

OCT 3 1986

In Reply Refer To:
Docket: 50-267/86-12

Public Service Company of Colorado
ATTN: Robert O. Williams, Jr.
Vice President, Nuclear Operations
P. O. Box 840
Denver, Colorado 80201-0840

Gentlemen:

This constitutes additional appendices to the Systematic Assessment of Licensee Performance (SALP). It consists of:

- ° Your written commitments and comments
- ° A summary of the SALP meeting
- ° A summary of the SALP response meeting
- ° Our conclusions, based on your written comments.

Your written comments were documented in letter serial P-86535 dated August 29, 1986. At the public meeting held between NRC and PSC representatives at the Fort St. Vrain site on August 5, 1986, members of the NRC staff presented a summary of the SALP Board Report. A meeting summary is included as enclosure 1. On August 28, 1986, PSC and NRC representatives met in the Region IV offices at which you and your staff provided a briefing of your planned written comments. A summary of that meeting is included as enclosure 2.

Based on our review of your written comments, we have concluded that you have a comprehensive recognition of the issues presented in the SALP Board Report. We have also concluded that you have developed plans which should effectively address and resolve these issues. We note that your proposed actions in the areas of emergency preparedness and quality assurance appear to address our concerns. We understand that you are undertaking a number of initiatives to improve your emergency preparedness program and that many of these will be accomplished by the end of your current outage. Both NRR and IE indicate that they have also reviewed your response. We shall be monitoring the effectiveness and timeliness of your corrective actions through the inspection program.

PI:RPB/A
MSkow:cnm
9/20/86

C:RPB/A
JPJaudon
9/20/86

C:RPB
JEGagliardo
9/21/86

D:DRSP
EHJohnson
9/29/86

D:DRSS
RLEargart
10/10/86

RA
RDMartin
10/3/86

B610100682 861003
PDR ADOCK 05000267
Q PDR

IE45
1/1

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

Sincerely,

ORIGINAL SIGNED BY
ROBERT D. MARTIN

Robert D. Martin
Regional Administrator

Enclosures:

As stated

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Production Division
Fort St. Vrain Nuclear Station
16805 WCR 19½
Platteville, Colorado 80651

L. Singleton, Manager, Quality
Assurance Division
(same address)

Colorado Radiation Control Program Director

Colorado Public Utilities Commission

bcc to DMB (IE40)

bcc distrib. by RIV:

RPB
Resident Inspector
Section Chief (RPB/A)
Section Chief (RSB/ES)
MIS System
RIV File
DRSS

DRSP
R. D. Martin, RA
RSB
R&SPB
RSTS Operator
M. Skow

SUMMARY OF SALP MEETING

Date: August 5, 1986

Time: 11:00 A.M., MDT

Location: Visitor Center at Ft. St. Vrain, Weld County, Colorado

Principal Attendees:

NRC: Robert D. Martin, Regional Administrator, RIV
James G. Partlow, Director, Division of Inspection Programs, IE
Frank J. Miraglia, Director, Division of PWR Licensing, NRC
James E. Gagliardo, Chief, Reactor Projects Branch, RIV

PSC: R. Walker, President
R. O. Williams, Vice President, Nuclear Operations

Other members of both the MRC and PSC staffs were also in attendance.

Subject: A briefing by the NRC of the principal findings, conclusions and recommendations of the SALP Board Report.

SUMMARY OF THE SALP RESPONSE MEETING

Date: August 28, 1986

Time: 9:00 A.M., CDT

Location: Region IV Offices, Arlington, Texas

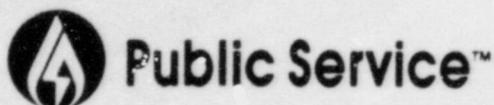
Principal Attendees:

NRC: Robert D. Martin, Regional Administrator, RIV
Eric H. Johnson, Director, Division of Reactor Safety & Projects, RIV
Richard L. Bangart, Director, Division of Radiation Safety &
Safeguards

PSC: R. O. Williams, Vice President, Nuclear Operations
J. Gahm, Manager, Nuclear Production
L. Brey, Manager, Nuclear Licensing & Fuels
D. Warembourg, Manager, Nuclear Engineer
L. Singleton, Manager, Quality Assurance

Other members of the NRC and PSC staffs also attended.

Subject: Highlights of planned PSC actions in each functional area of the SALP Board Report. There was particular emphasis in the briefing on the planned actions in the functional area of Emergency Preparedness.



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R.O. WILLIAMS, JR.
VICE PRESIDENT
NUCLEAR OPERATIONS

August 29, 1986
Fort St. Vrain
Unit No. 1
P-86535

Mr. Robert D. Martin
Regional Administrator
Region IV
Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76011

Docket No. 50-267

SUBJECT: PSC RESPONSE TO 1986
SALP REPORT

REFERENCE: NRC Letter Martin to
Williams, dated 07/17/86
(G-86373)

Dear Mr. Martin:

As you are aware, PSC has been engaged for some time now in an overall performance enhancement program. This effort has been supported by various programs which have been previously discussed and documented with the NRC staff. Although many of these programs were in their early development during this SALP period, I believe that as these programs mature they will be effective in improving our overall performance.

In addition, since my appointment as Vice President of Nuclear Operations, with the support of our corporate strategic and operational planning department, I have undertaken a detailed evaluation of our management performance:

- I have reviewed the results of the group planning sessions held by the four nuclear division managers to assess the current situation and identify the issues affecting their organizations.
- I have conducted an organization review with all levels of the nuclear management team. The purpose was to review their responsibilities, key issues, commitments to quality, and human resource needs.

~~8609150230~~ *SRP*

I have conducted sessions with my management team to clarify our mission and direction and to identify the major issues confronting us.

Based on these and previous evaluations, I have determined that although our program has room for significant improvement, it contains the key ingredients and employee dedication to assure protection of the health and safety of the public throughout any operational event. However, I do not feel our nuclear management performance is appropriate for the quality of operation to which I am accustomed and the management team at Fort St. Vrain desires. We intend to take appropriate corrective measures to elevate our management performance and become proactive in meeting both our corporate goals and addressing the issues surrounding our relationship with the NRC. I believe the low SALP performance ratings we have received have as their root cause certain basic management inadequacies:

Our organizational structure is basically sound. However, we have not been working effectively as a team to establish and implement plans which support our corporate and regulatory responsibilities.

We believe our employees are individually committed to quality. However, management employees at all levels have not been consistently carrying out the management functions of planning, leading, organizing, and controlling in the most effective manner. This management issue has affected the focus of the overall organization in producing the highest level of quality in all activities and in particular, effective implementation of our Quality Assurance program.

In response to these root causes, we will implement the following corrective actions:

Develop and implement a senior planning team consisting of myself, all division and department managers with support from Master Planning and Scheduling. The purpose of this group is to:

- (1) improve the management process in the ongoing identification and prioritization of key issues,
- (2) provide dynamic planning guidance to the organization, and
- (3) monitor, evaluate and correct ongoing performance.

