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Docket No. 50-461

Mr. A. Bill Beach
Regional Administrator
Region III
U.S. Nuclear Regulatory Commission
801 Warrenville Road
Lisle, Illinois 60532-4351

SUBJECT: Systematic Assessment of Licensee Performance (SALP) Report for Clinton Power Station ("CPS") covering the period June 25, 1995 through April 5, 1997: SALP 14 (Report No. 50-461/97001)

Dear Mr. Beach:

Illinois Power Company (IP) has reviewed the SALP Report for Clinton Power Station (CPS) covering the period June 25, 1995 through April 5, 1997, which we discussed with you during the July 2, 1997 public meeting. While the report documents that plant activities were adequate, we recognize that substantial improvements are needed.

The purpose of this letter is to summarize our improvements and actions related to the SALP findings. The SALP findings are similar to those identified by IP assessments and NRC inspections following the September 5, 1996 event. Based upon these evaluations, IP established the Startup Readiness Action Plan (SRAP) and Strategic Recovery Plan (SRP) to provide for comprehensive improvements and to ensure the readiness of CPS to restart. These plans have resulted in significant improvements in a number of areas. But there is much work ahead to achieve further, sustained improvements in performance. Toward that end, we developed and are implementing a Long-Term Improvement Plan (LTIP). A copy of this plan was provided to you in letter dated July 2, 1997. The LTIP will be revised to incorporate the findings and recommendations of the upcoming Integrated Safety Assessment. The Integrated Safety Assesement (ISA) Team will perform a diagnostic evaluation of

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performance at Clinton Power Station (CPS). The purpose of the assessment is to identify strengths and weaknesses in the functional areas of operations, maintenance, engineering, plant support, and management. The ISA Team will also assess whether the CPS Long Term Improvement Plan or other actions taken by IP are sufficient to address the weaknesses identified by the ISA..

The Attachment to this letter presents our improvements taken and planned to address the weaknesses discussed in the SALP Report. Section I provides a summary of our improvement initiatives that cross functional areas. These efforts include: (1) management changes; (2) enhancements in management expectations and oversight -- especially for conservative decision-making and procedure compliance and adequacy; and (3) improvements in procedures, material conditions, and assessments and corrective actions.

Sections II through IV discuss additional improvement initiatives undertaken in the four SALP functional areas: Operations, Maintenance, Engineering, and Plant Support. For Operations, these improvement initiatives include:

- In-plant crew monitoring and observation to ensure management awareness of crew practices in order to provide timely performance feedback; and

- Improvements in the conduct of operations, including the safety tagging program and rigor of plant operations

- The creation of CPS Operations Principles and Standards to further reinforce management expectations for procedural adherence and conservative decision making.

For Maintenance, additional improvements include:

- Conducting a self-assessment of the surveillance procedure program and addressing its findings; and

- Developing and implementing a new work control and work package program.

- Development and implementation of a Maintenance Improvement Plan which includes items such as supplementing maintenance staffing, increased monitoring, on-going field work by maintenance supervision and reducing the backlog of corrective maintenance Maintenance Work Requests (MWR), preventive maintenance items and Condition Reports.

For Engineering, additional improvements initiatives include:

- Revising the station's operability evaluation program;
- Implementing a 10CFR50.59 improvement plan; and
- Actions to improve work control, design and design control, and the resolution of equipment problems.

For Plant Support, our additional improvements include:

- Conducting a review of radiation protection procedures for accuracy, usability, and compliance with regulations and enhancing Radiation Protection (RP) procedures found deficient in these actions; and
- Addressing weaknesses in radworker performance by increasing accountability and worker monitoring.

In summary, IP is committed to taking the actions necessary to achieve improvement in the areas of weakness identified by the SALP Report. These actions are identified and will be implemented and assessed for effectiveness in accordance with our Long Term Improvement Plan with our goal being excellence in all areas.

Please contact me if you have any questions regarding our response to the SALP report.

