

PERFORMANCE ENHANCEMENT PROGRAM
FOR
PUBLIC SERVICE COMPANY OF COLORADO
FORT ST. VRAIN - NUCLEAR GENERATING STATION

PERFORMANCE ENHANCEMENT PROGRAM PROJECT MANAGER BINDER

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PERFORMANCE ENHANCEMENT PROGRAM

PROJECT MANAGER BINDER

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A. PERFORMANCE ENHANCEMENT PROGRAM

I. INTRODUCTION

In PSC's March 29, 1985, response to the NRC, we amplified an Action Plan that pertained to addressing several management and operational concerns at Fort St. Vrain.

Attached to that response were additional details describing six overall projects (and associated sub-projects) that have been defined as the initial start-up of the Performance Enhancement Program (PEP). Each sub-project (from hereon is referred to as a project) is identified with the person responsible and the targeted completion dates. A summary bar chart schedule was prepared to summarize the projects.

Performance to this schedule will be monitored as part of the Master Planning and Scheduling function that is being established.

The Performance Enhancement Program has been established to identify, monitor, and coordinate several projects that are specifically designed to increase the overall conduct of operations at Fort St. Vrain.

The Mission of this program is as follows:

"To assign and complete activities that will improve the overall quality, management and operation of the Public Service Nuclear Organization in a controlled, timely manner. Progress will be monitored by the PEP Manager/Master Planning and Scheduling function. The function will provide Senior Management the ability to make proper decisions for allocation of resources and the prioritization of commitments at the appropriate time and in the proper manner."

The Performance Enhancement Program will start with six overall initial projects which encompass PSC concerns, NRC concerns, the recommendations from the Management Assessment Report, and corrective actions that were already underway.

The six initial projects are as follows:

PROJECT I - ORGANIZATIONAL CONCERNS

The purpose of this project is to address the concerns raised in the Management Assessment Report and Section 4 of the NRC's letter of October 16, 1984 pertaining to the management of the PSC Nuclear Organization.

The actions taken, or in progress, to resolve organizational concerns include restructuring the Electric Production organization to enhance the span of control of the Vice President, Electric Production; establishment of a Performance Enhancement Program for the Nuclear Organizations; development of organizational charters to include mission and function statements concurrent with updating of related procedures, policies and guidelines; development of a policy to formalize the transfer of information and communication throughout the nuclear organization; and identification and augmentation of additional resource and manpower requirements for the nuclear organizations.

Additionally, an analysis will be undertaken to determine the feasibility of relocating the Nuclear Engineering Division and the Licensing and Fuel Division to the Fort St. Vrain site.

PROJECT II - MASTER PLANNING AND SCHEDULING

This project will establish a Master Planning and Scheduling function within the Nuclear organization. The function's purpose will be to provide senior management attention to major project activities and provide a mechanism to prioritize planned projects, allocate resources, and monitor status and schedule of each project. The function will coordinate the activities of the four nuclear divisions to insure adequate resources are assigned and available to scheduled projects in addition to normal workloads of non-project tasks. An overall schedule of projects and events will be defined covering the short and long-term (two to three years).

PROJECT III - ESTABLISH PREVENTIVE MAINTENANCE
PLANNING AND SCHEDULING

This project will take the existing preventive maintenance program and incorporate a planning and scheduling function. The function will adapt current procedures and computer systems to specifically define maintenance activities, in relation to estimated manpower requirements by skill, required equipment, tools, and materials. Maintenance tasks will be scheduled based upon engineered frequencies and upon available resources. Priorities will be set and evaluated by plant management. Scheduling of maintenance will insure that a significant amount of time is still made available for emergency or unplanned maintenance. Scheduling will also consider the needs of planned outage or construction activities. This program will interface with the Master Planning and Scheduling function, as appropriate for major preventive maintenance programs.

PROJECT IV - UPGRADE NUCLEAR POLICIES AND PROCEDURES

This project involves six sub-projects, and addresses the development of or revisions to procedures affecting the Nuclear organization.