- Under the guidance of the senior planning team, "issue specific" task forces will be created to develop action plans that respond to key issues. Issue specific task forces may be established for such key issues as design control, outage management, quality, training, security, maintenance, emergency preparedness and licensing.
- Under the auspices of the senior planning team, improve the performance tracking system, and provide indicators to monitor performance in key areas with the objective of providing proper direction of these efforts.
- We will continue to make extensive use of corporate and qualified outside resources to facilitate the enhancement of our nuclear management team. This is an ongoing effort utilizing, as examples, strategic and operational planning, human resource development, compensation, public affairs (external and internal communication) and employment.

I believe these actions will provide us with an aggressive, proactive management climate that will provide the foundation for the successful implementation of the performance improvements which are detailed in the SALP responses in Attachment "A".

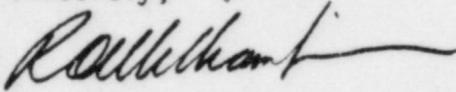
I am firmly committed to these corrective measures and have taken action to assure their timely implementation. This SALP report has provided a constructive evaluation of our performance and I assure you that appropriate resolution of our shortcomings is of paramount importance. I appreciate your acknowledgement that we continue to maintain an adequate program to assure the public safety and am comfortable that the actions we are undertaking will significantly improve those areas of low performance to maintain the significant trust that is implied in holding an operating license for a nuclear power facility.

I have been discussing with you and NRR our anticipated schedule of events leading up to the restart of Fort St. Vrain. Attachment B addresses the management, technical and licensing issues associated with this schedule.

P-86535
Page 4
August 29, 1986

Please direct any concerns or questions regarding our course of action to me at 303/480-6900.

Sincerely,



R. O. Williams, Jr.
Vice President
Nuclear Operations

ROW/HLB/js
Attachment A - SALP Responses
Attachment B - Schedule

ATTACHMENT A TO P-86535

SALP REPORT REPOSSES

SALP REPORT RESPONSES

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FUNCTIONAL AREA A

PLANT OPERATIONS - MANAGEMENT ATTENTION

ISSUE

Licensing management attention in this functional area should remain at a high level.

CORRECTIVE ACTIONS TAKEN

Regular staff meetings are being held at all levels of management. The discussions in these staff meetings are routinely documented. The purpose of these meetings is two-fold: (1) the dissemination of information; (2) the improvement in the consistency and understanding of management objectives.

Distribution of staff meeting minutes is made interdepartmentally, and within departments. This effort is also directed at improving the consistency of management objectives, and has been very effective.

Management is taking a more aggressive approach in utilizing progressive disciplinary action when warranted, such as when a personnel error is due to lack of attention to detail. As a result of this policy, personnel are directly made aware that their future employment or advancement is specifically related to job performance.

We have instituted a policy of upper management participation in every major planned operations event or transient. As a result of this policy, the Station Manager or the Superintendent of Operations will normally be onsite and in the Control Room for critical operations such as plant start-up and boil-out. This program increases the visibility of management and promotes the concept of teamwork in plant operations. Management also gains first hand knowledge of the problems facing the operators. Decision making capability is available as specific problems in these critical events are identified.

To improve the operational activities between shifts, a formalized shift turnover procedure has been implemented. The procedure consists of detailed checklists, notation of unusual conditions, verification of staffing, etc. Shift briefings are also required. The increased formality of shift turnover has resulted in improved awareness of plant conditions.

PSC has completed the evaluation of relocating the Shift Supervisor's office so that direct, unimpeded access to the Control Room is available to the Shift Supervisor. Design preparation is in progress. Construction is expected to begin in the last quarter of 1986.

CORRECTIVE ACTIONS PLANNED

Fort St. Vrain management fully intends to maintain a high level of attention in this functional area.

The administrative workload of Shift Supervisors will be evaluated and corrective actions will be taken as necessary.

FUNCTIONAL AREA A

PLANT OPERATIONS - STAFFING

ISSUE

The licensee should take action to increase the number of licensed reactor operators and senior reactor operators.

CORRECTIVE ACTIONS TAKEN

During this assessment period two Reactor Operators were attending Senior Licensed Reactor Operator training.

The Operations staff was increased by three. Three additional individuals were qualified as Reactor Operators and assigned those duties.

The Operations staffing level is currently being evaluated as a part of the corporate planning process for the 1987 Operating Plan.

CORRECTIVE ACTIONS PLANNED

Four additional staff members from the Operations Department will be assigned to training to obtain Reactor Operator Licenses. This training will begin in October, 1986. That training will be accomplished in accordance with our accredited training program.

FUNCTIONAL AREA A

PLANT OPERATIONS - OPERATOR EVALUATION

ISSUE

The licensee should also take steps to evaluate critically the performance of all shift supervisors and senior reactor operators and take appropriate corrective measures as indicated. Specifically, knowledge of TS and other requirements should be assessed.

CORRECTIVE ACTIONS TAKEN

Management attention in this area has been increased.

We have developed and instituted the concept of "crew" coverage for operator shifts. Operations personnel are assigned to a semi-permanent "crew" which is rotated as a group to meet the shift coverage requirements. A teamwork concept is promoted among operations personnel. The program has an added benefit of improving a Supervisor's knowledge of the skills and abilities of a smaller group of subordinates. Communications to, from, and among the crew is improved.

CORRECTIVE ACTIONS PLANNED

Management will develop a means to perform a critical evaluation of all Shift Supervisors and all Senior Reactor Operators. This evaluation will be completed prior to restart. Management will take corrective measures as indicated by the evaluation.

FUNCTIONAL AREA B

RADIOLOGICAL CONCERNS - ALARA

ISSUE

A permanent ALARA program should be established that includes recommendations in Regulatory Guide 8.8.

CORRECTIVE ACTIONS TAKEN

As noted in the SALP report, an aggressive radiological control program is in place at Fort St. Vrain.

CORRECTIVE ACTIONS PLANNED

A permanent ALARA program will be established that includes the recommendations in Regulatory Guide 8.8, as appropriate for Fort St. Vrain, by August 1, 1987. This time frame will ensure that an active and unified Station ALARA commitment is made.

FUNCTIONAL AREA B

RADIOLOGICAL CONCERNS - STOP WORK AUTHORITY

ISSUE

The licensee's administrative procedures do not specify that senior health physics technicians have independent, stop-work authority for matters involving radiation protection.

CORRECTIVE ACTIONS TAKEN

Stop work authority has been given to health physics technicians in Administrative Procedure P-3, effective July 29, 1986.

CORRECTIVE ACTIONS PLANNED

Since the issue has been resolved, no further action is necessary.

FUNCTIONAL AREA B

RADIOLOGICAL CONTROLS - CORPORATE OVERVIEW AND QA AUDITS

ISSUE

The licensee's corporate organization does not provide technical support or oversight of the onsite radiation protection program, although there is appropriate expertise on the Nuclear Facility Safety Committee.

The QA audit program for transportation activities should be reviewed to assure that all requirements are evaluated.

