 The Manager, Regulatory Affairs reports to the Vice President, Operations Support/PIO and is responsible for:

- Acquiring and maintaining operating licenses of Supply System nuclear power plants.
- Defining and implementing programs which assure that licensing submittals receive an adequate technical review from cognizant Supply System, NSSS, or AE personnel prior to transmittal.
- Tracking licensing commitments and taking action necessary to assure that they are being met in a timely manner.
- Providing coordinated development of responses and comments to new laws, regulations, regulatory guides, and other regulatory issuances.
- Developing and maintaining an emergency response program that includes plans, implementing procedures, training, and drills and exercises.

1.3.3.3 The Manager, Procurement reports to the Vice President, Operations Support/PIO and is responsible for contracting, procurement and storage control services that support operation and maintenance of Supply System nuclear power plants, the sale and demolition of Projects WNP-3, WNP-4 and WNP-5. These responsibilities include:

- Development of Supply System procurement policies and procedures.
- Procurement of items and services in response to approved purchase requisitions.
- Coding, cataloging, handling, storage, shipping, and disposal of procured items.
- Providing project management for disposition of assets from terminated power projects and disposition of major assets surplus to operating power projects.
- Maintaining the Restricted Use Equipment List (RUEL).
- Providing criteria for Class 1 and commercial grade dedicated spare parts procurement.

1.3.3.4 The Manager, Security Programs reports to the Vice President, Operations Support/ PIO and is responsible for overall Supply System security activities. The Manager, Security Programs is specifically responsible for:

- Administering a security program which includes preemployment screening, physical security surveys and investigations, loss prevention, and fitness for duty.
- Managing the security force by assuring that physical security is consistent with needs and is maintained within individual plant safeguards security plans.
- Providing training, administrative, and technical support to the Plant General Manager in the area of plant security.

1.3.3.5 The Vice President Administration/Chief Financial Officer reports to the Chief Executive Officer and is responsible for providing Administrative Services that are required to Support Operation and Maintenance of WNP-2. To accomplish this role, the Vice President operates through the Manager, Administrative Services.

1.3.3.6 The Manager, Administrative Services reports to the Vice President, Administrative/Chief Financial Officer and is responsible for:

- Developing and implementation of administrative controls for plant procedures, processes and systems to maintain nuclear plant design, construction, and operating records.
- Providing program definition and policy development for Supply System records management activities, which includes processing, retrieval, storage and dispositioning of records.
- Providing administrative support functions necessary for the maintenance of manuals and procedures.
- Managing an administrative process by which engineering-related activities and commitments are assigned, scheduled, tracked, and dispositioned.

FIGURE 1-1

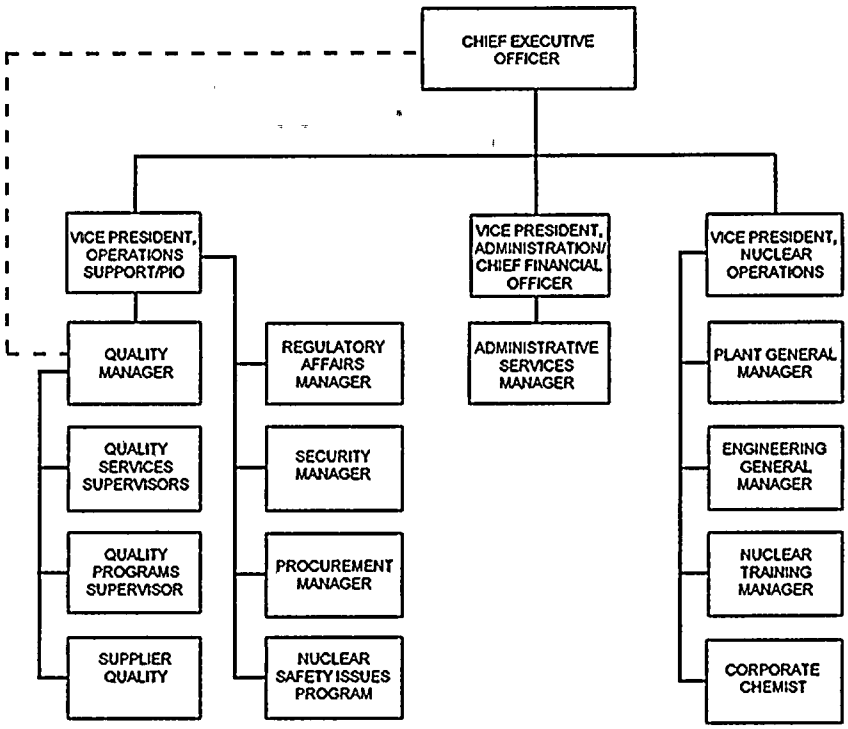

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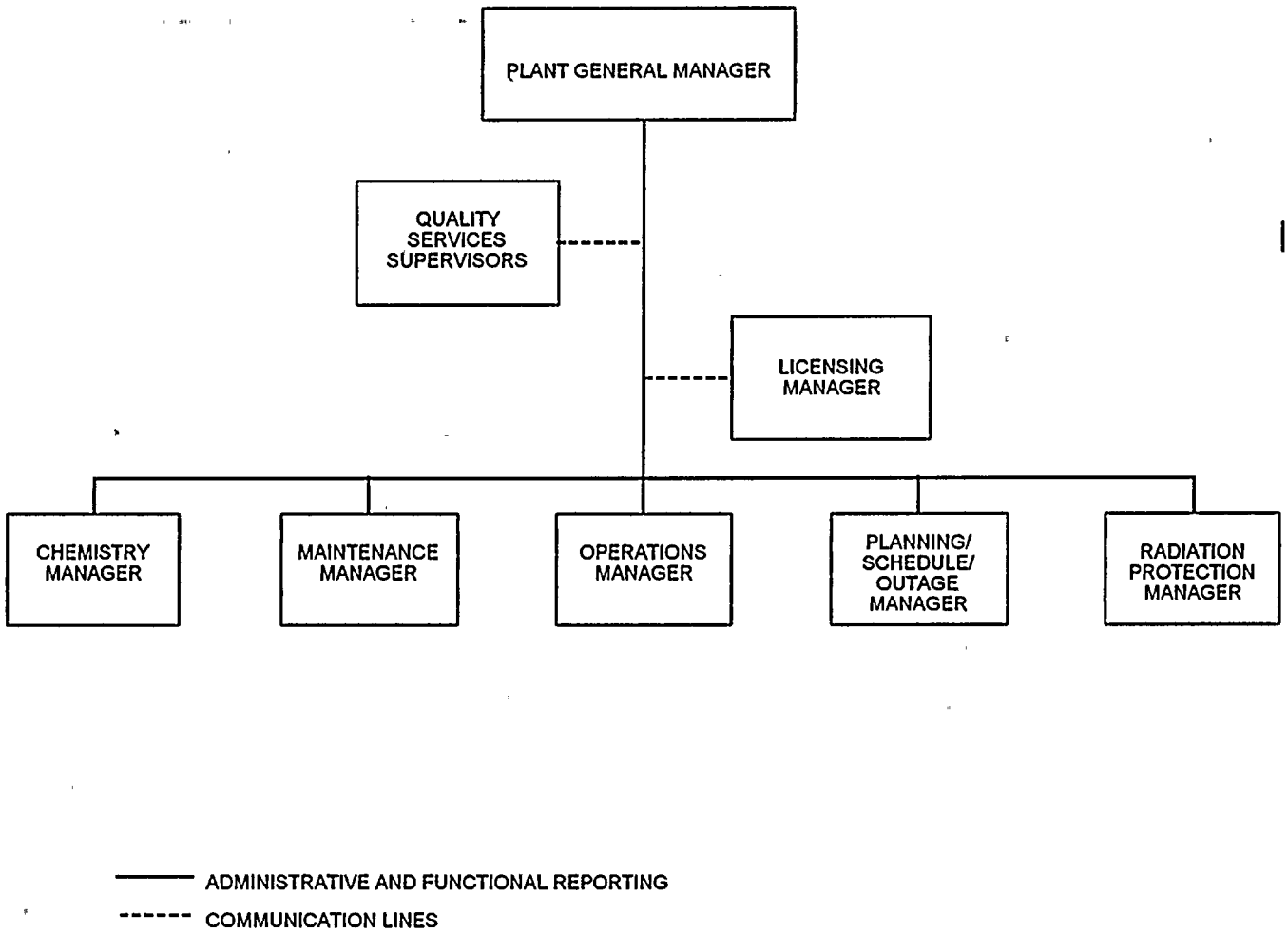
FIGURE 1-2



Supply System Organization Relative To Operational QA

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APPENDIX I

QUALIFICATION REQUIREMENTS

The minimum qualification requirements for key Quality Assurance personnel that will be met at the time of initial core loading or appointment to the active positions are specified below.

I.1. The Manager, Quality or both Supervisors, Quality Services fulfill the position described in ANSI/ANS-3.1-1978, Section 4.4.5, Quality Assurance. The qualifications for this position are:

a. Education: Bachelors Degree or equivalent* in Engineering or related science.

b. Six (6) years experience in the field of quality assurance, or equivalent number of years of nuclear industry experience in a supervisory/management position or a combination of the two. At least two (2) years of these six years experience shall be nuclear power plant experience in the overall implementation of the quality assurance program. (This experience shall be obtained within the quality assurance organization.)

I.2. Quality Programs Supervisor or Lead, Supplier Quality

a. Education: Bachelor Degree or equivalent* in Engineering or a related science.

b. Experience: Four (4) years experience in the field of quality assurance, or equivalent number of years of nuclear plant experience in a supervisory position, preferably at an operating nuclear plant, or a combination of the two. At least one (1) of these four (4) years of experience shall be nuclear power plant experience in the implementation of the quality assurance program.

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*Equivalency will be determined based upon an evaluation of the following factors:

1. High school diploma or GED.
2. Sixty (60) semester hours of related technical education taught at the college level (900 classroom or instructor conducted hours).
3. Qualified as an NRC senior operator at the assigned plant.
4. Four (4) years of additional experience in his area of responsibility.
5. Four (4) years of supervisory or management experience.
6. Demonstrated ability to communicate clearly (verbally and in writing).
7. Certification of academic ability and knowledge by corporate management.
8. Successful completion of the Engineer-In-Training examination.
9. Professional Engineer License.
10. Associated degree in Engineering or a related science.

OPERATIONAL QUALITY ASSURANCE PROGRAM DESCRIPTION (WPPSS-QA-004)

APPROVED: _____ _____

Manager, Quality *Date Effective*

REVISION NO. 29

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1- ORGANIZATION

1.1 PURPOSE

This section provides a description of the authorities and responsibilities assigned to Supply System organizational units and individuals involved in establishing, implementing, verifying implementation, and measuring the overall effectiveness of the administrative controls and quality assurance program during the initial testing (pre-operational and startup testing) and subsequent operations phases of Supply System nuclear power plants.

1.2 SUPPLY SYSTEM ORGANIZATION

The Supply System organization responsible for establishing, implementing, verifying implementation, and measuring the overall effectiveness of the administrative controls and quality assurance program for its nuclear power plants is as depicted in Figures 1-1 and 1-2. Portions of these activities may be delegated to external organizations qualified to the requirements of this Operational QA Program, hereafter referred to as QA Program; however, the responsibility shall remain with the Supply System.

1.3 MANAGEMENT RESPONSIBILITIES

1.3.1 The Chief Executive Officer is responsible for the establishment of policies and for overall management of Supply System operations. The Chief Executive Officer has issued a Management Statement which commits the Supply System to design, construct, and operate its nuclear power plants without jeopardy to the health and safety of the public. The Chief Executive Officer has the responsibilities as the Chief Nuclear Officer, is the ultimate Supply System authority on matters involving Plant Nuclear Safety and Quality, and appoints the members of the Corporate Nuclear Safety Review Board (CNSRB), including the Chairman and Alternate Chairman. The Chief Nuclear Officer operates through the Vice President, Nuclear Operations; Vice President, Operations Support/Public Information Officer; and Vice President, Administration/Chief Financial Officer, to provide for engineering, construction, procurement, quality assurance/quality control, and operations activities for Supply System nuclear power plants.

1.3.2 The Vice President, Nuclear Operations reports to the chief Executive Officer and is responsible for:

- Safe and efficient operation of Supply System nuclear power plants.
- Safe and successful completion of initial testing activities for WNP-2 (through the WNP-2 Plant General Manager).
- Establishing and monitoring maintenance systems common to operational nuclear power plants.
- Training of nuclear plant staff and support personnel.
- Development of programs and procedures to ensure uniform application at operational nuclear power plants.
- Radiological protection, fire protection, and radioactive waste management.
- Engineering design and analysis support for WNP-2.

To accomplish this role, the Vice President, Nuclear Operations operates through the Plant General Manager; Engineering General Manager; and Manager, Nuclear Training.

1.3.2.1 The Engineering General Manager reports to the Vice President, Nuclear Operations and is responsible for providing project engineering and design control, nuclear fuel supply, and maintenance/operation engineering support as required for WNP-2. The Engineering General Manager is specifically responsible for:

- Developing, maintaining, and implementing design control programs and processes by which plant design, and design changes, and modifications are defined, controlled, and verified.
- Developing and maintaining programs for in-service inspection, and materials and welding engineering.
- Providing engineering support for technical resolution of nuclear safety and licensing issues.
- Maintaining a current engineering data base for WNP-2.
- Implementing configuration control by establishing site-specific policy, procedures, and methods that allow control and accountability.

- Management of major plant modifications, major maintenance tasks, and contractor support.
- The supply, engineering, and efficient in-core management of nuclear fuel.
- Transient analysis and licensing issue resolution to support technical specification changes and reload fuel licensing.
- Reliability and availability analysis to improve plant performance, safety, and maintainability.
- Developing and maintaining fire protection programs.
- Training and qualification of engineering and technical support staff.

The Engineering General Manager operates through the Manager, Design/Projects Engineering; Manager, Technical Services/ Systems Engineering; and Manager, Reactor/Fuels Engineering. The Engineering organization and functional responsibilities of key personnel are described in Chapter 13 of the Final Safety Analysis Report for WNP-2.

1.3.2.2 The Plant General Manager for WNP-2 reports to the Vice President, Nuclear Operations and is directly responsible for safe and efficient operation of the plant in accordance with the requirements of the Operating License, the Plant Technical Specifications, and the Plant Procedures Manual. Some of the specific responsibilities of the Plant General Manager are:

- Planning, coordinating, and directing all test, operation, modification, inspection, maintenance, and refueling activities subsequent to the issuance of an Operating License.
- Authorizing all plant modifications subsequent to the issuance of an Operating License.
- Qualifying and training plant staff.
- Ensuring calibrated measuring and test equipment (including installed instruments covered by the Plant Technical Specifications) is utilized at WNP-2.
- Dispositioning of nonconforming items.
- Implementing the in-service testing program.
- Implementing a fire protection program.

- Off-Site Dose Calculation Manual (ODCM).
- The Radiological Environmental Monitoring Program and Bioassay Program.
- Environmental sciences function which performs nonradiological monitoring and fitness for duty chemical analysis.

The Plant General Manager operates through the Operations Manager, Maintenance Manager, Radiation Protection Manager, and Chemistry Manager. The plant organization and functional responsibilities of key plant personnel are described in Chapter 13 of the Final Safety Analysis Report for WNP-2.

1.3.2.3 The Manager, Nuclear Training reports to the Vice President, Nuclear Operations and is responsible for nuclear training policy and implementation, fire prevention and protection training, technical maintenance of the simulator to support operator training and testing, and training records management for nuclear plant operations.

1.3.3 The Vice President, Operations Support/Public Information Officer reports to the Chief Executive Officer and is responsible for the development and implementation of policies and programs which support operation of Supply System nuclear power plants in the areas of:

- Quality Assurance program definition, implementation and effectiveness.
- Maintaining cognizance of changing regulatory requirements and providing controlled interface between the Supply System and regulatory agencies to assure that commitment documents receive the necessary degree and depth of reviews prior to transmittal.
- Providing licensing support functions in such areas as acquisition and maintenance of nuclear power plant construction permits and operating licenses.
- Safeguards, physical plant security and fitness for duty.
- Emergency preparedness, safety and health.
- Procurement, inventory, spare parts engineering, vendor quality, and warehousing.
- Reviewing in-house and external events for determination of cause and necessary corrective action to minimize potential for recurrence at Supply System nuclear facilities.
- Establishing, managing, and administering the implementation and effectiveness of the Nuclear Safety Issues Program (NSIP).

To accomplish this role, the Vice President operates through the Manager, Quality; Manager, Regulatory Affairs; Manager, Security; and Manager, Procurement.

1.3.3.1 The Manager, Quality reports to the Vice President, Operations Support/PIO and is directly responsible for the definition, direction, and effectiveness of the overall Quality Assurance Program during design, construction, and operation phases of all Supply System nuclear power plants. Major functions of the Quality organization are:

- Establishing and maintaining assurance programs, Nuclear Operation Standards, and department procedures and instructions which incorporate nuclear safety considerations and comply with the Quality Assurance (QA) criteria delineated in Appendix B to 10CFR 50.
- Assuring through reviews, surveillances, assessments, inspections, nondestructive examinations, and audits that Supply System and its suppliers' activities are being performed in a safe and legal manner in accordance with written and approved documents which comply with applicable requirements defined by the assurance programs and Nuclear Operation Standards or Site Wide Procedures.
- Assessing the overall effectiveness of assurance programs' implementation, including evaluation of plant performance and reporting conclusions to the Chief Executive Officer.
- Stopping unsatisfactory work and controlling further processing, delivery, or installation of nonconforming material.
- Establishing and maintaining adequate and qualified assurance staffing levels.
- Providing trending of deficiencies to identify areas where corrective actions have not minimized recurrence.
- Establishing, maintaining, and controlling the Operational QA Program Description (WPPSS-QA-004) and the Supply System Functional Manual for Nuclear Operation.
- Certifying Supply System examination personnel for non-destructive examinations (NDE).
- Qualifying and certifying Supply System Audit Team Leaders, QC inspection and test personnel.
- Acquiring and maintaining ASME Certificates of Authorization and/or Owners Certificates.

- Ensuring that a written agreement with an Authorized Inspection Agency is obtained to provide for Authorized Nuclear In-Service Inspection Services.
- Administering the WNP-2 industry and in-plant operating experience programs.
- Providing the Independent Safety Engineering Group (ISEG) functions for assessing programs, processes and activities of various areas and operations that affect plant nuclear safety and reliability.
- Administering the nonconforming condition and corrective action processing including assisting the cognizant organization in evaluation and determination of the root cause for plant-related events.
- Providing the review and concurrence of selected programs, procedures, and/or instructions affecting safety, including changes thereto, to assure that applicable quality assurance requirements have been identified and specified therein.

The Manager, Quality has effective communication channels with all Supply System senior management positions and has no duties or responsibilities unrelated to quality assurance that would prevent his full attention to Quality Assurance Program matters. To accomplish the above defined role, the Manager, Quality operates through the Supervisors, Quality Services; Supervisor, Quality Programs; and Lead, Supplier Quality.

The qualification requirements for this position are as described in Appendix I, Qualification Requirements.

A management representative from the Quality Organization is a member of the Plant Operations Committee (see Appendix III) and has sufficient authority and organizational freedom to identify problems; to initiate, recommend, or provide solutions; and to verify implementation of solutions. The representative has no duties or responsibilities unrelated to quality assurance matters and has effective communication channels with all plant supervisory and management personnel.

1.3.3.1.1 The Supervisors, Quality Services report to the Manager, Quality and are directly responsible for performing internal Supply System quality assurance functions that are necessary to verify that the QA Program is being effectively implemented. This includes maintaining a sufficient number of qualified auditors to perform QA audits, as required.

Each Supervisor has the authority and responsibility to stop unsatisfactory work and control further processing, delivery, or installation of nonconforming material. When the unit is operating, the Supervisors may recommend that the unit be shut

down; the Plant General Manager, however, has the final responsibility for the overall evaluation of all aspects and implications of shutting down the operating unit.

Qualification requirements for this position is described in Appendix I, Qualification Requirements. The Supervisors, Quality Services are specifically responsible for:

a. Verifying internal Supply System activities to assure that they are being conducted in a safe and legal manner in accordance with approved programs, plans, procedures, or instructions. Such verifications will be in the form of audits, technical assessments, or quality assurance surveillances. Included in the scope of these verifications are: (i) control room operations; post modification/major maintenance testing and operational tests; maintenance, modification, repair, and calibration; personnel training; and refueling activities; (ii) activities associated with satisfying technical specifications and in-service inspection and testing; (iii) activities associated with the implementation of security, fire protection, and radiological protection programs; (iv) activities including engineering, maintenance, modifications, operational problem resolution, technical support activities, and operational analysis that affect plant nuclear safety and reliability; and (v) activities related to procurement, storage and issuance of parts, materials, and services to assure implementation of QA Program and management requirements.

b. Providing the Independent Safety Engineering Group (ISEG) functions involving:

   i. Assessing programs, processes and activities including engineering, maintenance, modifications, operational problems, technical support activities and operational analysis that affect plant nuclear safety and reliability.

   ii. Assessing plant operations and performance regarding conformance to regulatory requirements.

   iii. Evaluating industry operating experience, including recommendations for improvements in overall plant performance involving plant practices, procedures and equipment.

   iv. Providing certain key operating experience information to operators and other plant personnel.

1.3.3.1.2 The Supervisor, Quality Programs reports to the Manager, Quality and is directly responsible for:

- Administration of the nonconforming condition and corrective action program.
- In-plant QC functions and nondestructive examinations.
- Certifying Supply System nondestructive examination, QC, and test personnel.
- Maintaining Quality Program documents.

Qualification requirements for this position are described in Appendix I, Qualification Requirements.

1.3.3.1.3 The Lead, Supplier Quality reports to the Manager, Quality and is directly responsible for the source surveillance/audit program and for assuring that items received for WNP-2 meet the required quality standards, including:

- Establishing vendor witness points for inspection and release of material/ equipment for shipment.
- QC receipt inspection of materials and equipment received by the Supply System.
- Establishing and maintaining evaluated vendors list.
- Planning, coordinating, and performing source surveillances, source inspections, and external audits to verify implementation of vendors' QA/QC programs.
- Reviewing and approving vendor furnished QA/QC procedures and programs.
- Reviewing for acceptance other utility audits furnished through the Nuclear Procurement Issues Committee (NUPIC).

Qualification requirements for this position are described in Appendix I, Qualification Requirements.

1.3.3.2 The Manager, Regulatory Affairs reports to the Vice President, Operations Support/PIO and is responsible for:

- Acquiring and maintaining operating licenses of Supply System nuclear power plants.
- Defining and implementing programs which assure that licensing submittals receive an adequate technical review from cognizant Supply System, NSSS, or AE personnel prior to transmittal.
- Tracking licensing commitments and taking action necessary to assure that they are being met in a timely manner.
- Providing coordinated development of responses and comments to new laws, regulations, regulatory guides, and other regulatory issuances.
- Developing and maintaining an emergency response program that includes plans, implementing procedures, training, and drills and exercises.

1.3.3.3 The Manager, Procurement reports to the Vice President, Operations Support/PIO and is responsible for contracting, procurement and storage control services that support operation and maintenance of Supply System nuclear power plants, the sale and demolition of Projects WNP-3, WNP-4 and WNP-5. These responsibilities include:

- Development of Supply System procurement policies and procedures.
- Procurement of items and services in response to approved purchase requisitions.
- Coding, cataloging, handling, storage, shipping, and disposal of procured items.
- Providing project management for disposition of assets from terminated power projects and disposition of major assets surplus to operating power projects.
- Maintaining the Restricted Use Equipment List (RUEL).
- Providing criteria for Class 1 and commercial grade dedicated spare parts procurement.