This includes design change/modification procedures and attendant safety evaluations as well as prioritizing implementation tasks; implementation of a commitment control program and attendant procedures; documentation of policies and procedures used in determining commitments; a review of essential regulatory documents to define items PSC must address; an upgrade program for operating, maintenance, and modification procedures; and the review and revision of exclusion list documents involved in the procurement process.

PROJECT V - IMPROVE MANAGEMENT AND NUCLEAR DIVISION
PERSONNEL TRAINING

Public Service Company of Colorado recognizes the need for highly trained and well qualified management and technical personnel in order to safely and efficiently operate the Fort St. Vrain Nuclear Generating Station. In order to provide this resource, PSC is implementing new training programs and improving existing programs. In concert with our Corporate Training and Development Department, PSC is upgrading the management skills

program to provide an individualized program for each participant by assessing strengths and weaknesses and applying tailor-made improvement programs. PSC is assessing the current level of involvement of the Nuclear Organization staff in various industry groups, with the goals to improve their understanding of common industry problems and solutions and increase their awareness of events external to Public Service Company of Colorado.

Training in each of the four Divisions supporting Fort St. Vrain - Nuclear Production, Quality Assurance, Nuclear Engineering, and Nuclear Licensing and Fuels - will be strengthened greatly. Public Service Company of Colorado has committed to achieve INPO accreditation of the training programs, primarily in the Nuclear Production Division. PSC is firmly committed to a comprehensive training program for all personnel associated with Fort St. Vrain. Significant progress has been made toward INPO accreditation. Consistency in the training programs within the Nuclear Production Division is being accomplished by consolidating the program under the Support Service Manager at Fort St. Vrain.

PROJECT VI - PLANT CONDUCT OF OPERATIONS

This project will address specific improvements within the Nuclear Production Division to improve its conduct of operations. These activities were not identified by the Management Assessment Report, but are based upon NRC concerns and concerns of PSC operations management. The purpose of these activities is to correct the root causes of various NRC observations, most importantly in the area of failure to follow defined procedures. Also, an evaluation of the adequacy of existing facilities will be completed and a plant signage program implemented.

During the implementation of the Performance Enhancement Program, these six major projects will be expanded, with additional projects added to insure that Fort St. Vrain achieves a consistent standard of excellence that will be of benefit to our employees, customers, and shareholders.

You have been selected to participate in this program as a Project Manager. Your selection was based on your management skills of coordinating all aspects of a particular project. You were not selected to accomplish each project single handedly. You have been given the

responsibility and authority to task others to provide input to you in order to successfully complete your project. The success or failure of your project, the Performance Enhancement Program, and even the future of Fort St. Vrain lies with the ability of each Project Manager to communicate and manage his project in an effective and efficient manner.

II. PERFORMANCE ENHANCEMENT PROGRAM MANUAL

The management of the Nuclear Organization, including all Division Managers, the Master Planning and Scheduling Function, and Corporate Staff are at your service to assist you in whatever areas you desire. This manual is but a start in that direction. Please use it, correct it, keep it up-to-date, and question it where appropriate.

This manual is divided into several sections. The first section pertains to the details of the PEP and your role as a Project Manager. The second section is for you to keep a current status of the program's progress as a whole and how your particular project(s) fits into the program. The third section relates directly to your particular project(s). Each project section is further divided into five sub-sections. They are as follows:

1. Project Description and Definition:

This section contains all the information you, or anyone, needs to know about the project. What it is, goals and objectives, schedules, project team organization, specific task identifications, resource allocations, key contact individuals, and any other project specific information you deem appropriate.

2. Project Status Reports:

On at least a monthly basis, you will provide status reports on the progress of your project. Copies of each report should be kept here for record keeping.

3. Project Documentation:

All drafts and/or final documents prepared for submission for the project should have a copy placed in this section. Where the documents may be voluminous, a control schedule may be used to monitor and control submissions.