It was noted that the checklists used during the onsite audits need to be expanded to assure that program areas such as regulatory requirements, ALARA activities, and personnel dosimetry receive a thorough review.

CORRECTIVE ACTIONS TAKEN

None.

CORRECTIVE ACTIONS PLANNED

The audits performed on these activities will be reviewed to determine what activities need to be included in the program. These activities will then be included in future audits of the QA program.

In addition to the aggressive radiation protection program that was noted by the NRC in the SALP Report, these auditing efforts will serve to provide enhanced corporate support and oversight.

FUNCTIONAL AREA B

RADIOLOGICAL CONTROLS - BETA MONITORING

ISSUE

The need to install Beta monitoring for the liquid effluent release pathway was discussed in the previous SALP report. The licensee is continuing review of this item.

CORRECTIVE ACTIONS TAKEN

A proposed action plan for installation of a beta monitoring system in the liquid effluent release pathway was generated and submitted to the NRC for approval. NRC approval was recently obtained on the action plan. In order to ensure that the proposed schedule would be met, the monitor has been received and is being set up by the vendor in the Radiochemistry Laboratory prior to installation in the plant. A Change Notice has been written to install the monitor in the plant.

CORRECTIVE ACTIONS PLANNED

The beta monitor will be installed in the liquid effluent release pathway by September 22, 1986.

FUNCTIONAL AREA C

MAINTENANCE

ISSUE

The licensee should maintain a high level of management involvement in this functional area to assure that adequate resources are available to complete the procedure rewrite and install the preventive maintenance program in a timely manner.

CORRECTIVE ACTIONS TAKEN

PSC has initiated the rewrite of all maintenance procedures. Critical review of the rewritten maintenance procedures is ongoing as implementation occurs and first-use problems are resolved.

PSC is improving its preventive maintenance program within the framework of Performance Enhancement Program (PEP). Preventive maintenance activities are being developed and implemented for previously identified plant equipment. The preventive maintenance program extension to the remaining plant equipment is to follow completion of the above work.

Development of the plant equipment failure trending program ensuring maintenance root cause resolution is in progress.

Manpower allocation has been addressed in present and future budget estimates, to ensure that the necessary corrective actions in this area will be forthcoming in a timely manner.

CORRECTIVE ACTIONS PLANNED

The maintenance procedure rewrite program for previously existing procedures will be completed by December 31, 1986.

The administrative framework for the performance of maintenance activities will continue to be developed. This will emphasize a consistent, overall program with special efforts directed toward implementation and program training.

A maintenance facility has been designed to house essentially all maintenance activities. Construction is scheduled to begin in late 1986. This facility should greatly enhance the performance of maintenance since it will no longer be necessary to perform various tasks at separate locations.

Maintenance activities will be identified with regards to plant status and equipment. Manpower requirements will be measured against available manpower and the time frame required for work completion. Performance monitoring will take place and work progress reporting will be achieved with an automated computer program.

An evaluation of the Supervisor-to-worker ratio will be performed with the goal of reducing the administrative work load placed on maintenance supervision.

The Fort St. Vrain staff is committed to improvement of the maintenance program, emphasizing administrative clarity and consistency, with development focused towards implementation of the preventive maintenance program.

FUNCTIONAL AREA D

SURVEILLANCE

ISSUE

Licensee management should improve the surveillance tracking system. The licensee should also develop and validate surveillance requirements to implement the revised Technical Specifications.

CORRECTIVE ACTIONS TAKEN

PSC has previously identified the need to improve the computer-based tracking mechanism for surveillances. To correct this weakness, in the short term, direct attention by management has been increased.

A surveillance rewrite program has been instituted in conjunction with the Technical Specification Upgrade Program. The surveillance rewrite program has continued for the existing Technical Specifications now that it is clear that the Technical Specification Upgrade Program will not be completed in the near future.

Improvement of the surveillance tracking program is being included as a part of the 1987 corporate planning process.

CORRECTIVE ACTIONS PLANNED

New surveillance procedures will be developed to implement the revised Technical Specifications. The schedule for completion of these procedures is dependent on the finalization of the upgraded Technical Specifications.

FUNCTIONAL AREA E

FIRE PROTECTION

ISSUE

Licensee action in this area should continue to focus on housekeeping, especially during the large construction effort to make modifications to comply with 10CFR50.49 requirements.

CORRECTIVE ACTIONS TAKEN

PSC has formed a multidisciplined Fire Protection Task Force to oversee and direct the development and maintenance of the 10CFR50 Appendix R fire protection program.

The fire protection analysis results submitted in response to 10CFR50 Appendix R are being implemented. Plant modifications included therein, are being considered as priority work, and the majority will be complete by the end of this outage. The remaining modifications will be completed during the next refueling outage.

PSC is in the process of hiring a highly qualified fire protection engineer as a permanent member of the in-house engineering staff.

CORRECTIVE ACTIONS PLANNED

PSC has worked very hard in the areas of general housekeeping and responding to regulatory fire protection requirements. To maintain this level of performance, PSC is implementing the following elements of a continued fire protection program:

The Fire Protection Task Force will oversee the integration of 10CFR50 Appendix R requirements into the overall plant operation, including training, modifications, fire protection specifications, SER review, and the overall fire protection program plan.

A high level of management attention to plant housekeeping will continue through plant walk arounds and maintenance activity planning. Management attention will be given to specifying housekeeping requirements during contractor modification work and actual cleanup.

PSC is committed to maintaining a high level of performance on fire protection and general housekeeping.

FUNCTIONAL AREA F

EMERGENCY PREPAREDNESS - TRAINING

ISSUE

A large measure of improvement in the training of personnel and conducting exercises appeared to be needed.

CORRECTIVE ACTION TAKEN

The Emergency Preparedness (EP) training program has been reviewed to determine its adequacy against the Specialized Training Matrix in Section 8 of RERP-Plant. All special positions identified within the Specialized Training Matrix have been "qualified" via the required training and testing procedures. Development has begun on a personnel identification process to assist in assuring that individuals have completed all necessary training prior to being assigned to the emergency organization. A training cycle to ensure all personnel are trained and retrained within specified time periods has been established.

Arrangements have been made to visit another facility in Region IV to identify "good practices" in emergency preparedness (including training) for adaptation at Fort St. Vrain.

CORRECTIVE ACTIONS PLANNED

The entire Radiological Emergency Response Plan and implementing procedures will be reviewed and rewritten as necessary to simplify, ensure adequacy, standardize terminology, and identify specific responsibilities of various emergency organization positions.

A Job Task Analysis (JTA) review of the revised plan and procedures will be performed to develop specific qualification requirements for all positions within the emergency organization. A qualification system will be developed to ensure all positions are trained in accordance with the JTA analysis and provide definitive documentation.

A computerized training record system to allow easier and quicker training reviews will be developed. The need for additional training staff for EP will be evaluated. A schedule of drill/exercises to ensure the academic training is tested and verified on a routine basis will be implemented.