1.3.3.4 The Manager, Security Programs reports to the Vice President, Operations Support/ PIO and is responsible for overall Supply System security activities. The Manager, Security Programs is specifically responsible for:

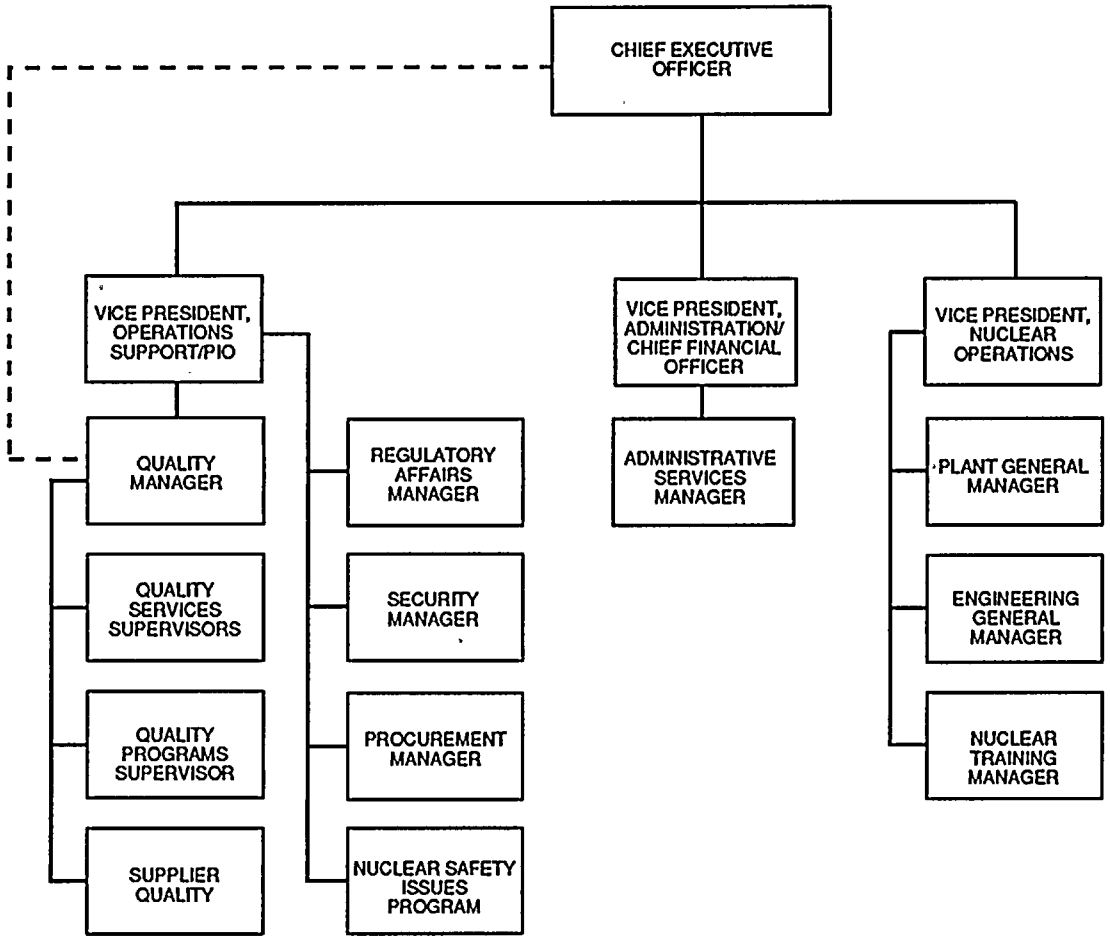
- Administering a security program which includes preemployment screening, physical security surveys and investigations, loss prevention, and fitness for duty.
- Managing the security force by assuring that physical security is consistent with needs and is maintained within individual plant safeguards security plans.
- Providing training, administrative, and technical support to the Plant General Manager in the area of plant security.

1.3.3.5 The Vice President Administration/Chief Financial Officer reports to the Chief Executive Officer and is responsible for providing Administrative Services that are required to Support Operation and Maintenance of WNP-2. To accomplish this role, the Vice President operates through the Manager, Administrative Services.

1.3.3.6 The Manager, Administrative Services reports to the Vice President, Administrative/Chief Financial Officer and is responsible for:

- Developing and implementation of administrative controls for plant procedures, processes and systems to maintain nuclear plant design, construction, and operating records.
- Providing program definition and policy development for Supply System records management activities, which includes processing, retrieval, storage and dispositioning of records.
- Providing administrative support functions necessary for the maintenance of manuals and procedures.
- Managing an administrative process by which engineering-related activities and commitments are assigned, scheduled, tracked, and dispositioned.

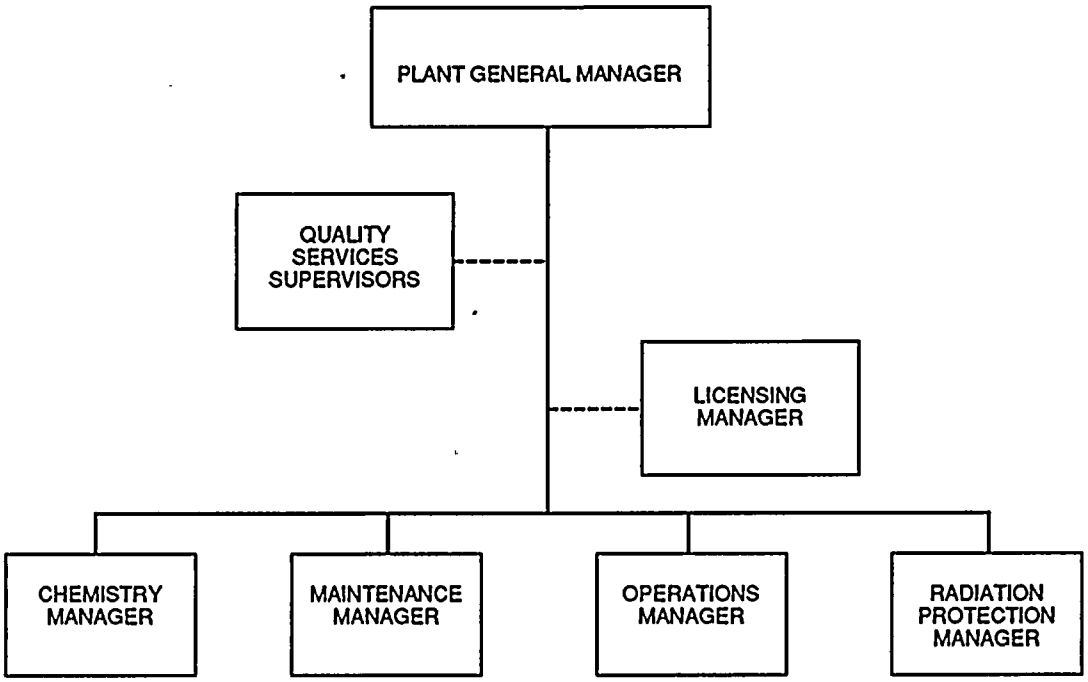
FIGURE 1-1



——— ADMINISTRATION AND FUNCTIONAL REPORTING
– – – COMMUNICATION LINES

890853.1

FIGURE 1-2



——— ADMINISTRATIVE AND FUNCTIONAL REPORTING

------- COMMUNICATION LINES

Supply System Organization Relative To Operational QA

890853.2

2-QUALITY ASSURANCE (QA) PROGRAM

2.1 PURPOSE

This section provides an overall description of the QA Program that will be applied to initial testing and subsequent operation and maintenance activities throughout the life of Supply System nuclear power plants.

2.2 GENERAL

2.2.1 The QA Program will be implemented through a series of Nuclear Operation Standards (NOSs) contained in the Supply System Functional Manual for Nuclear Operation. In turn, these NOSs will be implemented by Supply System organizational procedures, programs, or plans which prescribe detailed methods for functional accomplishment. The NOSs will address the applicable requirements of Appendix B to 10CFR50 is included in Table 2-1. The NOSs and implementing procedures, programs, or plans will collectively comply with the regulatory positions of QA-related Regulatory Guides as identified and modified in Appendix II, Position Statements and the additional Quality Program requirements as identified in Appendix III. The NOSs are being replaced by Site Wide Procedures (SWPs). These procedures contain the same information currently in the NOSs, and implement the QA Program. Table 2-2 lists the SWPs and are cross referenced to the criteria of 10CFR50, Appendix B.

2.2.2 A list of safety-related items that will be subject to the applicable controls of the QA Program is included in the Final Safety Analysis Report (FSAR) for the applicable Supply System nuclear power plant. Changes to this listing shall be controlled by the Engineering, General Manager and approved by the Plant General Manager.

2.2.3 Applicable provisions of the QA Program shall be implemented by the earliest of the following and shall remain in effect for the life of Supply System nuclear power plants:

a. Prior to inception of the activity.

b. At the time of temporary/permanent transfer of system/component custody to Test and Startup organization.

c. Ninety (90) days prior to initial fuel loading.

2.2.4 Revision to the QA Program will be made by the Quality organization as follows:

a. Proposed changes to the QA Program will be evaluated to determine whether or not they would result in a reduction of commitments previously accepted by the Nuclear Regulatory Commission (NRC).

b. Changes that do not reduce the commitments may be implemented prior to forwarding such changes to the NRC. However, all such changes shall be forwarded to the NRC at least annually.

c. Changes that reduce commitments will be forwarded to the NRC for their review and acceptance prior to implementation. Such changes shall be regarded as accepted by the NRC upon receipt of a letter from the NRC to this effect or sixty (60) days after submittal to the NRC, whichever occurs first.

2.2.5 Managers of Supply System organizations responsible for implementing the applicable provisions of the QA Program shall assure that activities that affect safety-related functions of plant items are performed by personnel who have been indoctrinated and trained. The scope, objective, and method of implementing the indoctrination and training program shall be documented. Proficiency of personnel performing activities that affect safety-related functions of plant items shall be maintained by retraining, re-examination, and/or recertifying, as applicable. Methods shall be provided for documenting training.

2.2.6 The scope, implementation, and effectiveness of the QA Program is routinely audited by the Quality organization. Copies of audit reports are presented to Supply System management to provide for assessment of the effectiveness of the QA Program. Additionally, at least once per two (2) years, the Supply System management arranges for an independent evaluation of the adequacy of the scope, implementation, and effectiveness of the QA Program. This is accomplished by knowledgeable personnel outside of the Quality organization to assure achievement of an objective program assessment. Results of these independent evaluations are reported to the Chief Executive Officer, Vice President, Nuclear Operations, and Vice President, Operations Support/PIO.

TABLE 2-1
OPERA-TIONAL QA PROGRAM DESCRIPTION
IMPLEMENTING NUCLEAR OPERATION STANDARDS
(Page 1 of 1)

Nuclear Operation Standards		10CFR50 Appendix B Criterion																	
Number	Title	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
NOS-1	Organizational Responsibilities.Changes	X																	
NOS-2	Control of the Functional Manual for Nuclear Operation	X				X	X												
NOS-3	Operational QA Program Description Control	X					X												
NOS-4	Plant Operations and Maintenance Control	X		X			X		X	X			X	X	X				
NOS-5	Personnel Training, Qualification and Certification	X	X								X								
NOS-6	Review Committees (CNSRB & POC)	X																	
NOS-8	Nuclear Safety Assurance Assessment Program	X																	
NOS-9	Procedures/Instructions Control	X		X		X	X												
NOS-11	Conduct of Licensing Activities	X					X												
NOS-13	Reporting of Incidents	X		X															
NOS-14	Operating Experience Review	X																	
NOS-19	Plant QC Inspection Program	X									X	X							
NOS-20	Quality Assurance Evaluations	X														X	X		X
NOS-21	ASME Pressure Boundary Work	X		X			X	X	X	X	X	X		X	X				
NOS-22	Q-List Control	X		X															
NOS-23	Plant Modification Control	X		X		X					X								
NOS-24	Control of Records	X																X	
NOS-26	Computer Software QA	X		X		X													
NOS-27	Procurement and Storage Control	X			X		X	X						X					
NOS-30	Control of Nonconformances and Corrective Action	X		X			X								X	X	X		
NOS-32	Configuration Management Program	X		X			X												
NOS-33	Inservice Inspections	X					X			X	X	X							
NOS-34	Inservice Testing of Pumps and Valves	X					X				X								
NOS-35	Nuclear Materials Control	X													X				
NOS-36	Chemistry	X													X				
NOS-37	Rad. Environmental Mon. Program	X													X				
NOS-39	Fire Protection Program	X													X				
NOS-41	QA Program for Radioactive Materials Shipping Packages	X																	
NOS-45	Simulator Certification	X	X	X			X					X			X				

TABLE 2-2
OPERA-TIONAL QA PROGRAM DESCRIPTION
IMPLEMENTING SITE WIDE PROCEDURES
(Page 1 of 1)

Site Wide Procedures		10CFR50 Appendix B Criterion																	
Number	Title	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
SWP-PRO-01	Procedure/Instruction Use	X		X		X	X												
SWP-PRO-2	Prep./Review/Approval of Procedures	X		X		X	X												
SWP-PRO-03	Procedure Writer's Manual					X													
SWP-PUR-01	Procurement of Services	X			X		X	X						X					
SWP-PUR-03	Restricted Use Equipment List (RUEL)				X			X											
SWP-PUR-05	Emergency Purchasing				X			X											
SWP-PUR-02	Procurement Technical Reviews	X		X															
SWP-PUR-04	Material Equipment Parts, and Supplies Procurement	X		X	X	X			X				X	X					X
SWP-MMP-01	Control of Ageable Items													X					
SWP-MMP-02	Warehousing							X						X					
SWP-MMP-03	Packaging and Shipping of Material and Equipment							X						X					
SWP-ASU-01	Evaluations of Programs, Processes and Suppliers	X														X	X		X
SWP-FPP-01	Nuclear Fire Protection Program	X	X	X	X	X		X			X	X			X	X	X	X	X
SWP-IRP-01	Plant Operations Committee	X																	
SWP-IRP-02	Corporate Nuclear Safety Review Board	X																	X
SWP-DOC-01	Document Control					X	X												
SWP-EPP-01	Emergency Response Organzation and Training	X	X																
SWP-MAI-01	Work Management Planning Scheduling and Work Activities	X				X	X				X	X				X	X		
SWP-OPS-03	Plant Clearance Orders	X													X				
SWP-REC-01	Records Management	X																X	
SWP-RMP-02	Radiation Waste Process Control Program	X	X														X	X	
SWP-TQS-01	Training, Qualification and Simulators	X	X								X								
SWP-CSW-01	Software QA Program	X		X			X												
SWP-CSW-02	WNP-2 Software Control	X		X			X												
SWP-INS-01	Quality Control Inspection and Peer Verification	X							X	X									

4-PROCUREMENT DOCUMENT CONTROL

4.1 PURPOSE

This section sets forth requirements for preparation, review, and approval of procurement documents and changes thereto in order to control the quality of vendor furnished safety-related plant items and services.

4.2 GENERAL

4.2.1 Procedures/instructions shall be established and implemented to control procurement-related activities such as procurement planning; preparation, review, approval and control of procurement documents; vendor selection; bid evaluations; and review and concurrence of vendor's quality assurance programs. These procedures/instructions shall clearly delineate the sequence of actions to be accomplished in the preparation, review, and approval of procurement-related documents and shall identify those positions or groups responsible for performing those actions.

4.2.2 Procurement documents for items (other than commercial grade off-the-shelf items, as defined in 10CFR21) and for services shall require, where necessary, vendors or subvendors to have a quality assurance program consistent with the applicable provisions of the QA Program.

4.2.3 As deemed necessary, the procurement documents will provide for right of access to the vendor's facilities and records for source inspections/audit by Supply System or its designee.

4.2.4 Procurement documents shall contain or reference applicable technical requirements (such as regulations, specifications, drawings, codes, and standards), test and inspection requirements, and special process instructions that must be complied with by vendors.

4.2.5 Procurement documents shall contain, as applicable, requirements which identify the documentation (such as drawings, specification, inspection and test records, personnel and procedure qualifications, Certificates of Conformance or equivalent certifications, and material chemical and physical test results) to be prepared, maintained, submitted, or made available to Supply System for review and/or approval.

4.2.6 Procurement documents shall be reviewed by independent Procurement personnel. This review will be performed and documented to assure that quality requirements are correctly stated, that they can be inspected and controlled, the vendor is on the current Supply System Evaluated Supplier List, and the procurement documents have been prepared to incorporate appropriate provisions of 4.2.2 through 4.2.5. Quality personnel shall review procurement documents on a sampling basis, either during visits to vendors facilities, or during audits/surveillances, or at receiving inspection.

4.2.7 Changes (other than those that are of administrative nature) to approved procurement documents shall be subjected to the same degree of control that was applied during the preparation of original procurement documents.

6 - DOCUMENT CONTROL

6.1 PURPOSE

This section sets forth requirements for the control of documents pertaining to activities that affect safety-related functions of plant items.

6.2 GENERAL

6.2.1 Procedures shall be established and implemented to control the preparation, review, approval and issuance of documents, including changes thereto, which pertain to activities affecting safety-related functions of plant items. As a minimum, the following types of documents shall be controlled:

a. Operational QA Program Description.

b. Supply System Functional Manual for Nuclear Operation.

c. Design documents (e.g., calculations, drawings, specifications, analyses) including documents related to computer codes.

d. As-built documents.

e. Final Safety Analysis Reports.

f. Procurement documents.

g. Administrative procedures including Site Wide Procedures which address operations, maintenance, technical specifications, inservice inspection and testing, modification, calibration, testing, nonconformance reports, Final Safety Analysis Report, fuel handling and procurement documents.

h. Nonconformance reports.

6.2.2 Procedures that control the preparation, review, approval and issuance of documents, including changes thereto, shall contain provisions which provide assurance that:

a. Type documents listed in paragraph 6.2.1.c through 6.2.1.h are reviewed for technical adequacy, by qualified individuals, prior to approval for release.

b. Procedures listed in paragraph 6.2.1.g are reviewed for inclusion of appropriate quality requirements and concurred with by qualified Quality personnel, prior to approval for release.

NOTE: Review and concurrence requirements by Quality personnel will be considered met by Quality participation in the Plant Operating Committee, or by providing dated signatures on the documents reviewed or on documents traceable to the documents reviewed.

c. Documents are approved for release by authorized personnel prior to implementation.

d. Documents are available at the location where the prescribed activity will be performed prior to commencing the work.

e. Changes (other than those that are of administrative nature) to approved documents are reviewed and approved by the same organizations that performed the original review and approval unless delegated to other appropriately qualified organizations.

f. Approved changes to documents are promptly incorporated into instructions, procedures, drawings and other appropriate documents.

g. Obsolete or superseded documents are controlled to prevent their inadvertent use.

6.2.3 Current revision status of documents, such as instructions, procedures, drawings, and specifications shall be identified and maintained.

12.- CONTROL OF MEASURING AND TEST EQUIPMENT

12.1. PURPOSE

This section sets forth the requirements to establish those measures which will assure that tools, gages, instruments, and other measuring and testing devices used in activities affecting quality are controlled, calibrated, and adjusted at specified periods in order to maintain accuracy within necessary limits.

12.2. GENERAL

12.2.1. Measuring and test equipment (M&TE) shall be calibrated and adjusted using approved procedures/instructions.

12.2.2. A calibration program for the control and use of M&TE shall be established, and implemented. This program, as a minimum, shall provide for:

a. Unique identification of the item and its traceability to the calibration test data.

b. Labeling or tagging (or otherwise controlling) to indicate the due date of the next calibration.

c. Calibration technique and frequency.

d. Generation and maintenance of records which indicate the complete listing of all items under the calibration system together with their current calibration status.

e. Controlled environment conditions for sensitive and close tolerance M&TE.

12.3. M&TE shall be calibrated against certified calibrating standards having known valid relationships to nationally recognized standards. If no national standards exist, the basis for calibration will be documented.

12.4. Calibrating standards that are used for calibrating M&TE shall have tolerance not greater than one fourth (1/4) the tolerance of M&TE. When this is not possible, standards will have an accuracy that assures that the equipment being calibrated will be within the required tolerance. The basis of acceptance will be documented and authorized by the M&TE Standards Laboratory Supervisor. Calibrating standards shall be calibrated against higher level standards.

12.5. M&TE shall be calibrated and maintained at specified periods based on the required accuracy, purpose, stability characteristics, and other conditions affecting the measurement.

12.6. When an item of M&TE is found to be out of calibration, an evaluation shall be made and documented to determine the validity of previous inspection/test results and the disposition to be made of items previously inspected/tested.

15 - NONCONFORMING MATERIALS, PARTS, OR COMPONENTS

15.1 PURPOSE

This section sets forth requirements for the control of safety-related items, services, or activities which do not conform to specified requirements.

15.2 GENERAL

15.2.1 Measures shall be established to control nonconforming items to prevent their inadvertent use or installation. These measures shall include, as appropriate, procedures/instructions for identification, review, documentation, segregation, disposition, approval, and notification to affected organizations of nonconforming items.

15.2.2 Measures shall be established and documented defining the responsibility and authority for determining and approving the disposition of nonconforming items.

15.2.3 Nonconformances shall be documented. This documentation shall:

a. Clearly identify the nonconforming item; and

b. Describe the nonconformance, the disposition of nonconformance, and inspection/test requirements (where applicable).

15.2.4 Nonconforming items shall be reviewed and accepted for use-as-is, rejected, repaired, or reworked in accordance with documented procedures/instructions. The Supply System Quality organization shall review nonconformances on a sampling basis, during audits or surveillances or other reviews to assure that dispositions have been evaluated and approved.

15.2.5 Acceptability of repaired, reworked and replaced item shall be verified and documented by inspecting and/or testing the item in accordance with original inspection and/or test requirements or approved alternatives.

15.2.6 Where feasible, nonconforming items shall be segregated from other acceptable items and/or uniquely identified as nonconforming until properly dispositioned for use.

15.2.7 Reports of nonconformances shall be periodically analyzed by the Supply System Quality organization to identify quality trends. Significant results shall be referred to appropriate management for review and assessment.

18 - AUDITS

18.1 PURPOSE

This section sets forth requirements for auditing to verify implementation and determine the effectiveness of the QA Program.

18.2 GENERAL

18.2.1 A comprehensive system of planned and documented audits by the Quality organization, shall be carried out to verify compliance with applicable aspects of the QA Program. These audits shall consist of both internal audits of Supply System's nuclear power plants and other Supply System organizations and external audits of Supply System vendors performing activities covered by the QA Program.

18.2.2 Audits shall include the objective evaluation of work areas, activities, processes, and items; review of documents and records; and quality-related practices, procedures and instructions to determine the effectiveness of implementation of the QA Program.

18.2.3 Surveillances and assessments performed by the Quality Organization are performed as an intergral part of the evaluation (Audit) program and provide inprocess coverage of the applicable areas to supplement the audit program.

18.2.4 Audits shall be scheduled based upon the status and safety importance of the activities.

18.2.5 Audits shall be performed in accordance with written procedures or check lists and conducted by appropriately trained personnel not having direct responsibilities in the areas being audited.

18.2.6 Audit results shall be documented by auditing personnel and reviewed by management having responsibility in the area audited.

18.2.7 Follow-up action on deficiencies shall be accomplished.

APPENDIX I

QUALIFICATION REQUIREMENTS

The minimum qualification requirements for key Quality Assurance personnel that will be met at the time of initial core loading or appointment to the active positions are specified below.