4. Project Correspondence:

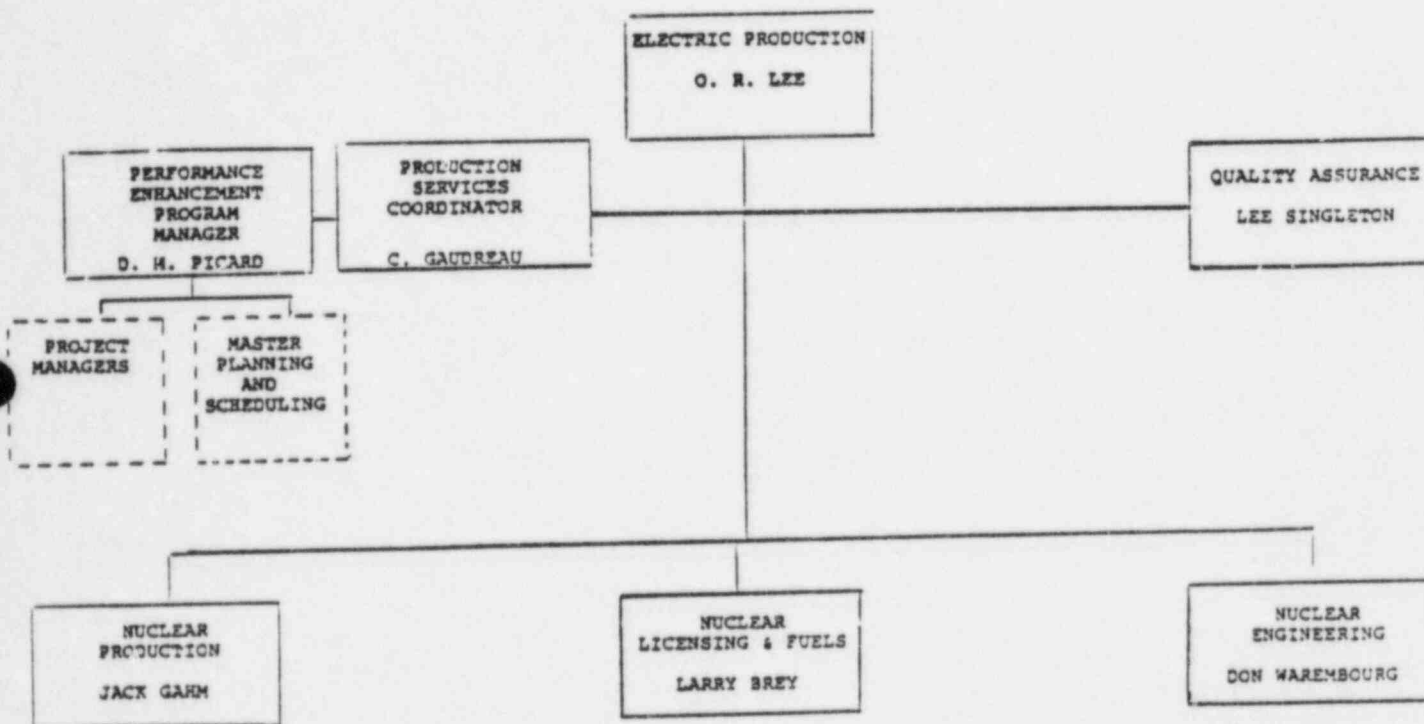
All letters, memos, and notes to file should be chronologically filed in this section. This would also include telephone conversation record sheets.

5. Notes and Miscellaneous Materials:

Photographs, sketches, random thoughts, or anything else pertaining to the project would be found here.

III. PEP ORGANIZATION AND KEY INDIVIDUALS

As a Project Manager, you will be working in a functional capacity directly for Oscar Lee, who is responsible for the PEP. This is a matrix organization and does not effect your normal managerial/supervisory relationship. Mr. Lee will be assisted in his PEP management role by Doug Picard, PEP Manager and Carrie Gaudreau, Production Services Coordinator. These functions were specifically established to assist you in the management of your project. Your responsibilities and authority are described further in the following section (A.IV.).