FUNCTIONAL AREA F

EMERGENCY PREPAREDNESS - ALERT SYSTEM

ISSUE

During the period, the public alert and notification system which was found to be deficient by the Federal Emergency Management Agency as a result of a survey conducted August 15, 1984; was again tested on June 18, 1985, and found to be improved but not up to an adequate level of effectiveness.

CORRECTIVE ACTIONS TAKEN

To ensure the major population area within the Emergency Planning Zone (EPZ) can be effectively notified of an emergency at Fort St. Vrain, a siren was installed in the Town of Platteville to supplement the tone-alert radio system.

PSC has implemented the "Fort St. Vrain Neighbors Newsletter" to provide general information about Fort St. Vrain to our EPZ residents to enhance a good working relationship with our neighbors.

CORRECTIVE ACTIONS PLANNED

The concerns of the residents within the EPZ will be addressed with routine newsletters to keep them informed of Fort St. Vrain activities.

A revised public information package is being developed to inform residents within the EPZ about the Fort St. Vrain emergency response plan. Distribution is expected in late 1986.

Upon receipt of FEMA-43 test results, any needed system modifications will be made.

FUNCTIONAL AREA F

EMERGENCY PREPAREDNESS - ACCOUNTABILITY

ISSUE

Fort St. Vrain can not effectively account for all onsite personnel within 30 minutes.

CORRECTIVE ACTIONS TAKEN

Industry practices in accountability are being reviewed. Assistance with accountability procedure identification from the industry has been requested.

A "brainstorming" session with selected plant personnel to determine potential revisions to the Fort St. Vrain accountability process has taken place.

CORRECTIVE ACTIONS PLANNED

A revised accountability system which is consistent, regardless of time-of-day, will be developed. A 24-hour shift position, which will be responsible for obtaining accountability status and subsequent reporting, will be designated.

All personnel will be rebadged and trained as necessary to match the modified system. This system will then be implemented and a drill conducted to verify its adequacy prior to startup. The system will be routinely tested to ensure all personnel remain familiar with their required responses.

FUNCTIONAL AREA F

EMERGENCY PREPAREDNESS - INTERFACE METHODS

ISSUE

Methods to effectively interface with Federal, State, and Local agencies have not been fully addressed.

CORRECTIVE ACTIONS TAKEN

Fort St. Vrain has met with NRC, Region IV, representatives concerning "co-location" concepts. Fort St. Vrain has experienced a "small scale" co-location exercise which has provided more insight to the concept.

A "brainstorming" session has taken place to determine proper locations for specific emergency response functions associated with Fort St. Vrain to enhance the interface process.

CORRECTIVE ACTIONS PLANNED

Further review will take place to determine which functions should be located at each emergency response facility. This review will specifically address the issue of emergency organization control at the Forward Command Post.

Appropriate facility reviews will take place to determine needed modifications to enhance the co-location/interface process. A plan for implementation of necessary modifications will be provided to the NRC upon review completion.

Review of other nuclear plants' emergency response plans and facilities is planned to gain ideas and concepts for adaptation at FSV.

Terminology will be standardized, as applicable, to reduce interface problems with response personnel not familiar with FSV.

FUNCTIONAL AREA F

EMERGENCY PREPAREDNESS - SCENARIO DEVELOPMENT

ISSUE

Scenario development and review techniques need improvement.

CORRECTIVE ACTIONS TAKEN

The nuclear industry is being surveyed to determine "good practices" which can be adapted to Fort St. Vrain in the area of scenario development and control.

CORRECTIVE ACTION PLANNED

A scenario development program and procedure will be designed to ensure exercise scenarios are created to meet specific regulatory requirements and that all stated objectives can easily be achieved via the scenario implementation. Responsibilities for scenario development and technical review will be assigned to specific positions at Fort St. Vrain. A method to "scrub" all scenarios with qualified personnel to identify potential problems ahead of exercise time will be developed. Staff experience in scenario development will be gained through any available courses or seminars.

FUNCTIONAL AREA F

EMERGENCY PREPAREDNESS - STAFF AUGMENTATION

ISSUE

Fort St. Vrain failed to meet the 90 minute staff augmentation time requirements.

CORRECTIVE ACTIONS TAKEN

A review of the current telephone "fanout" procedure to determine areas of modification to simplify and speed up the process was initiated. A survey of industry sources to determine the best suitable notification system for Fort St. Vrain has been undertaken. Documentation for the design of a notification system which does not rely on a telephone tier method has been initiated.

CORRECTIVE ACTIONS PLANNED

The existing "fanout" procedure will be revised to reduce the number of calls per person and ensure that sufficient redundancy exists throughout the "fanout" process to minimize the sensitivity to personnel unavailability. A standard, concise, message format will be developed to minimize the time spent on each notification. Personnel directly involved with the revised telephone "fanout" process will be trained. A staff augmentation drill to verify the adequacy of the "fanout" process will be conducted. These will be completed prior to startup.

Evaluation of industry practices in notification methods and equipment will be continued. A notification system will be installed upon approval of the selection/design phase. A surveillance system to test the notification system on a periodic basis will be instituted. The addition of a Control Room communicator in the emergency response organization will be evaluated.

FUNCTIONAL AREA G

SECURITY

ISSUE

There appears to be an inability to gain management support for correcting potentially serious security deficiencies. Security program audits have failed to identify many of the deficiencies in the security program and there has been little effort to implement corrections to those areas that were identified during audits.

CORRECTIVE ACTIONS TAKEN

An overall analysis was made to define needed security system improvements, with specific attention to the perimeter systems. Modifications and revisions were undertaken to upgrade the system. The schedule to install these upgrades has been maintained to the October 1, 1986 date in all but one area which has slipped to December 31, 1986.

The results of these studies, the corrective steps achieved, and long range plans are specifically detailed in the licensee's letter (P-86471) dated July 7, 1986, responding to notice of violation (G-86355) dated August 9, 1986. In addition, a routine, unannounced inspection was conducted by Mr. A. B. Earnest during the period of June 16-20, 1986 at which time certain aspects of the long range plans were revealed and subsequently reduced to writing in his report (G-86411) dated July 30, 1986. The contents of these letters referenced here, contain Safeguards Information and are available for review through appropriate organizations.

Beyond those specific improvements noted above, PSC evaluated the overall security system hardware, and identified several areas for improvement. These areas represent a significant commitment in terms of schedules, material availability and system impact. These projects appear to offer significant improvement, so every effort is being made to complete them in 1987.

PSC has developed and staffed a new Security Maintenance Engineer position, whose responsibilities include: developing an integrated systems approach to maintenance, modification, and replacement of Security Systems; developing both routine and preventive maintenance procedures and performing on-the-job training with applicable craft personnel. In essence, all maintenance, modification and replacement activities, whether performed by PSC or vendor personnel will be coordinated through this position.

The Security Organization is developing programs to provide data for root cause and trend analysis of related systems. These programs are being designed in an effort to preclude

future violations involving long standing deficiencies and enable the organization to recognize trends and problem areas prior to system failure.

