

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Assessment Report: 50-285/89-20

Licensee: DPR-40

Docket: 50-285

Licensee: Omaha Public Power District (OPPD)
1623 Harney Street
Omaha, Nebraska 68102

Facility Name: Fort Calhoun Station (FCS)

Assessment At: FCS, Blair, Nebraska

Assessment Conducted: April 17-21, and May 2, 1989

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6-14-89
Date

Assessment Summary

Assessment Conducted April 17-21 and May 2, 1989 (Report 50-285/89-20)

Results: Based on the reviews performed by the NRC assessment team, it appeared that the licensee was making adequate progress in implementing the items contained in the Safety Enhancement Program (SEP). The team noted positive trends in the overall operation and management of the FCS due to implementation of the program items. It appeared that the licensee was improving their capabilities to effectively and conservatively operate and manage the plant.

During performance of the team's assessment, the following concerns were identified:

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- ° It did not appear that the licensee had taken steps to institutionalize aspects of the program enhancements that had been created as a result of actions taken on the SEP items.
- ° Although operational and management improvements developed by the SEP have been initiated, management should focus their attention on the validation, implementation, and completion of the program elements. As noted in the attached assessment report, additional management attention will be required to complete some of the items by the currently scheduled completion date. The affected items are identified in the attached report.
- ° The licensee should continue to initiate a program to measure the effectiveness of the implementation of the SEP elements. This program should include measures to be taken in the event the effectiveness of the implementation of an element is found to be insufficient.

As a result of the quarterly SEP meeting on May 2, 1989, it was understood that actions have been or will be implemented to address each of the areas discussed in the paragraph above. The actions include the following:

- ° Actions have been taken to institutionalize the SEP elements by inclusion of a policy statement in the Nuclear Policy Manual. Additional actions will be taken to incorporate the elements into the appropriate procedures.
- ° A program will be initiated to validate the completion and implementation of the SEP elements.
- ° Improvement of the current program for performance measurement will be continually upgraded to include additional performance indicators, as appropriate.

It appeared, based on the results of this assessment, that the licensee has demonstrated positive steps toward improving their overall performance by implementation of the items contained in the SEP. This overall improvement has demonstrated that the licensee is in the process of improving their capability to provide management leadership and oversight of the diverse elements related to the conservative operation of the FCS and to protecting the health and safety of the public. It is anticipated that implementation of the remaining items will result in additional improvements in the overall operation and management of the FCS.

DETAILS

A. Persons Contacted

#*W. C. Jones, Senior Vice President, Nuclear Operations
#*K. J. Morris, Division Manager, Nuclear Operations
#*W. G. Gates, Manager, Fort Calhoun Station
*J. P. Bobba, Supervisor, Radiation Protection
*J. W. Chase, Licensing Consultant
*W. H. Combs, Manager, Organizational and Management Development
*M. A. Ferdig, Specialist, Organizational and Management Development
#*J. J. Fisicaro, Manager, Nuclear Licensing and Industry Affairs
*J. J. Fleuhr, Supervisor, Operations and Technical Training
*F. F. Franco, Manager, Radiation Services
J. K. Gasper, Manager, Training
#*J. H. MacKinnon, Acting Manager, Production Engineering Division
*R. L. Jaworski, Manager, Station Engineering
*J. D. Kocy, Supervisor, System Engineering
*R. C. Kellogg, Supervisor, Special Services
D. M. Kobunski, Supervisor, Training Support
G. A. Krieser, Supervisor, Corporate Quality Assurance
*B. R. Livingston, Manager, Engineering Services
*D. J. Matthews, Supervisor, Station Licensing
T. J. McIvor, Manager, Nuclear Projects
K. A. Miller, Supervisor, Maintenance
*W. W. Orr, Manager, Quality Assurance and Quality Control
*G. R. Peterson, Assistant Manager, Fort Calhoun Station
#*A. W. Richard, Manager, Quality Assurance and Quality Control
*C. A. Schanbacher, Senior Industrial Engineer
*F. C. Scofield, Manager, Nuclear Planning
*R. W. Short, Supervisor, Nuclear Projects
J. A. Spilker, Acting Supervisor, Operations
*J. W. Tills, Assistant Manager, Fort Calhoun Station
D. R. Trausch, Supervisor, Operations
*J. M. Waszak, Manager, Administrative Services, Production Engineering
*J. D. Wilcox, Licensing Consultant

NRC Personnel

#R. D. Martin, Regional Administrator, Region IV
#L. J. Callan, Director, Division of Reactor Projects
#A. B. Beach, Director, Division of Radiation Safety and Safeguards
#J. P. Jaudon, Deputy Director, Division of Reactor Safety
T. F. Westerman, Chief, Project Section B, Division of Reactor Projects
#*J. E. Gagliardo, Operational Programs Section, Chief, Division of Reactor Safety
#P. D. Milano, Project Manager, Fort Calhoun Station, NRR
#*P. H. Harrell, Senior Resident Inspector, Fort Calhoun Station
#R. P. Mullikin, Project Engineer, Fort Calhoun Station

*Denotes attendance at the exit interview held on April 17, 1989.

#Denotes attendance at the quarterly SEP meeting on May 2, 1989.

The NRC inspectors also contacted other plant personnel, including operators, technicians, and administrative personnel.

B. Review of Items Included in the Safety Enhancement Program (SEP) (92702)

The NRC assessment team performed an evaluation of each SEP item (except Item 42) to verify that the licensee had initiated the actions as stated in the SEP program, as appropriate. In addition, the team evaluated the effectiveness of the implementation of the actions taken by the licensee for each item. For those items still in progress, a review was performed to determine the status of the item. The paragraph number identified below for each item corresponds to the reference number of the item in the SEP program.

To establish the safety significance of each item, the licensee has developed a priority system and assigned each item a level of priority based on the item's significance. Definitions of the three priority levels are provided below:

- a. Priority I items are those items that provide a high contribution to safety improvement. The items in this classification are given the highest level of management attention to ensure that they are completed by the established completion date.
- b. Priority II items are those items that have been identified as providing an intermediate contribution to safety improvement. These items are tracked by the licensee to ensure timely completion of the actions related to each item.
- c. Priority III items are those items that provide a low contribution to safety improvement. The items in this classification are intended to improve the licensee's performance in areas that could potentially affect the safe operation of the plant.

For each item discussed below, the priority level has been provided to establish the relative importance of the discussion of the licensee's actions toward completion of the item:

1. Improve Communications via Training, Team Building, Eliminating Organizational Barriers, Monthly Managers Meetings, and Issuing a Newsletter

This Priority II SEP item involves a licensee commitment to conduct training (classified as nontechnical) to address communications, team building, and organizational barriers. This training has been incorporated as part of the licensee's Management and Professional Development Series 1988-1991. To accomplish the implementation of this item, the licensee has taken the actions discussed below:

- a. A commitment contract was formally signed by OPPD's three Nuclear Division Managers; the Division Manager, Employee

Relations; and the Manager, Organization and Management Development. A training program series has been initiated. The contract established the program objectives and a Nuclear Management Development Steering Committee (NMDSC). Scheduled training is currently being conducted to address the areas outlined above.

- b. The nuclear divisions issued a joint memorandum on December 30, 1988, establishing a minimum of 26-32 hours of training for supervisors and 16-24 hours of training for other exempt employees. By memoranda from each Nuclear Division Manager, all exempt personnel were directed to take seven specific courses. Feedback from each training session was provided by course questionnaires to the OPPD Organization and Management Development organization.
- c. By the commitment contract, the Division of Employee Relations and the nuclear divisions were assigned the responsibility to coordinate, monitor, review, and update the action plan annually. It was the NRC inspector's understanding that this activity was to be implemented by the NMDSC. An accounting of attendance at each course session was being provided by the Organization and Management Development organization.
- d. This item also involved a licensee commitment to conduct a monthly management meeting. The Senior Vice President, Nuclear Operations initiated a monthly management meeting with the three Nuclear Division Managers, their department managers, and selected supervisors. The agendas and minutes for January, February, and March 1989 were reviewed by the NRC inspector.

Observations by the NRC inspector with respect to the actions taken by the licensee on this item include the following:

- a. Actions as committed in this SEP item appeared to have been initiated.
- b. The licensee had not institutionalized many of these actions as a part of corporate policy and/or procedures to ensure continued implementation after the SEP is considered complete. Such policy/procedures should include:
 - (1) Continuation and implementation of the Management Development Program to include such actions as yearly renewal of the commitment contract, a charter for the NMDSC, and refinement of the training program to address training of new supervisors.
 - (2) Continuation of the monthly management meetings.
 - (3) Continuation of the newsletter, "Nuclear Notes."

- c. The NRC inspector did not find that the licensee had established an adequate tracking system to demonstrate accountability for completion of the line items contained in the SEP action plan.

During a meeting in the NRC's Region IV office on May 2, 1989, the licensee stated that the appropriate actions would be taken to institutionalize all the items contained in the SEP program, as appropriate. The licensee provided a policy statement in the Nuclear Policy Manual to address the institutionalization of the SEP program items. A review of the actions taken by the licensee to institutionalize the items will be performed during a future assessment of the SEP status.

Based on the reviews performed by the NRC inspector, it appeared that the licensee had completed the actions related to this item. However, consideration should be given to the NRC inspector's observations. It also appeared that the actions taken by the licensee to address this SEP item had improved the intraorganizational communications within OPPD. This was apparent by issuance of the newsletter and establishment of management meetings.

2. Initiate Training to Encourage Problem Reporting by Coaching and Counseling, Use of Performance Indicators, Feedback, and Tracking

This Priority I SEP item involves a commitment for OPPD managers to, by example and attitude, encourage subordinates to bring problems to management attention. This attitude was to be reinforced by praising the initiative of personnel that identify problems.

To address this item, the licensee initiated the following actions:

- a. The licensee's senior management initiated letters to personnel for identifying problems. The letters recognized each individual's efforts in identifying problems that could be resolved to improve the operation of the facility.
- b. Training for management and supervisors was initiated as part of OPPD's Management and Professional Development Series, as well as outside consultant training. In addition, the Human Performance Evaluation System (HPES), an Institute of Nuclear Power Operations (INPO) sponsored program, has been initiated.
- c. System engineers and the Nuclear Safety Review Group (NSRG) were being trained in problem solving and root cause analysis. Procedures for implementation of root cause investigations had not been completed.
- d. There was evidence that feedback of the resolution of selected problems was occurring as evidenced by the discussion of the

emergency diesel room minor electrical fire and the chlorine bottle leak in the newsletter dated January 20, 1989.

- e. Feedback and tracking systems were being initiated such as the Maintenance Incident Report Investigation and Cause Determination System and trending of incident reports for maintenance crafts.

Observations by the NRC inspector included the following:

- a. Actions, as committed in this SEP item, appeared to have been initiated. Many of the actions were being implemented by other specific SEP items.
- b. The licensee had not institutionalized all of these actions as a part of corporate policy and/or procedures to ensure continued implementation after the SEP has been completed. Such policy/procedures should include:
 - (1) Provisions to provide training to the new supervisors and managers who were not a part of the initial training program. In particular, the training provided by outside contractors.
 - (2) Responsibility for ensuring that input was provided into the newsletter of the resolution of selected problems.
 - (3) Proceduralizing the incident report investigation activity and trending of incident reports.
 - (4) The overall coordination of root cause investigation systems.
- c. The NRC inspector found that Procedure NOD-QP-20 for HPES had not been issued.
- d. The NRC inspector did not find that the licensee had established an adequate tracking system to demonstrate accountability for completion of actions of each item contained in the SEP.

Based on the reviews performed by the NRC inspector, it appeared that the licensee was completing actions for this SEP item to ensure that all actions would be implemented by the currently scheduled date of July 1, 1989. During implementation of the actions of this item, consideration should be given to the NRC inspector's observations.

3. Develop a System to Reduce Control Room Traffic for Maintenance Work Control Activities

This Priority II SEP item involves actions taken by the licensee to reduce the amount of traffic in the control room due to maintenance activities. The access controls were established to minimize the distraction to operations personnel due to craftsmen entering the control room.

To address this item, the licensee established measures to reduce control room traffic. Each measure taken by the licensee and the status of the measure is discussed below:

- a. Establish a practice of maintenance personnel not coming to the control room until work is properly planned.

The licensee's Plant Review Committee (PRC) approved Procedure SO-M-101, "Maintenance Work Control," to establish the requirements for proper planning of work prior to contacting operations personnel in the control room. The licensee was currently providing training on the procedure prior to implementation. The anticipated implementation date was May 1989.

The NRC inspector reviewed Procedure SO-M-101 and noted that it appeared that the procedure adequately established requirements for work control.

- b. Designate an operations liaison with maintenance foremen.

An individual was designated as a liaison with maintenance personnel. The function of this individual was to identify the maintenance tasks that had been designated by operations as priority items requiring timely completion. In addition, this individual was notified by maintenance personnel of what actions were required by operations to ensure equipment was available for maintenance.

The NRC senior resident inspector observed the functioning of the maintenance/operations interface on numerous occasions. It appeared that the interface was working well in that maintenance personnel had a point of contact interface which eliminated the need for entry into the control room.