PERFORMANCE ENHANCEMENT PROGRAM

KEY INDIVIDUALS

O. R. Lee

LOCATION

Diamond Hill

Telephone

571-7105

DIVISION MANAGERS

Larry Brey
Don Warembourg
Jack Gahm
Lee Singleton

Diamond Hill
Diamond Hill
Fort St. Vrain
Fort St. Vrain

571-8404
571-7214
785-1200
785-1350

CONSULTANTS/SUPPORT

Carrie Gaudreau
Jan Stufflebeam
Doug Picard
Mike Zachary
Dave Miller
Don Kelly
John Wogge
Dave Goss

Diamond Hill
Diamond Hill
VZM
VZM
VZM
VZM
Stoller
Diamond Hill

571-7107
571-7108
571-7107/08
571-7107/08
785-1364
785-1364

571-7795

PROJECT MANAGERS

Carrie Gaudreau
Jack Gahm
Don Warembourg
Chuck Fuller
Frank Novachek
Jack Reesy
Mike Holmes
Lee Singleton
Larry Brey
Ted Borst
Doug Picard
Mike Zachary
Martin McNulty

Diamond Hill
Fort St. Vrain
Diamond Hill
Fort St. Vrain
Fort St. Vrain
Diamond Hill
Diamond Hill
Fort St. Vrain
Diamond Hill
Fort St. Vrain
Diamond Hill
Diamond Hill
Headquarters

571-7107
785-1200
571-7214
785-1202
785-1201
571-8406
571-8409
785-1350
571-8404
785-1203
571-7107/08
571-7107/08
571-3265

PERFORMANCE ENHANCEMENT PROGRAM

PROJECT MANAGER RESPONSIBILITIES

Essentially, a Project Manager is responsible for completing his/her project on schedule, within the proper scope, and in a quality manner. The PEP Manager/Master Planning and Scheduling function will assist you in the planning, scheduling and monitoring of yours and other PEP projects. Each Project Manager must follow some proven project management techniques. Key ones applicable to this program are described below.

1. Development of Project Work Plans and Schedules

Prior to any work on the project, a work plan should be prepared. The plan should define the desired deliverables (the end product such as procedures, policies, documents, etc), the detailed step-by-step work tasks (or activities), manpower estimates (man-days of "doing" time), persons and/or skills required for each task, and the sequence in which the tasks (prerequisites and interdependancies) will be completed. Based upon the resources available, the overall project schedule can be prepared. Key milestones and their deliverables are identified and then tracked by both the Project Manager and the PEP Manager/Master Planning and Scheduling function. It is the responsibility of the Project Manager to communicate the status of his project.

2. Control of Deliverables

The Project Manager should carefully identify and monitor the preparation of deliverables or end products. Depending upon the scope of work, control schedules should be prepared. For example, for Project III.3 - Develop Preventive Maintenance Engineering Program, a detail schedule of the procedures being developed (or revised) should be prepared. It would show the procedure, the estimated manpower, person responsible for the procedure and the status (e.g., preliminary draft, technical review completed). The control schedule would be constantly updated by the Project Manager. It is the responsibility of the Project Manager to insure the deliverable is in the highest state of quality and is

accurate. This includes scheduling for independent reviews, graphics, printing, etc.

3. Obtaining Resources for Project Tasks

The Project Manager is responsible for getting the proper manpower, equipment, and materials to complete all project tasks. In some cases, these resources will be from other divisions or departments and the Project Manager will have to work through the proper division or department head in order to obtain the desired resources. Should a problem surface at this point, the PEP Manager/Master Planning and Scheduling function will be involved to work out priorities and line management will obtain additional divisional resources as required.

4. Revising Project Work Plans

Any changes to the project scope or tasks should be reflected in current work plans. Additionally, modified or deleted tasks (with justification) should be included in an updated Work Plan. The revisions affecting the overall schedule and milestones should be then provided to the Master Planning and Scheduling function.