CORRECTIVE ACTIONS PLANNED

A detailed schedule and integrated system approach to upgrade the security system hardware beyond 1986 is being developed. This effort will be accomplished in 1987, if possible. These projects have undergone a preliminary prioritization by plant management, the Security Department, and Nuclear Engineering. Manpower requirements, cost and material delivery schedules are currently being evaluated.

The security system problems will receive the appropriate attention of the senior planning team. An "issue specific" task force to develop action plans on the key issues of security will be considered.

PSC will continue to audit the security program on a semi-annual basis, until significant improvement is confirmed.

FUNCTIONAL AREA H

OUTAGES - MANAGEMENT

ISSUE

Licensee management should also focus on improving the planning, scheduling and coordination of outages, including the availability of repair parts and work instructions.

CORRECTIVE ACTIONS TAKEN

Outage planning has undergone significant improvements. The plant now has a planning/scheduling staff and necessary expertise to plan and track the outage plan and schedules. These efforts include the development of interdepartmental/interdivisional lines of communication, implementation of new administrative procedures and controls, use of a "Shift (Project) Manager" for coordination of work activities, preplanning of specific work packages, and integration of the project into daily operation and maintenance activities.

The necessary tools are available to provide the interface between the plant and other divisions so that the scheduling information can be provided for the engineering/modification activities. Schedule requirements within the various departments are being determined so that realistic cutoff dates for each phase of a project can be defined. Specific issues being addressed include the availability of the required materials and work instructions. This will allow lower level planning and scheduling within each organization, as well as the overall project to be consistent.

The plant planning group is separate from but integrated into Master Planning and Scheduling (MP&S). MP&S utilizes the lower level planning and scheduling information to create and maintain an integrated strategic plan. This strategic plan interrelates and displays major evaluations relative to FSV so that a more coordinated and realistic approach to the overall management function can be achieved.

The senior planning team has been established to provide the high level direction required to implement the necessary degree of coordination between the four Nuclear Divisions.

CORRECTIVE ACTIONS PLANNED

The MP&S will be staff support to the senior planning team in the strategic planning effort that has just been established. The resources and organization of MP&S will be reviewed and corrective actions taken to insure the proper degree of support for the senior planning team is achieved.

The senior planning team will focus on improving the planning, scheduling and coordination of outages. This involves maintaining a high level of management attention directed to the development and successful integration of new planning and scheduling functions into the overall organization at FSV.

FUNCTIONAL AREA H

OUTAGES - DESIGN CONTROL

ISSUE

The licensee should focus additional management attention on design control to streamline the process and reduce the large number of open design changes.

CORRECTIVE ACTION TAKEN

Steps have been taken within the Nuclear Engineering Division to develop and implement a planning and scheduling function. Implementation is well underway and various scheduling techniques which will serve as a basis for the program have been utilized in the current EQ outage.

A prioritization system has been developed which is currently being utilized to prioritize the engineering backlog. In parallel with prioritization, manpower loading is being defined for the backlog. Once this effort is complete, the originating organization will justify the continuing need for the project. All unnecessary projects will be eliminated and the remainder will be scheduled and man-loaded. The resulting schedule will then have to be evaluated to assess the backlog effort which may require further trimming and reprioritization. An overall action plan will be developed to address staffing levels and other activities necessary to reduce the backlog.

Nuclear Engineering increased its staff by twenty additional people as a part of the PEP program with the prime objectives of establishing the planning/scheduling function and providing additional engineering personnel to work the backlog. However, higher priority engineering efforts (i.e., control rod drive refurbishment and EQ programs) have diluted the backlog effort during the SALP period.

The engineering division is conducting a historical review of plant outage work activities and other departmental demands in order to establish the basis for defining a workload that the department could reasonably expect to accomplish. This information is an essential element in controlling the backlog in the future.

The cumbersome nature of the design control process has been recognized for some time and several efforts have been made to improve the system. Recently, as a part of the PEP program, the engineering procedures were revised by a committee. This effort involved representatives of the Nuclear Engineering Division and included visits to other nuclear utilities in an attempt to benefit from their experience to improve our system. This work was recently

completed and sufficient time has not elapsed to permit a comprehensive evaluation.

CORRECTIVE ACTIONS PLANNED

The senior planning team will establish a design control task force. This task force will investigate possible ways to further streamline the design control process and reduce the backlog. The task force will make recommendations to the senior planning team for management attention and action.

FUNCTIONAL AREA H

OUTAGE - SAFETY EVALUATION

ISSUE

The 10CFR50.59 Safety Evaluation process should be critically reviewed.

The personnel performing 10CFR50.59 safety evaluations must be knowledgeable in the specialized areas impacted by a change in order to identify all safety concerns associated with the change and assure these are adequately addressed.

CORRECTIVE ACTIONS TAKEN

PSC has developed guidelines which are used in the preparation of 10CFR50.59 safety evaluations. Licensing personnel who perform safety evaluations have been trained on these guidelines and will continue to receive training to enhance their skills in performing safety evaluations.

PSC has strengthened its licensing staff as part of the PEP by hiring additional licensing engineers and technicians, with LWR experience.

CORRECTIVE ACTION PLANNED

Additional FSV systems training is scheduled for licensing personnel, and training in construction requirements is planned. The 10CFR50.59 safety evaluation preparation training will continue and will emphasize the importance of performing an in depth assessment which identifies all safety concerns associated with a given change. PSC recognizes that if the safety evaluation preparer does not ask the right questions and identify all potential safety concerns, the safety evaluation may reach erroneous conclusions. In the past, there may have been a tendency to focus the evaluation on only that material presented in the proposed change package. Nuclear Licensing is now making special efforts to determine whether the information presented in the change package adequately addresses all aspects or implications of the change. If inadequate information is presented to prepare a thorough safety evaluation, the necessary additional information will first be secured.

FUNCTIONAL AREA I

QUALITY PROGRAMS AND ADMINISTRATIVE CONTROLS AFFECTING QUALITY -
PERFORMANCE ENHANCEMENT PROGRAM

ISSUE

The PEP should be aggressively pursued and its results periodically measured against the original goals to determine that its objectives are being achieved.

CORRECTIVE ACTIONS TAKEN

PEP Project II.3, part 4 has been established to provide QA planning and scheduling within the QA Division and to provide an interface with Master Planning and Scheduling.

PEP Project IV.6 has been completed, which provided a review of the procurement system material exclusion list and related procedures.

PEP Project IV.10 has been established to review and revise the Level I QA procedures.

PEP Project V.4 has been established to improve the QA division training following the guidelines established by INPO for accreditation and training system development (TSD).

CORRECTIVE ACTIONS PLANNED

Total Responsibility Management (TRM) projects will be integrated with the PEP Projects. Project achievement criteria will be developed for the entire PEP to ensure that program intent has been met.