I.1. The Manager, Quality or both Supervisors, Quality Services fulfill the position described in ANSI/ANS-3.1-1978, Section 4.4.5, Quality Assurance. The qualifications for this position are:

a. Education: Bachelors Degree or equivalent* in Engineering or related science.

b. Six (6) years experience in the field of quality assurance, or equivalent number of years of nuclear industry experience in a supervisory/management position or a combination of the two. At least two (2) years of these six years experience shall be nuclear power plant experience in the overall implementation of the quality assurance program. (This experience shall be obtained within the quality assurance organization.)

I.2. Quality Programs Supervisor or Lead, Supplier Quality

a. Education: Bachelor Degree or equivalent* in Engineering or a related science.

b. Experience: Four (4) years of nuclear plant experience at an operating nuclear plant. At least one (1) of these four (4) years of experience shall be in the implementation of the quality assurance program through participation in the QA or QC function, or involvement in programs subject to QA/QC audits or inspections.

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*Equivalency will be determined based upon an evaluation of the following factors:

1. High school diploma or GED.
2. Sixty (60) semester hours of related technical education taught at the college level (900 classroom or instructor conducted hours).
3. Qualified as an NRC senior operator at the assigned plant.
4. Four (4) years of additional experience in his area of responsibility.
5. Four (4) years of supervisory or management experience.
6. Demonstrated ability to communicate clearly (verbally and in writing).
7. Certification of academic ability and knowledge by corporate management.
8. Successful completion of the Engineer-In-Training examination.
9. Professional Engineer License.
10. Associated degree in Engineering or a related science.

APPENDIX II

"POSITION STATEMENTS"

This Appendix identifies those quality-related Regulatory Guides which the Supply System intends to follow during operations phase of its nuclear power plants. However, where the Regulatory Positions stated in these Regulatory Guides could lead to misunderstanding, or where alternate methods and/or solutions are implemented for accomplishment of Regulatory Positions, they are also described in this Appendix. The Supply System commitments to comply with applicable Regulatory Guides not addressed in this Appendix are or will be documented in the applicable Final Safety Analysis Report. The Supply System Positions, described in this Appendix, will be incorporated by Supply System organizations in their procedures and/or instructions for applicable activities. This Appendix will be revised, as and when necessary, by the Supply System Quality Department, in accordance with the provisions of Section 2 of the QA Program.

II.1 REGULATORY GUIDE 1.8, REV. 1-R (May 1977) - "Personnel Selection and Training"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.8, Rev. 1-R (May 1977). For details, see Chapter 13 of the Final Safety Analysis Report for the applicable nuclear power plant.

II.2 REGULATORY GUIDE 1.26, REV. 3 (February 1976) - "Quality Group Classifications and Standards for Water-, Steam-, and Radioactive- Waste-Containing Components of Nuclear Power Plants"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.26, Rev. 3 (February 1976).

II.3 REGULATORY GUIDE 1.29, REV. 3 (September 1978) - "Seismic Design Classification"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.29, Rev. 3 (September 1978).

II.4 REGULATORY GUIDE 1.30, (Safety Guide 30, August 11, 1972) - "Quality Assurance Requirements for the Installation, Inspection and Testing of Instrumentation and Electric Equipment"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.30 (Safety Guide 30, August 11, 1972), subject to the following:

1. Regulatory Position C.1 of Regulatory Guide 1.30 (Safety Guide 30, August 11, 1972) states that ANSI N45.2.4-1972 should be used in conjunction with ANSI N45.2-1971, "Quality Assurance Program Requirements for Nuclear Power Plants." It is the Supply System position that ANSI N45.2-1971 is not applicable for operational phase activities of nuclear power plants. Instead the Supply System will comply with its Position Statement on Regulatory Guide 1.33.

2. Section 1.1 of ANSI N45.2.4-1972: This standard will be applied to the installation, inspection, and testing of Class 1E instrumentation, electrical systems and/or components for plant modifications comparable in nature and extent to the activities normally occurring during the initial plant design and construction phase.

3. Section 3(3) of ANSI N45.2.4-1972: Checking of records is normally accomplished during periodic surveillances and audits of the storage facility. The checking of storage records for each individual item prior to installation is not planned.

4. Section 5.1.2 of ANSI N45.2.4-1972: Inspections to verify housekeeping will be done as stated in the Supply System position statement on Regulatory Guide 1.39.

5. Section 5.2.1 of ANSI N45.2.4-1972: Tests will include those listed as appropriate. The manufacturers' recommendations shall be considered. The test procedure will specify the actual test to be performed.

6. Section 9 of ANSI N45.2.4-1972: The Supply System position, stated herein, does not address the codes and standards listed and/or referenced in this paragraph. Such position will be developed in the future, if the need arises.

7. Appendix A "Supplementary Provisions for Multi-Unit Stations" to ANSI N45.2.4-1972 is not considered applicable to Supply System nuclear power plants.

8. Appendix B "Additional Codes, Standards and Guides" to ANSI N45.2.4-1972: Refer to Supply System Position on Section 9 of ANSI N45.2.4-1972.

II.5 REGULATORY GUIDE 1.33, REV. 2 (February 1978) - "Quality Assurance Program Requirements (Operation)"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.33, Rev. 2 (February 1978), subject to the following:

1. Regulatory Position C.2 of Regulatory Guide 1.33, Rev. 2 (February 1978) implies that the provisions contained in the latest revisions of the Regulatory Guides, listed therein, will be followed. The Supply System will follow its position statements on applicable Regulatory Guides as described throughout this Appendix.

2. Section 5.2.13.4 of ANSI N18.7-1976/ANS-3.2: The third paragraph of this section is revised to read, "Special handling tools and equipment shall be inspected and/or tested, as necessary, in accordance with written procedures and at specific times to verify that the tools and equipment are adequately maintained."

3. Section 5.2.15 of ANSI N18.7-1976/ANS-3.2: The fourth paragraph of this section is replaced with the following (the remaining text of this section is unchanged):

   "Plant procedures shall be reviewed by an individual knowledgeable in the area affected by the procedures as follows: 1) Nonroutine plant procedures, such as emergency operating procedures, emergency support procedures, abnormal operating procedures (including annunciator response procedures), and emergency plan implementing procedures, and other procedures whose usage may be dictated by an event, shall be reviewed at least every two years and revised as appropriate, 2) Routine plant procedures may be reviewed in several ways, in lieu of once every 2 years: complete use of the procedure; detailed scrutiny of the procedure as part of a documented training program, drill, simulator exercise; or other such activity. A procedure deviation is not acceptable for credit as a biennial review. Evidence of complete procedure use and/or training records shall serve as adequate documentation for performance of the biennial review, 3) Routine plant procedures that have not been used for two years shall be reviewed before use to determine if changes are necessary, and 4) A revision of a procedure includes and constitutes a comprehensive procedure review."

This alternate to the biennial procedure review requirement shall be supported by a Quality Assurance audit of a representative sample of routine plant procedures that are used more frequently than every two years. The audit shall be conducted at least every two years to ensure the acceptability of the procedures, and to verify the procedure review and revision program is being implemented effectively.

The procedure review and revision process is a dynamic process based on the internal identification and/or external receipt of new or revised source material. Evaluation and implementation of proposed changes to procedures occur upon identification of the need for such changes, rather than at a set review period. Programs are in place that determine if procedure revisions are required and when such changes are to be implemented. These programs serve to facilitate the timely review of procedures while ensuring both their accuracy and up-to-date status. Some examples of this dynamic review process used to identify the need for revisions to procedures include: Use of Controlled Plant Procedures; Technical Specification Surveillance Testing; Plant Modifications; Control of Nonconformances and Corrective Action; External Operational Experience Review; Vendors' Operating and Maintenance Manuals; Technical Specification, FSAR, ODCM Change Control Process; Revision of Master Data Sheets and Setpoints; Conduct of Infrequently Performed Tests or Evolutions; Conduct of Licensing Activities; and Review Committees.

4. Section 5.2.17 of ANSI N18.7-1976/ANS-3.2 states that inspection of operating activities may be conducted by second-line supervisory personnel or by other qualified personnel not assigned first-line supervisory responsibility for conduct of the work. The Supply System position is to allow the plant operations' first-line supervisors to perform inspections of surveillance tests, provided that an after-the-fact review of surveillance documentation is performed by the second-line supervisor or by other personnel not assigned first-line responsibility for the conduct of the work.

5. Sections 5.2.19.1 and 5.2.19.2 of ANSI N18.7-1976/ANS-3.2 describe rules of practice for preoperational and startup test program. The Supply System intends to comply with the provisions of these sections. In cases, where conflicts exist between these sections and Regulatory Guide 1.68, the Supply System will comply with the implementation of Regulatory Guide 1.68 as described in Chapter 14 "Initial Test Program" of the Final Safety Analysis Report.

II.6 REGULATORY GUIDE 1.37, (March 16, 1973) - "Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.37, (March 16, 1973), subject to the following:

1. Regulatory Position C.4 of Regulatory Guide 1.37 (March 16, 1973) states, in part, "Chemical compounds that could contribute to intergranular cracking or stress-corrosion cracking should not be used with austenitic stainless steel and nickel-base alloys." In clarification, the Supply System will either follow the chemical composition limits established by its Nuclear Steam Supply System vendor or establish such limits based upon a documented engineering evaluation.

2. Regulatory Position C.5 of Regulatory Guide 1.37 (March 16, 1973) states, in part, "Specifically, tools which contain materials that could contribute to intergranular cracking or which, because of previous usage, may have become contaminated with such materials should not be used on surfaces of corrosion-resistant alloys." In clarification, the Supply System will either follow the chemical composition limits established by its Nuclear Steam Supply System (NSSS) vendor, or establish such limits based upon a documented engineering evaluation.

3. Section 2.1 of ANSI N45.2.1-1973 states, in part, "Planning for cleaning activities shall include a review of the system and component design specifications and drawings. In clarification of this requirement, a review of system and component design specifications and drawings will be required for only those modifications which change the design of a fluid system.

4. Section 2.3 of ANSI N45.2.1-1973, last sentence, is revised to read, "Test reports shall include an evaluation of the acceptability of inspection and test results and provide for identifying the individual who performed the evaluation."

5. Section 3.1.2.1 of ANSI N45.2.1-1973 states, in part, "Scattered areas of rust are permissible provided the aggregate area of rust does not exceed two square inches in any one square foot area." The Supply System considers this two square inch limit as a guide only. Adequate discretion by experienced personnel will be used in all cases.

6. Section 3.1.2.5 of ANSI N45.2.1-1973 states, in part, "There shall be no evidence of organic contamination in the effluent water or on the filter." The Supply System intends to comply with this requirement. The presence of organic contamination will be determined visually or by feel.

7. Section 4 of ANSI N45.2.1-1973, second sentence, is revised to read, "Inspections, examinations, or tests for cleanliness shall be performed if it is suspected that cleanliness has been affected by transportation to, or storage at the installation site."

8. Section 7.4 of ANSI N45.2.1-1973 requires checking of cleaning solutions for effectiveness of inhibitors (if used). In clarification of this requirement, the effectiveness of inhibitors (if used) will be determined by documentation in technical literature or manufacturer's or vendor's recommendations.

11.7 REGULATORY GUIDE 1.38, REV. 2 (May 1977) - "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage and Handling of Items for Water-Cooled Nuclear Power Plants"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.38, Rev. 2 (May 1977), subject to the following:

1. Section 3.2.1 (1) of ANSI N45.2.2-1972: Temperature and humidity control considerations for packaging of Level A items are not considered applicable to nuclear fuel assemblies unless recommended otherwise by the nuclear fuel manufacturer. The Supply System will abide by the manufacturer's recommendation.

2. Section 3.5.2 of ANSI N45.2.2-1972, last sentence, is revised to read as, "Tapes used for identification rather than sealing which are not near a welding operation may remain indefinitely (see also Appendix Section 3.5.2 for additional requirements)."

3. Section 3.7.1 (1) of ANSI N45.2.2-1972: The Supply System may use cleated, sheathed boxes for loads up to 1,000 pounds rather than 500 pounds limit imposed here. This type of box has been tested by the WNP-2 Nuclear Steam Supply System vendor and found safe for loads up to 1,000 pounds. Other national standards allow the 1,000 pound designation (see Federal Specification PPP-B-601).

4. Section 6.1.2 (1) of ANSI N45.2.2-1972: Temperature and humidity controls required for storage of Level A items are not considered applicable for nuclear fuel assemblies unless recommended otherwise by the nuclear fuel manufacturer. The Supply System will abide by the manufacturer's recommendation.

5. Section 6.4.2 of ANSI N45.2.2 gives detailed requirements for care of items in storage. In clarification, the Supply System will either follow manufacturer's recommendation or follow its own requirements, established based upon a documented engineering evaluation, concerning maintenance of protective covers, seals, and caps; maintenance of preservatives and inert atmosphere; energization of instrument racks and space heaters; insulation resistance testing; and rotation of shafts for rotating equipment.

6. Appendix Sections A3.4.1 (4) and A3.4.1 (5) of ANSI N45.2.2-1972: During printing of the standard, a transposition occurred between the last sentences of these sections. The Supply System will comply with the correct wording which reads as follows:

   A3.4.1 (4), last sentence: However, preservatives for inaccessible inside surfaces of pumps, valves and pipe for systems containing reactor coolant water shall be the water flushable type.

   A3.4.1 (5): The name of the preservative used shall be indicated to facilitate touch up.

II.8 <u>REGULATORY GUIDE 1.39, REV. 2 (September 1977) - "Housekeeping Requirements for Water-Cooled Nuclear Power Plants"</u>

The Supply System will implement the Regulatory Position of Regulatory Guide 1.39, Rev. 2 (September 1977), subject to the following:

Section 2.1 of ANSI N45.2.3-1973 requires the establishment of cleanness requirements for housekeeping activities on the basis of zone designations. The Supply System considers these zone designations and the requirements associated with each zone as impractical for implementation during the operations phase. Procedures or instructions for housekeeping activities, which include the applicable requirements outlined in Section 2.1 of ANSI N45.2.3-1973 and which take into account the radiation control considerations, security considerations and cleanness requirements, will be developed on case by case basis for maintenance and modification work to be performed.

II.9 REGULATORY GUIDE 1.58, REV. 1 (September 1980) - "Qualification of Nuclear Power Plant Inspection, Examination and Testing Personnel"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.58, Rev. 1 (September 1980), subject to the following:

1. Regulatory Position C.5 of Regulatory Guide 1.58, Rev. 1 (September 1980) implies that individuals who review and approve inspection, examination, and testing procedures and those who evaluate the adequacy of such procedures to accomplish the inspection, examination, and test objectives, should meet the Level III capability requirements delineated in Table I of ANSI/ASME N45.2.6-1978. Not all Supply System personnel performing the types of cited functions will meet the Level III capability requirements of Table 1 of ANSI/ASME N45.2.6-1978. However, personnel performing the cited functions will be determined by Supply System management (through evaluation of their education, training, and experience) to be fully qualified and competent. The basis for the determination will be documented.

2. Section 1.2 of ANSI/ASME N45.2.6-1978, fourth paragraph, states that the requirements of this Standard apply to personnel of the owners and their suppliers. In clarification, the extent of application of the requirements of ANSI/ASME N45.2.6-1978 to Supply System suppliers will depend upon the nature and extent of materials or services furnished, and as further described in Supply System positions on Section 2.4 and 3 of ANSI/ASME N45.2.6-1978.

3. Section 2.1.2 of ANSI/ASME N45.2.6-1978 implies that personnel performing non-NDE type of inspections, examinations, and testing will be formally certified. The Supply System does not plan this formal certification. Instead, the Supply System will select such personnel to predetermined qualification requirements for the specific task based on their education, experience, and training. Formal training records, when used as the basis for qualification, will be maintained on file.

4. Section 2.4 of ANSI/ASME N45.2.6-1978 requires issuance of formal certification to individuals and specifies the details of the information to be included in the certificate. The Supply System does not plan to issue formal certificates to individuals within the scope of ANSI/ASME N45.2.6-1978 and Regulatory Guide 1.8. However, information similar to that described in this section of the Standard will be available in documented form attesting that the individual is capable of performing the assigned task(s). The Supply System will use a similar approach in evaluating supplier compliance with this section of the Standard.

5. Section 3 of ANSI/ASME N45.2.6-1978 divides the capability requirements of inspection, examination, and testing personnel into three levels, namely Level I, Level II, and Level III. The Supply System will not assign these levels to its personnel performing inspection, examination, and testing activities. However, the selection of personnel for particular tasks will be such as to match the capabilities to the types of tasks and maintain the intent of the three levels. The judgement to determine that a person's qualifications and capabilities meet the intent of a certain level of inspection, examination, and testing function is made through the normal management process by using established administrative and personnel procedures. Documentation for such justification will be maintained on file. A similar approach will be used to evaluate the qualifications of non-NDE personnel of Supply System suppliers.

II.10 REGULATORY GUIDE 1.64, REV. 2 (June 1976) - "Quality Assurance Requirements for the Design of Nuclear Power Plants"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.64, Rev. 2 (June 1976), subject to the following:

Regulatory Position C.2 of Regulatory Guide 1.64, Rev. 2 (June 1976) states that individuals performing design verification should not have immediate supervisory responsibility for the individual performing the design. It further states that while design verification by the immediate supervisor is encouraged, it should not be construed that such verification constitutes the required independent design verification. It is the Supply System position that if the designer's immediate supervisor is the most technically qualified individual available in the organization to perform a design verification by design review, this review may be conducted by the supervisor, providing that:

a. The justification is individually documented and approved in advance by the supervisor's management and

b. Quality Assurance audits, surveillances, or assessments cover the frequency and effectiveness of use of supervisors as design verifiers to guard against abuse.

II.11 REGULATORY GUIDE 1.74 (February 1974) - "Quality Assurance Terms and Definitions"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.74 (February 1974), subject to the following:

1. Regulatory Position "C" of Regulatory Guide 1.74 (February 1974) specifies certain documents recommended be included in the definition of "procurement documents", defined in ANSI N45.2.10-1973. The Supply System will use the following definition:

   Procurement Documents - Purchase requisitions, purchase orders and contracts with attachments necessary to specify/verify requirements.

2. Section 2 of ANSI N45.2.10-1973: The definition of "specification" is revised to read as follows:

   Specification - A statement of a set of requirements to be satisfied by a product, a material, a service or process indicating, whenever appropriate, the procedure by means of which it may be determined whether the requirements given are satisfied.

II.12 REGULATORY GUIDE 1.88, REV. 2 (October 1976) - "Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.88, Rev. 2 (October 1976), subject to the following:

1. Regulatory Position C.2 of Regulatory Guide 1.88, Rev. 2 (October 1976) endorses the 4-hour fire rating requirements for a single records storage facility as described in Section 5.6 of ANSI N45.2.9-1974. The Supply System modifies this 4-hour rating requirement of ANSI N45.2.9-1974 to 2-hour fire rating requirement. Accordingly, the Supply System will comply with a substitute to the third, fourth, and fifth paragraphs of Section 5.6 of ANSI N45.2.9-1974 which reads, "Where a single record storage is maintained, the QA records shall be maintained in any one of the following four (4):

a. A 2-hour vault meeting NFPA (National Fire Protection Association) No. 232-1975 without additional provisions.

b. 2-hour rated file containers meeting NFPA No. 232-1975 (Class B) without additional NFPA provisions.

c. 2-hour rated fire resistant file room meeting NFPA No. 232-1975 with the following additional provisions:

(1) Early warning fire detection and automatic fire suppression shall be provided, with electronic supervision at a constantly attended central station.

(2) Records shall be stored in fully enclosed metal cabinets. Records shall not be permitted on open steel shelving. No storage of records shall be permitted on the floor of the facility. Adequate access and aisle ways shall be maintained at all times throughout the facility.

(3) Work not directly associated with records storage or retrieval shall be prohibited within the records storage facility. Examples of such prohibited activities include but are not limited to: records reproduction, film developing, and fabrication of microfiche cards.

(4) Smoking and eating/drinking shall be prohibited throughout the records storage facility.

(5) Ventilation, temperature, and humidity control equipment shall be protected inside with standard fire-door dampers where they penetrate fire barriers bounding the facility.

d. A 2-hour fire rated facility meeting the following criteria and provisions:

(1) Reinforced concrete, concrete block, masonry, or equal construction.

(2) Floor and roof with drainage control. If floor drain is provided, a check valve (or equal) shall be included.

(3) Doors, structure and frames, and hardware shall be designed to comply with the requirements of a minimum 2-hour fire rating.

(4) Sealant applied over walls as a moisture or condensation barrier.

(5) Surface sealant on floor providing a hard wear surface to minimize concrete dusting.

(6) Foundation sealant and provisions for drainage.

(7) Forced air circulation with filter system.

(8) Fire Protection System.

(9) Only those penetrations used exclusively for fire protection, communication, lighting, or temperature/humidity control are allowed; all such penetrations shall be sealed or dampered to comply with the minimum 2-hour fire protection rating.

(10) The construction details shall be reviewed for adequacy of protection of contents by a person who is competent in the technical field of fire protection and fire extinguishing.

(11) If the facility is located within a building or structure, the environment and construction of that building can provide a portion or all of the criteria (1) through (9).

2. Section 3.2.2 of ANSI N45.2.9-1974 is revised to read, "Index - The quality assurance records shall be indexed. The indexing system(s) shall include, as a minimum, record retention times and the location of the records within the record system. The indexing system(s) shall provide sufficient information which can be used to identify item(s) or activity(ies)."

3. Section 5.4.3 of ANSI N45.2.9-1974 is revised to read, "Special Processed Records - Provisions shall be made for special processed records (such as radiographs, photographs, negatives, and microfilm) to prevent damage from excessive light, stacking, electromagnetic fields, and temperature. These provisions will be delineated in procedures and/or instructions which will incorporate, or take into consideration, available manufacturers' recommendations."

4. Section 5.2 of ANSI N45.2.9 - 1974 is revised by adding a new second paragraph, Quality Assurance records may be maintained in temporary storage with the originating organization until transfer to the permanent plant file. Written storage procedures shall be prepared and a custodian designated with the responsibility to enforce the procedures. Storage procedures shall, at a minimum, address the following:

   a. Identification of the records may be maintained in temporarily stored, the type of storage (single or dual) and the record storage location.

   b. Use of lockable temporary storage containers with a minimum one hour fire rating and an Underwriters' Laboratory (UL) label (or equivalent). If the container does not have a fire rating label, the container should be certified by an individual competent in the field of fire protection.

   c. Use of "out" cards or other similar methods to track records removed from the file.

   d. Designation of a custodian with the authority to enforce the storage procedures.

   e. Provisions shall be made in the storage arrangement to prevent damage from condensation.

   f. Records shall not be stored loosely. Records shall be firmly attached in binders or placed in folders or envelopes for storage on shelving in containers. Steel file cabinets are preferred.

   g. Provisions shall be made for special processed records (such as radiographs, photographs, negatives, and microfilm) to prevent damage from excessive light, stacking, electromagnetic fields, and temperature. these provisions shall be delineated in procedures and/or instructions which will incorporate, or take into consideration, available manufacturers' recommendations.

II.13 REGULATORY GUIDE 1.94, REV. 1 (April 1976) - "Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Steel During the Construction Phase of Nuclear Power Plants"

Regulatory Guide 1.94, Rev. 1 (April 1976) is not considered applicable to operations phase activities. However, the Regulatory Position of Regulatory Guide 1.94, Rev. 1 (April 1976), where appropriate, will be implemented for those applicable operational phase activities that are comparable to construction phase activities.