5. Report Project Status

The Project Manager must report the status of the project on a monthly basis in writing. Status reports will be submitted as deemed necessary by the Project Manager and the PEP Manager/Master Planning and Scheduling function, but not less than at the end of each month. The format identified in Section A.V. should be utilized. Additionally, progress should be indicated on the Current Schedule computer printout by activity showing for each percent complete, change in duration, additional activities representing delay items, or modified prerequisites.

The first status report is due Tuesday, April 30, 1985 and the second on Wednesday, May 15, 1985.

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VI. SPECIFIC GUIDELINES AND INSTRUCTIONS

1. Project Description:

Review for accuracy and completeness. Insure that the project is a real one and has a priority for completion. Understand fully what the end product or deliverable will be, what form it should be in, and when is it required.

2. Project Work Plans:

Review for accuracy in terms of completeness and that all key activities have been identified. When scheduling individual work plan activities insure that prerequisites are identified and that each activity has a duration in terms of elapsed working days (or weeks).

3. Project Schedule:

relates closely to Item 2 above but clarifies that durations of individual activities should not be keyed directly to man-day estimates but should allow for the fact that an individual may not be able to concentrate all of his efforts at one time. For example: Writing a procedure may take 2 man-days of effort spread out over a 10 working day period. You should then use 10 working days as the duration of the activity.

Also, insure each deliverable has an identifiable milestone. The activities should be reviewed and milestones identified.

4. Project Status Report:

Submit "Project Status Report" on a periodic basis (minimum once/month) with "Current Schedule" marked up in red to reflect changes in duration, percent complete, and/or activity description. The "Project Status Report" should be filled out showing work completed (by task, ID number/name, when and by whom), the planned activities for immediate work to be accomplished, and any problems encountered. Problems encountered may range from a lack of resources, changed priorities, incomplete prerequisites or any item that will affect your ability to meet the

schedule. Revised work plans should also be submitted
at this time.

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V. PROJECT STATUS REPORT

PROJECT:

PROJECT MANAGER:

Date:

Status As Of:

Work Completed Since Last Report:
(Attach Work Plan Updates)

Planned Activities:

Problems Encountered:

V Divisional Activities

The following describe in more detail the work under way in each of the Nuclear Divisions. The division materials describe in more detail the organization changes, specific involvement (and accomplishments) in the Performance Enhancement Program (PEP) and other pertinent activities underway prior to forming the PEP.

- A. Quality Assurance Division
- B. Nuclear Production Division
- C. Nuclear Licensing and Fuel Division
- D. Nuclear Engineering Division

A. Quality Assurance Division

I. Organizational Changes

- * Major organization changes include transfer of the Maintenance Quality Control Unit to the Quality Assurance Division to provide further independence in performing Quality Control functions and transfer of the Records Center Administration to the Nuclear Engineering Division.
- * Six new positions were created within Quality Assurance Division during this period.
- * The additional personnel will support the upgraded Quality Assurance Division training program which reflects the latest INPO and industry guidelines and standards, provide an improved Quality Assurance indoctrination and training program to personnel within the Nuclear Project, and support the maintenance planning and engineering functions. These preceding functions are delineated in the PEP.

II. Performance Enhancement Program Activities include:

- * Upgrading and improving the Quality Assurance Division's training program and Quality Assurance indoctrination and training program for Nuclear Project personnel with emphasis on INPO accreditation guidelines and criteria.
- * Revising the Quality Assurance Division's Charter to provide detailed mission and function statements.
- * Establishing a Quality Assurance function to identify manpower requirements and priorities to schedule division activities.
- * Reviewing the Exclusion List at Fort St. Vrain governing material access to the site. This will be evaluated, and incorporated into the Fort St. Vrain Administration Procedures Manual as appropriate. In addition, the consultant's recommendations on procurement will be reviewed, and procedures will be revised as necessary.