A Quality Enhancement Program (QEP) with the Vice President, Nuclear Operations in the key quality enhancement role will be established as a part of the PEP with the following objectives:

To promulgate the Goals and Objectives Related to Excellence in Operations as applied to the QA organization.

To upgrade the Quality Assurance Audit Program.

To upgrade the Quality Assurance Monitoring Program.

To develop an ongoing SALP Review Program which provides for a follow up of NRC recommendations and licensee actions resulting from the most current SALP Report.

To upgrade the Corrective Action System.

To upgrade the Trending Program.

To utilize PEP Projects for enhancing QA effectiveness.

To upgrade the Fort St. Vrain Specifications/Procedures to provide improved, definitive acceptance criteria.

To improve QA Engineering planning with NPD and NED.

The implementation of a Quality Enhancement Program under the Vice President, Nuclear Operations provides the management direction and support needed for the improvement of quality programs and administrative controls affecting quality.

This direction and support will be reflected in the necessary upgrading of the QA auditing, monitoring, corrective action, and trending programs; establishing a SALP Review Program and improving utilization of PEP projects; and, upgrading of specifications/procedures and improving planning.

FUNCTIONAL AREA I

QUALITY PROGRAMS AND ADMINISTRATIVE CONTROLS AFFECTING QUALITY -
DIRECTION

ISSUE

The licensee should critically evaluate the QA department to assure that it is properly staffed and effectively directed. This should include absolute verification of the independence of QA.

CORRECTIVE ACTIONS TAKEN

The leadership of the nuclear project, and QA in particular, has been redirected and enhanced by appointment of the Vice President, Nuclear Operations.

The personal commitment to quality of the Vice President, Nuclear Operations provides the needed independence of QA.

Improvement in direction of the QA audit functions began in March, 1986 with the appointment of a new Supervisor, QA Auditing.

A change to the QA Operations Department organization which relieves the Supervisor, QA Auditing of non-audit related administrative functions has been made.

CORRECTIVE ACTIONS PLANNED

A review of auditor staffing levels including load leveling of personnel has been completed, and recommendations for QA staffing levels to support an enhanced quality program will be submitted to the Vice President, Nuclear Operations.

The Vice President, Nuclear Operations provides the management direction and support needed for the improvement of quality programs and administrative controls affecting quality.

FUNCTIONAL AREA J

LICENSING - INTERDIVISIONAL COORDINATION

ISSUE

Coordination between PSC's Licensing, Production, and Engineering Divisions remains weak.

CORRECTIVE ACTIONS TAKEN

A number of actions have already been taken to improve coordination between PSC's Licensing, Production, Engineering and Quality Assurance Divisions. PSC has initiated several actions to improve interdivisional coordination as part of the PEP as described in PSC letter P-85066 of February, 1985. These actions include regularly scheduled staff meetings with Division managers, the development of Division charters, clearly outlining organizational responsibilities and the development of policies and procedures addressing communications.

Additionally, PSC has established the Environmental Qualification Overview Committee to coordinate interdivisional actions related to EQ. The Fire Protection Task Force has been formed to address fire protection.

The Total Responsibility Management Program (TRM) project has recently provided opportunities for small groups of PSC individuals from various levels and divisions to define problems and to jointly develop recommended solutions.

CORRECTIVE ACTIONS PLANNED

"Issue Specific" task forces (including a Licensing "Issue Specific" task force) will be formed of experienced personnel (from various divisions as appropriate) to make in-depth investigations of major interdivisional issues. The task forces will assess the issues and create recommendations that will be forwarded to the senior planning team. The senior planning team will review and approve the recommendations for appropriate management implementation.

The Master Planning and Scheduling personnel (MP&S) are in the initial stages of providing high level planning and scheduling coordination between the divisions, as discussed in more detail under "Outages," in Functional Area H.

FUNCTIONAL AREA J

LICENSING - MANAGEMENT ATTENTION

ISSUE

PSC should continue to provide a high level of management and technical attention to the resolution of licensing issues.

CORRECTIVE ACTIONS TAKEN

A high level of management attention to resolution of licensing issues has been facilitated by the recent appointment of the Vice President, Nuclear Operations, whose sole executive responsibility is the Fort St. Vrain project. His formal education and professional experience in nuclear engineering and management of nuclear operations and facilities also will help assure continued management attention to resolution of the technical aspects of these licensing issues in a timely and high quality manner.

CORRECTIVE ACTION PLANNED

A Licensing "Specific Issue" task force will be formed that will investigate licensing issues including:

1. The quality and thoroughness of licensing issue submittals.
2. The consideration of licensing requirements earlier in the design process.
3. The availability and recoverability of licensing basis documentation.
4. The avoidance of establishing overly optimistic schedules that may result in slippages of licensing submittal dates or quality being compromised.
5. Evaluate the degree to which the Licensing staff relies upon the plant staff for explanations of events rather than developing a sufficient understanding on their own.

The task force will assess the issues and create recommendations that will be forwarded to a senior planning team for appropriate management action. This disciplined evaluation process will assist in continuing to provide a high level of management and technical attention to the resolution of licensing issues.

FUNCTIONAL AREA J

LICENSING - THOROUGHNESS

ISSUE

PSC should work on a thorough review of the approaches used to resolve licensing issues. PSC should continue to work toward resolutions that clearly meet or exceed NRC standards and requirements, as opposed to attempting to do only marginal or inadequate resolutions.

CORRECTIVE ACTIONS TAKEN

An overall policy on PSC's relationship with the NRC, including the quality and thoroughness of PSC's responses to NRC requests and commitments has been drafted and is currently being reviewed as part of the Total Responsibility Management program. This policy will clearly state PSC's expectations for resolving licensing issues with respect to meeting or exceeding NRC standards and requirements.

CORRECTIVE ACTIONS PLANNED

The Licensing "Issue Specific" task force described under "Licensing - Management Attention" will determine the best methods of improving the quality and thoroughness of PSC's Licensing issue submittals.

FUNCTIONAL AREA J

LICENSING - RESPONSIVENESS TO NRC INITIATIVES

ISSUE

PSC has generally provided timely responses to NRC initiatives. Some of the responses have been adequate to resolve the issues; others have not.

PSC's licensing staff has demonstrated an improving ability to work with the NRC in recognizing and resolving licensing issues.

PSC should continue to diligently resolve its outstanding licensing issues with the NRC.

CORRECTIVE ACTIONS TAKEN

Progress is underway to reduce open licensing issues.

The use of the Manager, Nuclear Licensing and Fuels, and his immediate licensing staff, as the communications contact between NRC and PSC is providing a point of focus for the NRC and for the coordination of the various PSC departments in responding to NRC concerns.

A computerized licensing commitment tracking system has been initiated which is improving PSC's capability to follow the status of investigations needed to respond to the NRC in a timely manner.

CORRECTIVE ACTIONS PLANNED

Efforts continue to upgrade and increase the licensing staff, as described under "Licensing-Staffing and Training". This should improve PSC's capability to provide timely and adequate responses to NRC initiatives.