- c. Relocate the shift supervisor's office to facilitate communications and reduce the need for personnel to enter the control room area.

During the 1988 refueling outage, the shift supervisor's office was relocated from the rear area of the control room complex to just inside the control room entrance door. The relocation

facilitated interfacing of personnel with the shift supervisor without entering the control room area.

The NRC senior resident inspector had observed the interface between personnel entering the control room and the shift supervisor. It appeared that the relocation of the shift supervisor's office provided a positive contribution to reducing the traffic in the control room.

- d. Evaluate the use of a work control center to aid in the operations and maintenance interface.

The licensee completed the evaluation of a work control center and determined that establishment of a control center would enhance the maintenance/operations interface and reduce traffic in the control room. The licensee planned on modifying the current control room envelope to establish a work control center. The modification was scheduled to be completed in 1989.

Based on the actions taken by the licensee, as discussed above, it appeared that adequate measures had been established to minimize the personnel traffic in the control room. The NRC senior resident inspector had observed the personnel traffic in the control room on numerous occasions in the recent past and confirmed the adequacy of the implemented corrective measures. The completion of the work control center should establish an additional measure to control traffic in the control room.

4. Develop Plant- and System-Level Design Basis Documents (DBDs) for Safety-Related and Other Selected Systems

This Priority I SEP item identifies OPPD's efforts to reconstitute the design basis for systems and issuance of DBDs. The actions involved with the reconstitution program and the status of each item are discussed below:

- a. Locate, sort, and computer index the quality assurance (QA) construction records to ensure they can be readily retrieved.

The licensee completed their search for QA construction records. These records were obtained from site personnel and the records storage center. The records were subsequently sorted and then included on their computer tracking system. The licensee was working with other utilities involved in reconstitution programs to obtain the records for the nuclear steam supply system.

- b. Develop plant-level documents to address generic issues such as seismic qualification and fire protection.

Five DBDs were issued by the licensee, with eight additional DBDs scheduled to be issued within the next 30 days. Supporting

calculations and QA records which could not be located for development of the DBDs were identified in the applicable DBD as an open item. SEP Item 7 addresses the determination as to which records must be recreated. The licensee completed plant system walkdowns that were used as an input to the development of the DBDs.

In addition to the system-level DBD development program, the licensee was aggressively pursuing the generation of plant-level documents. These documents included fire protection, pipe stress and supports, and seismic criteria. The fire protection DBD was issued by general systems engineering as one of the first five DBDs.

- c. Prepare the DBDs to reflect the current plant design with a justification for the current plant configuration or generic subject area.

The DBDs were being developed in accordance with Procedures PG-1, "Writers Guide for Plant Level Design Basis Documents," and SG-1, "Writers Guide for System Design Basis Documents." During the development of the DBDs, the licensee was reviewing the documents for reportability. Formalized guidance for determining reportability was provided in PP-5-6, "Project Reportability Requirements," and PP-5-8, "Review of Modifications Unreviewed Safety Question Evaluations."

The licensee had developed an aggressive schedule for issuance of the presently planned 52 system- and plant-level DBDs. The resources committed by the licensee appeared to be appropriate for meeting the presently scheduled completion date of April 1, 1990. Resolution of the DBD open items will require significant management attention to ensure timely close out. Based on review of this SEP item, it appeared that the licensee had established an effective program for the development and issuance of DBDs.

5. Verify that Operating Procedures (OPs), Emergency Operating Procedures (EOPs), Abnormal Operating Procedures (AOPs), and the Technical Data Book (TDB) Conform to the Systems Design Bases, when Complete

This Priority I SEP item has not been initiated by the licensee. The licensee is awaiting development and issuance of the DBDs prior to proceeding, due to the system interactions that affect the instructions provided in the OPs, AOPs, EOPs, and the TDB. Resolution of DBD open items will also impact the review of each of the above procedures.

It appeared that the licensee will have to commit additional resources to this item to complete the verification of the procedures by April 1, 1990, the currently scheduled completion date.

6. Verify that Safety-Related and other Selected Systems Perform Their Intended Functions on Completion of the Design Basis Documents (DBDs)

This Priority I SEP item identifies a licensee commitment to verify that safety-related and other selected systems can perform their intended functions. Verification will be conducted by reviewing the normal mode functions, postaccident mode functions, and safety evaluation checks, for each system.

The licensee and their contractors initiated the review of operating experience, surveillance test procedures, and the inservice testing program (IST) to verify normal and postaccident mode functions. The formal functionality verification program was awaiting completion of the DBDs. Selected safety system functional inspections (SSFI) were planned to be performed to verify the adequacy of the systems and to recommend corrective action, where necessary. The QA department had completed an SSFI on the auxiliary feedwater system.

It appeared that continued management attention is needed in this area to meet the currently scheduled completion deadline of the end of the 1990 refueling outage.

7. Determine Which Records Must be Recreated and Provide a Schedule for Recreating the Records

This Priority I SEP item addresses those instances where the DBD supporting records are not available. An evaluation will then be performed to determine if the safety significance of the records requires redeveloping the information. For those cases where it is determined that it is essential to recreate missing information, the following methods will be considered:

- a. Use of testing results in lieu of calculations.
- b. Further searching of reference material to determine if the data was overlooked.
- c. Recreate the necessary data.

The licensee developed a tracking system for open items identified as a result of the development of the DBDs. These open items were being evaluated and prioritized using Procedure QP-29, "Evaluating, Reconstituting, and Closing Design Basis Document Open Items." The licensee's contractor initially evaluated each open item and categorized the open item into one of five categories. Category I items were problems which may be reportable and require immediate resolution and/or reconstitution. Category II and III items were prioritized by the licensee's contractor and an evaluation of the need to recreate the document was prepared. Timely resolution of Category I open items was being provided. These items were being evaluated for reportability in accordance with the licensee's

approved procedures. Category II and III open items were under review by the licensee's contractor to determine what methods are required to recreate the documents, if necessary. Category IV and V open items are issues requiring no further action.

It appeared that the licensee was progressing with the completion of this item. However, it appeared that the licensee may have to provide additional resources to complete this item by the currently scheduled completion date of April 1, 1990.

8. Establish and Train the Nuclear Safety Review Group (NSRG)

This Priority I SEP item involves the need to develop an independent onsite organization that would review selected actions or incidents to better understand and determine the cause(s) of the problem and whether a proper safety perspective was present in the corrective actions taken.

The actions related to this item are discussed below:

- a. Establishment of an NSRG consisting of a manager and seven personnel. Each member will be degreed and/or have 3 to 5 years of nuclear experience. Qualified consultants will be utilized to supplement the group during the period of staffing and training.
- b. Provide training to the NSRG consisting of topics such as root cause and investigative techniques, problem solving and decision making, accident and incident investigation, INPO observation techniques, and interpersonal skills. The inhouse training program would include a needs assessments based on a thorough job and task analysis, the development of a training plan and training materials, the implementation and feedback mechanisms on effectiveness, and requirements for continuing training.

The NSRG has been established. While performing as the investigative body for the offsite Safety Audit and Review Committee (SARC), the NSRG will also perform safety overviews of the safety analyses in support of all permanent and temporary modifications, the facility licensing changes related to amendments to the license or Technical Specifications (TS), the safety analysis for operability (justification for continued operation), and the adequacy of actions taken in response to findings of plant observations and tours. The NSRG is also to replace the investigative function of the Management Investigation Support Team, the previous independent review group. In support of these objectives, the NSRG conducted evaluations of several incidents to date, along with the reviews of various safety analyses. The group was staffed by four OPPD employees and three contractor personnel with a goal of all OPPD personnel on board by June 30, 1989, and fully trained by December 30, 1989.

A job analysis and survey were in progress which will be used to form the basis for development of an NSRG training plan. The survey should be completed in May 1989 and the training program master plan (TPMP) established in July 1989. At present, in addition to those types of training specified in the formulation of the basic actions related to this SEP item, the NSRG members were scheduled to participate in selected system engineering training courses. In addition to the above, the licensee should consider providing some training in the area of Chapter 14, "Accident Analysis," of the Updated Safety Analysis Report (USAR), which will better aid in both the safety reviews and the understanding of the design basis.

9. Improve Effectiveness of the Plant Review Committee (PRC) by Reducing Procedure Review, Revising and Upgrading Meeting Minutes, Training, and Implementing an Action Tracking System

The NRC inspector discussed the status of this Priority II SEP item with the Plant Manager and reviewed selected procedures and documentation regarding portions of the item. The following specifics were noted:

- a. The PRC membership was modified to include additional managers to strengthen the review process. The review of Procedure SO-G-5, "Fort Calhoun Station Plant Review Committee (PRC)," revealed that the revised membership had been appropriately specified.
- b. The evaluation of administrative demands on line personnel is continuing. Interviews and documents revealed that a number of actions had been taken, including the utilization of the PRC agenda and the use of the operations review subcommittee, to reduce the overall administrative load on the PRC members. This matter required further actions by the licensee.
- c. The licensee was continuing to review the TS and procedures related to the PRC activities to streamline the PRC procedures.
- d. Additional training for PRC members had been provided, including problem solving, safety analysis for operability, and available design basis documents. This effort was continuing. The required reading for the PRC members (and alternates) had been improved.
- e. In addition to completing the training for the PRC members in problem-solving, three licensee persons were being certified to teach the problem-solving program. Training for plant staff supervisory personnel was in progress.
- f. A full-time PRC secretary with an engineering background had been assigned and was functioning.

- g. Selected minutes for PRC meetings conducted in November 1988 were reviewed and found to be improved. The NRC inspector noted two items requiring consideration by the licensee: (1) a minor item concerning the formal distribution of the PRC minutes to the Plant Manager and (2) the provision of a clear statement in the PRC minutes addressing the determination as to whether an unreviewed safety question was involved. The licensee was provided the two items.
- h. A PRC action item tracking system had been implemented and the items entered into the OPPD management action log program, which was considered in the scheduled monthly management meetings. The licensee actions in this area were considered to be acceptable and it appeared that the scheduled completion date of July 31, 1989, could be maintained with the continued attention of OPPD management. The NRC inspector noted that the actions taken to date appeared to adequately address this SEP item and had provided an improvement in the functioning of the PRC.

10. Complete the Implementation of Trending and Root Cause Analysis Program by Completing Policies, Procedures, and Training

The actions on this Priority II SEP item consist of issuance of a root cause analysis procedure, station engineering instructions on trending, and training of appropriate personnel in root cause analysis.

During review of this item, the NRC inspector noted the following:

- a. Procedure NOD-QP-19, addressing incident investigation and root cause analysis, had been issued; however, Procedure NOD-QP-20 on HPES and a procedure for station engineering instructions on trending had not been issued.
- b. Training had been accomplished in problem-solving methods for the PRC and in MORT methods for the NSRG. All other training, such as HPES methods, was scheduled for other personnel, with one exception. The NRC inspector found that the SARC was not scheduled for any training on the above methods.
- c. Pilot trending programs on three systems (diesel generators, auxiliary feedwater, and component cooling water) were under study by an outside consultant. The outside consultant had performed system and component evaluations, as well as developed new test procedures that included trending requirements. The diesel generator evaluations and test procedures had been completed.

It is currently too early to measure the effectiveness of the licensee's efforts in the implementation of the SEP item, but the efforts appeared to satisfactorily address the specified actions.

The licensee may have to provide additional management attention to complete this item by the currently scheduled date of June 30, 1989.

11. Long-Term Plant Review Committee (PRC) Procedure Program

The NRC inspector discussed the status of this Priority II SEP item with the Plant Manager and reviewed procedures and documentation regarding selected portions of the item. The following items were noted by the NRC inspector:

- a. Procedures SO-G-5, "Fort Calhoun Station Plant Review Committee (PRC)," and SO-G-30, "Procedure/Setpoint Changes," had been upgraded to improve the PRC review process by utilizing the operations procedure review subcommittee.
- b. Long-term changes that might impact the TS were being evaluated by the licensee. This activity was continuing.

The licensee actions in this area were considered to be appropriate and no change in the scheduled completion date of June 30, 1989, was anticipated with continued OPPD management attention.

12. Increase the Staffing Level of the Emergency Preparedness (EP) Organization

This Priority II SEP item involves a commitment by the licensee to increase the staffing level in the EP organization. The staffing increase involved the addition of three positions.

The NRC inspector reviewed the current staffing level of the EP organization and noted that three additional positions had been created and staffed with personnel. The three positions included an EP supervisor/engineer, an emergency planner, and a clerk.

It appeared that the licensee had taken the appropriate actions to address this item. The NRC inspector noted that the EP positions had been staffed with qualified personnel and the additional staff should prove to be an asset to the EP organization.

13. Improve Emergency Plans and Procedures

This Priority II SEP item defines the methods to be used by the licensee to improve emergency plans and procedures. The improvement program includes actions to address the emergency planning implementing procedures (EPIP) and upgrading of equipment and hardware. The EPIP and hardware upgrades included the following items:

- a. The emergency response and implementing procedures were to be evaluated and revised to include human factors, technical content, and compliance with the appropriate requirements.