II.14 REGULATORY GUIDE 1.116, REV. 0-R (May 1977) - "Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.116, Rev. 0-R, (May 1977), subject to the following:

1. Regulatory Position C.3 of Regulatory Guide 1.116, Rev. 0-R (May 1977) recommends that the requirements of Section 5 of ANSI N45.2.8-1975 pertaining to preoperational tests, cold functional tests, and hot functional tests should be used in conjunction with Regulatory Guide 1.68. The Supply System will comply with the implementation of Regulatory Guide 1.68 as described in Chapter 14, "Initial Test Program," of the Final Safety Analysis Report.

2. Section 2.3 of ANSI N45.2.8-1975, last sentence is revised to read, "Test reports shall include an evaluation of the acceptability of inspection and test results and provide for identifying the individual who performed the evaluation."

3. Section 2.8.2 of ANSI N45.2.8-1975 states, "Records of calibration shall be included in inspection and test results." The Supply System does not intend to include calibration records in inspection and test results. Instead, the calibration records will be maintained in a separate file.

4. Section 2.9.e(6) of ANSI.2.8.1975 states, "Evidence that engineering or design changes are documented and approved prior to installation." The Supply System may permit installation of an item prior to approval of the related engineering or design change provided procedural controls, requiring evidence of engineering or design change approval prior to placing the affected item into service, are instituted.

II.15 REGULATORY GUIDE 1.123, REV. 1 (July 1977) - "Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.123, Rev. 1 (July 1977), subject to the following:

Section 1.3 of ANSI N45.2.13-1976: The Supply System will comply with the definition of "procurement documents" as stated in its position statement on Regulatory Guide 1.74 (February 1974).

II.16 REGULATORY GUIDE 1.144, REV. 1 (September 1980) - "Auditing of Quality Assurance Programs for Nuclear Power Plants"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.144, Rev. 1 (September 1980), subject to the following:

Section 4.4.4 of ANSI N45.2.12-1977 requires the audit report to include an evaluation statement regarding the effectiveness of the quality assurance program elements that were audited. Since the audit by its very nature is an evaluation of the quality assurance program effectiveness, the audit report itself is considered to be an evaluation of the quality assurance program effectiveness. Therefore, this section of the Standard is revised to read "A Summary of Audit Results."

II.17 REGULATORY GUIDE 1.146, (August 1980) - Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.146 (August 1980) to ANSI N45.2.23-1978.

APPENDIX III

"ADDITIONAL QUALITY PROGRAM REQUIREMENTS"

This Appendix identifies additional quality program requirements that were formally located in the WNP-2 Technical Specification, Section 6.0, Administrative Controls. To implement the Improved Technical Specification Program, several requirements from Section 6.0 were required to be relocated into the Operational Quality Assurance Program Description. The following requirements have been incorporated by Supply System organizations into their procedures and/or instructions. This Appendix will be revised, as and when necessary, by the Supply System Quality Department, in accordance with the provisions of Section 2 of the QA Program.

1.0 NUCLEAR SAFETY ASSURANCE DIVISION (NSAD)

1.1 The NSAD shall function to examine unit operating characteristics, NRC issuances, industry advisories, Licensee Event Reports, and other sources of unit design and operating experience information, including units of similar design, which may indicate areas for improving unit safety. The NSAD shall make detailed recommendations for revised procedures, equipment and modifications, maintenance activities, operations activities, or other means of improving unit safety to the Quality Manager.

1.1.1 The NSAD shall be composed of at least five, dedicated, full-time engineers, with a minimum of three located on site. Each shall have a bachelor's degree in engineering or related science or qualifications meeting ANS.3.1 Draft Revision dated March 13, 1981, Section 4.2 or 4.4, or equivalent, as described in Section 4.1 and at least 2 years professional level experience in his field, at least 1 year of which experience shall be in the nuclear field.

1.1.2 The NSAD shall be responsible for maintaining surveillance of unit activities to provide independent verification (not responsible for sign-off function) that these activities are performed correctly and that human errors are reduced as much as practical.

1.1.3 Records of activities performed by the NSAD shall be prepared, maintained, and forwarded each calendar month to the Quality Manager.

2.0 REVIEW AND AUDIT

2.1 PLANT OPERATIONS COMMITTEE (POC)

The POC shall function to advise the Plant General Manager on all matters related to nuclear safety.

2.1.1 The POC shall be composed of individuals experienced in one of the following functional areas:

Operations	Administrative Services
Maintenance	Radiation Protection
Engineering	Technical Services
Quality	Chemistry

2.1.2 The Plant General Manager, the POC Chairman, shall appoint, in writing, the POC Vice Chairman, and individual members. The qualifications of all members shall meet the requirements of ANSI/ANS-3.1-1981, Section 4.7, and have, cumulatively, expertise in the areas listed in 2.1.1, as a minimum.

2.1.3 All POC alternate members shall be appointed in writing by the POC Chairman or Vice Chairman to serve on a temporary basis.

2.1.4 The Plant Operations Committee shall meet at least once per calendar month and as convened by the POC Chairman or his designated alternate.

2.1.5 The quorum of the POC necessary for the performance of the POC responsibility and authority provisions of these requirements shall consist of the Chairman or Vice Chairman and four members including alternates. No more than two alternates shall make up the quorum.

2.1.6 The POC shall be responsible for:

a. Review of 10CFR50.59 Safety Evaluations associated with procedures and programs required by Technical Specification 5.4 and changes thereto.

b. Review of all proposed tests and experiments that affect nuclear safety;

c. Review of all proposed changes to the Appendix A Technical Specifications;

d. Review of all proposed changes or modifications to unit system or equipment that affect nuclear safety;

e. Investigation of all violations of the Technical Specifications, including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence, to the Chief Nuclear Officer and to the Corporate Nuclear Safety Review Board;

f. Review of all REPORTABLE EVENTS;

g. Review of unit operations to detect potential hazards to nuclear safety;

h. Performance of special reviews, investigations, or analyses and reports thereon as requested by the Plant General Manager or the Corporate Nuclear Safety Review Board;

i. Review of the Security Plan and submittal of recommended changes to the Corporate Nuclear Safety Review Board;

j. Review of the Emergency Plan and submittal of recommended changes to the Corporate Nuclear Safety Review Board;

k. Review of any accidental, unplanned, or uncontrolled radioactive release including the preparation of reports covering evaluation, recommendations, and disposition of the corrective action to prevent recurrence and the forwarding of these reports to the Chief Nuclear Officer and to the Corporate Nuclear Safety Review Board; and

l. Review of changes to the PROCESS CONTROL PROGRAM and the OFFSITE DOSE CALCULATION MANUAL.

2.1.7 The POC shall:

a. Recommend in writing to the Plant General Manager approval or disapproval of items considered under Appendix III, 2.1.6a. through d. prior to their implementation.

b. Render determinations in writing with regard to whether or not each item considered under Appendix III, 2.1.6a. through e. constitutes an unreviewed safety question as defined in 10 CFR 50.59.

c. Provide written notification within 24 hours to the Chief Nuclear Officer and the Corporate Nuclear Safety Review Board of disagreement between the POC and the Plant General Manager; however, the Plant General Manager shall have responsibility for resolution of such disagreements pursuant to Technical Specification 5.1.1.

2.1.8 The POC shall maintain written minutes of each POC meeting that, at a minimum, document the results of all POC activities performed under the responsibility provisions of these Specifications. Copies shall be provided to the Chief Nuclear Officer and the Corporate Nuclear Safety Review Board.

2.2 CORPORATE NUCLEAR SAFETY REVIEW BOARD (CNSRB)

2.2.1 The CNSRB shall function to provide independent review and audit of designated activities in the areas of:

a. Nuclear power plant operations,

b. Nuclear engineering,

c. Chemistry and radiochemistry,

d. Metallurgy,

e. Instrumentation and control,

f. Radiological safety,

g. Mechanical and electrical engineering, and

h. Quality Assurance practices.

The CNSRB shall report to and advise the Chief Nuclear Officer on those areas of responsibility in Appendix III, 2.2.7 and 2.2.8.

2.2.2 The CNSRB shall be composed of at least nine and no more than twelve members, appointed in writing by the Chief Nuclear Officer from his senior technical staff and/or from outside the Supply System. He shall designate from the members a Chairman and an Alternate Chairman. The qualifications of all members shall meet the minimum requirements of Section 4.7 of ANSI/ ANS 3.1-1981 and have, cumulatively, expertise in the areas listed in Appendix III, 2.2.1, as a minimum.

2.2.3 All alternate members shall be appointed in writing by the CNSRB Chairman to serve on a temporary basis; however, no more than two alternates shall participate as voting members in CNSRB activities at any one time.

2.2.4 Consultants shall be utilized as determined by the CNSRB Committee to provide expert advice to the CNSRB.

2.2.5 The CNSRB shall meet at least once per calendar quarter during the initial year of unit operation following fuel loading and at least once per 6 months thereafter.

2.2.6 The quorum of the CNSRB necessary for the performance of the CNSRB review and audit functions of these specifications shall consist of the Chairman or the alternate Chairman and at least four CNSRB members including alternates. The quorum shall consist of not less than the majority of the members, or duly appointed alternates. No more than a minority of the quorum shall have line responsibility for operation of the unit.

2.2.7 The CNSRB shall review:

a. The safety evaluations for (1) changes to procedures, equipment or systems and (2) tests or experiments completed under the provision of 10 CFR 50.59 to verify that such actions did not constitute an unreviewed safety question;

b. Proposed changes to procedures, equipment, or systems which involve an unreviewed safety question as defined in 10 CFR 50.59;

c. Proposed tests or experiments which involve an unreviewed safety question as defined in 10 CFR 50.59;

d. Proposed changes to Technical Specifications or the Operating License;

e. Violations of codes, regulations, orders, Technical Specifications, license requirements, or of internal procedures or instruction having nuclear safety significance;

f. Significant operating abnormalities or deviations from normal and expected performance of unit equipment that affect nuclear safety;

g. All REPORTABLE EVENTS;

h. All recognized indications of an unanticipated deficiency in some aspect of design or operation of structures, systems, or components that could affect nuclear safety; and

i. Reports and meeting minutes of the POC.

j. Audit reports and summary reports of audits.

2.2.8 Audits of unit activities shall be performed under the cognizance of the CNSRB. These audits shall encompass:

a. The conformance of unit operation to provisions contained within the Technical Specifications and applicable license conditions at least once per 12 months;

b. The performance, training and qualifications of the entire unit staff at least once per 12 months;

c. The results of actions taken to correct deficiencies occurring in unit equipment, structures, systems, or method of operation that affect nuclear safety, at least once per 6 months;

d. The performance of activities required by the Operational Quality Assurance Program to meet the criteria of Appendix B, 10 CFR Part 50, at least once per 24 months;

e. The fire protection programmatic controls including the implementing procedures at least once per 24 months by qualified licenses QA personnel;

f. The Emergency Plan and implementing procedures at least once per 12 months per 10 CFR 50.54(t).

g. The Security Plan and implementing procedures at least once per 12 months.

h. The fire protection equipment and program implementation, at least once per 12 months utilizing either a qualified offsite licensee fire protection engineer(s) or an outside independent fire protection consultant. An outside independent fire protection consultant shall be utilized at least once every third year; and

i. Any other area of unit operation considered appropriate by the CNSRB or the Chief Nuclear Officer.

j. The radiological environmental monitoring program and the results thereof at least once per 12 months.

k. The OFFSITE DOSE CALCULATION MANUAL and implementing procedures at least once per 24 months.

l. The PROCESS CONTROL PROGRAM and implementing procedures for processing and packaging of radioactive wastes at least once per 24 months.

m. The performance of activities required by the Quality Assurance Program for effluent and environmental monitoring at least once per 12 months.

2.2.9 Records of CNSRB activities shall be prepared, approved, and distributed as indicated below:

a. Items identified at each CNSRB meeting that require actions shall be identified and tracked. These actions shall be resolved in a time frame commensurate with their importance to safety.

b. Minutes of each CNSRB meeting shall be prepared, approved, and forwarded to the Chief Nuclear Officer within 15 working days following each meeting.

c. Reports of reviews encompassed by Appendix III, 2.2.7 above, shall be prepared, approved, and forwarded to the Chief Executive Officer within 15 working days following completion of the review.

d. Audit reports encompassed by Appendix III, 2.2.8 shall be forwarded to the Chief Nuclear Officer and to the management positions responsible for the areas audited within 30 days after completion of the audit.

3.0 PROCEDURES AND PROGRAMS

3.1 Each procedure of Technical Specification 5.4.1, and changes thereto, shall be reviewed and approved as specified by Appendix III, 4.0, prior to implementation and reviewed periodically as set forth in administrative procedures.

3.2 Temporary changes to procedures of Technical Specification 5.4.1a. through e. may be made provided:

a. The intent of the original procedure is not altered;

b. The change is approved by two members of the unit management staff, at least one of these individuals shall be the supervisor in charge of the shift and holds a Senior Operator license on the unit affected; and

c. The change is documented and reviewed by the appropriate member(s) of Plant management, within 14 days of implementation.

4.0 REVIEW AND APPROVAL OF PROGRAMS AND PROCEDURES

4.1 The procedure review and approval process shall be controlled and implemented by administrative procedure(s).

4.2 Each program and procedure required by Technical Specification 5.4 and other procedures that affect nuclear safety, and changes thereto, shall be reviewed by a minimum of two technical reviewers; i.e., the procedure sponsor and a Qualified Procedure Reviewer who are knowledgeable in the affected functional area. The Qualified Procedure Reviewer shall not be the individual who prepared the procedure or procedure change. The Qualified Procedure Reviewer, or procedure sponsor shall determine the need for cross disciplinary reviews. All required cross-disciplinary reviews of new procedures, procedure revisions or changes thereto shall be completed prior to approval.

4.3 Qualified Procedure Reviewer(s) shall meet or exceed the qualifications described in Section 4 of ANSI N18.1-1971 for applicable positions, with the exclusion of the positions identified in Section 4.3.1 and 4.5. Individuals whose positions are described in Section 4.3.1 and 4.5 may qualify as qualified procedure reviewers provided they meet the qualification described in other portions of Section 4.

4.4 Each program and procedure required by Technical Specification 5.4 and other procedures that affect nuclear safety, and changes thereto, shall be reviewed to determine if a 10 CFR 50.59 Safety Evaluation is required. This review shall be accomplished by two individuals, who are knowledgeable in the affected functional area. These individuals shall meet or exceed the qualifications described in Section 4 of ANSI N18.1-1971 for the appplicable positions. Safety evaluations, when required, shall be reviewed by POC per OQAPD, Appendix III, 2.1.6.a.

4.5 Nuclear safety related procedures and procedure changes shall be reviewed and approved, prior to implementation, by the appropriate member(s) of management, as determined by the Plant General Manager and as specified in Administrative Control Procedures.

4.6 All changes to the Process Control Program (PCP) and the Offsite Dose Calculation Manual (ODCM) shall be reviewed by POC and approved by the Plant General Manager prior to implementation.

5.0 RECORD RETENTION

A Records Disposition Program was established to manage the identification, retention, retirement and disposal of Supply System records and documents. Refer to the Records Disposition Program to insure compliance with various Federal and Washington State record retention requirements.

5.1 In addition to the applicable record retention requirements of Title 10, Code of Federal Regulations, the following records shall be retained for at least the minimum period indicated.

5.2 The following records shall be retained for at least 5 years:

a. Records and logs of unit operation covering time interval at each power level.

b. Records and logs of principal maintenance activities, inspections, repair, and replacement of principal items of equipment related to nuclear safety.

c. ALL REPORTABLE OCCURRENCES submitted to the Commission.

d. Records of surveillance activities, inspections, and calibrations required by the Plant Technical Specifications.

e. Records of changes made to the procedures required by Technical Specification 5.4.1.

f. Records of radioactive shipments.

g. Records of sealed source and fission detector leak tests and results.

h. Records of annual physical inventory of all sealed source material of record.

5.3 The following records shall be retained for the duration of the unit Operating License:

a. Records and drawing changes reflecting unit design modifications made to systems and equipment described in the Final Safety Analysis Report (FSAR).

b. Records of new and irradiated fuel inventory, fuel transfers, and assembly burnup histories.

c. Records of radiation exposure for all individuals entering radiation control areas.

d. Records of gaseous and liquid radioactive material released to the environs.

e. Records of transient or operational cycles for those unit components identified in Technical Specification 5.5.5.

f. Records of reactor tests and experiments.

g. Records of training and qualification for current members of the unit staff.

h. Records of inservice inspections performed pursuant to the Technical Specifications.

i. Records of quality assurance activities required by the Operational Quality Assurance Manual not listed in Appendix III, 5.2.

j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.

k. Records of meetings of the POC and the CNSRB.

l. Records of the service lives of all hydraulic and mechanical snubbers required by WNP-2 Snubber Program including the date at which the service life commences and associated installation and maintenance records.

m. Records of analysis required by the radiological environmental monitoring program that would permit evaluation of the accuracy of the analysis at a later date. This should include procedures effective at specified times and QA records showing that these procedures were followed.

n. Records of reviews performed for changes made to the OFFSITE DOSE CALCULATION MANUAL and the PROCESS CONTROL PROGRAM.

ENCLOSURE 1

ATTENDANCE LIST

Name	Title
Greg Pick	Acting Chief, Branch E Division of Re Project
Jim Spets	Resident Inspector, Branch E, Division of Re Project
Cheryl Whitcomb	Assistant to Plant Gen Mgr, WNP-2
JOHN PETERS	Assistant Radiation Protection Mgr, WNP-2
JOHN McDONALD	ENGINEERING GENERAL MANAGER
Gregory O Smith	Vice President Generation / PLT General Mgr
SCOTT OXENFARD	Operations Manager WNP-2
GARY WEIMER	MAINTENANCE TEAM MANAGER, WNP2
A. E. MOUNCER	GENERAL COUNSEL
W.H. Bateman	Proj Director, NRC/NRR
T. P. Gwynn	Director, Division of Reactor Projects, NRC RIV
Chet Poslusny	SR. PROJECT MANAGER, NRR, NRC.
Jerry Kucera	VP Administration / CFO
Douglas W. Coleman	Regulatory Affairs Manager
DALE K. ATKINSON	QUALITY MANAGER
JV PARRISH	CEO
K L Wilbring	VP Ops Suppt.
PAUL INSERRA	LICENSING MANAGER
JOE HOLDER	Special Projects, Mgr
Georgia Hammond	Executive Assistant
Doug PERRY	RADIOLOGICAL OPERATIONS SUPERVISOR
GARY HENDRICK	WORK TEAM MGR
William MACCECHE	OUTAGE MANAGER.
Andy Langdon	Asst. Mang Tech Services
David Orull	Labor Relations
John C Hanson	Chemistry
PAUL S. INGERSOLL	MAS. PRJS MGR.
ROBERTO H. TORRES	MGR RX/FUELS ENG.
MIKE MILLS	COMPLIANCE MANAGER WA ST ENERGY FACILITY SITE EVALUATION COUNCIL

9812290073

TURN OVER

ENCLOSURE 2

LICENSEE PRESENTATION

NRC & WNP-2 Focus Meeting

December 9,1998

MPF

Richland, WA

Agenda

2:00PM Opening remarks & Introductions - WNP-2 Rod Webring
NRC Pat Gwynn

2:10PM Performance Self Assessment - Greg Smith

2:20PM Operations - Scott Oxenford
- 1997 PSA Summary
- Staffing
- Ownership of Work Control
- Operations Leadership Role
- Training

2:50PM Maintenance - Gary Weimer
- Work Teams
- Backlog Reduction
- Maintenance Performance

Agenda (cont)

3:20PM Radiation Protection - John Peters

- 1997 PSA Summary
- Recent Self Assessments Results
- Performance Indicators

3:50PM Engineering - John McDonald

- 1997 PSA Summary
- Recent Self Assessments Results
- Performance Indicators
- Engineering Business Plan/Action

4:20PM Corrective Action Program - Cheryl Whitcomb

4:35PM Closing Remarks - WNP-2 Greg Smith
NRC Pat Gwynn

Introduction

Rod Webring
Vice President
Operations Support

PSA - Historical Perspective

- Three Site-wide Self-Assessments Conducted Since 1995

- Benefits of Assessments:
  - Identification of areas for improvement
  - Development of a formal Self Assessment Program
  - Enhancement of self-critical culture

Impacts on Performance

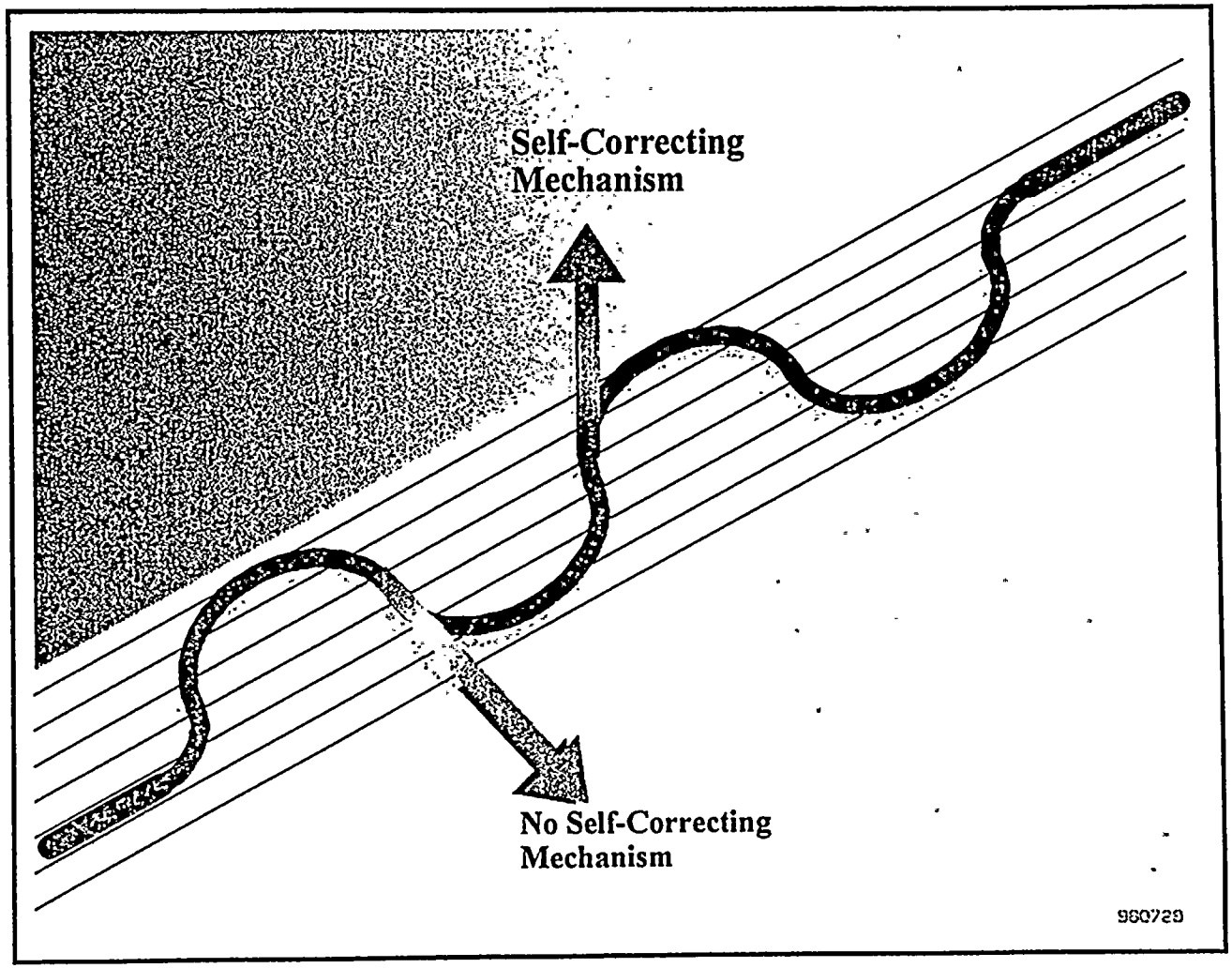
- Since 1995:
  - SALP score has improved
  - INPO 2 rating received in previous evaluation cycle has been maintained.
  - Enhanced cost competitiveness
  - Human performance improvement
  - Enhanced public confidence
  - Substantial reduction in dose