Sincerely yours,

Wayne D. Romberg
Assistant Vice President

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cc: NRC Clinton Licensing Project Manager
NRC Resident Office, V-690
NRC Document Control Desk
Illinois Department of Nuclear Safety

IMPROVEMENTS THAT ADDRESS WEAKNESSES DISCUSSED IN CPS SALP 14 REPORT

This attachment describes station-wide improvements Illinois Power (IP) has initiated that address the weaknesses discussed in the SALP 14 Report. Our initial improvement initiative was the Startup Readiness Action Plan (SRAP), which specifically addressed the September 5, 1996, event and findings of associated NRC inspections and Clinton Power Station (CPS) assessments. Based on subsequent assessments by IP and inspections by the NRC, and additional events during the sixth refueling outage (RF-6), IP identified a need for a more comprehensive approach to assessing CPS readiness to restart and achieving long-term improvements in performance. Accordingly, in March 1997, IP developed a Strategic Recovery Plan (SRP) and established a dedicated Turn-Around Team to lead this effort. The SRP incorporates the SRAP actions and addresses additional issues associated with plant systems and hardware, programs and procedures, and organizations. The SRP also included reviews to ensure that CPS is ready for restart and incorporates performance measures to be used in determining progress in achieving performance improvement. The pre-startup activities in the SRP are complete. Additionally, the SRP has guided the development of our Long-Term Improvement Plan (LTIP), which was submitted to the NRC by letter dated July 2, 1997.

The LTIP identifies elements for improvements in the areas of systems, programs, and organizations. These elements correspond to the most significant issues identified in IP and NRC assessments, including the SALP Report. The LTIP also identifies actions for implementing each of the improvement elements. The line managers are responsible for developing implementing plans for each action, and providing deliverables to the CPS Vice President for his acceptance. The LTIP also identifies goals for each element and assessment to determine whether the actions have been effective in achieving the goals of each element. Based upon these assessments the Turn-Around Team will determine whether further improvements are needed.

In addition, an Integrated Safety Assessment (ISA) Team will perform a diagnostic evaluation of performance at Clinton Power Station (CPS). The assessment will use a methodology similar to diagnostic evaluation team inspections and Integrated Performance Assessment Process inspections performed by the Nuclear Regulatory Commission. The assessment will include a period of documentation reviews and a period of on-site inspections including interviews of relevant CPS personnel. The purpose of the assessment is to identify strenghts and weaknesses in the functional areas of operations, maintenance, engineering, plant support, and management. The ISA Team will also assess whether the CPS Long Term Improvement Plan or other actions taken by IP are sufficient to address the weaknesses identify by the ISA. We will incorporate the findings and recommendations of the ISA into the LTIP.

The discussion below summarizes actions we have taken to improve in the four SALP functional areas.

I. SUMMARY OF MAJOR IMPROVEMENTS THAT CROSS SALP FUNCTIONAL AREAS

The SALP Report notes areas of weaknesses, such as conservative decision making and procedure adherence, that cross functional lines. We have taken or have planned several station-wide actions to address these weaknesses. These actions include (1) management and organizational changes, (2) reinforcement of management expectations for procedure compliance and adequacy and conservative decision making, (3) procedure review, (4) improvements in assessments and corrective actions, and (5) improvements in material condition. Each of these is discussed below.

A. Management Changes

As part of our effort to return CPS to strong performance, IP has made several management and organizational changes since September 1996. These include:

- Mr. John Cook has temporarily assumed the duties of Chief Nuclear Officer. Mr. Cook, who is also a senior vice president of the Energy Supply Business Group at Illinois Power Company, was formerly site Vice President and Plant Manager. He holds a Bachelor of Science degree in Engineering Physics, a Master of Science degree in nuclear engineering, and a Master of Business Administration. Mr. Cook has also been a licensed senior reactor operator.

- Mr. Wayne Romberg, has been named Assistant Vice President - Nuclear, responsible for accomplishing strategic objectives related to safety, reliability, operation and maintenance of CPS. Mr. Romberg was formerly a Vice President responsible for nuclear activities at two other nuclear utilities. Mr. Romberg also has held a nuclear plant senior reactor operator's license, served in the U.S. Navy as a nuclear submarine officer, and holds a bachelors degree in Industrial Engineering and a Masters in Nuclear Engineering.