- b. Development of a data base for cross-referencing EIPs to other procedures so affected procedures can be identified and changed.
- c. A contractor will be utilized for rewriting the EIPs.
- d. Evaluation of the notification and communication equipment will be performed.
- e. Development of a computer information system to link all emergency response facilities to ensure timely and accurate transmittal of information during an event.

The NRC inspector identified the following items related to this item:

- a. The licensee committed to complete the evaluation and revision of the EIPs by June 1990. The NRC inspector noted that there are 105 EIPs in existence. Ninety procedures have been reallocated to the various emergency response facilities according to their use. Preliminary work had been accomplished to set the basis for procedure revision. This preliminary work consisted of interviews with emergency preparedness personnel, interviews with experienced users, and review of procedures against the procedures of other nuclear facilities. At this time, procedure content had not been revised. The licensee stated that it was necessary to complete the groundwork that affects all procedures as a set, prior to undertaking the task of content revision. Moreover, the licensee stated that procedures would be revised as a group due to interrelationships among these procedures. In other words, changes in one procedure may affect several others. These final changes to individual procedures, as well as to the completion of procedures as a working whole, cannot be ascertained until each procedure is validated.
- b. The licensee committed to complete the establishment of a procedure cross-reference data base by June 1990. The NRC inspector noted that the licensee purchased a data base from a vendor and implemented it in August 1988. This data base was customized to specifically cross-reference each EIP with NUREG-0654 and other applicable regulations and procedures (e.g., AOPs and EOPs). In addition, it referenced EIPs to the radiological emergency response plan.
- c. The licensee committed to initiate rewriting of the EIPs by January 31, 1989. The NRC inspector noted that a contractor was onsite assisting in rewriting the procedures. The licensee stated that the contractor had been onsite since February 1989.
- d. The licensee committed to start the evaluation of the communications equipment by September 1988 and to complete

installation, if the system was found to be feasible, by December 31, 1989. A feasibility evaluation of the use of a reliable automatic dialing calling system was started in September 1988 and completed on January 31, 1989. As a result of this study, the licensee concluded that because different phone companies service Omaha and the vicinity, and some use rotary dialing and others use touch-tone dialing, a reliable automatic dialing system was not feasible at this time. The licensee stated that a new calling service was being considered. This will allow the notification of additional members of the emergency response organization that do not carry pagers.

- e. The licensee committed to complete the development of a computer information system to link the response facilities by December 31, 1989. The licensee stated that initial discussions were initiated between the Manager, Radiological Services and the OPPD Information System staff. The only determination made at this point was that implementation of this item appeared to be feasible.

Based on the reviews performed by the NRC inspector, it appeared that the licensee was currently on schedule to complete this item by the established completion date of June 30, 1990. The actions taken by the licensee to date appeared to be effective.

14. Implement an Improved Emergency Planning (EP) Training Program by Small-Scale Drills, Improved Exercise Scenarios, and Performance-Based Instruction

This Priority II SEP item is related to improvement in the EP program. The improvement is to be implemented through the items discussed below:

- a. Upgrading of the emergency response training program by including performance-based training. The inclusion of performance-based training will be accomplished through the use of consultants with experience in this area.
- b. The training program will be integrated into the procedures upgrade effort to ensure proper coordination.
- c. An annual training schedule outlining EP training required to perform emergency tasks will be developed.
- d. Additional small-scale drills will be included in the annual training schedule.
- e. Exercise scenarios will be upgraded to increase the realism during the annual exercise.

The NRC inspector reviewed the actions taken by the licensee to address this SEP item. The reviews performed by the NRC inspector are discussed below:

- a. The NRC inspector noted that two contractors had been onsite to develop a performance-based training program. The contractors developed a job analysis questionnaire and these were being sent to 200 plus members of the emergency response organization. These job analysis questionnaires were being distributed to three representatives of each emergency response organizational position to identify the various tasks involved, including interacting roles. This action was in progress. When it is finalized, a task analysis will be performed for each emergency response organizational element. After completion of the task analysis, a training matrix will be developed showing organizational roles versus training modules. Based on the results of the survey, a TPMP will be completed by December 31, 1989. The master plan will contain lesson plans for each training module in addition to other elements.
- b. A validation committee comprised of emergency planning and training personnel and the appropriate subject matter expert will ensure that the implementation of the training program will be integrated with relevant upgraded EIPs.
- c. An annual training program schedule will be completed when the iPMP has been issued.
- d. Three additional small-scale drills were completed this year and 14 more have been scheduled to be performed by December 1989.
- g. Actions taken by the licensee to ensure necessary realism in exercise scenarios are discussed below:
 - (1) In March 1989, the licensee used the Combustion Engineering simulator to validate the exercise scenario for the 1989 annual drill.
 - (2) A contractor was assisting in the preparation of radiological and operational scenario data.
 - (3) The 1989 Scenario Development Group was formed in September 1988, 9 months prior to the performance of the annual exercise in 1989.
 - (4) Procedure EPT-10, "Emergency Preparedness Test," used to establish controls for scenario development, was revised and implemented on January 30, 1989.

Based on the reviews performed by the NRC inspector, it appeared that the licensee was taking actions to effectively implement this SEP

item. This item is currently scheduled for completion on June 30, 1990. It appeared that the licensee will complete the efforts on this item by the scheduled completion date.

15. Increase Human Performance Evaluation System (HPES) and Incident Report (IR) Accountability Through Use of Performance Indicators Including the Performance of Subordinates as an Element in Supervisory Performance Appraisals

This Priority II SEP item is being implemented as part of other SEP items. As described in SEP Item 18, position descriptions incorporating accountability and the measurement of position performance were prepared. Annual performance appraisals are to be based on the position description and are to include, as one element of accountability, the supervisor's responsibility for the performance of subordinates. Other initiatives underway such as training, improvement of procedures, utilization of HPES, root cause analysis, NSRG, and others are actions contained in other SEP items.

In reviewing this item, the NRC inspector found that the maintenance organization had established investigations into, and a trending of, IRs by the six groups within the maintenance organization. Although not reviewed by the NRC inspector, the licensee indicated that other departments such as operations were in the process of adopting the same practice. The trends are to be utilized as a measure of performance by management. The HPES will also provide a valuable insight into the performance of subordinates and the effectiveness of supervision. The radiation protection organization also instituted a tracking and trending program for radiological-related incidents and for personnel contamination incidents.

Observations by the NRC inspector include the following:

- a. Actions, as committed in this SEP item, appeared to have been initiated. The licensee considered this SEP item complete based on the initiation of the actions outlined.
- b. The accountability for the accomplishment of the actions in this SEP item appeared to be incorporated into other SEP items.

Based on the review performed by the NRC inspector, it appeared that the licensee had taken appropriate actions to resolve the issues related to this SEP item. The effectiveness of this item is dependent on proper implementation of the annual appraisals.

16. Identification of Career Paths, Supervisory Training, and Employee Training

This Priority III SEP item is initiated based on the independent nuclear appraisal and the NRC's Systematic Assessment of Licensee Performance Report identifying the need to establish career paths and

to identify the requirements necessary for advancement. The actions discussed below were generated to address this SEP item:

- a. A Nuclear Management Development Steering Committee (NMDSC) consisting of the Division Managers from each nuclear-related division, along with managers from employee relations and organization and management development, was to be formed to identify career paths and advancement requirements.
- b. Nuclear supervisory personnel would receive training in succession planning principles, supporting employees in their individual career planning/development activities, and human resource development processes. In addition, the supervisors were to share career path information with employees, discuss goals and developmental activities, and provide ongoing developmental feedback regarding employee performance.
- c. A full-time person would be dedicated to the administration of these actions and provide timely information to employees concerning the implementation of the actions.

The NRC inspector's review of this SEP item identified the following:

- a. A significant effort had been accomplished in the area of general employee career planning and development. The development of individual position descriptions and job function identification not only allows both the affected personnel to have knowledge of the requirements of their positions, but also provides management an understanding of the overall scope of the work being conducted. In coordination with these job descriptions, a revised program for the conduct of performance reviews had been instituted. This process required that the supervisor and employee define job accountabilities and performance expectations to be attained.
- b. With the development of the position descriptions, as discussed in SEP Item 18, the basic mechanisms were established for the generation of those factors that must be met for promotional growth. During accomplishment of the annual job planning and performance review process, each employee will receive some degree of counseling in the area of growth and future expectations. The basis of this program was the preparation of the future development plan portion of the employee performance review document. Each supervisor had received formal training in this development tool.
- c. A program had been instituted that provides for supervisory assistance in each employee's self-directed career planning. This program was available for those employees who express interest, were holding critical positions, and were recommended

by their supervisors. The program was scheduled for implementation in May 1989.

It appeared, based on the reviews performed by the NRC inspector, that the licensee was in the process of taking actions to complete this item. Institutionalizing these items in corporate/plant procedures had not been completed. It also appeared that this SEP item will be completed by the currently scheduled completion date of June 30, 1989.

17. Develop and Implement a Succession Program

The need for the development of individuals to assume the responsibility of key positions upon the vacating of the position is addressed by this Priority III SEP item. In this regard, a three-position prototype succession plan was instituted within the former Nuclear Production Division. Due to the reorganization of the nuclear-related activities, the establishment of a succession planning process was identified. The process would also be expanded to include the three nuclear-related divisions.

The licensee developed the elements discussed below to address this SEP item:

- a. An NMDSC would be formed for the purpose of identification and implementation of a succession planning process for key positions within the three nuclear-related divisions. The succession plan would identify the requirements for defining key positions, actual positions, incumbents and succession candidates, and appropriate developmental actions.
- b. A source of future supervisory personnel from the ranks of promising employees would be developed through the use of a program of training in supervisory skills.

During review of this item, the NRC inspector made the following observations:

- a. Due to the number of human-resource-related deficiencies that had been noted in previous assessments, division management perceived that a lack of promoting their active participation in the succession planning area existed. Based on this, an NMDSC was formed to ensure the necessary guidance would be provided in the correction of the deficiencies. The major goal of the committee was the development of a detailed succession program. A set of selection criteria was developed to analyze both the position requirements and the resources available. This effort was conducted and based, in part, on the newly prepared position descriptions and a recognition of the relative importance of the selected position on plant safety. From this effort, a total of 58 key or critical positions were identified for the succession

plan. Along with the identification of positions, three individuals were identified for planning purposes who were considered for possible succession. The program was established to be an ongoing process in which the positions and individuals would be updated accordingly every 12 months.

- b. To ensure the quality of the skills for each supervisor noted in the succession plan, a training program was developed. The program was supplemented with the potential successors and will eventually be made available to every exempt employee. The training program was developed based on a review of the skills needed to be successful in the position, a review of the functional position descriptions, and a rating of the incumbent's skill level. The program was defined to correct demonstrated deficiencies, but had not yet been expanded to provide a multifaceted or general supervisory development. In this regard, it was contemplated that in 1990 a presupervisory and management assessment would be offered. This program will attempt to work with personnel who are considered as potential supervisors if the individual shows interest and aspirations.
- c. The training program for improvement of supervisory and interpersonal skills appeared to be well formulated based on present needs. While most employees had participated in more than the 24-32 hours of required training, an adherence to only the minimums would not be sufficient for success of this effort. Management attention to this area should continue to ensure that the emphasis to the improvements in this important area will continue. Also, since the present attention was focused at correcting the noted deficiencies, no planning has proceeded in the possible maintenance of skills or the initial development aspects for future supervisors.
- d. A computer-based system for the tracking of registrations, attendance, and certifications in the training process was implemented. The information generated from this system was provided for inclusion in each individual's training records and to the appropriate division manager for planning purposes. The assurance of scheduling sufficient time for attending this training and the availability of the person to attend was the responsibility of the division. The employee relations organization should ensure that the emphasis in this area continues and monitor the accomplishment of the required training. Presently, the training group reviews only course utilization for a determination of program success.
- e. A recent employee attitude survey was conducted which has the potential for being a positive tool in the improvements in these areas. The results of this survey and the determination of priority training needs for both the succession and career

planning processes could provide direction to the whole performance planning and improvement effort.

Based on the reviews performed by the NRC inspector, it appeared that the licensee had completed the necessary actions to address this item. However, the licensee should consider implementing the observations made by the NRC inspector to provide institutionalization of the elements contained in this SEP item.

18. Develop an Overall Mission Statement and Implement Functional Position Descriptions

This Priority III SEP item involves a licensee commitment to develop overall mission statements for each division. Once the mission statements have been developed, the licensee will develop and implement position descriptions containing functions, interface requirements, and qualifications. The position descriptions provide for accountability of positive and negative employee performance that is included in the each employee's annual performance evaluation. The NRC inspector reviewed the following items:

- a. The mission statements were developed and issued for each division (Nuclear Operations, Production Engineering, and Quality and Environmental Affairs) and were contained in the Nuclear Organization Manual. The statements define the responsibilities, goals, and specific functions of each organization. The NRC inspector reviewed each divisional mission statement and noted no problems.
- b. Functional position descriptions were developed (except as noted below) for all exempt positions within the three divisions. Each position description provided a discussion of the mission statement and purpose for each position. The mission statements were derived based on the overall mission statement for the appropriate division. In addition, the position description included a narrative on the other elements related to the activities to be performed by each individual. The elements included items such as interface requirements; skill, knowledge, and experience requirements; general responsibilities; principal accountabilities; and measurement of position performance.
- c. An annual evaluation is to be prepared for each employee. The evaluation is prepared based on the elements contained in the position description and reflect the positive and negative aspects of the individual's performance. The licensee has not yet performed an annual evaluation using the newly established program. However, it appeared that an adequate program had been established to perform an objective and thorough performance evaluation.