FUNCTIONAL AREA J

LICENSING - STAFFING AND TRAINING

ISSUE

PSC must continue to upgrade and strengthen its licensing staff. Fort St. Vrain's licensing activities are anticipated to continue at a very high level for some time in the future.

PSC's efforts to develop its human resources are commendable and should continue.

CORRECTIVE ACTIONS TAKEN

Positive steps have been taken to upgrade the licensing and engineering personnel through the increased number of training personnel, additional in-house training courses, and outside training. Aggressive advertising campaigns and improved benefits have been instituted that are expected to help attract senior licensing personnel with LWR experience to fill the remaining licensing staff positions. In the meantime, a number of senior licensing consultants with LWR and HTGR experience have been retained to supplement the PSC staff on both part-time and full-time bases.

As a supplement to the internal licensing staff, PSC has also joined NUS' Licensing Information Service.

The training staff and the preparation of training courses within each division has been increased to enhance the training of PSC employees. The Nuclear Licensing and Fuels Division has hired a science professor to direct its educational efforts as well as coordinate with his counterparts in other divisions.

Consultants have been used in specific instances to augment the PSC training staff. This enhanced training program is part of the PEP previously described to the NRC.

CORRECTIVE ACTIONS PLANNED

A number of new courses are being added to those available, especially in the Nuclear Licensing and Fuels and Nuclear Engineering Divisions, which are beyond the scope of INPO's training program. All lesson plans are scheduled for completion by early 1987.

The aggressive advertising campaign in nuclear industry periodicals will continue with the intent of attracting well qualified candidates to apply for licensing and other open nuclear positions.

FUNCTIONAL AREA J

LICENSING - REPORTABLE EVENTS

ISSUE

Initial (verbal) event reports have not always been complete or accurate.

CORRECTIVE ACTIONS TAKEN

In order to be conservative, it is frequently not possible to fully research details of preliminary findings which may later prove to be incorrect or unrelated. The NRC has acknowledged this as a general concern throughout the industry in Information Notice 85-78 (G-85396) which stated that "to assist in obtaining adequate information for evaluation, an Event Notification Worksheet attached to IN 85-78 has been revised for the Operations Officers manning the NRC Operations Center." PSC has recently incorporated this form into the Notification Procedures and is, at present, unable to determine whether this is providing any significant relief to the NRC in evaluation of initial reports.

CORRECTIVE ACTIONS PLANNED

As stated above, a certain degree of misunderstanding or limited information must be accepted if the intent of Non-Emergency Event Reporting is to be met. However, it is agreed that PSC can improve its performance in this regard. To this end, PSC will endeavor to have a member of the License Compliance Review Staff or a Technical Advisor assist the duty Shift Supervisor with completing notification from wherever possible. When the time constraints of the situation would delay reporting, or an event is routine in nature, this will not be required. It is believed that this will greatly assist both the Shift Supervisor and the NRC with the alleviation of this problem.

FUNCTIONAL AREA J

LICENSING - POST EVENT ANALYSIS

ISSUE

Post-Event analysis and Corrective Action follow-through of events are sometimes weak. Root causes for component or system failures are not clearly identified and corrected.

CORRECTIVE ACTIONS TAKEN

Corrective action in this area is being pursued by PSC. In the near term, PSC is increasing its efforts to identify reportable events and events significant to reliable operation of FSV, to thoroughly investigate these, and to act to ensure that adequate, appropriate, and timely corrective actions are taken. Assistance from other departments within Nuclear Operations will be obtained, as appropriate, to ensure Root Causes of events are determined and that effective corrective actions are determined and carried out. Monthly status reports on outstanding Corrective Actions will be provided to the Vice President, Nuclear Operations and other appropriate management to ensure adequate awareness of progress or problems in this area. Additionally, these individuals will meet on a periodic basis to evaluate special requirements or needs

CORRECTIVE ACTIONS PLANNED

In the long term, additional staff needs will be reviewed to ensure the effectiveness of the License Compliance Review function in identification, investigation, reporting, and tracking of reportable events and significant operating events. Additional training for individuals required to perform these functions is also under review.

FUNCTIONAL AREA J

LICENSING - UNDERSTANDING NRC'S SAFETY PERSPECTIVE AND LWR ISSUES
ISSUE

Emphasis should be placed on understanding the NRC's safety perspective on licensing issues.

Continued emphasis should be placed on understanding relevant generic and plant-specific issues for light water reactors as well as for FSV.

CORRECTIVE ACTIONS TAKEN

PSC management has committed to review NRC light water reactor information, to translate it into high temperature gas cooled reactor analogies, and to consider the implications for Fort St. Vrain, on an ongoing basis. Regulatory documents are systematically reviewed by the Nuclear Licensing staff and the Production Division. Procedures have been issued which describe interdepartmental coordination associated with the review of LWR information. Procedures also mandate that Regulatory documents are reviewed to determine the applicability of light water reactor issues to Fort St. Vrain, specifically. This process was started in late 1985, and will continue with top level management support.

PSC has also become an active participant in nuclear industry groups following generic safety issues as well as broad based licensing issues.

A number of senior licensing consultants with LWR and HTGR experience have been retained to supplement the PSC staff on both part-time and full time bases.

The services of NUS Licensing Information Service has been retained to assist the PSC staff in understanding and staying abreast of relevant LWR issues and events and to assist in research of LWR licensing practices and precedents.

CORRECTIVE ACTIONS PLANNED

Aggressive advertising campaigns and improved benefits are expected to help attract senior licensing personnel with LWR experience to fill the remaining licensing staff positions.

PSC recognizes that there are many applicable similarities between Fort St. Vrain and light water reactors, especially in balance-of-plant and safeguards areas. These will be taken into account. The unique safety features of Fort St. Vrain will not be used to avoid compliance with applicable NRC requirements.

FUNCTIONAL AREA K

TRAINING AND QUALIFICATION EFFECTIVENESS - INPO ACCREDITATION

ISSUE

Management attention should continue to pursue INPO accreditation of all facets of the training program.

CORRECTIVE ACTIONS TAKEN

The Self Evaluation Report (SER) for the non-Licensed Operator, Reactor Operator, and Senior Reactor Operator training programs was submitted to INPO September 30, 1985. An INPO Accreditation Team visit was held during the week of March 17, 1986. The Accreditation Team Report has been received, and responses to INPO identified areas for improvement are being generated. All items will be resolved by the end of October, 1986, at which time PSC will be ready to approach INPO for accreditation.

CORRECTIVE ACTIONS PLANNED

The SER for the remaining seven non-operator programs will be submitted to INPO by September 30, 1986. All programs will be implemented prior to December 31, 1986.

FUNCTIONAL AREA K

TRAINING AND QUALIFICATION EFFECTIVENESS - REQUALIFICATION

ISSUE

Management attention should continue, with early emphasis on strengthening requalification training.

CORRECTIVE ACTIONS TAKEN

Three additional Training Instructors are currently enrolled in the Senior Reactor Operator training class with completion scheduled for September 15, 1986.