Performance Self Assessment

Greg Smith

Vice President

Plant General Manager


Self-Correcting
Mechanism
No Self-Correcting
Mechanism
960729

PSA

- Behavior based tool in performance self assessment
- Organizational performance PER

WNP-2 Operations

W. Scott Oxenford
Operations Manager
WNP-2

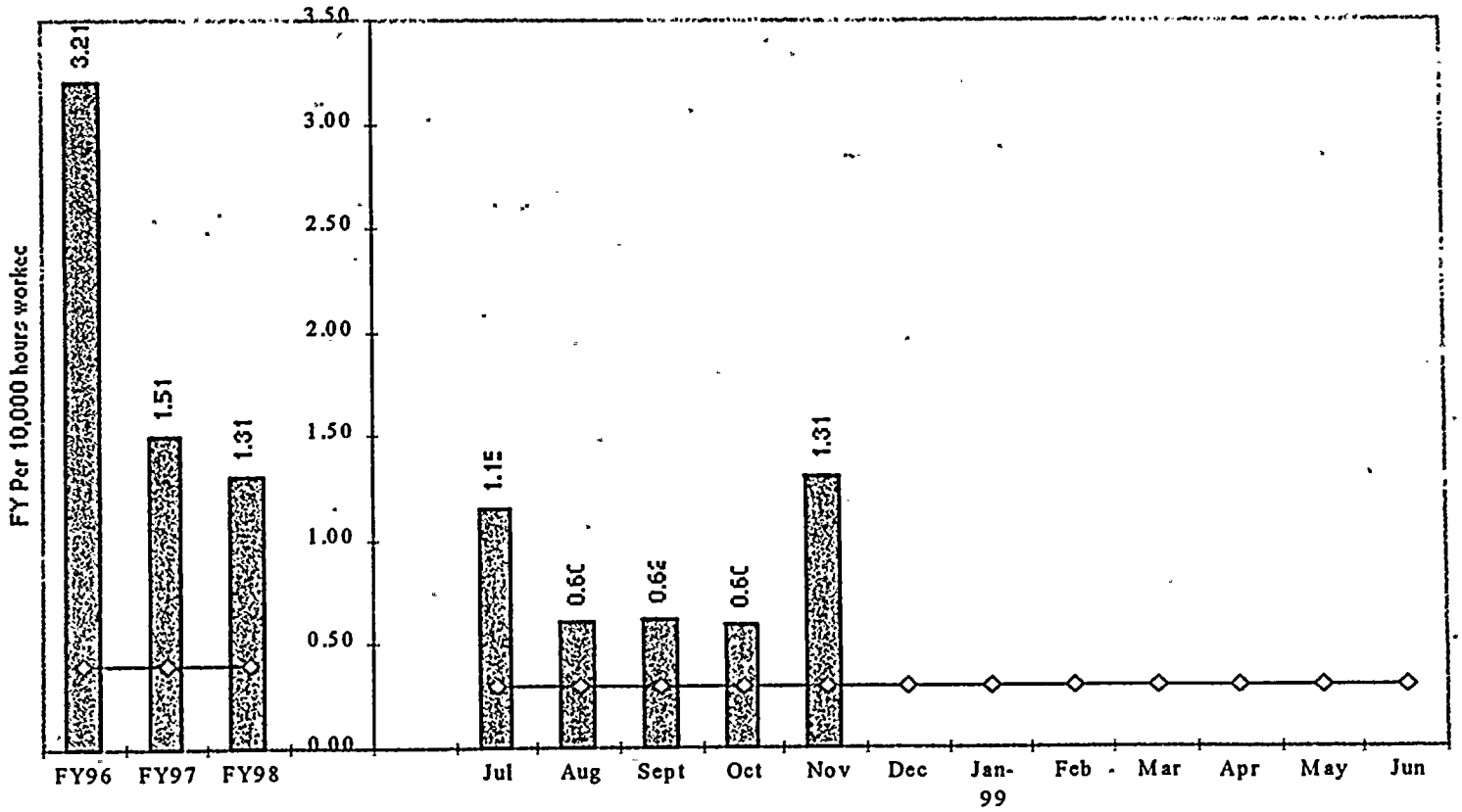
Overview

- Areas Identified In PSA
- Improvement Initiatives
- Self-Assessments
- Conclusions

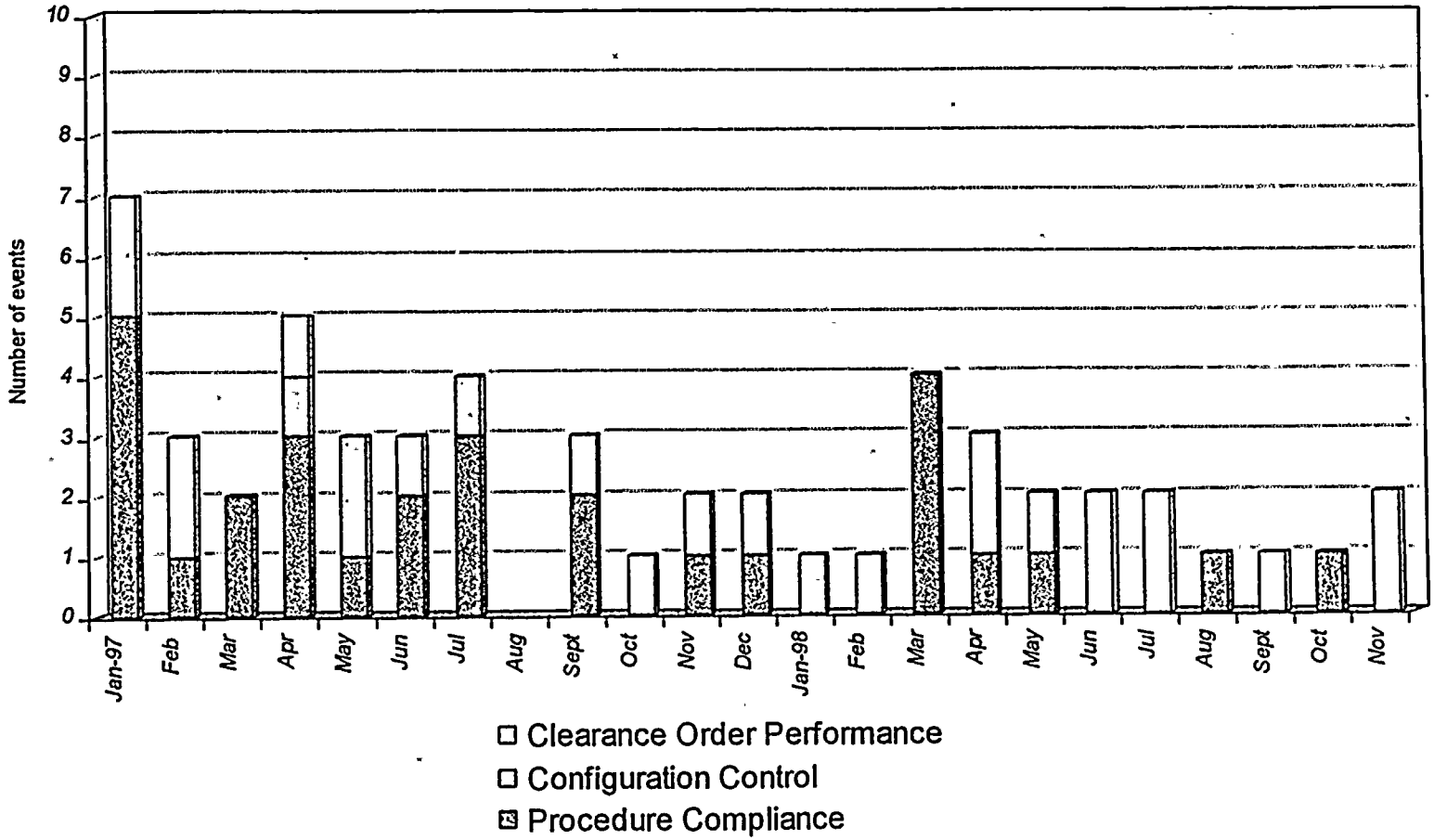
Areas Identified in PSA

- Human Performance
- Ownership of the Work Process
- Operations Leadership of WNP-2

WNP-2 Operations
Human Performance - Error Rate



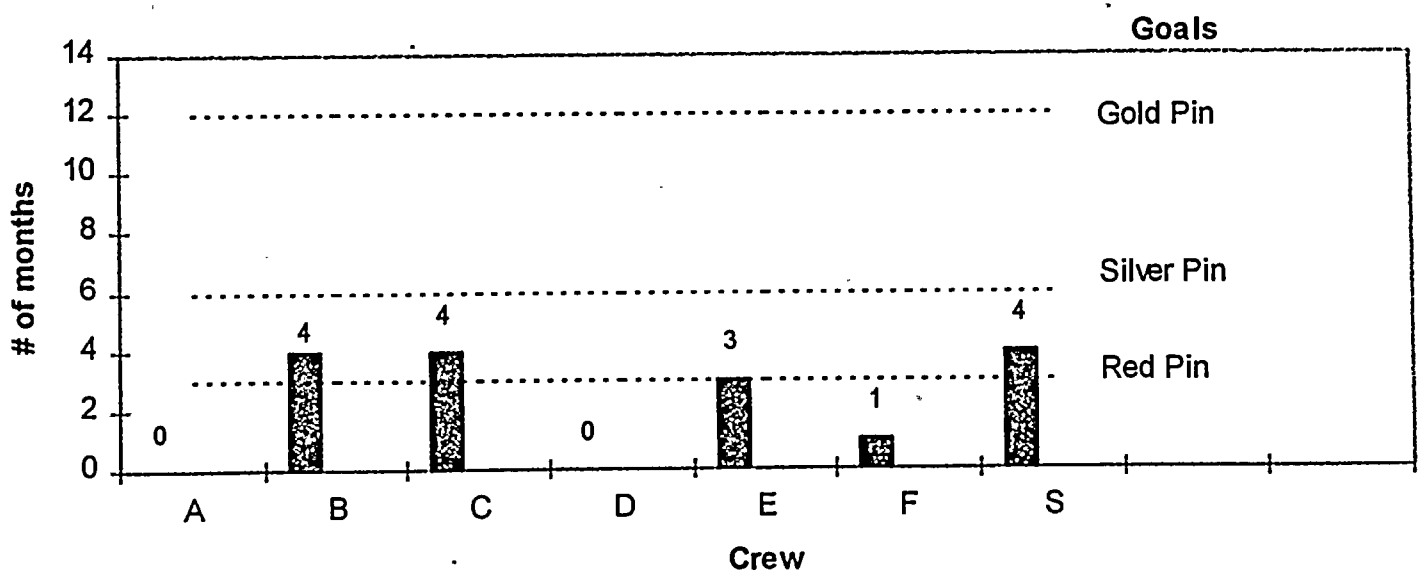
WNP-2 Operations
Human Performance - Type of Events



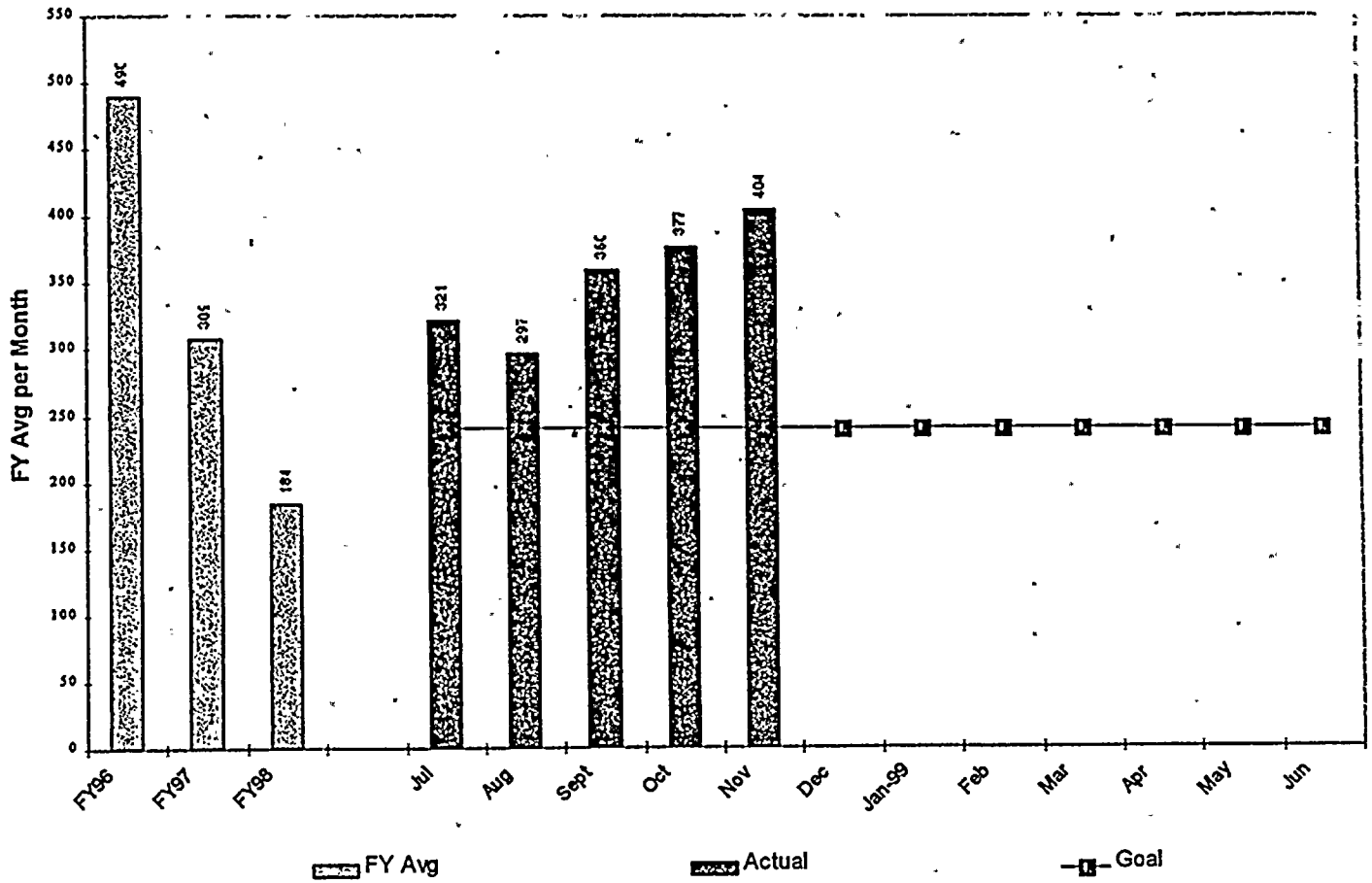
WNP-2 Operations
Performance Enhancement Plan

Error Free
Crew Performance

CONSECUTIVE MONTHS
ERROR-FREE
as of 12/01/98



WNP-2 Operations
Supervisor/Peer Observation Totals



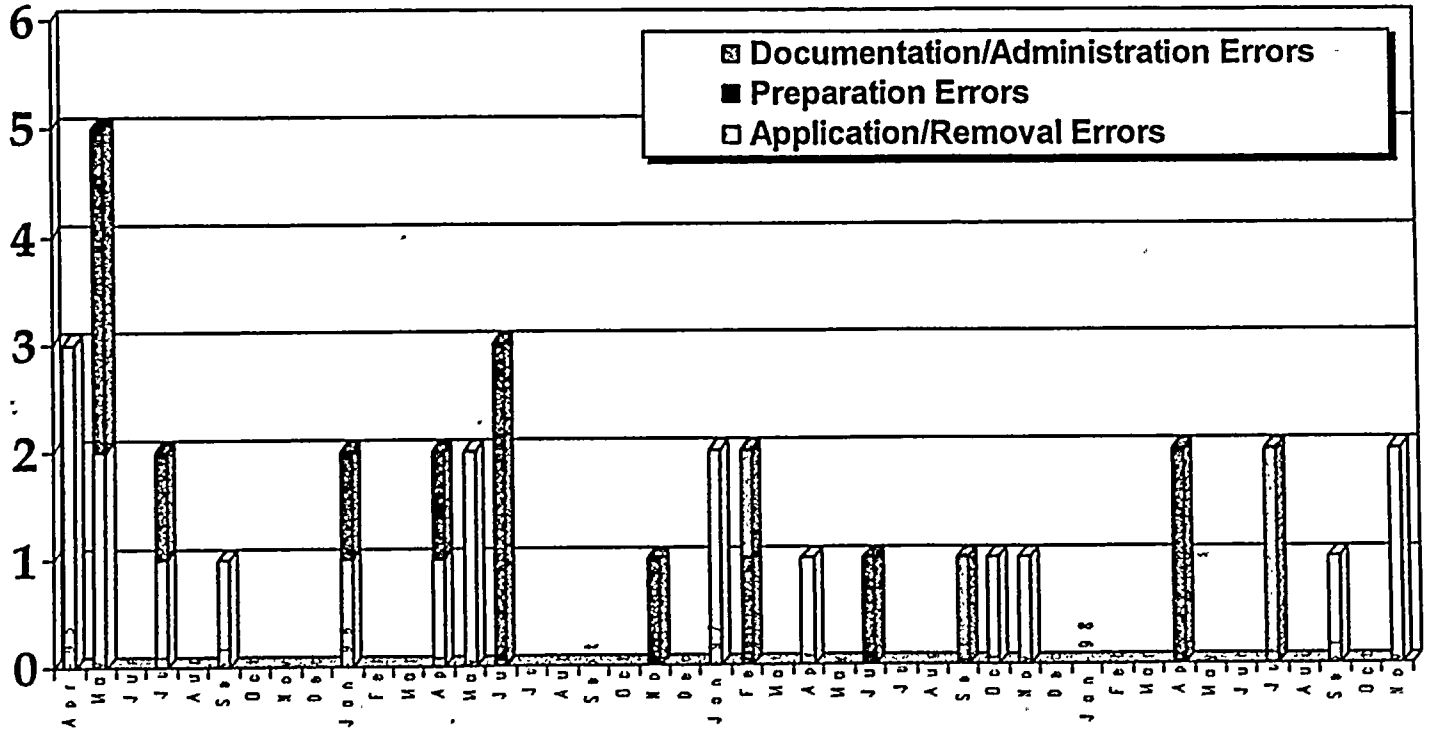
Staffing

- Equipment Operator positions filled
- November 1998, 12 new licenses (4 RO, 8 SRO)
- Enhanced qualification process
- March 1999, 12 licenses expected

Ownership of Work Control Process

- November 1998, Clearance Process Benchmarking
- January 1999, 4 SROs & 4 ROs to work teams
- Operations work team member expectations to be defined

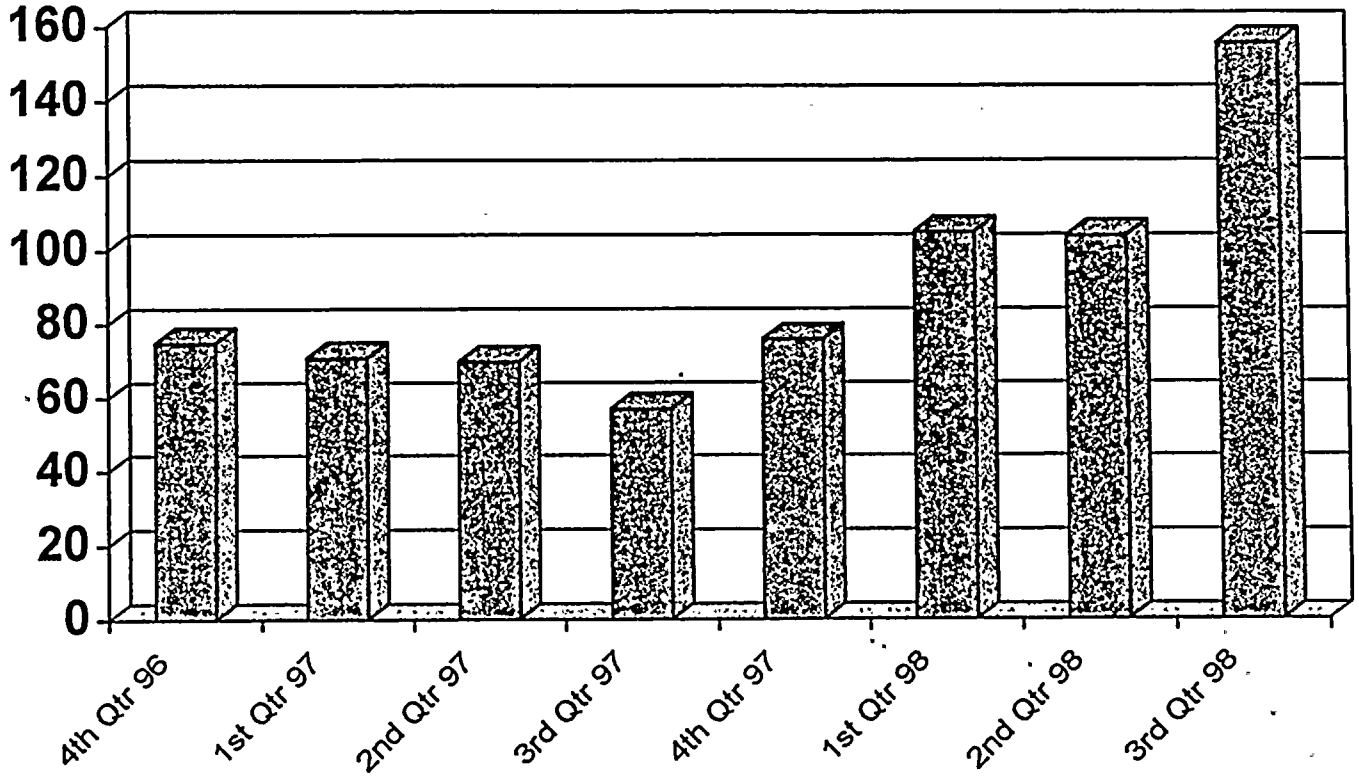
Clearance Order Errors



Operations Leadership of WNP-2

- December 1998, Revised Workaround List
- PER initiation criteria eliminated
- Shift Manager ownership present
- Supervisory ownership and accountability needs improvement

PERs Initiated by Operations



Training

- Simulator time increased
- Ops management involvement in "train-the-trainer" week
- October 1998 increased training in the simulator
- November 18, 1998 Operations & Training Improvement Workshop
- The "bottom-line"
  - training is our highest priority focus area
  - results to date are too slow

Completed Self Assessments

- 02/98 Human Performance
- 03/98 PASSPORT Equipment Tagout
- 08/98 Clearance Order/Mispositioning Errors
- 10/98 USA Operations Assessment

Planned Self Assessments

- 12/98 Effectiveness of Annual Exam Preparations
- 02/99 PASSPORT Tagout Rev. 6 Implementation
- 07/99 Human Performance Follow-up
- 11/99 Operations Ownership
- 02/00 Operator Workarounds