During review of the establishment of the position description program, the NRC inspector noted the following items:

- a. Personnel performing the function of a specific position had not signed their position descriptions to signify that the position descriptions had been reviewed with the employee. The NRC inspector noted this concern for the individuals in the positions of Supervisor, Station Licensing; Supervisor, Chemistry; and Supervisor, Radioactive Waste Operations.

Section 5.1.3 of Policy/Procedure B-18, "Functional Position Descriptions for Exempt Personnel," stated that the final revised functional position description will be reviewed and signed by the incumbent. It did not appear that the licensee was complying with this instruction.

The licensee stated that at the time the position descriptions were approved, the individuals in these positions were in an acting capacity and had not been officially assigned the position. For this reason, the position description was not forwarded to the individual.

- b. The licensee had not established a policy to delineate when a position description should be issued to an individual who has assumed a new position. For example, the NRC inspector noted that several engineers had been recently assigned to the position of System Engineer but had not been issued a position description.
- c. Position descriptions for all personnel had not been issued to reflect the functions being performed in their present positions. For example, two individuals were assigned to assist the Supervisor, Operations in coordinating activities related to the operations department. The activities were not related to the performance of duties by the onshift operating crew; however, the individuals were provided with shift supervisor position descriptions since none existed for their positions.
- d. The licensee had not established a policy to delineate when a position description should be provided to an individual if the individual were a contractor. It was not apparent that the contractor could effectively function in a position without knowing the specific details of the position performance requirements provided in the position description.

This item was of a particular concern since the licensee was using contractor personnel in many key positions within the organization. The key positions included personnel performing the duties such as Assistant Plant Manager; Manager, Security Services; and Division Manager, Production Engineering.

During performance of an assessment of the nuclear operations organization by an independent contractor that resulted in the generation of the SEP, it was noted that the absence of clearly defined responsibilities, authority, and intraorganizational interface requirements was a significant factor in the recent problems encountered by the licensee. It was not apparent how the licensee could establish the organizational strengths they are striving for when the contractor personnel are not informed of the specific details of their position.

It appeared that the licensee had completed the specific actions associated with this item. When fully implemented, the program will provide the necessary elements that will ensure all exempt personnel are fully aware of their duties and responsibilities. However, it did not appear that the licensee had met the intent of this item. The licensee had developed the appropriate position descriptions but had not taken actions to effectively implement the position description program by providing the descriptions to the appropriate personnel.

Subsequent to the identification of these concerns with the position description program, the licensee stated that position descriptions had been forwarded to some contractors in exempt positions. The licensee also stated that the issuance of position descriptions would continue until all exempt personnel (contractor or employee) had received the description for their current position.

19. Develop Interpersonal Skills Using Positive Reinforcement Techniques via the Management/Supervisory Development Program

This Priority III SEP item is related to the development of management and supervisory personnel by providing periodic short courses and seminars on subjects such as communications, supervision, and motivation.

The NRC inspector reviewed the items discussed below:

- a. The licensee developed a series of training courses that were available for attendance by the licensee's management and supervisory personnel. The series of courses included instructions designed to improve the management capability of personnel. Each manager and supervisor was required to complete 24-32 hours of classroom training annually.

The NRC inspector reviewed the listing of classes available to management personnel and noted that the listing appeared to include the appropriate types of instructional classes.

- b. The licensee stated, in the response to this item, that the management training program would be reviewed semiannually by

the NMDSC to ensure that the program objectives and content were consistent with management development needs.

The NMDSC was comprised of five individuals from the upper-level management ranks of OPPD. The committee had been meeting approximately every 3 weeks to discuss the development of this training program. However, the NMDSC had not yet formally performed a review to verify the program content was consistent with management development needs. The NRC inspector also noted that a charter to describe the functions, responsibilities, authority, and interface requirements had not yet been developed and issued for the NMDSC.

- c. The licensee stated that the NMDSC will review the individual development plans of nuclear personnel.

The licensee had not yet implemented this portion of this item. The licensee stated that implementation was expected to begin in the near future.

- d. A commitment was made by the licensee to assign an individual to manage and oversee the implementation of the management training program.

An individual was assigned the oversight task during the early stages of development of the training program. This individual was aggressively pursuing the continued upgrading and implementation of the program.

- e. The licensee stated that quality management skills training materials would be offered to OPPD personnel.

This phase of the implementation of this item was still being developed.

- f. A commitment was made by the licensee to provide positive feedback to employees by recognition of individual achievements through the issuance of the newsletter.

Since January 1989 the licensee issued a newsletter, "Nuclear Notes," to establish a means of providing positive feedback for individual achievements. Since the newsletter was initiated, OPPD employees stated that they feel that the newsletter has been a positive step toward individual recognition as well as a means for dissemination of other material of a general interest.

The NRC inspector reviewed the status of this item. It appeared that the licensee was on schedule to meet their current completion date of June 30, 1989. Based on the reviews performed of items that had been completed, it appeared that the licensee had effectively implemented the items. The overall program for training of management and

supervisory personnel should be effective when all elements of this item have been implemented.

20. Evaluate, Improve, and Strengthen the QA Audit and Surveillance Program

The actions associated with this Priority I SEP item are related to the performance of an evaluation of the audit and surveillance programs by a consultant. Based on the consultant's evaluation, the master surveillance list will be upgraded, audits and surveillances will be required to be more performance oriented, audit and surveillance plans are to be revised to include INPO good practices, and audit and surveillance reports are to be upgraded. Training is to be scheduled on the methods of performance oriented audits and surveillances.

The NRC inspector noted the following items during review of this SEP item:

- a. The audit and surveillance programs had been reviewed and evaluated by a consultant. A review by the NRC inspector of the consultant's report, dated August 15, 1988, found the consultant's recommendations had been addressed and Procedures QDP-6 and QDP-7 revised appropriately. One minor comment of the NRC inspector was that, although surveillance reports were reviewed to ensure that any problems identified were reviewed for reportability, it appeared that audit reports were not similarly reviewed. A review of surveillance plans by the NRC inspector found that the plans included INPO good practices and measures of performance.
- b. The master surveillance list had been revised to include missing surveillances. A review of the training records by the NRC inspector found that two appropriate personnel had not yet been trained in the performance-based inspection methods. This training had been supplied by an outside consultant.

The effectiveness of the revised audit and surveillance program can not be measured yet in that no audits have been performed under the revised procedures. The NRC inspector did note that, of the surveillances performed to date in accordance with the revised procedures, approximately 30 findings in the form of deficiency reports and surveillance items were identified. Compared to the 30 surveillances performed for the same time period in 1988, which had approximately 10 findings, this indicated an improving trend in the performance of surveillances. Based on the reviews performed by the NRC inspector, it appeared that the licensee had adequately implemented this SEP item, except the minor comments noted above.

21. Development and Implementation of a Safety System Functional Inspector (SSFI)

In response to recommendations made during an NRC Safety System Outage and Maintenance Inspection (SSOMI), this Priority II SEP item was initiated by OPPD to conduct a limited-scope SSFI. This type of inspection is necessary due to problems noted in design control of modifications since its purpose was to compare the present configuration with the licensing basis and provide an assessment of the operational readiness of the system. The scope is limited to the areas of maintenance, modification, testing, operations, and training on the system.

Since OPPD had previously completed an SSFI-type inspection on two mechanical systems, the choice of an electrical system was believed appropriate. This was backed by a consultant's report indicating that NRC inspections were also focusing in the electrical discipline.

Limited-scope SSFIs were performed on the auxiliary feedwater and the instrument air systems using contractor support. The lessons learned from the two inspections confirmed the need for a reconstitution of the design basis for the facility.

As with the previous SSFIs, the licensee decided to utilize contract support for the performance of the electrical system SSFI. However, unlike the other systems, the selection of the 120-Vac vital electrical system came after the work had been completed under the Design Basis Reconstitution Program (DBRP). Thus, it will provide a major check on the DBRP process, while addressing the adequacy of design, testing, maintenance, and training.

This SEP item was in the bidder selection stage. The selection criteria appeared to be heavily based on the performance history and information learned during contracts with other utilities where SSFIs had been conducted. While the contract specification poses no requirements on the qualifications of the personnel actually performing the inspection, the area appeared to be addressed in that the licensee had approval authority over the contractor's selection of personnel and any future changes of this type.

The level of effort had been scoped at five individuals for a duration of 10 weeks. The licensee will provide three of the personnel as part of the team, which should aid in training and determining the skills involved in the process. The licensee should also consider the documentation of this process to ensure quality and consistency for future inspections, if performed without contractor assistance. Additionally, the performance of this SSFI is being completed well after initiation of the DBRP. Thus, it should be performed without serious delay should the results indicate problems have occurred within the DBRP process. It appeared that this item was currently on schedule and that the licensee should be able to

complete the item by the currently scheduled commitment date of December 30, 1989.

22. Initiate Periodic Observation of Work in Progress and Provide Timely Feedback to Craftsmen and Supervisors

This Priority II SEP item involved implementation of the activities listed below:

- a. Assign high priority to field supervisor activities.
- b. Emphasize that supervising the work force is the primary responsibility.
- c. Conduct observation training for foremen and supervisors.
- d. Routine inspection of job sites by maintenance supervision.

This SEP item was reviewed during performance of the Maintenance Team Inspection in March and April 1989. A discussion of this SEP item is contained in NRC Inspection Report 50-285/89-01 which provides the results of the inspection.

23. Perform Audits to Verify that Commitments Made to the NRC in the Responses to the SSOMI Team are Planned and Implemented

This Priority II SEP item is related to the verification, by the licensee, of commitments made to the NRC in response to the SSOMI team findings documented in NRC Inspection Reports 50-285/85-22 and 50-285/85-29. The verification will be completed through the performance of audits by the licensee's internal auditing organization.

The licensee established that 170 commitments were made in response to the SSOMI team findings. Of the total of 170 items, the licensee's internal audit organization verified the adequate implementation of all but 56 items. The licensee stated that the remaining items will be verified by the currently established completion date of November 30, 1989.

Based on the review performed by the NRC inspector, it appeared that the licensee had performed adequate audits and will complete this item by the established completion date.

24. Complete Staffing Studies and Hire Additional Experienced Personnel on an Expedited Basis

This Priority I SEP item addresses the need to increase the staffing level at the FCS. Staffing, based on completed staffing studies, has been on a steady increase with a projected staffing level of 798 for the three OPPD Nuclear Divisions by the end of December 1989. The

798 positions are the presently authorized staffing level through 1989. In July 1988, the staffing for the three nuclear divisions was 491 personnel. As of April 30, 1989, the staffing was 632 with an additional 48 accepted offers. Key management, technical, and support personnel positions are being filled by experienced personnel.

In discussions with OPPD management personnel, it was indicated that staffing will level off at 798 and an evaluation will be conducted. Based on the results of the evaluation, the licensee may adjust the staffing level.

Staffing was proceeding at a prudent rate with emphasis placed on obtaining experienced and qualified personnel. Based on the current rate of addition of personnel, it appeared that the licensee will complete this SEP item by the currently scheduled completion date of December 31, 1989.

25. Implementation of a Training Program for Managers and Supervisors in Industrial Safety

This Priority II SEP item was generated to address a training program for management personnel in industrial safety. The training program is necessary due to field-identified needs and occurrences. The program is designed to focus on the recognition and enforcement of situations as they occur in the field since the individuals will be held accountable for identification and correction of improper work practices. A contract industrial safety coordinator has been given the responsibility for ensuring the appropriate training levels are acquired and maintained.

The training program in industrial safety was expected to provide managers and supervisors with the skills needed to improve the standards in this area and assist them in communicating these requirements to all levels of the organization. This accountability for proper and safe worker performance was incorporated into the line managers and supervisors functional position descriptions.

The training program will provide an emphasis on problem identification, coaching, counseling, feedback, and praising the initiative of personnel surfacing problems. The use of on-the-spot correction will also be emphasized and practiced to change field behavior. These individuals are increasing their level of monitoring of activities, and the results of these field observations will provide a basis for performance trending in addition to the assurance of the accomplishment of corrective actions. If adverse trends are noted, action will be taken.

Although this SEP item was scheduled for completion by the end of 1988, the training aspects of the industrial safety program for managers and supervisors had not been fully implemented. Supervisors

and foremen received INPO observation training in an attempt to improve the skills in recognizing abnormal conditions in the field, and an observations checklist has been prepared to assist in the effort.

The training department prepared a draft Industrial Safety Training Program Plan entitled, "Supervising for Safety." This plan, along with Procedure SO-G-78, related to the implementation of the observation program, had not been approved by plant management. While the course of instruction in this area was being scoped, it was important that these documents be issued to ensure the timely completion of the action. The training program was tentatively designed to be 20 hours in duration, giving at about 2 hours per week. The basic design was to provide a general understanding of industrial safety and the tools to achieve a safety culture within the plant organization. This will also aid the observation program in improving the ability of supervisors to recognize items of safety noncompliance during the walkdowns.