Temporary dedicated facilities have been obtained to support the requalification program.

An analysis of program deficiencies was presented to the NRC in Arlington, Texas on June 23, 1986. Action to correct these deficiencies was included in the accelerated requalification program held in June and July, 1986. All individuals attending this training successfully passed the utility administered examination.

The 1987 Operating Plan addresses the issue of additional Training Instructors to support the requalification program.

CORRECTIVE ACTIONS PLANNED

A permanent new Training Facility is being designed and has been budgeted for in the 1987 capital construction budget.

Ongoing evaluations of the requalification program will be performed to ensure continuing improvement is demonstrated.

FUNCTIONAL AREA K

TRAINING AND QUALIFICATION EFFECTIVENESS - EMPLOYEE TRAINING

ISSUE

Provide an employee training program to provide new employee orientation; new, revised, and refresher procedural training; and technical training with the objective of reducing personnel errors and improving overall employee proficiency.

CORRECTIVE ACTIONS TAKEN

As a part of the overall PEP commitment, a training/procedural control function was established in the nuclear divisions. The training aspects of this function have the objective of providing new employee orientation training, procedural training, general and technical training.

Needs analyses were completed in 1985, which provided information on personnel training needs. Broad topic areas were approved for training by management in addition to "Procedures" and "FSV Systems" training.

Job and Task Analyses (JTAs) are in progress or have been performed for all INPO required positions. The information obtained is providing a solid foundation for performance based training, e.g., according to the TSD model suggested by INPO. It is important to note that current INPO guidelines for Technical Staff and Managers, for the first round of accreditation, do not require JTAs to be performed. The nuclear divisions of PSC are pursuing JTAs for some positions beyond those INPO requires, because of the valuable basis furnished for determining learning objectives or goals for future lesson plans. PSC believes that this approach will ultimately yield efficient, job directed training, that will be targeted to specific audiences and lead to enhanced plant performance.

Work is underway to develop and implement courses with each division striving for completion by their respective target dates.

CORRECTIVE ACTIONS PLANNED

All initially designated courses should be developed and implemented by the end of 1987. Given the feedback of evaluations and constantly changing needs, courses will be modified, added, and deleted as the training program continues to improve over the years.

ATTACHMENT B TO P-86535

SALP REPORT RESPONSE

KEY ISSUES STATUS AND SCHEDULE

Certain key issues have been identified as being of special concern to the operation of FSV. The status and schedule for each of these concerns is as follows:

EMERGENCY DIESEL GENERATOR INDEPENDENCE

PSC is presently expanding the work scope of the initial review program on the EDG permissive circuitry. This includes an indepth engineering evaluation to define those portions of the control circuitry that would be inoperable due to a postulated single failure, and those portions that could complete the required function either automatically and/or manually. This expanded program is projected to take approximately three months to complete. A field verification is also being planned to determine if any "as installed" configurations may affect operability and independence. Should the results of this review dictate further modifications, a schedule would then be developed depending upon the extent of the required changes.

PSC has committed to remove the contacts of two non-safety related devices in the start circuits from the two redundant EDG sets during this outage, as they present unnecessary challenges to the plant safety system. These could have compromised EDG reliability if they had failed.

FIRE PROTECTION STATUS

PSC is currently involved with the modifications necessary to bring the plant into compliance with the applicable 10CFR50 Appendix R requirements, and is still awaiting approval of the exemption requests submitted in the last Fire Protection Evaluation report dated April 1, 1985. Over half of the modifications which PSC agreed to have now have been completed. Of the remaining, over 75% are scheduled for completion before power operation from the current EQ modification shutdown. The remaining modifications detailed in the request will be completed prior to the fourth refueling outage, as submitted in the report. This includes the proposed Emergency Lighting modification, final installation of the Emergency Turbine Water Removal Pump, and the assembly of the ACM Backfeed modification package.

In addition, PSC is developing a Fire Protection Program Plan which will outline guidance and develop criteria to control modifications to the plant which may affect the current Fire Protection Evaluation. A draft of the plan should be ready for internal review by October 1, 1986.

SINGLE FAILURE IN THE 480 VAC ESSENTIAL BUSES UNDERVOLTAGE PROTECTION SYSTEM

PSC presented a proposed fix on the single failure issue in the undervoltage protection system on the 480 VAC Essential Buses to the NRC staff during a meeting in Bethesda on August 14, 1986. The NRC staff verbally accepted the proposed fix but only on an interim basis. PSC is presently performing the necessary engineering work to prepare a Change Notice to provide the interim fix which is to be completed during this outage. PSC is also pursuing alternatives for developing a permanent fix. The permanent modification will be implemented during the first outage of sufficient duration pending completion of required procurement and engineering design.

TECHNICAL SPECIFICATION UPGRADE PROGRAM

The Technical Specification Upgrade Program (TSUP) is currently scheduled for implementation during the fourth refueling outage. At this time, PSC considers that this schedule may be questionable, due to the extensive comments received from the NRC in June 1986, regarding the final Draft Technical Specifications submitted in November 1985. PSC has reviewed the NRC comments and plans to incorporate many of them. However, there are a number of NRC comments that cause PSC concern due to their nature and extent. The NRC is currently reviewing PSC's concerns and has indicated a meeting will be scheduled in the near future. Timely implementation of the TSUP depends on PSC's and NRC's agreement on TSUP priorities and scope, and on the satisfactory resolution of mutual concerns.

PERFORMANCE ENHANCEMENT PROGRAM

The PEP is an ongoing program to assist PSC in upgrading our overall performance. The program has now been functional for 15 months and continues to be a dynamic management tool.

Project Achievement Criteria should be developed for each project by the end of October, 1986. The purpose of this criteria is to help determine if, and to what extent, the intent of each PEP project has been met.

Refer to Section I, Attachment A of this report for Quality Enhancement status and P-86504, the Quarterly PEP Status Report to the NRC, for detailed PEP status.

ENVIRONMENTAL QUALIFICATION

PSC is currently awaiting NRC approval of a Technical Specification Amendment concerning the operation of the Steam Line Rupture Detection and Isolation System (SLRDIS). SLRDIS is required to obtain an environmental profile to which the specified equipment can be qualified. SLRDIS can not be made operable until NRC approval is obtained.

At this time, the final versions of the EQ equipment qualification packages have not been received from the contractor, reviewed by Nuclear Engineering nor issued for use. All equipment modification work has been based on the most current information and many programmatic undertakings are currently on hold pending receipt of final information. PSC recently met with the NRC staff in order to finalize PSC's approach to cable qualification. Based on the staff's concurrence, PSC is proceeding with the cable qualification packages.

The Master Equipment List (MEL) should be finalized and issued by the end of September, 1986.

The physical EQ work in the plant should be completed by November 15, 1986.

Efforts are in progress to develop an integrated "plan of attack" for accomplishing closure on documentation with respect to the EQ equipment modifications. We are currently formulating our plans to return to power after the EQ Outage. PSC will communicate these plans to the NRC when they are formulated.