III. Other Activities in Progress

- * The Quality Assurance Division has emphasized that time will be devoted to procedure review and training to eliminate root causes for failure to follow procedures.
- * In order to provide the independence necessary to effectively implement the Quality Assurance Program, all Section Q Administrative Procedures, except Q-0 and Q-1, will be authorized solely under the signature of the Manager, Quality Assurance Division.
- * A revision to the Administrative Procedures Manual Q-16, Corrective Action System, has been prepared to address a CAR escalation system.
- * A review of Quality Assurance receiving inspection procedures will be made and procedures will be provided or revised, as needed, to address inspection requirements.
- * To provide additional emphasis on and enhance the Maintenance Quality Control Program, an evaluation will be undertaken.
- * The Quality Assurance Operations Department will further expand the monitoring activities to supplement the areas that are presently covered by the Quality Assurance Audit Program and the Nuclear Facility Safety Committee Audits.
- * A review of safety related procedures and changes to verify conformance to applicable quality requirements was started in the Quality Assurance Division in January, 1985.
- * The procedures needed for the review by the Quality Assurance organization of the content and adequacy of the Technical Specification Procedures has been issued.
- * The review of the Technical Specification Surveillance Requirement (SR) Test Procedures, excluding the Environmental Surveillance Requirements (ESR's), will begin in conjunction with the implementation phase of the SR Test Program.

B. Nuclear Production Division

I. Organizational Changes

- * The Management of the Nuclear Production Division has been strengthened through a reorganization that redistributes areas of responsibility and capitalizes on individual's strengths.
- * The reorganization change required the addition of 45 technical, training, maintenance, operations, and clerical personnel.
- * The Support Services Department was created on September 1, 1984. The Water Chemistry and Training Units were moved into this department from the operations area. In taking this action, the span of control of the Station Manager was tightened, which has allowed him to concentrate his attention on the operation and maintenance of the facility.
- * A Scheduling, Planning, and stores organization has been expanded to implement and provide increased attention to the areas of long term planning/ preventive/ predictive maintenance and outage scheduling, and material control.
- * The Technical Services organization is being expanded to improve management oversight and control and implement a comprehensive preventive/predictive maintenance and failure trending program.
- * The Training organization is being expanded to accomplish the requirements of INPO accreditation and more importantly, provide the needed performance based training to ensure that plant personnel are well qualified to perform their assigned tasks.
- * Responsibility for fuel handling activities has been moved to the Technical/Administrative Services Department. This will allow for better coordination with preventive maintenance, spent fuel shipping, and core management programs.

II. Nuclear Performance Enhancement Program Activities

- * A Division Charter has been written which delineates responsibilities and eliminates confusion and redundancy.
- * A comprehensive preventive/predictive maintenance program is being developed to control and monitor maintenance activities associated with equipment essential for reliable plant operation.

- * A Planning and Scheduling organization is being implemented, and procedures are being developed to coordinate preventive/predictive maintenance and long term outage activities.
- * All Division procedures are being reviewed using the INPO Good Practice for adequacy, content, human factors, and format, in order to prevent further problems with procedural compliance. Special attention is being given to Systems Operating Procedures, Maintenance Procedures, and Results Procedures.
- * Initial and continuing training programs are being developed to meet Public Service Company of Colorado's commitment to the NRC through Resource Committee (NUMARC) to have all training programs ready for accreditation by the Institute for Nuclear Power Operations (INPO) by December 31, 1986.
- * Management visibility and involvement is being increased through establishment of a plant tour procedure and a comprehensive housekeeping program.
- * Aggressive actions are being taken to improve Conduct of Operations in the areas of Procedural adequacy and compliance, management responsibilities, operator aids and plant signage, work planning, shift turnover, training, independent verification, Station Service Request (SSR) backlog reduction, and corrective actions, and Controlled Work Procedure (CWP) control improvement. Integration of these components into a comprehensive program will provide positive steps to improve the day-to-day operation of the plant.
- * A preliminary Facilities Planning report has been completed which addresses the adequacy of the plant facilities based on the current plant staff level and anticipated future growth.
- * A Comprehensive Water Chemistry get well program is being implemented to correct deficiencies noted in previous NRC, INPO, and PSC QA audits. A total of 1126 person days is projected to be necessary to complete this program.