Based on the reviews performed by the NRC inspector, it appeared that the licensee had not completed this item by the specified commitment date of December 31, 1988. However, all actions had been initiated. Licensee management should consider addressing the observations provided by the NRC inspector when completing the actions related to this SEP item.

26. Evaluate and Implement Station Standards for Safe Work Practice Requirements

The scope of the effort in this Priority II SEP item centers on the clarification of the rules, policies, and procedures, along with the performance of site walkdowns and improved enforcement and compliance. In particular, the controls on the use of station postings will be updated. Communication of the rules, policies, and procedures to personnel will be implemented as reinforcement.

Section I of the Nuclear Operations Division Policies and Procedure Manual, "Industrial Safety", and the newly released corporate, "Employee Safety Handbook," provided the requirements and basic rules on industrial safety. For the most part, the plant policies centered on the wearing of appropriate clothing and protective gear and the enforcement of these aspects. The efforts in this area were the result of observations during previous INPO inspections and monthly audits by the Corporate Safety and Health Audit Committee. The corporate safety organization also provided guidance to the plant on general policy issues such as noise monitoring, hazardous material communication, and heat stress. In the noise monitoring area, this organization will conduct the baseline testing and determine the posting requirements for hazardous noise environments. For the majority of the verifications of proper postings such as hard hats

and safety glasses, the Quality Control (QC) group and the maintenance planners have been conducting the site walkdowns.

Several mechanisms were available for the communication of information related to industrial safety standards. Although a policy had been in existence for the control of safety suggestions, the followup of the suggestions was made part of the function of the monthly maintenance department safety meetings. The suggestions were reviewed and the corrective actions taken discussed. However, these actions were not detailed in the Nuclear Operations Division Policy/Procedure I-2. These actions did not extend outside the maintenance organization. Other work groups, such as the water treatment and chemistry organizations, did not participate in a program of monthly safety meetings.

Communication on safety was provided in a column entitled, "Playing It Safe," from the Assistant Plant Manager which appears in each issue of the station newsletter, "Nuclear Notes."

Trending of safety problems was being performed by the Assistant Plant Manager. In this regard, statistics were maintained on safety incidents involving personnel injury, including nonlost work time. The safety deficiencies identified during walkdowns, under the requirements for plant observations, housekeeping inspections, and during safety and health audits, while reviewed for accomplishment of corrective action, were not trended. Thus, for the most part, the trending in this area was reactive and the industrial safety program focused on correction of noted problems.

The NRC inspector noted that the licensee had essentially completed the actions related to this SEP item. The licensee should review the observations made by the NRC inspector for possible inclusion in the safe work practices requirements.

27. Implement Supervisory Enforcement of Industrial Safety Standards

This Priority II SEP item was generated to implement a program for supervisors to periodically monitor station activities and reinforce industrial safety standards and policies, as appropriate, and in a timely manner.

The station responsibility for industrial safety was delegated to the Assistant Plant Manager. To assist in the safety area, the addition of two industrial safety engineers was authorized. In addition to the Industrial Safety Coordinator, Training, as discussed in SEP Item 25, the Industrial Safety Coordinator, Plant, reports to the Assistant Plant Manager and will work on such aspects as accident reporting, safety suggestions, work order reviews, interpretation of policies, followup of safety audits, and trending. The two coordinators will also interface to ensure that adequate training of personnel is conducted.

Along with the identification of safety concerns through plant observations and walkdowns, the position descriptions for plant supervisors have now included definitions of the responsibility of work group safety. Nuclear Operations Division policies and procedures provided details of the enforcement of specific safety standards.

During review of this item, the NRC inspector noted that the actions implemented to address this item were ongoing and being refined as experience is gained in this area. It appeared that the licensee has completed the basic elements to address this SEP item.

28. Complete the Required Instrument Air Program Corrective Actions During the 1988 Refueling Outage

This Priority I SEP item is related to the corrective actions to be taken by the licensee in response to the instrument air event that occurred in July 1987. The instrument air event occurred when water from the fire water system entered the instrument air system causing the operability of the components and equipment supplied by the instrument air system to be indeterminate. As a result of the event, there were 64 items identified that required licensee action to return the instrument air system to the level of quality specified in the system design basis.

The NRC senior resident inspector performed an extensive and indepth review of the corrective actions taken by the licensee in response to the instrument air event. The reviews performed by the NRC senior resident inspector are documented in NRC Inspection Reports 50-285/88-23, -27, -36, and -46. The reviews were performed to verify that the licensee had completed all their commitments prior to plant startup from the 1988 refueling outage.

Based on the extensive reviews performed by the NRC senior resident inspector, the licensee demonstrated the capability of resolving complex issues by restoring the instrument air system to a level of quality commensurate with the stated design basis.

The actions taken by the licensee appeared to be satisfactory as the instrument air system continued to operate as designed. Based on the reviews performed on this SEP item, it appeared that the licensee had taken the appropriate actions to address this item.

29. Incorporate the Instrument Air Accumulators into the Surveillance Test Program

This Priority I SEP item involves a licensee commitment to include the check valves for the safety-related, instrument air accumulators into the surveillance test program. In addition, this item also involves inclusion of the check valves in the NRC-approved Inservice Testing (IST) program.

This item was issued as Open Item 285/8815-02 in NRC Inspection Report 50-285/88-15 to formally track the licensee's action. In NRC Inspection Report 50-285/88-46, the NRC senior resident inspector reviewed the licensee's action related to testing the instrument air check valves. The review confirmed that all check valves had been tested. The NRC senior resident inspector also verified that the licensee had updated the IST program to include the check valves.

Subsequent to upgrading the IST program and the performance of check valve testing, the licensee upgraded the instrument air accumulators for the raw water pump discharge valves (HCV-2850, HCV-2851, HCV-2852, and HCV-2853) to safety-related equipment. The licensee tested the check valves, but has not included the valves in the IST program. The action to include the accumulator check valves for the raw water pump discharge valves is being formally tracked as Open Item 285/8823-01. Review of the addition of the accumulator check valves for the raw water pumps will be verified during review of Open Item 285/8823-01.

Based on the reviews performed on this item, it appeared that the licensee had taken timely corrective actions to appropriately resolve the issues related to the testing of air accumulator check valves. The surveillance testing program that was established by the licensee will provide assurance that the check valves continue to perform their intended design function.

30. Complete Long-Term Corrective Actions for the Instrument Air System

This Priority II SEP item is related to commitments made by the licensee to upgrade the instrument air system. The upgrades planned by the licensee include installation of a new air dryer, on-line dew point analyzer, and replacement of Valve DW-CV-86. These modifications are intended to increase the overall reliability and efficiency of the system, but are not deemed necessary to ensure that the instrument air system meets the design basis stated in the USAR.

The NRC inspector discussed the status of the upgrade modifications with a representative of the mechanical engineering staff. It was established that the system modifications are being installed in accordance with Modification Request FC-87-050 and the modifications are currently ahead of schedule for completion.

Based on the review of the status of this item, it appeared that the licensee will be able to complete this item by the currently scheduled completion date of December 31, 1989.

31. Develop Outage and Maintenance Planning Manual and Conduct Project Management Training

This Priority II SEP item involves a licensee commitment to prepare and issue an outage and maintenance planning manual. The manual is being

developed to define elements such as the intraorganizational interfaces; scope, planning, and resource allocation for outage activities; and postoutage critique for improvement of future outage activities.

This SEP item was reviewed during performance of the maintenance team inspection in March and April 1989. A discussion of this SEP item is contained in NRC Inspection Report 50-285/89-01 which provides the results of the inspection.

32. Perform a Postoutage Critique

This Priority II SEP item specifies that a critique of the September 1988 through January 1989 refueling outage be performed to identify weaknesses and strengths in the outage management process.

The licensee issued Outage Report 1988 in March 1989. The report addressed the planned versus actual outage goals, major task list and status, major problems encountered, target versus actual schedules, critical path analysis, planned versus actual manpower and dollars, comparison of 1987 outage recommendations and implementation, action items to be resolved, and responsibilities for completion of the action items.

The NRC inspector's review of the outage report found the evaluation to be directed at identifying root causes for weaknesses in the outage management process. Responsibility for implementing corrective actions were assigned to the responsible departments and individuals. Selected findings were being discussed during the weekly outage meetings.

It appeared that the licensee had completed the essential elements of this item. By establishing the elements, the licensee created a method of continually upgrading the outage process.

The licensee identified issues which affect both safety processes and means of significantly reducing the outage down time. Implementation of the recommendations should result in significant improvements to the outage management process.

33. Develop an On-Line Maintenance and Modification Schedule

This Priority II SEP item was generated to address the actions to be instituted for the development of an on-line maintenance and modification schedule. Included in this item are elements that establish methods for development and issuance of a weekly and quarterly maintenance schedule; creation of the Supervisor, Maintenance Support position to oversee the scheduling program; and inclusion of preventive maintenance, inspection, and surveillance activities into the program.

This SEP item was reviewed during performance of the maintenance team inspection in March and April 1989. A discussion of this SEP item is contained in NRC Inspection Report 50-285/89-01 which provides the results of the inspection.

34. Create and Staff a Central Planning Group

The licensee indicated that this Priority II SEP item was completed on March 21, 1989. The NRC inspector reviewed the status of this item with the Manager, Nuclear Planning Department and reviewed selected procedures and documentation regarding the planning group. The following items were reviewed:

- a. The Nuclear Planning Department was formed and staffed with four OPPD and consultant personnel. The Nuclear Planning Department manual was issued on February 3, 1989.

The Manager, Nuclear Planning Department reported to the Senior Vice President, Nuclear Operations. A Nuclear Planning Department charter was provided and the group functions were specified. Discussions revealed that the organization will continue to report to the Senior Vice President, Nuclear Operations.

- b. Onsite training of the planning process was established and scheduled for implementation by departments within the three nuclear divisions. Discussions and document reviews revealed that the majority of the training had been completed; however, a number of departments had not received the designated training, including the FCS departments, System Engineering, Nuclear Engineering, and Quality and Environmental Affairs. The training was planned to be completed by the end of May 1989.
- c. The methodology and procedure requirements for program and project prioritization were established to provide for scoring and ranking of items for implementation.
- d. The development and maintenance of the program and project schedule was described in the Nuclear Program Planning Manual (NPPM), including Section 1, "Overview," and Section 4, "Approval Process." The program included the issuance of summary schedule updates and numerous other reports regarding scheduling, costs, and resources to maintain management current regarding overall and specified programs and projects.

The licensee actions in this area were considered to be acceptable with the exception of the incomplete training for personnel associated with planning and scheduling. The licensee planned to complete the training by the end of May 1989. Although all the actions related to this item were not completed by the scheduled

implementation date of February 28, 1989, it appeared that the basic elements had been instituted.

35. Establish Criteria for Identifying Postmaintenance Testing Requirements, and Track Completion and Retesting Activities

This Priority I SEP item involves actions to be taken by the licensee to establish a postmaintenance testing program. The elements contained in the program include items such as establishing criteria to identify the appropriate postmaintenance activities following the performance of scheduled or corrective maintenance and implementation of a system for tracking corrective actions and retesting for equipment and components that fail the postmaintenance test.

This SEP item was reviewed during performance of the maintenance team inspection in March and April 1989. A discussion of this SEP item is contained in NRC Inspection Report 50-285/89-01 which provides the results of the inspection.

36. Reduce the Corrective, Nonoutage Maintenance Backlog

This Priority II SEP item involves actions to be taken by the licensee to reduce the backlog of outstanding, corrective, nonoutage, maintenance orders. The goal established by the licensee was to reduce the backlog to less than 600 maintenance orders.

This SEP item was reviewed during performance of the maintenance team inspection in March and April 1989. A discussion of this SEP item is contained in NRC Inspection Report 50-285/89-01 which provides the results of the inspection.

37. Review and Upgrade, as Required, the Scope and Content of the Motor-Operated Valve (MOV) Operating, Maintenance, Spare Parts, and Testing Programs and Procedures

This Priority II SEP item was initiated by the licensee to address the MOV program and to upgrade the program and procedures to address the various aspects of the MOV program. Included in this item are commitments such as defining the responsibilities of program participants; reviewing, revising, and reissuing implementing procedures, as appropriate; and implementing training for the appropriate personnel.

This SEP item was reviewed during performance of the maintenance team inspection in March and April 1989. A discussion of this SEP item is contained in NRC Inspection Report 50-285/89-01 which provides the results of the inspection.

38. Major Technical Issues Monitoring and Statusing

This Priority II SEP item addresses the major technical issues identified as a result of evaluations that addressed guidance or requirements from rule changes, generic letters, and NRC inspections.

The following actions are being or have been conducted:

- a. Generation of a probabilistic risk assessment (PRA).
- b. Installation of a third auxiliary feedwater pump.
- c. Performance of a fuel management study to reduce neutron flux to the reactor vessel.
- d. Installation of the anticipated-transient-without-scrum modifications.
- e. Resolution of the issues related to USI A-46, "Seismic Qualification of Equipment."
- f. Completion and submittal of a station blackout analysis.