Conclusions

SUMMARY

- Ownership of Human Performance is evident and measurable.
- Staffing levels recovered
- Supervisory team strengthened through new licenses
- Operations leadership and focus evident

Conclusions

- CHALLENGES
- Performance in Training
- Step change in work process involvement and performance
- Change management associated with newly licensed individuals
- Supervisor ownership and accountability
- Continued improvement in human performance

Maintenance

Gary Weimer

Work Team Manager

(Team 4)

Management Vision

An efficient process that results in a safe and reliable plant

Key PSA Areas of Interest

- Maintenance Backlog
- Work Teams
- Maintenance Performance

Backlog Reduction

Positives

Backlog has stabilized, even though:

- »Forced Outage
- »More WR's written since FP event

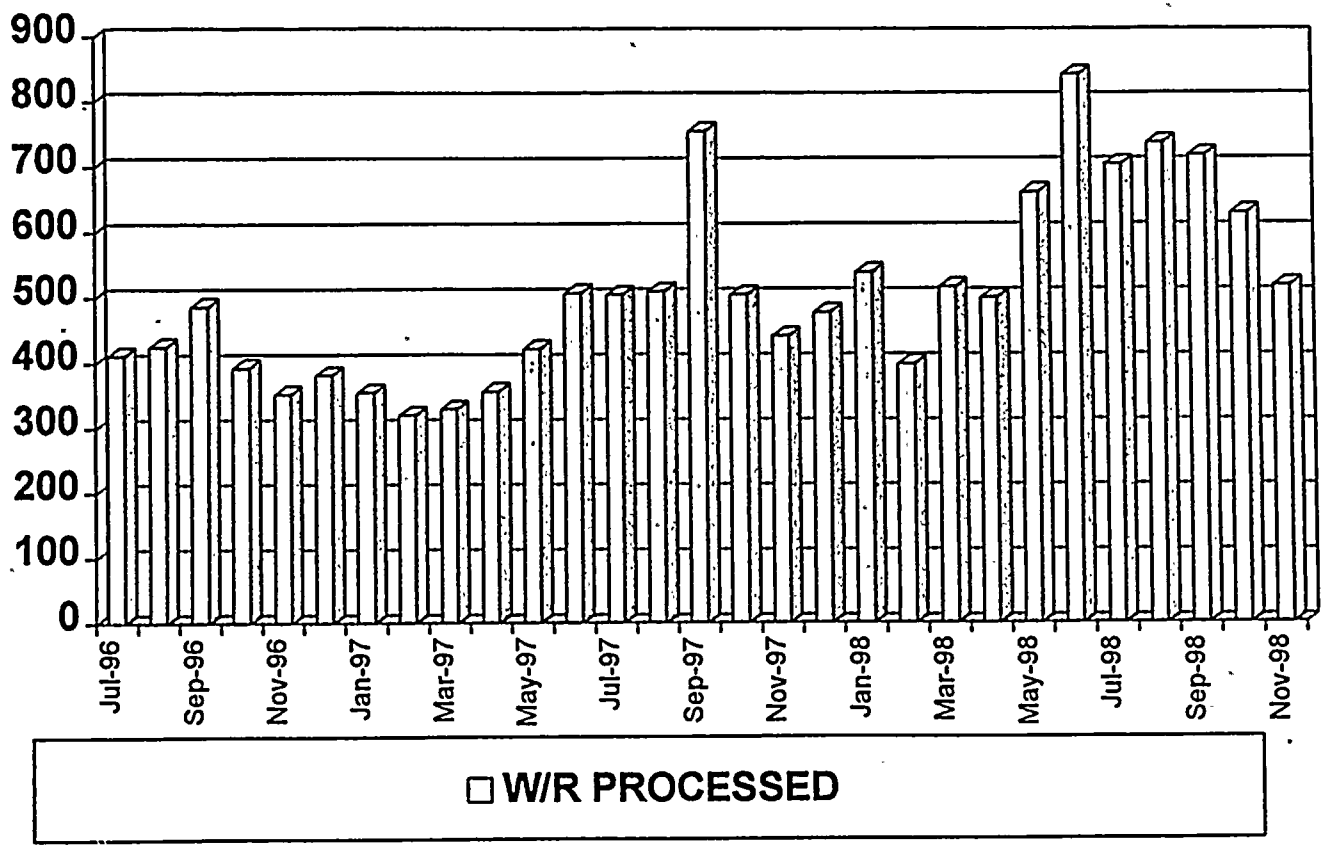
Backlog Reduction

Challenges

Reduce Backlog to level where emergent work is backlog work (shorter cycle time):

- »Improve Planning
- »More planner resources
- »Reduce rework (assessing)
- »Improve tool availability
- »Eliminate scheduling roadblocks

Work Request Activity

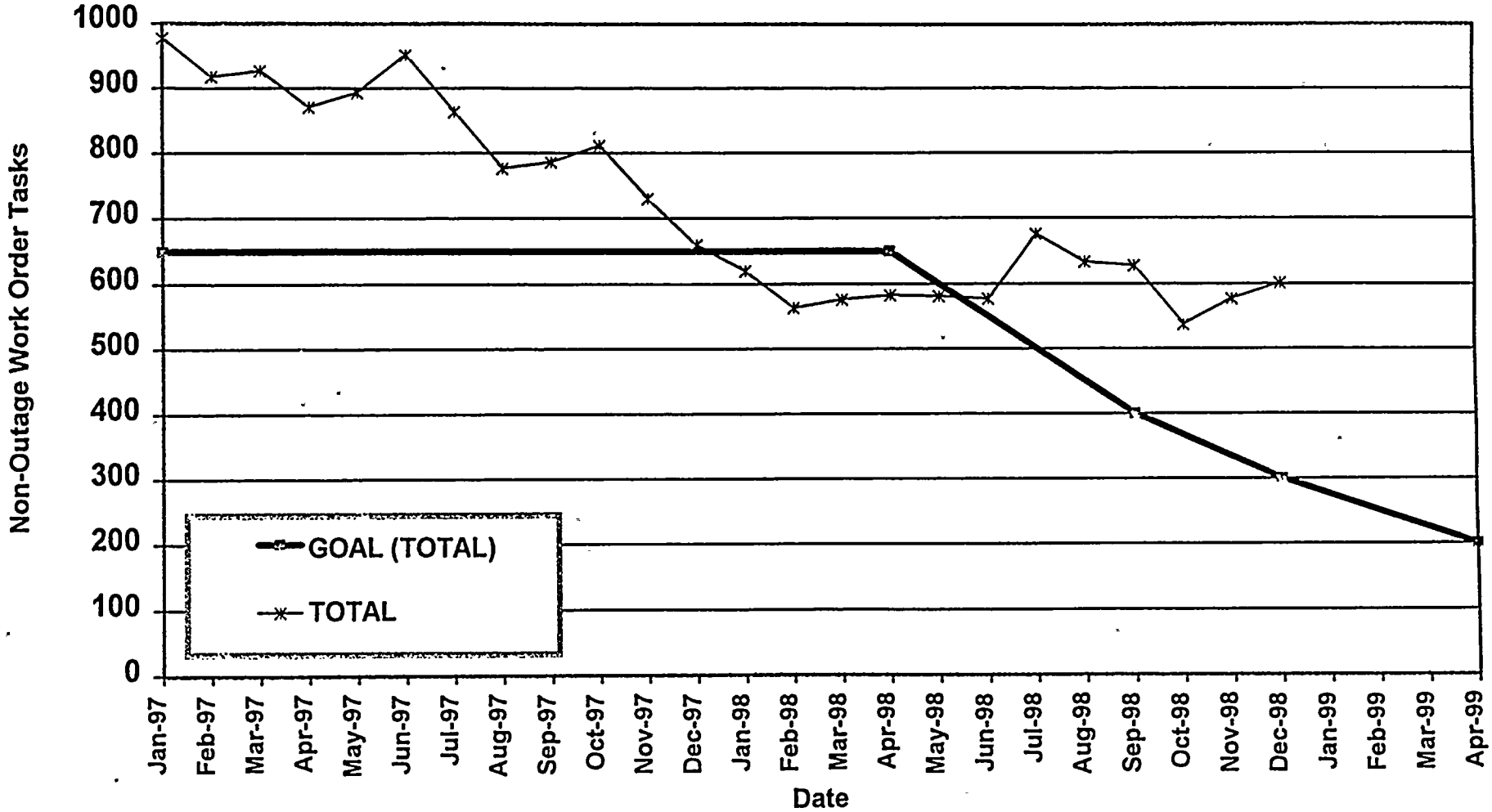


628 52 126

IND 11

[Call P. Voondeponte x 2427]

Non-Outage Maintenance Work Order Task Backlog



Work Teams

Positives

- Single focal point for planning, scheduling and conduct of maintenance activities
- Incorporated WIN team members (and experience/attitude) into new work teams
- Beginning to infuse Operations focus into maintenance activities.
- Reduced time to resolve work order concerns

Work Teams

Challenges

Reduce Backlog

- » More effectively use training to improve team performance
- » Complete team structure. Incorporate Operations RO and SRO into work teams

Maintenance Performance

Positives

- Schedule adherence is improved
- PER initiation criteria eliminated and WR threshold reduced:
  - »writing schedule delay PER's
  - »raising more materiel concerns
- Training improvement plan in place

Maintenance Performance

Challenges

- Error rate
- Provide more critical, real time feedback on performance
- Use of training to coach techniques of procedure usage, self checking, communications & Safety

Schedule Activity

WNP-2 DAILY SCHEDULING PROCESS INDICATORS

Report Date: November 2, 1998

INDICATOR	X-6	X-5	X-4	X-3	X-2	X-1	X-0
Work Week Team	Team 2	Team 1	Team 4	Team 3	Team 2	Team 1	Team 4
Week Beginning	12/7/98	11/30/98	11/23/98	11/16/98	11/9/98	11/2/98	10/26/98
(1) Planning Complete	96%	98%	98%	100%	100%	100%	
(2) No Engineering/Tech Holds		99%	100%	100%	100%	100%	
(3) Clearance Reviews		95%	95%	98%	100%	100%	
(4) Work Control Reviews		95%	99%	95%	95%	100%	
(5) Tech Staff Reviews		98%	100%	100%	100%	100%	
(6) RWP's Prepared		94%	99%	100%	99%	99%	
(7) Walkdowns Complete			97%	95%	93%	93%	
(8) Parts Available				99%	99%	98%	
(9) Ready to Work (Status 45)				89%	92%	93%	
(10) Implm Sched Effectiveness							95%

LEGEND

	GREEN	WHITE	YELLOW	RED	DATA UNAVAILABLE
(1) - (8)	≥ 99%	95% - 99%	90% - 94%	< 90%	
(9) - (10)	≥ 95%	95% - 90%	89% - 85%	< 85%	

Maintenance Self Assessments

COMPLETED

- Post R13, incl Foreign Material Control
- Standards Lab
- HVAC Program
- Passport Baseline
- Work Control/Implementation Process

SCHEDULED

- Preventive Maintenance
- Work Team Effectiveness
- Rework Program
- Work Control/Implementation Process

Maintenance

NUCLEAR SAFETY

LOST TIME ACCIDENTS = 0		
Nov 1		Ind.21

RECORDABLE ACCIDENTS = 0		
Nov 2		Ind.22

MAINTENANCE EXPOSURE (mR)		
Aug	Sept	Oct
[illegible]	[illegible]	[illegible]
Nov		
[illegible]		

HUMAN PERFORMANCE

PERSONNEL ERROR RATE <.30		
Aug 0.37%	Sept [illegible]	Oct 0.31%
Nov [illegible]		

GOLD CARDS (P/M)		
Aug [illegible]	Sept [illegible]	Oct [illegible]
Nov [illegible]		

OBSERVATIONS <40		
Aug 29	Sept 15	Oct 39
Nov [illegible]		

MATERIAL CONDITION

MTN WO TASK BACKLOG <400		
Aug 628	Sept 637	Oct 577
Nov 601		Ind. [illegible]

WO N-O (T/B=YES/CE) <100		
Aug 39	Sept [illegible]	Oct [illegible]
Nov [illegible]		

PREVENTIVE MTN. N-O <350		
Aug 261	Sept 246	Oct 281
Nov [illegible]		

Radiation Protection

John Peters

Assistant Manager

Radiation Protection

Radiation Protection
PSA Focus

- Supervisory oversight and involvement
- Radiation exposure and contaminations
- Corrective Action Program
- Radiation Protection culture

Radiation Protection Performance Indicator Annunciator Panel
October 1998

NUCLEAR SAFETY

- RP Radiation Exposure
- Contamination Events
- Collective Radiation Exposure
- Dose Planning Effectiveness
- Corrective Action Program Timeliness 5a
- Corrective Action Program Effectiveness 5b

HUMAN PERFORMANCE

- Personnel Error Rate
- Industrial Safety Performance
- Field Observations
- Training Qualifications
- Supervisory Time In Field
- Gold Cards
- Radioactive Material Labeling 12

MATERIAL CONDITION

- Plant Contaminated Areas 13

COST COMPETIT./BUSIN.

- Budget Adherence

Monthly Performance Rating
October 1998 = 2.2

	> 1.49	> 2.49	> 3.49
1	2	3	4
		Improvement Needed Less than Monthly Expectation = 3 pts	
Satisfactory Performance Meets Monthly Expectation = 2 pts		Advanced Performance Meets Monthly Swing = 1 pts	
Data Not Available/Under Development			

Average Monthly Rating = 2.5 (since March 98)

MONTHLY PERFORMANCE

3.1	3.0	2.3
2.2		

KEY

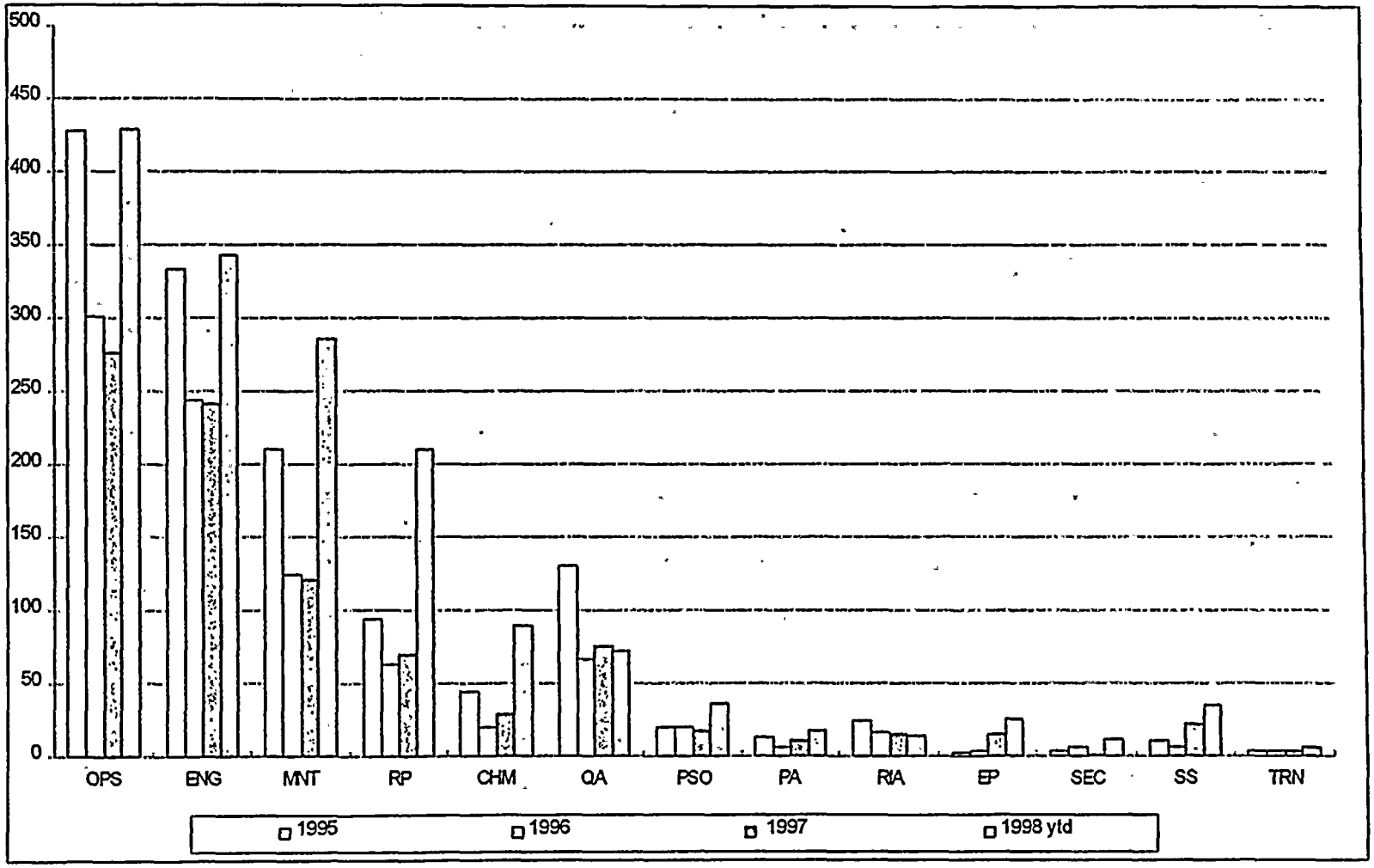
Previous 3 months

Current Month Performance

Indicator # Responsible Individual

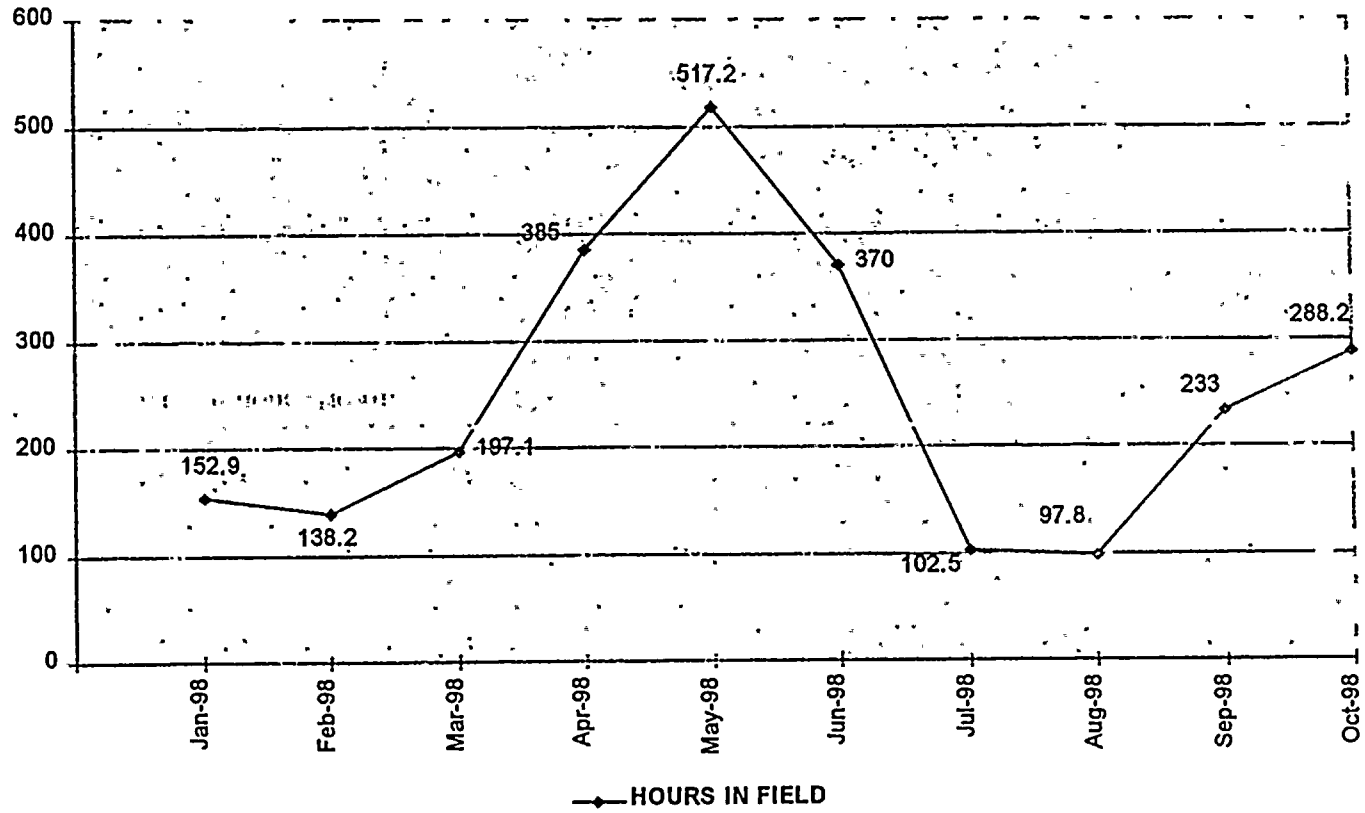
Rev 1 - 12/3/98

Total PER's by Department



Radiation Protection Annunciator #10 - October 1998

Supervisor Time In-Field



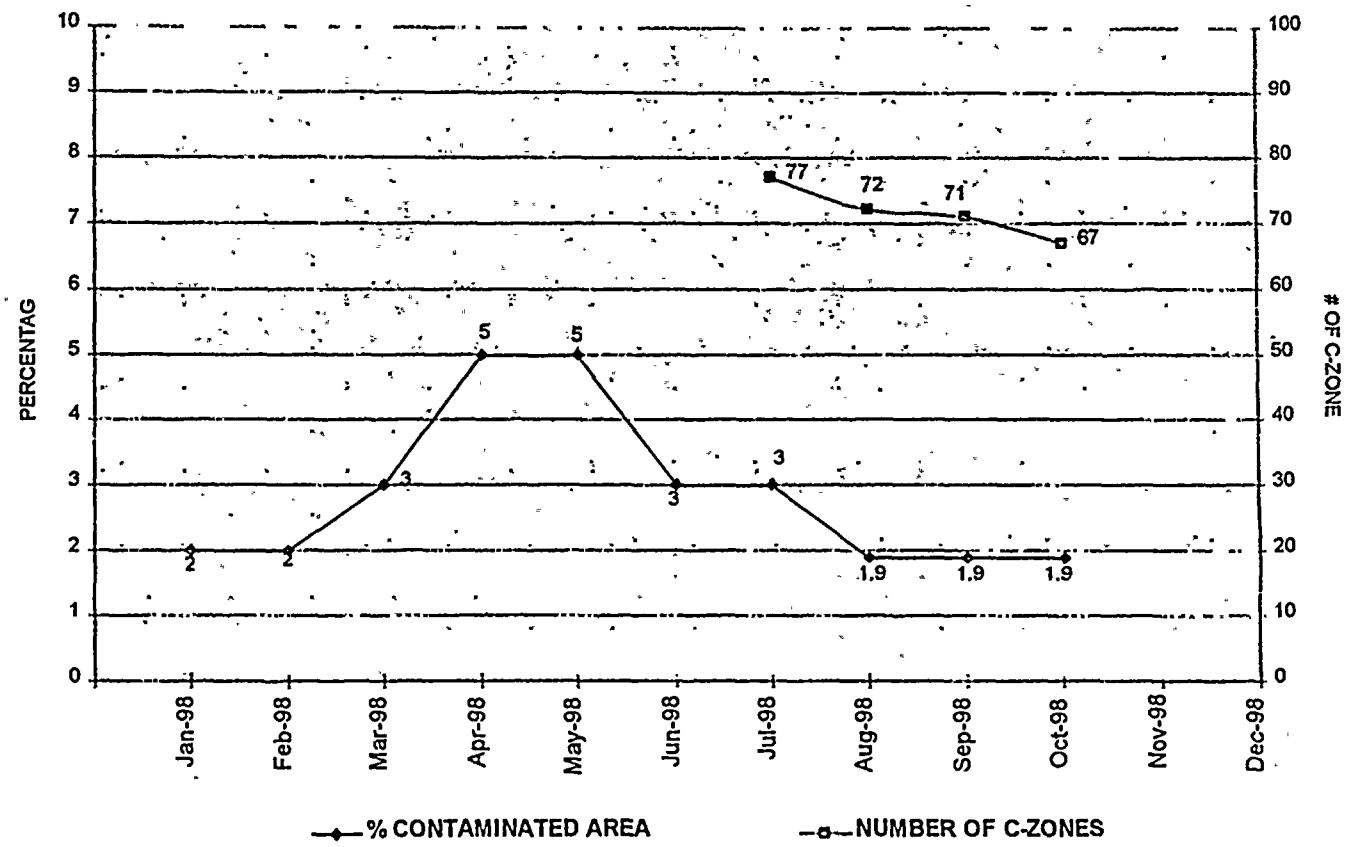
GOAL: 216 hours per month for 10 RP Manager/Supervisors.