III. Other Activities in Progress

- * Communications within the Division are being improved through the implementation of weekly staff meetings at all levels. These meetings provide the opportunity to communicate policies, goals and objectives, discuss current work activities, and receive feedback from the performance level. All meetings are documented for follow up of open items and future reference.
- * Several program changes are being implemented to improve our Emergency Response Capabilities in the areas of facility upgrade, training improvements, and the utilization of "dress rehearsal" exercises. An extensive advertising and door-to-door personal contact campaign has been initiated to improve the effectiveness of the Early Warning Alert System.

C. Nuclear Licensing and Fuels

I. Organizational Changes

- * In September, 1984, a Licensing Department was established to serve as a central focal point for all NRC interface matters.
- * In March, 1985 a new division (Nuclear Licensing and Fuels) was created to handle licensing issues.
- * In November, 1984, a Nuclear Licensing Operations Unit was established at the Fort St. Vrain site to address site licensing issues.
- * Executive Management approval has been given to the addition of nine additional personnel to the Licensing organization.
- * Temporary personnel are being used to backfit and input selected NRC/PSC correspondence into a computerized licensing document/correspondence data base.

II. Performance Enhancement Program Activities

- * A systematic review of NRC documents will be undertaken, utilizing personnel with light water reactor backgrounds.
- * An improved system for controlling NRC commitments will be developed.
- * Improvements will be made in the review and input of "P" correspondence into a computer data base.
- * The licensing review and safety basis for new Technical Specifications will be improved.
- * Improved safety analysis reports for new and revised procedures and tests will be prepared.
- * A training program for Nuclear Licensing and Fuels personnel is being established.

III. Other Activities in Progress

- * All Fort St. Vrain Technical Specifications have been reviewed and substantial revisions have been submitted to NRC in order to upgrade and standardize them with the Nuclear power industry.
- * In addition to daily telephone contact, bi-weekly face-to-face meetings between the Nuclear Licensing and Fuels Division Manager and the NRC were initiated in April 1985.

D. Nuclear Engineering Division

I. Organizational Changes

- * Additional personnel to monitor contractor activities to better coordinate operations maintenance/construction interface.
- * Establish a second engineering group with Site Engineering to provide better response to plant activities for design or technical support.
- * Establish a Divisional Planning and Scheduling function to provide coordination of design efforts with plant operation, maintenance, and outage activities.
- * Establish a training/procedures group to provide training and retraining with the objective of procedural adherence, and to review, revise and issue procedures to effect better overall procedure control.
- * Establish a Special Projects Department to reduce the engineering backlog of work, provide direct assistance to the Engineering Division Manager, and technical support for activities needing immediate attention.
- * Overall, the organizational changes required the addition of 21 technical, training, and clerical personnel.

II. Performance Enhancement Program Activities

- * Provide management control, through a Planning/Scheduling function, to coordinate the design, material delivery, and construction activities to be responsive to Plant needs for operation, maintenance, planned and unplanned outages.
- * Establish a Priority System to all modification work to permit better allocation of resources to accomplish modification activities.
- * To provide orientation, training, and procedure review, a group is being established with the charter to provide the required procedure training, technical training as appropriate, and procedure review with the objective of improving procedure adherence.

- * A Task Force has been established to review and simplify the modification process, to eliminate redundancies, and improve overall implementation and response to Plant needs.
- * Establish a schedule whereby all Nuclear Engineering Procedures will be reviewed and revised to assure procedural compliance with regulations, consistency, eliminate redundancies, simplification where possible all in the interest of improving response and procedural adherence.
- * An overall study is being performed by a consultant to determine if consolidation of all Nuclear activities at the Fort St. Vrain site is warranted.
- * Charter/Mission Statements have been established for each Division, Department, and Unit to better define areas of responsibility and authority to eliminate redundancies and duplication of efforts, and to enhance communication and coordination of activities.