The performance of these actions and the level of effort expended in defining and pursuing accomplishment appeared adequate to meet the individual schedules. While the program schedule for the completion of a PRA indicated that it will be finished by December 1992, this coincides with the earliest completion date of Level 3 of the PRA. The SEP item does not define the specific levels of the PRA necessary to meet the basic commitment. Thus, the completion of Level 1 of the PRA in 1990 may allow the closure of this SEP item while work still continues on the higher level PRAs.

Based on the review of this item, it appeared that the licensee will be able to complete these technical issues by the currently scheduled completion dates. Additional management attention may be required to ensure timely completion.

39. Establish and Communicate Clear Standards of Expected Plant Cleanliness and Appearance

This Priority III SEP item involves a commitment made by the licensee to establish and communicate standards of plant cleanliness. The licensee's commitment includes 11 different elements that were generated to address this item. The elements are collectively discussed below:

- a. The licensee had taken actions to approve the appearance and cleanliness of the plant. A program was initiated to paint the entire plant and is currently underway. Approximately one-third of the plant has been painted and the results have been very

satisfactory. The intake structure and water plant areas have been completed and are used as model areas for plant personnel to follow.

- b. The licensee revised Procedure SO-G-6, "Housekeeping," to establish specific instructions for the maintenance of housekeeping at the plant. The procedure established specific areas of the plant assigned to a supervisor. The supervisor is responsible for maintaining the area's cleanliness level in accordance with established criteria.
- c. Procedure SO-G-6 also established requirements for tours of plant areas. The tours are to be performed by management personnel at a specified frequency and are performed to inspect for plant cleanliness.

Based on numerous plant tours performed by the NRC resident inspectors, it appeared that the licensee had implemented controls and policies to upgrade the overall appearance of the FCS. The licensee had not implemented all 11 elements of this item; however, it appeared that the licensee has taken adequate actions to address this SEP item.

40. Construct and Occupy the Training Center

This Priority II SEP item involves the construction of a new training center and moving training personnel into the center.

The licensee completed construction of the training center in January 1989. In February 1989, training personnel were relocated into the training center.

The completion of the major capital project by the licensee was an indication of the licensee's dedicated efforts toward improving the overall quality of the training program at the FCS. Completion of the training facility represented not only a major milestone toward upgrading the training program but also an important step toward reaching the ultimate goal of enhancing safe operation of the FCS.

41. Develop and Implement a Preventive Maintenance (PM) Program

This Priority II SEP item is related to the upgrading of the PM program. One of the phases of this effort includes deficiency criteria on major and safety equipment and developing and implementing planned maintenance and PM programs.

This SEP item was reviewed during performance of the maintenance team inspection in March and April 1989. A discussion of this SEP item is contained in NRC Inspection Report 50-285/89-01 which provides the results of the inspection.

42. Evaluate the Need for a Reliability-Centered Maintenance Program

This Priority II SEP item addresses an evaluation to be performed by OPPD to determine the need for a reliability-centered maintenance program.

This SEP item was not reviewed by the assessment team.

43. Implement a Check Valve Testing Program

The actions associated with this Priority II SEP item are to investigate the existing check valve testing program, evaluate the testing required, and modify the current testing program as discussed in NRC Information Notice (IN) 88-70.

The NRC inspector determined that the licensee's evaluation was not complete with respect to IN 88-70. The licensee was also addressing INPO Significant Operating Event Report 86-03 with respect to this SEP item. A sample of 20 valves had been preliminarily inspected. Maintenance history and design studies had been performed by outside consultants and were under review by the licensee.

It was too early in the implementation phase to measure the effectiveness of the licensee's efforts; however, it appeared that the completed efforts will accomplish the actions related to this SEP item. Based on the licensee's progress to date, it also appeared that the licensee will complete this item by the currently scheduled date of December 31, 1989.

44. Compliance with and Use of Procedures

This Priority II SEP item identifies an action plan that provides enhancements to the adherence and procedure compliance programs. The actions are divided into short- and long-term plans. The short-term actions involve pre-maintenance activity briefings, observation of work activities in the field, and an evaluation of the work performed. An upgrade of maintenance, calibration, and surveillance test procedures is being performed to ensure that the procedures can be safely complied with, as written.

The long-term action plan includes the following:

- a. Meetings between the Supervisor, Maintenance and maintenance personnel will be held on a quarterly basis to emphasize the need for procedural compliance.
- b. Establishment of a performance appraisal element for each maintenance person that evaluates their compliance with procedures.

- c. Performance of premaintenance briefings between the maintenance supervisor, foreman, and craftpersons to review the different elements of the maintenance activity.
- d. Establishment of training for maintenance supervisory personnel on QC inspection techniques.
- e. Development of performance indicators to monitor compliance with procedures.

The licensee established Procedure SO-M-100, "Conduct of Maintenance," that defines when a premaintenance briefing is required by the supervisor, foreman, and craft personnel. This standing order implemented both the short- and long-term actions to provide premaintenance briefings.

Maintenance supervisors were required to observe and evaluate ongoing maintenance activities. A maintenance clerk was provided for each maintenance supervisor to allow the individual additional time to observe work activities. The observation and evaluation of maintenance activities was included as a performance element for each supervisor. An informal evaluation sheet was established for use by the supervisors. The licensee identified that, although the supervisors increased their observations of work activities, the evaluation sheet was not always being properly implemented.

The Supervisor, Maintenance conducted quarterly meetings with supervisory and maintenance craft personnel. A review of the March 1, 1989, quarterly briefing outline indicated that procedural noncompliance was addressed. The briefing included impact of procedural noncompliance, factors which lead to noncompliance, and the corrective measures being taken.

The training department developed a course for lead foremen and supervisory personnel on QC inspection techniques. This training had not yet been provided. A craftsman's handbook was developed and distributed to craft personnel. Additional training for instructing personnel in the process of maintenance conduct was being developed.

The Supervisor, Maintenance was developing performance indicators to monitor compliance with procedures. A current list of craft personnel and procedure noncompliance events was being maintained by the Supervisor, Maintenance. The licensee formalized a program for the issuance of IRs; however, the evaluation of these IRs for negative trends was not part of a formalized program. The licensee noted through the issuance of IRs that the premaintenance briefings need to be improved to ensure that the maintenance activity was performed, as required.

The licensee was implementing programs for craft and supervisory personnel to ensure that they were cognizant of their responsibility

to perform maintenance activities in a safe manner and in compliance with the maintenance instructions and related procedures. Programs which support procedural compliance, such as maintenance activity observation, evaluation, and negative trending, should be proceduralized to ensure that the programs remain in effect and are implemented by any new maintenance personnel.

Based on the reviews performed by the NRC inspector, it appeared that the licensee was implementing the actions related to this SEP item in a timely manner. At the current rate of implementation of the items, it appeared that the licensee will complete this item by the currently scheduled completion date of August 31, 1989.

45. Revise and Conduct Training on Emergency Operating Procedures (EOPs) and Abnormal Operating Procedures (AOPs)

This Priority I SEP item was initiated to address actions to be taken to revise the EOPs. The actions to be taken by the licensee include the following:

- a. Review of the comments made by INPO and incorporation of changes, if appropriate.
- b. Issuance of the EOPs in the dual column format.
- c. Incorporation of the guidance contained in Revision 3 of the Combustion Engineering Operating Guidelines (CEOG) Emergency Procedures Guidelines.
- d. Completion of training on the revised EOPs.

All EOPs were revised and developed. Bases were developed and verification completed for three of the EOPs. Validation was underway on the simulator. Bases development and verification continued for the remaining EOPs. Annunciator response procedures were developed for the local diesel generator alarm panels and for the switchgear room and blowdown area heating, ventilation, and air conditioning panels.

The NRC inspector reviewed the above status by selecting various EOPs that had been revised and developed. The EOPs reviewed had incorporated the dual column format and incorporated the guidance of Revision 3 of the CEOG Emergency Procedures Guidelines. The record of deviations and bases for EOP-00 was reviewed along with the associated EOP validation documentation. The training schedule was reviewed and compared, along with the above status, to this SEP item schedule. The licensee did not identify to the NRC inspector problems that would not support the target implementation date for this item of July 31, 1989.

Based upon the above review of the licensee's activities and schedule, the NRC inspector noted that the present schedule appeared

to be a reasonable forecast for completion of this SEP item by the currently scheduled completion date.

It appeared, based on the reviews performed by the NRC inspector, that the licensee was taking the appropriate actions to complete this item. Additional attention by the licensee may be required to complete staffing of the NSRG and provide training for the new staff members by the currently scheduled completion date of December 30, 1989.

46. Design a Procedures Control and Administration Program

The actions associated with this Priority III SEP item are to develop a procedures upgrade program, procedure biennial review and rewrite program, procedure development program, procedure change review and approval process review, and vendor manual review and approval process review.

The NRC inspector found that approximately 3200 procedures were encompassed in this effort, of which about 900 were in the process of being upgraded. Only a few procedures had been submitted to the PRC to date. Procedures had been issued to address the various procedures control programs: Procedure SO-G-73 to address the procedure biennial review and rewrite program, Procedure SO-G-36 to address the procedures upgrade program, Procedure SO-G-30 to address the procedure change review and approval process review, and Procedure SO-G-62 to address the vendor manual review and approval process review. The efforts to address the procedures upgrade and vendor manual review programs were scheduled to be completed by the end of 1991 and 1990, respectively. The remaining programs were established as ongoing efforts.

It was too early in the implementation phase to measure the effectiveness of the programs. The procedure development and procedure change review programs were established and implemented satisfactorily. It appeared, based on the reviews performed by the NRC inspector, that the licensee had not completed all the actions related to this SEP item, even though the item has been stautused as completed. However, all committed actions have been initiated.

47. Review of Operations Memoranda

This Priority I SEP item is related to a requirement that the operations department review all operations memoranda (OM) prior to startup from the 1988 refueling outage and incorporate the information into procedures, as appropriate.

The NRC resident inspectors performed a comprehensive and indepth review of the actions taken by the operations department to resolve this issue. The review performed by the NRC resident inspectors is documented in NRC Inspection Report 50-285/89-03.

The results of the review indicated that the licensee had properly dispositioned each OM by either placing the information contained in the OM into the appropriate procedure, cancelling the OM because the information was no longer applicable, or reissuing the OM. Each OM that was reissued received PRC review. The licensee also revised Procedure SO-O-13, "Operations Memorandums," to implement new requirements for the control of the issuance of OMs. The procedure included requirements that the PRC review all OMs prior to issuance, OMs will not be issued if requirements stated in a procedure were affected, and the information contained in OMs will be reviewed every 6 months for applicability.

Based on the reviews performed, it appeared that the licensee had taken adequate and timely actions to resolve this item. The requirements established for control of OMs appeared to be comprehensive and should provide adequate control for OMs issued in the future.

48. Safety-Related Procedures Upgrade Projects

This Priority II SEP item identifies the procedure upgrade program for procedures related to the instrumentation and control (I&C), operations, electrical, mechanical, and chemistry programs.

The licensee issued the procedure writer's guide to develop a consistent approach in preparing the revised procedures. Of approximately 1429 safety-related procedures, approximately 800 have been initially revised. The revision process involved identifying both technical and human factor deficiencies to ensure that the procedures can be complied with, as written. Following the initial revision of each procedure, the applicable department verifies and validates the procedures. Any deficiencies, discrepancies, or improvement items are discussed with the procedure writer and the item(s) corrected. Approximately 340 procedures have been verified and 90 validated. The PRC has been meeting regularly to approve the procedures.

The licensee's review of safety-related procedures resulted in considerable changes to the procedures. The scheduled completion date of September 29, 1989, will be difficult to meet due to the number of procedures that remain to be approved. At present, approximately 1 percent of the safety-related procedures have been approved by the PRC.

Based on the NRC inspector's review of this item, it appeared that the licensee will have to provide significant additional resources to complete this item by the currently scheduled completion date of September 30, 1989.

During the meeting held in the NRC Region IV office on May 2, 1989, the licensee addressed the scheduled date for this SEP item. It was

mutually agreed by the meeting attendees that the licensee would provide a presentation to Region IV management on the status of this item in the near future. The presentation will provide information as to the actions that will be taken by the licensee to return this item to its currently scheduled completion date and/or to revise their schedule for the completion of this item. Concerns were expressed that personnel not be overburdened as a result of the magnitude of the verification and validation program, but that the schedule be lengthened with proper consideration for prioritization.

49. Revise and Conduct Training on Emergency Operating Procedures (EOPs) and Abnormal Operating Procedures (AOPs)

This Priority I SEP item is related to a commitment made by the licensee to, upon completion of revision to the EOPs and AOPs, provide training on the revised procedures. Revised EOPs have been written and validation is underway. Ten AOPs have been drafted. There are approximately 25 remaining.

The NRC inspector reviewed the above status by selecting several of the draft AOPs for review. The draft AOPs had incorporated the dual column format and contained several changes and updates. AOP lesson plans were also being reviewed with the draft procedure package. The licensee identified to the NRC inspector that the lead for this project had recently changed hands but that this should not affect the overall schedule.