Responsible Individual: L Rice

POSITIVE	SATISFACTORY	NEEDS IMPROVEMENT	ADVERSE
	WHITE ≥ 194	YELLOW ≥ 173	RED < 173

Radiation Protection Annunciator #13 - October 1998

Plant Contamination: Percent Floor Space & Number of C-Zones



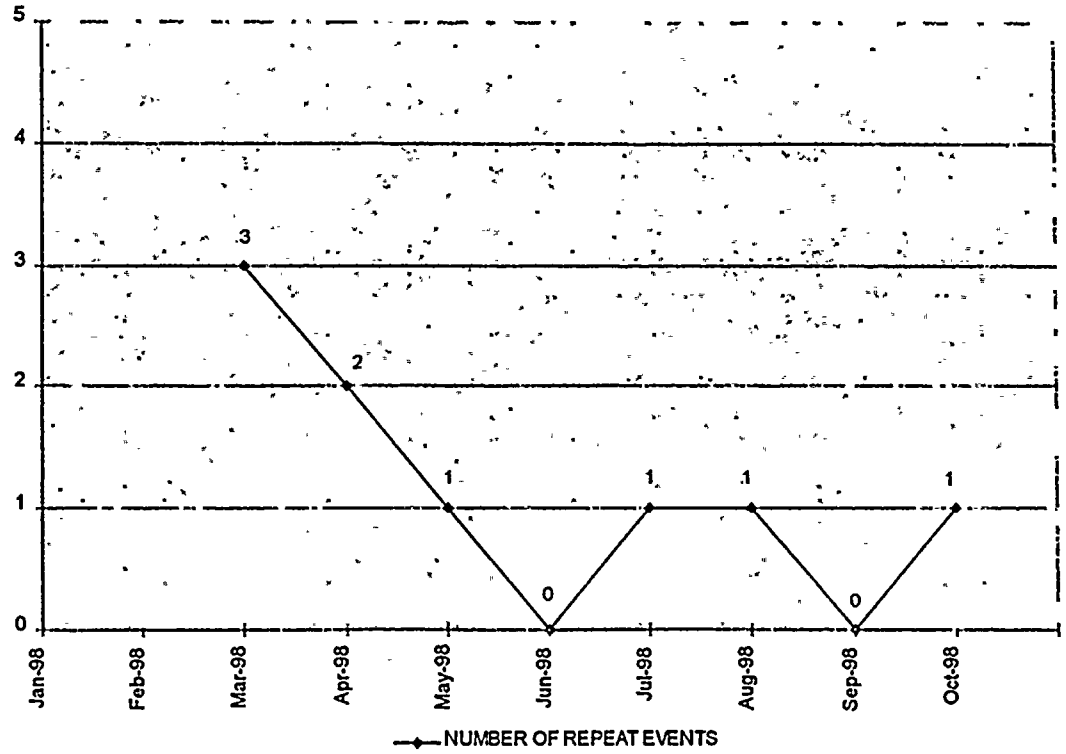
REMARKS: Total RCA Space: 369,488 ft² (approximate) Contaminated Floor Space for month ending August: 1.9% or 7047 ft² (approximate)
See Annuciator 13a for details

Responsible Individual: M Shepherd

POSITIVE	SATISFACTORY	NEEDS IMPROVEMENT	ADVERSE
	WHITE ≤ 2 %	YELLOW ≤ 5 %	RED > 5 %

Radiation Protection Annunciator #5b - October 1998

Corrective Action Program Effectiveness CY98



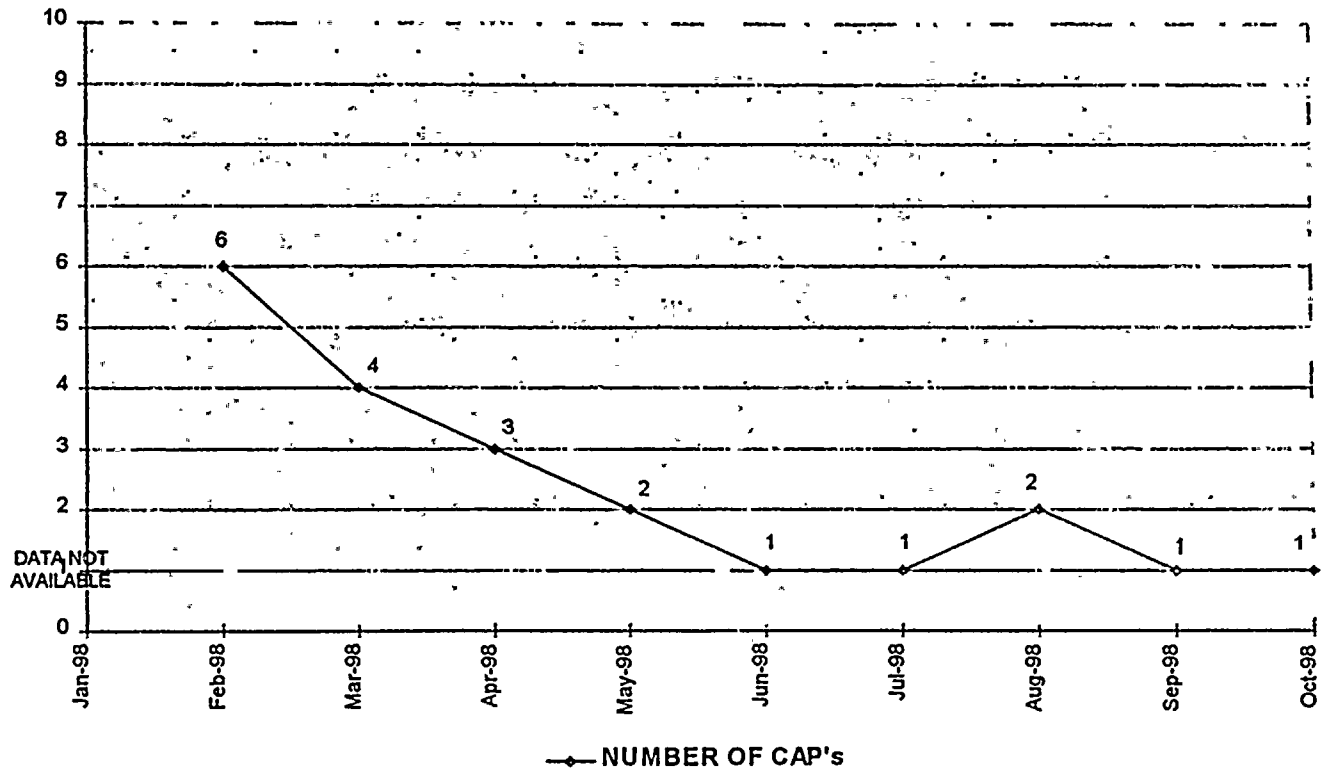
CRITERIA: This performance measure monitors the results of the Radiation Protection review of PER dispositions and the number of PER's written on 'Repeat Events.' A repeat event is defined as an issue that reoccurred in the last 2 years and all corrective actions from the previous event are in place.
REMARKS: PER 298-1581documents a repeat issue dealing with the improper release of personal items and tools from the RCA. An immediate corrective action was put in place to provide management observations of personnel access practices and provide results of those observations to RP Operations.

Responsible Individual: JF Peters

POSITIVE	SATISFACTORY	NEEDS IMPROVEMENT	ADVERSE
	WHITE 1	YELLOW 2	RED

Radiation Protection Annunciator #5a - October 1998

Corrective Action Program Timeliness - CY98



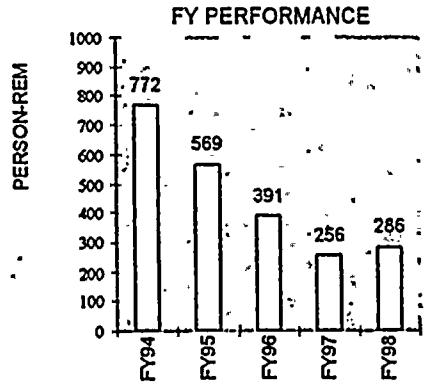
DEFINITION: This performance measure monitors the average number of Corrective Action Program Dispositions and Corrective Program Actions (CAPS) that are late throughout the month. Quality Program's report is the data source.

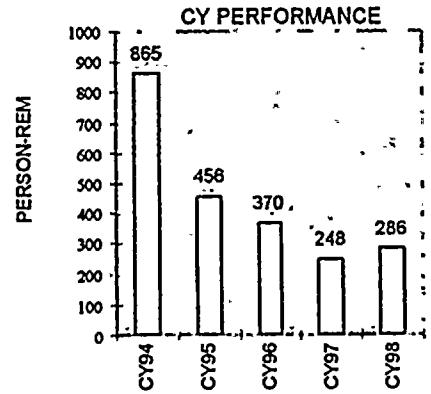
Responsible Individual: JF Peters

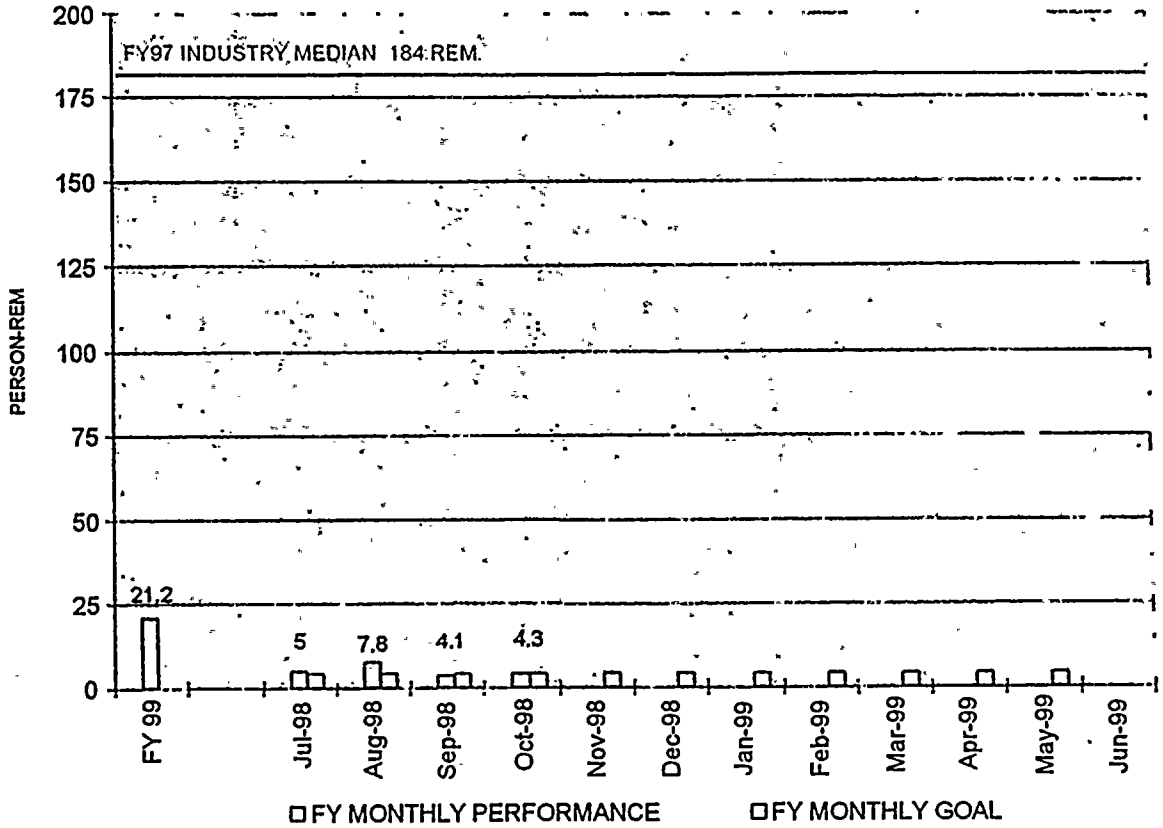
POSITIVE	SATISFACTORY	NEEDS IMPROVEMENT	ADVERSE
	WHITE 1 late	YELLOW 2 late	RED 3 late

Radiation Protection Annunciator #3 - November 1998

Collective Radiation Exposure - FY99





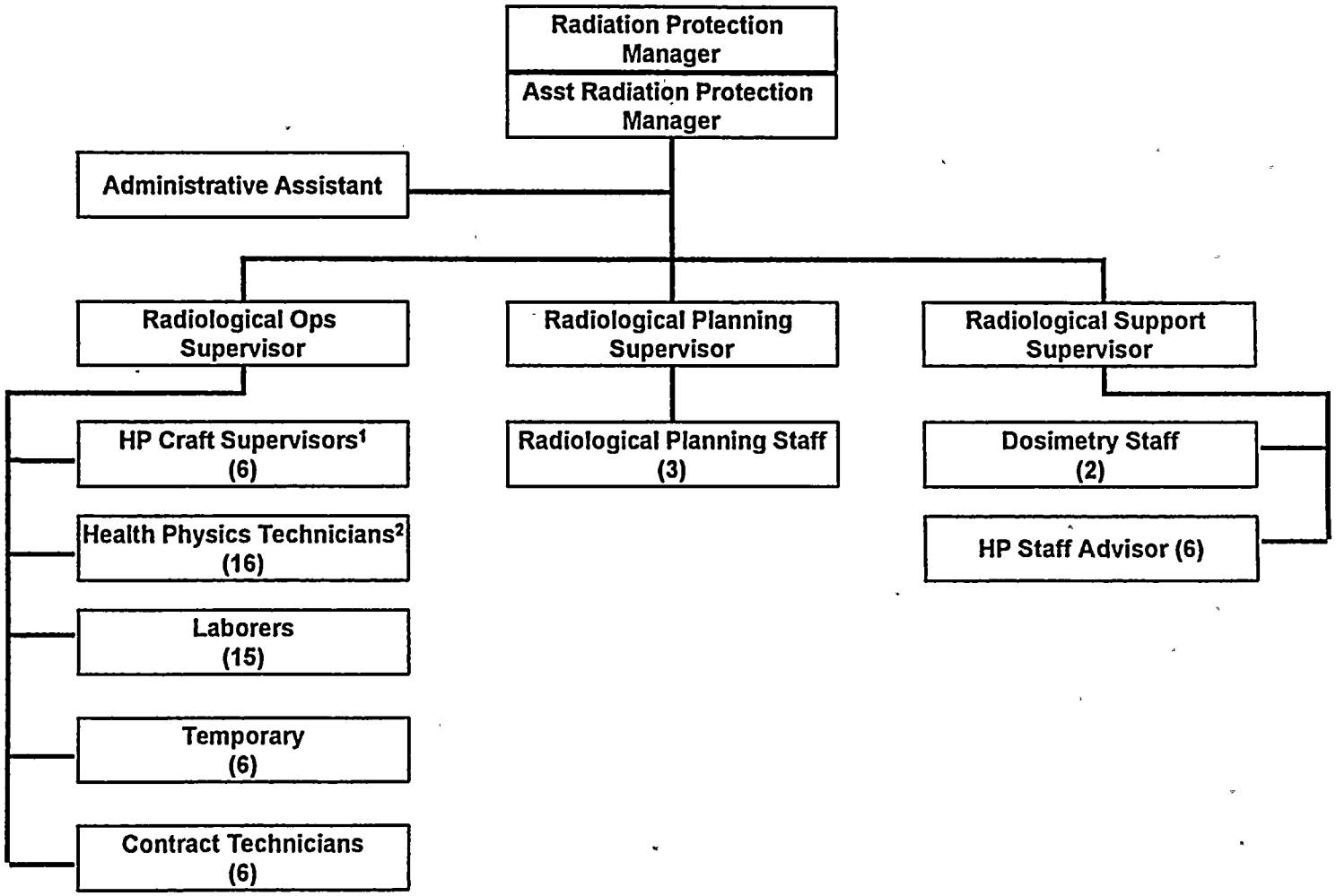


REMARKS: Monthly Goal 4.5 REM, Actual 3.9REM. RED annuciator based on >10 FYTD Goal (22.5 REM goal to date, 25.2 REM actual to date)

Information Provided by: K Spero

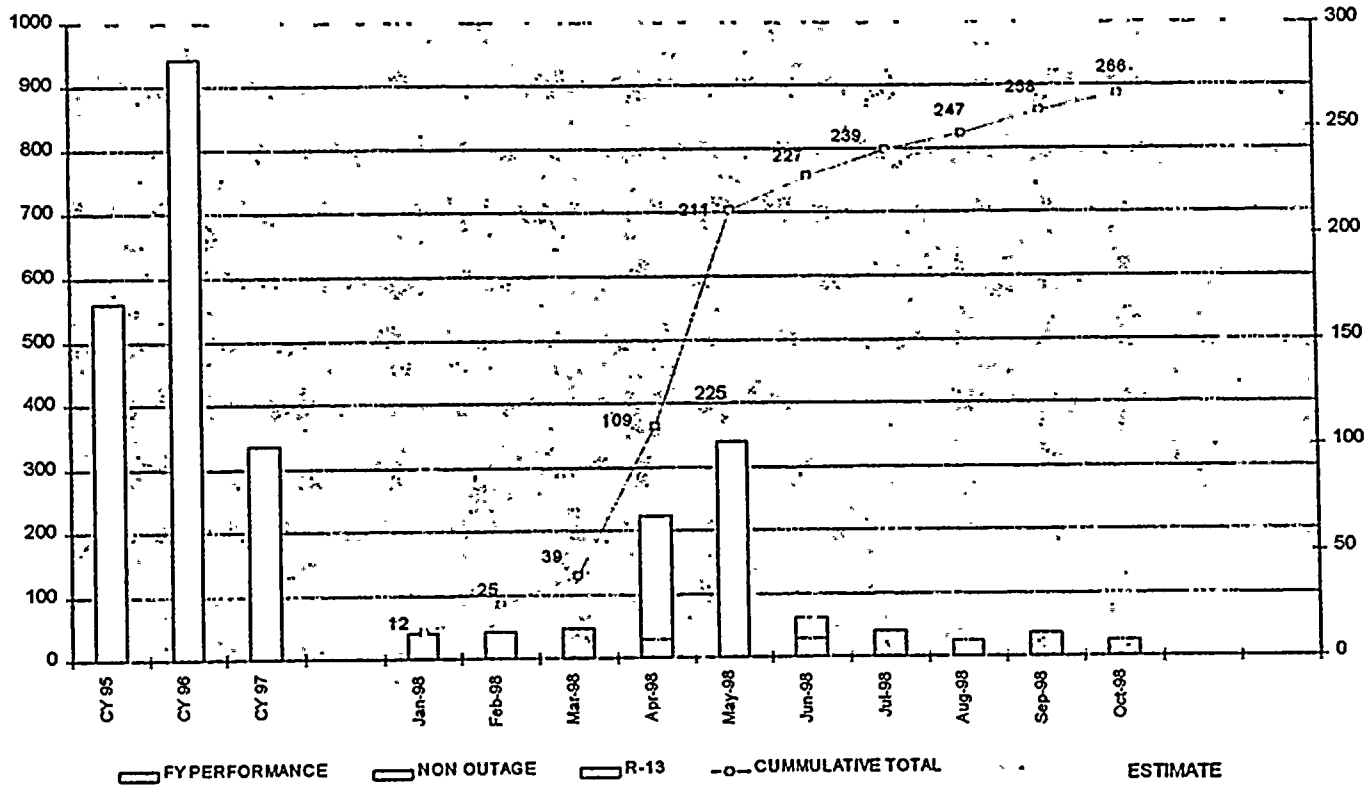
POSITIVE	SATISFACTORY	NEEDS IMPROVEMENT	ADVERSE
GREEN [illegible]	WHITE ≤ expected -or- ≤ FYTD goal	YELLOW < expected -or- > FYTD goal	RED [illegible]

WNP-2 Radiation Protection



Radiation Protection Annunciator #2a - October 1998

WNP-2 Contamination Events - CY98



STATION GOALS: 100 per Non-Outage months: [illegible] per Non-Outage month average -and- [illegible] per Outage.
PERFORMANCE SUMMARY: 270 total contamination events = 100 Non-Outage - and - 170 Outage (thru July - 98)
REMARKS: 8 contamination events for October is below monthly goal (10). Breakdown - Month: 8([illegible]), Non-Outage 100 (WHITE), Outage 170 - (RED)

Information Provided by: K Spero

POSITIVE	SATISFACTORY	NEEDS IMPROVEMENT	ADVERSE
	WHITE ≥100 or >10 per month	YELLOW ≤ 105 or <15 per month	RED ≥ 105 or ≥15 per month

Radiation Protection
Self Assessments

- Recent Self Assessments
  - » Effectiveness of Dose Reduction
  - » External Dosimetry
  - » Control of Radioactive Material
  - » Shop Productivity
  - » Contamination Control
  - » HP Training
  - » Respiratory
  - » ALARA Assist Visit
  - » Effectiveness of Post Job Reviews (Dec)
  - » RP Program Annual (Dec)

Radiation Protection
Summary and Challenges

- Contamination Control
- Exposure Reduction
- Safety Culture

Engineering

John A. McDonald
Engineering General Manager

1997 PSA Summary

- Average performance *[Improved]*
- Fewer overdue PTL
- Reduction in backlog
- Improved plant support *
- Improved work quality *
- Good equipment performance *
- Improved training and qualification

* *96 PSA Observation*

1997 PSA CHALLENGES

- Turnover process *
- Retention of design basis knowledge
- Work product inconsistency *
- Large backlogs *
- Process inefficiencies
- Emergent work
- System performance monitoring

* *96 PSA Observation*

PSA ISSUES

Engineering Business Plan Action	Retention of Design Basis	Work Consistency	Backlog	Process Inefficiencies	Emergent Work	System Performance Monitoring
Leadership	X	X			X	
Resource Management	X	X			X	
Corrective Action Plan			X	X		
System Performance Monitoring					X	X
Project Implementation					X	
Design Data Base	X	X		X		

Business Plan Inputs

- Self Assessments
- NRC
- INPO
- QA
- Site Initiatives

Self Assessments Performed

- Calculations *[10/97]*
- Field Change Requests *[10/97]*
- System Performance Monitoring *[1/98]*
- Configuration Control *[1/98]*
- Use of Generic Guidance in 50.59 *[3/98]*
- ECCS Strainer *[3/98]*
- Severe Accident Management *[6/98]*
- Fuel Vendor *[6/98]*