Based upon the above review of the licensee's activities and schedule, the NRC inspector noted that the present schedule, November 30, 1989, appeared to be a reasonable forecast of completion. The efforts provided for this SEP item appeared to be effective in completion of this item.

50. Perform an Appraisal of the Radiological Protection Area and Develop a Radiological Improvement Program (RIP)

This Priority I SEP item discusses the actions to be taken by the licensee for the performance of an independent assessment of the radiological protection program at the FCS. The assessment was performed by two contractor firms.

The recommendations provided as a result of the assessment were compiled into a formal document that was issued as the RIP. This document was issued to identify improvements to be made in the radiological controls area and describe a planned approach for implementation of the improvements.

The NRC inspector reviewed the assessment performed by the licensee's contractors and the courses of action and schedules for implementing the improvements. It appeared that the consultants had performed an adequate assessment of the radiological controls practices at the FCS

and had identified the elements necessary to correct the radiological controls inadequacies.

51. Complete Revision of the Radiation Protection Manual (RPM) and Radiological Procedures of the Operating Manual

This Priority I SEP item initiates a commitment made by the licensee to revise the RPM and radiological procedures, as appropriate. The RPM will be revised and issued as the Radiation Protection Plan (RPP). The RPP will include a level of detail that provides the basis for radiation protection performance. As the RPM is revised, procedures for implementing the administrative and technical aspects of the RPM will be issued.

The NRC inspector reviewed the status of the administrative procedures and noted that the licensee had completed approximately 70 percent of the procedures. The licensee had drafted 177 of the 217 radiological procedures that had been identified as being required during preparation of the RPP.

Based on the review performed by the NRC inspector, it appeared that the licensee would complete this SEP item by the currently scheduled completion date of July 31, 1989.

52. Establish Supervisory Accountability for Workers' Radiological Practices

This Priority II SEP item addresses actions to be taken by the licensee to improve performance in the area of radiological controls. The actions include the following items:

- a. A new Supervisor, Radiation Protection has been designated with over 20 years of experience.
- b. Regular meetings are being held between the Supervisor, Radiation Protection and the Plant Manager to ensure adequate support is provided for the radiological protection program.
- c. The radiation protection group will be reorganized to increase supervisory involvement and technical depth.

The NRC inspector noted that the licensee had hired an individual to assume the position of Supervisor, Radiation Protection. This individual had more than 20 years experience in the operation of radiological protection organizations.

The review of the actions taken by the licensee with respect to reorganization of the radiological protection group was performed by a health physics (HP) specialist from the NRC Region IV office during an inspection in January 1989. The results of the inspection are

documented in NRC Inspection Report 50-285/89-04. The HP specialist verified that the reorganization had been adequately instituted.

Based on review of this item, it appeared that the licensee had taken the necessary actions to complete all the elements contained in this SEP item. The NRC inspector noted, as a result of the licensee's actions, that improved performance by the radiological protection group has been evident. It is anticipated that improvement in performance will continue as personnel become familiar with their newly assigned positions.

53. Acquire New Thermoluminescent Dosimetry (TLD) Processing Equipment and Upgrade the Dosimetry Program

This Priority II SEP item involves the acquisition of new equipment that will provide enhanced TLD processing capabilities. The equipment will be operated by licensee personnel that have had training in the operation of the new equipment.

The NRC inspector established that the training of licensee personnel in operation of the new equipment has been initiated. Approximately 6 man-weeks has been provided. Components of the equipment are expected to start arriving onsite during May 1989.

The licensee currently plans on receiving accreditation from the National Voluntary Laboratory Accreditation Program (NVLAP) from the National Bureau of Standards by October 1989 for the new dosimetry program. Accreditation will certify that the equipment and operating personnel meet the standards established by NVLAP.

Based on the review performed by the NRC inspector, it appeared that the licensee will be able to meet the currently established commitment date of December 31, 1989, for acquisition of the equipment and training of personnel. However, the licensee will have to aggressively pursue accreditation of the program by NVLAP by October 1989 as this completion date relies heavily on NVLAP's schedule and availability.

54. Complete Implementation of the Radiological Enhancement Plan (REP)

This Priority II SEP item addresses the actions to be taken by the licensee to implement the REP. The REP was developed from the RIP, discussed in SEP Item 50, and includes the scheduling and delegation of responsibility for those improvement items contained in the RIP. The actions identified to address the REP are listed below:

- a. Accelerate the schedule proposed in the RIP to ensure that long-term program improvements are completed.
- b. Upgrade procedures to ensure excellence in the radiological controls program.

- c. Provide technical assistance during the 1988 refueling outage to ensure that program adequacy is maintained.
- d. Provide an assessment and audit function to ensure proper implementation and effectiveness of the REP.

The NRC inspector reviewed the actions taken by the licensee to address this SEP item. The items listed below were reviewed:

- a. The procedure upgrade effort was initiated by the licensee. The status of the upgrade effort is discussed in SEP Item 51.
- b. A review was performed to verify that adequate technical assistance had been provided during the 1988 outage.
- c. The licensee stated that a contract had been established for the performance of an assessment of the REP by an independent contractor. The assessment will determine the effectiveness of the program when implementation has been completed.

The NRC inspector concluded, based on the reviews described above, that the licensee may be able to complete this item by the currently scheduled completion date of September 30, 1989. Completion of this SEP item is dependent on the issuance of the radiological controls procedures addressed in SEP Item 51. The REP will need to be in place for some time before an effective postimplementation evaluation can be performed by a contractor.

55. Procure Hardware and Replace Locksets on Very High Radiation Area (VHRA) Doors and Barriers and Implement an Improved Key Control Program

This Priority II SEP item addresses actions to be taken by the licensee to ensure positive control of doors and barriers that control entry into VHRAs. This item was initiated due to repeated problems with the control of entrances to VHRAs.

The actions to be taken by the licensee include the following:

- a. Replace the locksets on each door and barrier to ensure positive locking of the door and barrier.
- b. Installation of an electrically-supervised door strike system.
- c. Improved key control system to ensure that keys to VHRA doors are in the possession of only those personnel that need keys to perform their assigned duties.

The NRC inspector reviewed the actions taken by the licensee, as discussed below:

- a. A review was performed to verify that locksets had been installed in the appropriate doors and barriers that could be used to prevent entrance into a VHRA.
- b. The electrically-supervised door strike system was installed to provide an alarm if the door was ajar.
- c. A key control program was established and implemented. Review of the tracking log indicated that the key control system was functioning.

The NRC inspector noted that the licensee was in the process of completing the actions related to this SEP item. The electrically-supervised door strike system was temporarily installed and was in the process of being permanently installed. In addition, the system will be connected to the new security computer system to provide for monitoring each door status from a central location. It appeared that the licensee will be able to complete the SEP item by the currently scheduled completion date of September 30, 1989.

56. Evaluate and Revise the Postaccident Sampling System (PASS) Procedures

This Priority II SEP item discusses actions to be taken by the licensee to evaluate and revise the operating procedures for the PASS.

The NRC inspector discussed this item with the Plant Chemist. The Plant Chemist stated that all PASS procedures had been evaluated and revised, as appropriate. These procedures were previously reviewed by an NRC inspector from the NRC Region IV office. No problems were noted by the inspector.

It appeared that the licensee had taken the appropriate actions to complete this SEP item.

57. Conduct an Indepth Physical Security Assessment and Establish an Action Plan

This Priority I SEP item involves a commitment by the licensee to perform a complete study of all security functions at the FCS. Based on the results of the study, an action plan will be established to address the areas identified during the study that need additional attention.

During inspections performed by security specialists from the NRC Region IV office during the first quarter of 1989, this item was reviewed and it was determined that the appropriate actions had been completed by the licensee. Based on the reviews performed by the NRC security specialists, it appeared that the licensee had established a

comprehensive action plan to address the security program deficiencies. If the licensee fully implements the action plan, it is anticipated that the licensee will have an improved security program.

58. Revise the Physical Security Training and Procedures Program

This Priority II SEP item is related to the performance of an evaluation of the security training program and recommendation of changes to the program based on the results of the evaluation. The recommended changes will be implemented by the issuance of revisions to the appropriate procedures.

During inspections performed by security specialists from the NRC Region IV office during the first quarter of 1989, the specialists reviewed the actions taken by the licensee to address this item. Based on the review, it appeared that the licensee had taken appropriate measures to address this SEP item. If the licensee implements the recommendations identified by the plan, it is anticipated that the training program will be an effective and comprehensive program.

59. Complete the Security System Upgrades

This item involves the upgrading of the security system hardware and access control systems at the FCS. The upgrade activities are currently in progress.

During inspections by a security specialists from the NRC Region IV office during the first quarter of 1989, the specialists reviewed this item. During the review, it was noted that the licensee appeared to be approximately on schedule to complete the actions associated with this item by the current commitment date of September 30, 1989.

60. Improve Controls over the Surveillance Test Program

This Priority I SEP item assigns the control of the surveillance test program to the Special Services Group of the Plant Engineering Department. The Special Services Group is assigned the task of upgrading the program. The upgrades are to address the following items:

- a. Review of procedure changes for impact on scheduling, and the review and trending of test results.
- b. As interim measures, the surveillance tests with no grace period will be manually scheduled and identified in the Plan-of-the-Day (POD).
- c. As a interim measure, a TS amendment was to be submitted to the NRC that would define a 25 percent extension, or grace period,

for test intervals not presently covered by a grace period and definitions were to be added to the TS that would preclude misinterpretation of the surveillance test intervals.

- d. Changes to the TS will be tracked to ensure that appropriate procedure changes will be accomplished and training given on the new procedures.

The NRC inspector noted that the program upgrade effort was assigned to the Special Services Group. The Special Services Group had implemented the upgrades. The program upgrades had been documented, in part, in issued revisions to procedures such as Procedure SO-G-23 in regard to review of surveillance test procedures and Procedure NOC-QP-23 in regard to tracking of TS changes. The NRC inspector noted that the procedure change process provided for a signoff for the review of schedule impact. Several upgrades had not been drafted into station engineering instructions such as those concerning the POD and trending. The NRC inspector noted that trending data was being collected on the IST-type of surveillance tests. A TS amendment request was submitted to the NRC in regard to grace periods and definitions.

It should be noted that the status of this item was reported by OPPD as completed; however, the NRC inspector found that some procedures have yet to be drafted and issued although committed actions have been initiated. In general, it was too early in the implementation phase to measure the effectiveness of the upgrades.

61. Modify the Computer Program to Correctly Schedule Surveillance Tests

The actions identified for this Priority I SEP item are to improve controls over the surveillance test program by implementing surveillance testing using the Computerized History and Maintenance Planning System (CHAMPS).

The NRC inspector found that the old scheduling system and the CHAMPS overlapped each other. The old system directed the testing, with CHAMPS scheduled to take over at midyear. The CHAMPS was loaded with the applicable data and was capable of scheduling testing. The NRC inspector reviewed a sample of surveillance tests and compared the CHAMPS data with current TS requirements.

It was too early in the implementation phase to measure the effectiveness of the CHAMPS to control the surveillance testing schedule. Based on the actions taken to date to address this item, it appeared that the licensee will complete this SEP item by the currently scheduled completion date of June 30, 1989.

62. Establish Interim System Engineers

This Priority I SEP item addresses the need for improvement in the degree of engineering support available at the FCS, as identified in previous inspections and assessments. In July 1988, due to the restructuring of the nuclear-related activities, the engineering support functions were modified and placed under the responsibility of the Senior Vice President, Nuclear Operations as was all other nuclear activities. At the same time, a systems engineering organization was established. This systems engineering approach provided for focusing and coordination, through a single individual, of all aspects of the assigned system and, additionally, provided a mechanism for root cause determination, trending, operational enhancement, and modification prioritization.

A staffing plan for the systems engineering organization was developed that defined the department's functions and responsibilities. From the identification of this functional work scope, an organizational plan was developed. This process identified that a group consisting of a supervisor, 28 engineers, and 12 support personnel was necessary.

While the systems engineering organization has been fully staffed with a heavy reliance on contracted services, the licensee actively pursued the selection and assignment of existing DPPD staff to this organization and recruitment of additional personnel from outside the company was underway. This matrix of contracted personnel, existing engineers, and new hires provided a sufficient level to accommodate training, attrition, and work backlogs, while fulfilling the responsibilities of the department.

The systems engineering organization was functioning with the utilization of contractor services until the permanent employees complete the required training curriculum. This formalized training consists of a 6-month classroom series covering design basis, system orientation, and root cause determination skills. The classroom period will be followed by a period of on-the-job training and qualification at which time the personnel will learn the functions from the incumbent system engineer for his/her assigned systems and complete a qualification card.

Efforts were in progress on the qualification card and formalization of the oral board process. These tasks were expected to be completed in July 1989 to support the first series of trainees. Additionally, a requalification program had not yet been defined.

Although the licensee had not fully trained all system engineers, the licensee had provided personnel to act in this capacity. The schedule indicated that the training for the system engineers will be completed by July 1990. It appeared that the licensee had instituted

a plan that will, if completed as currently structured, ensure that the training is completed by the scheduled commitment date.