Self Assessments Performed

- Y2K *[7/98]*
- Core Reload Design *[9/98]*
- INPO Assist on Equipment Performance Monitoring *[9/98]*
- Engineering Business Plan *[10/98]*
- Post Fire Safe Shutdown Methodology *[11/98]*
- Option Finder Questionnaire *[11/98]*
- Project Lessons Learned *[Monthly]*

Self Assessment Areas For Improvement

- System performance monitoring data familiarity
- Project implementation
- Backlog reduction progress
- FCR processing issues
- Too many design data bases
- Lack of formal calculation checkout
- Cumbersome calculation control procedure
- Large number of CMRs

Self Assessment Areas For Improvement

- Inadequate calculation procedure for interfacing calculation impacts
- Cumbersome design data retrievability
- Up-to-date Reactor Engineer qualifications
- Resource management
- No core reload project schedule
- Y2K contingency planning
- Complicated configuration control process
- Lack of detailed ECCS strainer project schedule

Self Assessment Schedule

- PDIS Rev 0 Installation *[Feb 99]*
- Reactor Engineering Processes & Procedures *[May 99]*
- Equipment Performance *[Jun 99]*
- Software Control & Change Process *[July 99]*
- Adequacy, Knowledge, & Retrieval of Design Bases *[July 99]*
- Thermolag *[Oct 99]*
- Maintenance Rule *[Oct 99]*
- Field Change Request *[Dec 99]*
- FPFI Assessment *[Jan 00]*

ENGINEERING PERFORMANCE INDICATORS

NUCLEAR SAFETY

ALARA

97 Qtr 4	98 Qtr 1	98 Qtr 2
112%	96%	82%

98 Qtr 3: 78%

OER BACKLOG

97 Qtr 4	98 Qtr 1	98 Qtr 2
4	4	4

98 Qtr 3: [illegible]

QUALIFICATION MGMT

97 Qtr 4	98 Qtr 1	98 Qtr 2
100%	100.00%	100%

98 Qtr 3: 99%

HUMAN PERFORMANCE

HUMAN PERF

97 Qtr 4	98 Qtr 1	98 Qtr 2
[illegible]	5	4

98 Qtr 3: [illegible]

QA SPERs

97 Qtr 4	98 Qtr 1	98 Qtr 2
[illegible]	[illegible]	1

98 Qtr 3: [illegible]

EXTERNAL SPERs

97 Qtr 4	98 Qtr 1	98 Qtr 2
1	1	2

98 Qtr 3: 0

50.59 ERRORS

97 Qtr 4	98 Qtr 1	98 Qtr 2
2	1	1

98 Qtr 3: 2

FAO ERRORS

97 Qtr 4	98 Qtr 1	98 Qtr 2
[illegible]	[illegible]	[illegible]

98 Qtr 3: [illegible]

FCRs

97 Qtr 4	98 Qtr 1	98 Qtr 2
[illegible]	4	32

98 Qtr 3: 6

NCHR Hours/Week

97 Qtr 4	98 Qtr 1	98 Qtr 2
[illegible]	6.5%	[illegible]

98 Qtr 3: [illegible]

TURNOVER

97 Qtr 4	98 Qtr 1	98 Qtr 2
[illegible]	[illegible]	14.8%

98 Qtr 3: 7.4%

COST COMPETITIVENESS

ENGR BUDGET

97 Qtr 4	98 Qtr 1	98 Qtr 2
[illegible]	[illegible]	3.1%

98 Qtr 3: [illegible]

BACKLOG

97 Qtr 4	98 Qtr 1	98 Qtr 2
[illegible]	[illegible]	[illegible]

98 Qtr 3: [illegible]

BACKLOG > 1 YR.

97 Qtr 4	98 Qtr 1	98 Qtr 2
485	466	471

98 Qtr 3: 440

DRAWING BKLG

97 Qtr 4	98 Qtr 1	98 Qtr 2
[illegible]	[illegible]	1568

98 Qtr 3: 1074

CMR BACKLOG

97 Qtr 4	98 Qtr 1	98 Qtr 2
[illegible]	[illegible]	[illegible]

98 Qtr 3: 26

PMRs NOT CLOSED

97 Qtr 4	98 Qtr 1	98 Qtr 2
12	12	No Data

98 Qtr 3: 8

MATERIAL CONDITION

WORK AROUNDS

97 Qtr 4	98 Qtr 1	98 Qtr 2
[illegible]	[illegible]	9

98 Qtr 3: 15

TMRs

97 Qtr 4	98 Qtr 1	98 Qtr 2
5	6	6

98 Qtr 3: 8

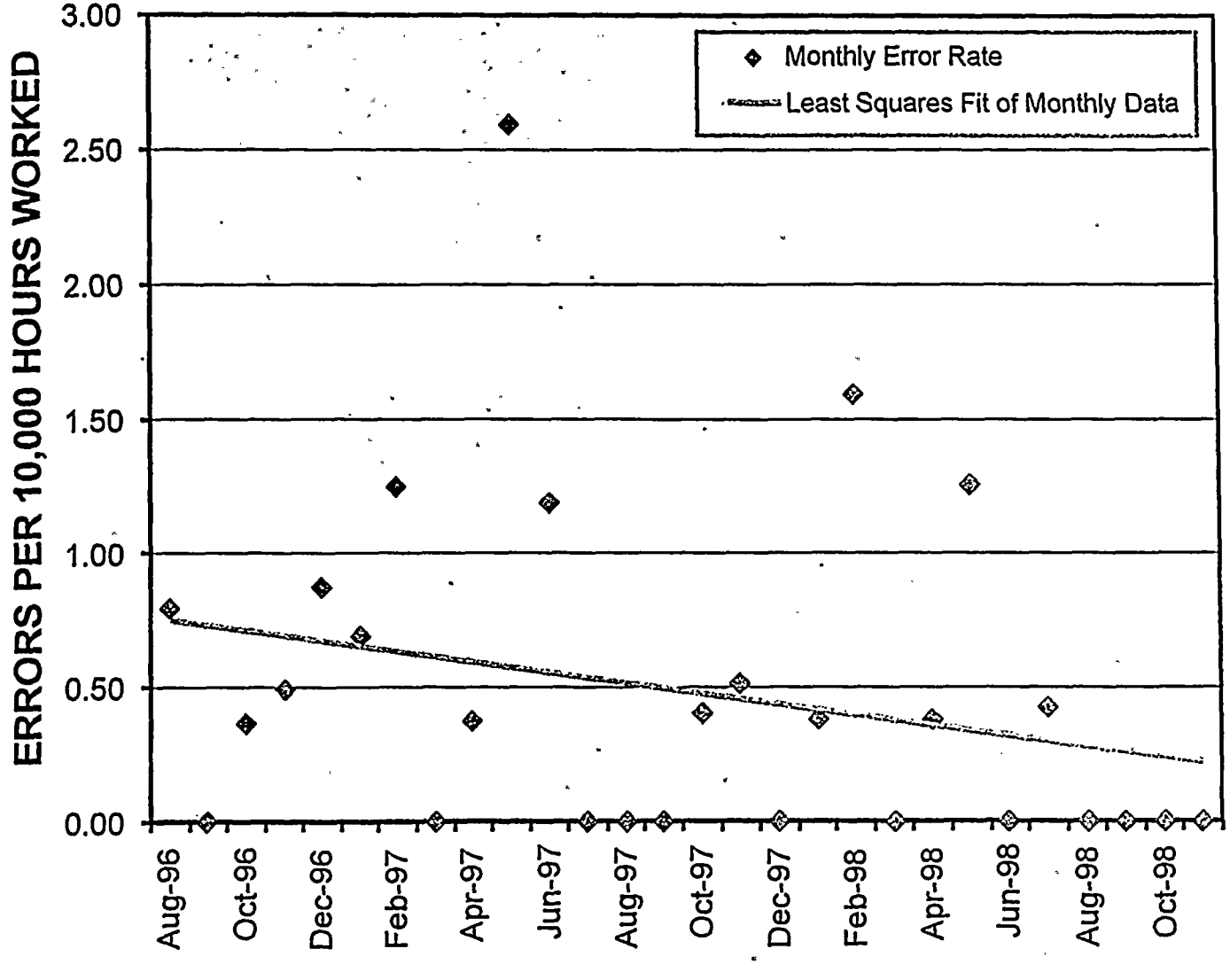
SYSTEM STATUS

97 Qtr 4	98 Qtr 1	98 Qtr 2
[illegible]	971	965

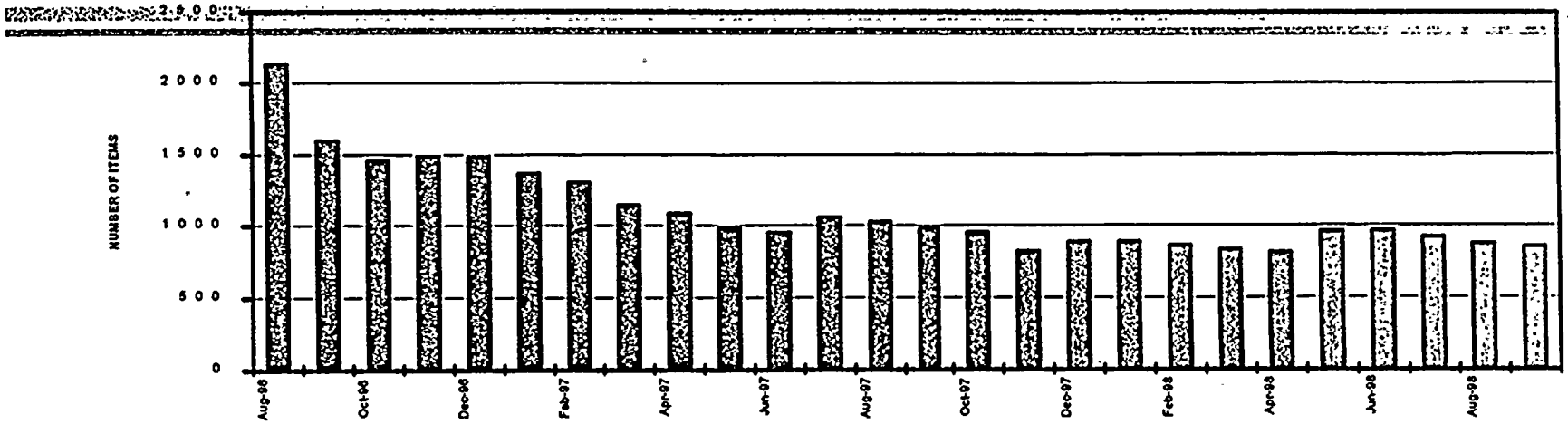
98 Qtr 3: 968

SYSTEM	PLANT/ TURBINE TRIPS	CAPACITY LOSSES BY SYS	ESF ACTUATIONS	MRULE STATUS	SYS DEFICIENCY INDEX	TMRs/Operator Work Arounds
EAC						
EDC						
[illegible]				a(2) a(2)		
				a(2)		
CRD					0/0	
DG						
SW						
RHR						
HPCS						
RCIC		1.3 0				0/1
		0			0/1	
DEH						
RFW		0.00			1/0 1/0 1/0	
TG					1/0 1/0 0/0	
COND		1.3 0			0/0 0/0 0/0	
		0				
RPS						
TSW						
CAS						
CVB/CEP/CSP						
NS4						
CW			0 0		1/0 2/0 0/0	
MS		0.50 0.38 0.00			0/0 0/0 0/0	
		0.00				
AR						
OG						
SCW						
RRC	0					1/0

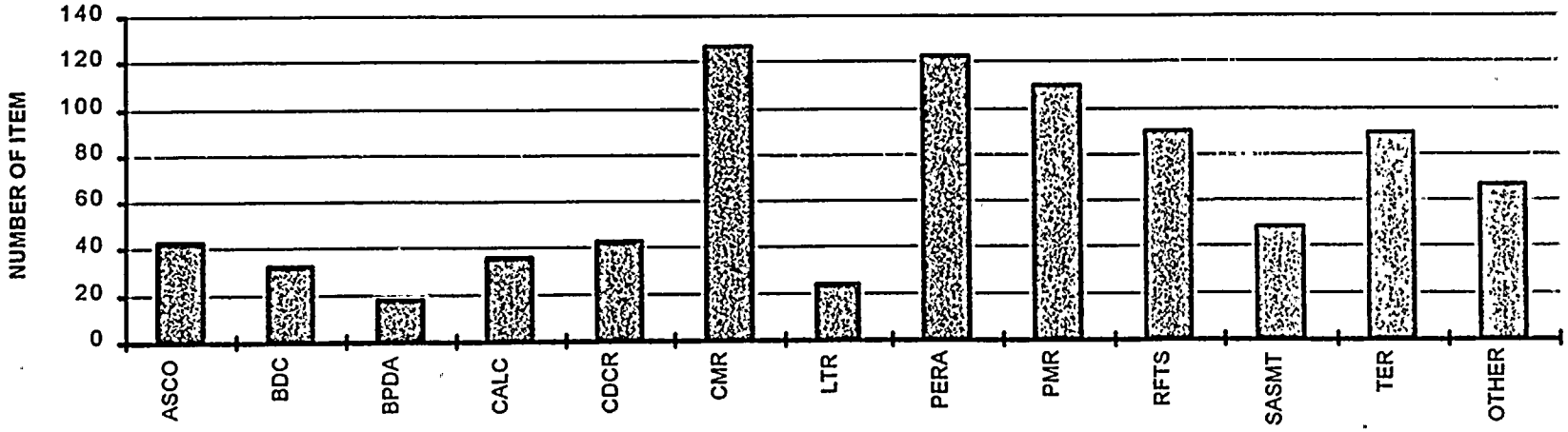
Human Performance



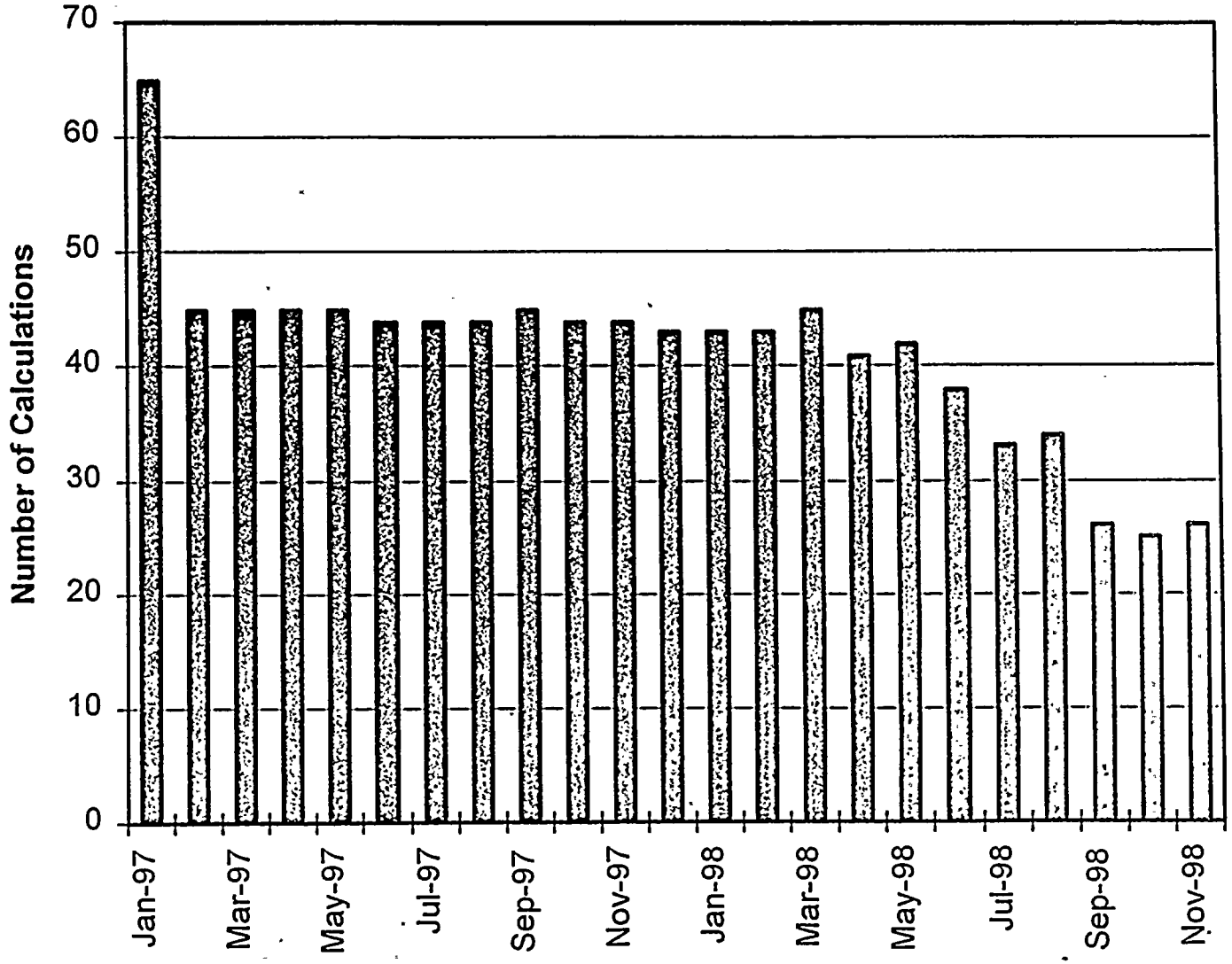
Engineering Backlog



BACKLOG BY DRIVING DOCUMENT TYPE



Calculations with more than 5 CMRs



Major Scheduled Actions
[PTL]

- Quality of Work Expectations *[12/98]*
- Engineering Work Management System *[12/98]*
- Project Implementation *[1/99]*
- Backlog Evaluation *[1/99]*
- System Performance Monitoring *[4/99]*
- Consolidate Problem Identification Methods *[6/99]*
- Design Data Base *[2/00]*

Engineering Successes and Challenges

Current Successes

- Project Controls
- Corrective Action Program
- Self Assessment
- Business Plan

Current Challenges

- System Performance Monitoring
- Design Data Base
- Leadership Development

Corrective Action Program

Cheryl M. Whitcomb
Assistant to the Plant General Manager

Improvement Initiative

- PSA identified need for program improvements primarily related to problem identification and correction
  - » Timeliness of PER dispositions and corrective actions
  - » Identification of repeat occurrences
  - » Quality of root cause analysis
  - » Identification of problems on Gold Cards rather than PERs

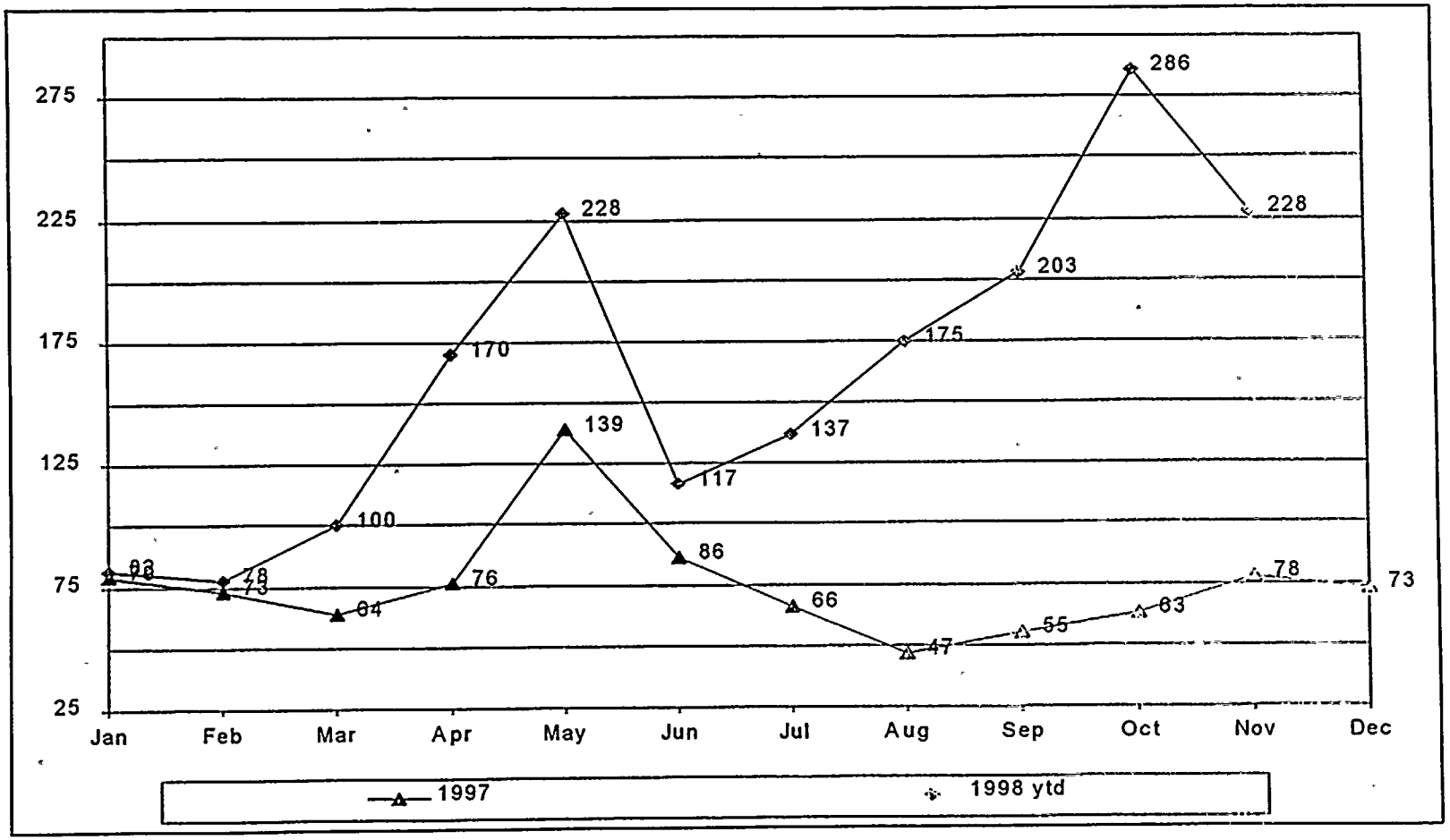
Improvement Initiative

- Strategic plan established to identify and implement improvements focused on
  - » problem identification and correction
  - » program responsibilities
  - » program indicators

Problem Identification and Correction Improvements

- Process enhancements (completed/in-progress)
  - » PER initiation criteria eliminated - process used to identify and correct all problems
  - » PER initiated by the individual who identifies the problem
  - » Review of Gold Cards enhanced to ensure PERs are initiated for PER related issues

Number of PERs per Month



Problem Identification and Correction Improvements

» Quick disposition of less significant problems at time of initiation

» Corrective actions focused on fixing the problem

» Modified significant PER criteria

Problem Identification and Correction Improvements

- Root cause analyses quality (completed)
  - » Dedicated group established
  - » Group trained
  - » All RCAs performed by dedicated group

Problem Identification and Correction Improvements

- Trending enhancements (in-progress)
  - » Identification of repeat occurrences, adverse trends, local/global issues enhanced by
    - –better characterization of what and why the problem occurred
    - –performance of a common cause analysis on a periodic basis
- Program procedures more user friendly (in-progress)

Program Responsibilities

- Program roles and responsibilities revisited to ensure understanding and accountability (completed)

Program Indicators

- Current indicators enhanced (completed)
  - » Timeliness of corrective actions
- New indicators established, focused on problem identification and correction (in-progress)
  - » Repeat and significant problem rate
  - » Number of self-identified conditions
  - » Root cause analysis quality