Based on the reviews performed by the NRC inspector, it appeared that the establishment of the systems engineering organization has provided a valuable asset to the licensee. This group was active in providing engineering support to operations personnel for the resolution of system and plant problems. As this group becomes trained and experienced, it was anticipated that the engineering assistance provided by the group will become an even greater asset.

63. Complete the Safety-Related Vendor Manual Upgrade Project

This Priority II SEP item was developed by the licensee to complete the in-process project for review of vendor manuals for safety-related equipment. The project includes actions for establishing, upgrading, implementing, and maintaining a continuing program to ensure that vendor technical information is complete, current, and controlled.

This SEP item was reviewed during performance of the maintenance team inspection in March and April 1989. A discussion of this SEP item is contained in NRC Inspection Report 50-285/89-01 which provides the results of the inspection.

64. Finalize the 1990 Outage Modifications List and Strengthen Management Controls

This Priority II SEP item involves a licensee commitment to finalize the 1990 outage modifications list early in the operating cycle to allow adequate time for the preparation of instructions for the installation of approved modifications. The timely preparation of the modification instructions will ensure that the instructions are fully developed and the required material is available for timely modification installation.

The licensee finalized the modification list for the 1990 outage which is currently scheduled to begin in February 1990. The list was compiled based on the modifications required to be completed due to commitments made to the NRC and other modifications that were added based on a priority system. The modifications added to the list are controlled by instructions provided in the Nuclear Performance Planning Manual (NPPM). The instructions are provided in Section 4.0, "Approval Process - Projects and Modifications," and Section 5.0, "Project Prioritization," of the NPPM.

These sections of the NPPM require that the Senior Vice President, Nuclear Operations; Division Manager, Nuclear Operations; Division Manager, Production Engineering; and Division Manager, Quality and Environmental Affairs approve all modifications added to the list. This level of upper-management approval represented a commitment made

by the licensee to strengthen management controls over the modifications to be installed during an outage.

The licensee revised Procedure SO-G-21, "Modification Control," to include the requirements for control of the outage modification list. This revision provided engineering personnel with the information regarding the actions that must be taken to obtain approval of a modification to be installed during an outage.

To ensure timely issuance of design modification packages, the licensee added additional personnel to the station engineering organization. These personnel will provide the necessary manpower for completion of the modification instructions.

The WRC inspector reviewed the actions taken by the licensee, as discussed above, to address this SEP item. It appeared that the licensee had implemented an adequate program for control of modifications to be performed during an outage.

65. Revise the FCS Modification Control Procedures

This Priority II SEP item addresses the need to incorporate the control of modifications into the FCS modification control procedures and the NPPM.

The NRC inspector reviewed selected procedures and the planning process and interviewed licensee personnel regarding the FCS modification program. The process for permanent facility modifications was described in Procedure SO-G-21, "Modification Control," and addressed the initiation, engineering, approval, and implementation of the modifications. The requirements for planning and scheduling were specifically addressed in the procedure. The status and tracking of all modification requests were also addressed.

The licensee actions related to this SEP item appeared to be acceptable in that the appropriate procedure changes had been made. The procedure changes made by the licensee should provide, if properly implemented, an effective means of controlling modifications installed at the FCS.

66. Respond to the Items Identified by the NRC Safety System Outage and Maintenance Inspection (SSOMI) Team

This Priority III SEP item addresses the licensee's actions to be taken to respond to the eight open items remaining from the SSOMI team inspection.

During the 1985 refueling outage, the SSOMI team performed an inspection at the FCS. During the inspection, the SSOMI team identified a total of 95 items. The results of the SSOMI are documented in NRC Inspection Report 50-285/85-22.

In April 1988 a SSOMI followup team visited the licensee's facilities to review the actions taken by the licensee for the items identified in NRC Inspection Report 50-285/85-22. The results of the inspection are provided in NRC Inspection Report 50-285/88-200. During the review, the team closed all but eight items issued in NRC Inspection Report 50-285/85-22. In a letter dated September 16, 1988, the review team requested that the licensee formally respond to the eight items remaining open.

On December 31, 1988, the licensee provided a formal response. The response included information to address the specific actions that would be taken and a schedule of when the actions would be completed.

The licensee's actions have not been entirely completed on all eight items as the schedule commitment date has not yet been reached. The remaining portions of the items to be completed are being tracked by open items issued in NRC Inspection Report 50-285/89-09. These open items will be reviewed when the licensee's actions have been completed.

Although the licensee has completed this SEP item by responding to the eight SSOMI items, the licensee has not completed the actions necessary to completely close all the SSOMI items. Licensee management should consider the dedication of additional resources to completely close all remaining SSOMI-generated items.

67. Develop and Implement a Plan to Assign More Licensed Operators as Instructors

This Priority III SEP item addresses the assignment of additional licensed operators to the licensee's training staff. The training staff is currently comprised of a large number of contractors with no experience in the operation of the FCS.

Additional nonlicensed operator personnel have been hired. Two complete sessions of nonlicensed operator training were planned for 1989 to qualify these personnel as quickly as possible. A methodology to determine the assignment of operations personnel to other departments has been selected. One operator had been assigned to the training department as an instructor since the establishment of this SEP item. This item was shown on the master schedule as being behind schedule. Management attention was being directed to this area so no slippage in the schedule due date would occur.

The NRC inspector statused the above progress by reviewing:

- a. the schedule for the training sessions
- b. the licensee's methodology for determining assignment of operations personnel

- c. the licensee's long-range projection of providing newly qualified personnel
- d. the licensee's efforts to hire additional personnel

Based upon the above reviews and discussions with training personnel, the NRC inspector noted that the licensee was making reasonable efforts to support the above needs. At the present stage of development, it was difficult to judge whether the schedule was a reasonable forecast for completion of this SEP item by the currently scheduled completion date of April 30, 1989.

68. Assess Root Cause of Poor Operator Training and Establish a Method for Monitoring Operator Training

This Priority I SEP item was created to address the root causes of poor operator training. Creation of this item was based on the licensed operator requalification program being rated as unsatisfactory for the previous 2 years.

To address this item, the licensee retained the services of a contractor to perform an independent assessment of the training program. Results and recommendations identified by the contractor were being implemented.

The NRC inspector reviewed the assessment performed by the licensee's consultant and determined that three root causes had been identified as reasons for poor operator training. Each root cause is discussed below:

- a. Inadequate training and operations staff manning was identified as one of the root causes. The licensee committed to adding additional staffing, especially in operations. This will take several years for the full effect due to the length of the training pipeline. Given the high success rate that has been achieved on recent replacement examinations, these actions appeared to address staffing problems.
- b. Another identified root cause was the ineffective planning, control, and lack of timely corrective actions. The licensee has demonstrated in the past, the inability to meet commitments in the operator licensing area. Operator training, especially requalification, appeared to continue to be driven by NRC analysis and concerns rather than licensee self assessment. For example, until questioned by NRC personnel, training did not regularly review borderline requalification performers nor conduct any statistical analysis of overall requalification results. This may be improving slightly with the increased profile and management attention over the past year.

- c. Inadequate operations and training group synergism was identified at the third root cause problem. Operations and training appeared to have interacted in a less than optimum fashion for several areas. For example, until questioned by NRC personnel, neither group routinely evaluated overall performance of licensed personnel. Instead, each group looked at the things in their area, but not beyond. This area also may be improving for the same reasons as above.

Summarizing, the NRC inspector noted that the licensee had definitely improved the performance of their licensed operator requalification program. However, it appeared that this was essentially NRC driven rather than by licensee internal efforts.

Although the scheduled commitment date of December 31, 1988, has passed and the evaluation has been completed to identify the root cause problems of licensed operator training, licensee management should continue to focus their actions to resolve the problems.

69. Complete Installation and Startup of a Plant Specific Simulator

This Priority II SEP item addresses the need for the licensee to install a plant specific simulator. This addition will significantly enhance the licensee's capabilities of providing quality training to licensed operators.

The review of the design basis documents has been completed. A total of 14 models were coded, integrated, and run at 100 percent steady-state power. A few hardware items remained to be delivered. The necessary hardware was available to continue integrated testing. Informal integrated testing began in February 1989. The project appeared to be slightly behind schedule and the vendor was taking corrective action. The vendor was confident of delivery of the simulator by the currently scheduled date of November 1989.

The NRC inspector discussed the above status with the licensee and found that the licensee was working closely with the vendor and keeping up to date on the progress. Although there was a slight slip in the initial schedule, current progress appeared to be satisfactory. The vendor indicated to the licensee that some of the initial delays should be able to be made up. The licensee was planning to let a contract this summer to finish the simulator room in the training facility to support delivery of the simulator.

Based upon the above review of the licensee's activities and schedule, the NRC inspector found that the present schedule was a reasonable forecast for completion. It appeared that the licensee will be able to meet the currently scheduled date of June 30, 1990.

70. Complete Observation Training for Management and Supervisory Personnel, and Develop a Field Observation Guideline for Good Observation Techniques

This Priority III SEP item was instituted to initiate observation training for management and supervisory personnel. This training is being implemented to improve skills of management and supervisory personnel for field work observations.

Training for the initial group of management and supervisory personnel on the plant staff was completed. Training remained to be done for recently appointed supervisors and managers. The field observation checklist was developed and implemented. This task appeared to be on schedule.

The NRC inspector reviewed the lesson plan used for the above training. The documentation of those persons who had completed the training was also reviewed and a concern was identified due to a specific supervisor not being included. The licensee did not have a formal written program to address who was required to have the above training and an auditable system to ensure that training was completed for all individuals that should receive the training.

Based upon the above review, the NRC inspector found the training course to be satisfactory. The licensee should develop a formal guideline to ensure training is completed as required for existing and future personnel. It appeared that the licensee's actions are on schedule to complete this SEP item by the currently scheduled date of December 31, 1989.

71. Improve Controls Over the Review and Documentation of Temporary Modifications (TMs)

This Priority I SEP item identifies the licensee's planned actions to improve the TM program. These actions include the following:

- a. Determine how other plants control the installation, review, and documentation of TMs.
- b. Revise the TM procedure.
- c. Revise the TS to remove any possible confusion on when the PRC should review TMs.
- d. Provide training to appropriate personnel on the revised TM procedure.

The licensee revised Procedure SO-O-25, "Temporary Modification Control," to require the PRC to review each TM prior to installing the modification, with the exception of an emergency TM. In addition, the PRC reviews each TM on a biannual basis. The cognizant

system engineer is responsible for reviewing each TM prior to it being presented to the PRC for approval. The cognizant engineer is also required to physically inspect each TM they are responsible for on a monthly basis. This review was not documented as part of the TM package or tracking log.

In-house training was provided to each of the system engineers on the procedure changes. A lesson plan will be developed to provide formal training on the TM program.

The procedural changes made to the TM program should enhance the controls and ensure that the modification does not adversely affect plant system responses. The TM program was being used to supplement other programs which were still being developed such as procurement. This placed an extra burden on the TM system for which it was not intended. Continued management oversight of this program is needed to ensure that TMs are well controlled and the TM program is fully implemented by the currently scheduled completion date of September 30, 1989.

72. Surveillance Test Performance Needs Improvement

This Priority I SEP item describes the actions being taken to improve the performance of surveillance tests. These actions include:

- a. Revising existing surveillance test procedures for format consistency, verbatim compliance, technical quality, and conformance to NUREG-1369.
- b. Revising the pump and valve procedures for compliance to Section XI of the ASME Code, and acceptance criteria per Subsections IWP and IWV.
- c. Revising procedures to provide for remote valve position verification.
- d. Developing a checklist that clearly establishes the necessary prerequisites for performing the surveillance.

The NRC inspector reviewed Inservice Testing (IST) procedures that were revised in accordance with the writers guide. The revised procedures clearly stated the purpose and references applicable to the procedure. The temporary checklist established for use with the previous procedure was effectively implemented into the revised procedure. Approximately 80 percent of the IST procedures have received an initial review.

The licensee established controls for issuance of the revised procedures. Because one procedure may have been revised into several procedures, all the related procedures will be issued together to ensure that no testing requirements are missed. This practice is

also being utilized for the upgrade of safety-related procedures identified in SEP Item 48.

The licensee appeared to have dedicated the resources necessary to complete this SEP item by the scheduled date of September 30, 1989. Reliance on remote valve indication for valve stroke time testing was not expected to be completed until 1990. The final walkthrough performed on each of the revised procedures should ensure that verbatim compliance can be achieved.

C. Exit Interview

The NRC inspectors met with Mr. W. C. Jones (Senior Vice President, Nuclear Operations) and other members of the licensee staff on April 21, 1989. The meeting attendees are listed in paragraph 1 of this assessment report. At this meeting, the NRC inspectors summarized the scope of the assessment and the findings.

In addition, on May 2, 1989, a meeting was held in the NRC Region IV office to discuss the results of the assessment, as was provided in the exit meeting held on April 21, 1989. The NRC Region IV Regional Administrator, Mr. Robert D. Martin, and members of the NRC staff met with the Senior Vice President, Nuclear Operations, Mr. W. C. Jones, and members of the licensee staff to discuss the results. The meeting attendees are listed in paragraph 1 of this assessment report. The results of the meeting are discussed in this assessment report, as appropriate.