- A new Manager - Nuclear Safety and Performance Improvement has been created to lead turn-around efforts and ensure strong management focus on completion and effectiveness of improvement actions. Mr. Richard Phares, formerly Manager of Nuclear Assessment and Director of Licensing, has been appointed to this position and serves as leader of the Turn-Around Team responsible for coordination, monitoring, and oversight of implementation of the Strategic Recovery Plan.

- Mr. Pat Yocum was named Plant Manager. Mr. Yocum was previously the Director of Nuclear Assessment, Director of Operations and Director of Maintenance and Technical Training. He has held a senior reactor operator's license at CPS.

- Mr. Michael Lyon was appointed Assistant Plant Manager - Operations. Mr. Lyon previously served as Director of Licensing, Director of Operations Training, and Director of Emergency Response. He has held a senior reactor operator license at CPS.

- Mr. Gary Baker was appointed to the position of Manager - Quality Assurance. His experience includes supervisory positions at CPS in Outage Planning, Plant Support Services, Dosimetry, and Nuclear Assessment. Mr. Baker has over twenty years experience in nuclear quality assurance.

We have also appointed new Directors in Licensing, Corrective Action, Independent Analysis, Planning and Scheduling, and Plant Support Services. We are also searching for a new Manager - Nuclear Station Engineering Department, an Assistant Plant Manager - Maintenance, a Director - Plant Radiation and Chemistry, Director - Strategic Improvement and Planning, and a Director - Plant Engineering. Our search is seeking experienced outside individuals to fill these positions. In summary, since September 1996, we have taken many actions to strengthen our management team.

In addition, our offsite safety review group (Nuclear Review and Audit Group [NRAG]) has been reconstituted and is now chaired by a former NRC Deputy Executive Director for Operations. The NRAG also includes senior nuclear executives with extensive commercial nuclear operating experience and independent consultants.

B. Management Oversight, Direction, and Expectations on Procedure Adherence and Conservative Decision Making

We have significantly increased management oversight and direction at CPS. Management expectations for safety, conservative decision making, and adherence to procedures have been clearly formulated, communicated, and reinforced. These efforts include:

- To ensure CPS employees understand IP's commitment to safety, Mr. Larry Haab, IP's Chief Executive Officer (CEO), addressed a letter to all CPS plant employees that reinforced IP's corporate policy of operating Clinton Power Station in a safe and conservative manner. As a follow-up to this letter, dated December 16, 1996, Mr. Haab visited on January 20, 1997, with approximately 250 CPS personnel to share his convictions regarding safe plant operation. These sessions were video-taped for other CPS personnel to view.

- CPS Procedure No. 1005.01, "CPS Procedures and Documents," was revised to provide clearer guidance on procedure use and adherence. A new procedure, CPS Procedure No. 1005.15, "Procedure Use and

Adherence," has also been issued which makes clear management's expectation for strict procedure compliance, and that procedures shall be changed if they cannot be implemented as written.

- The site Vice President met with each supervisor to obtain a written agreement on a "contract" of responsibilities shared by CPS management team members to ensure safe, reliable CPS operation.

- Updating and revising policy statements on conduct of operations, procedure compliance, and conservative decision-making.

- Conducting seminars on procedure compliance and conservative decision-making for CPS Managers, Operations personnel, System Engineers, Shift Technical Advisors, and selected additional personnel.

- The Plant Manager interviewed each Operations crew member to ensure understanding of expectations regarding safe and conservative operation, procedural compliance, responsibility for ensuring safe plant configurations, and other operator responsibilities.

- The Operations and Maintenance departments each issued written departmental management expectations on the conduct of safe operations.

- The Radiation Protection department issued written guidance reinforcing conservative decision-making relating to radiation safety.

- CPS management developed and committed to a written charter that reaffirms that nuclear safety is the management team's highest duty.

- Plant or equipment condition limits have been and will be established to ensure conservatism in the operation of selected key systems.

- We incorporated conservative decision making training, emphasizing safety of operation and procedure compliance, into accredited continuing training programs.

- Various forms of employee communications used on site, including billboards, newsletters, and video monitors, also were and are being used to reinforce management's expectations for safe, conservative plant operations and procedure compliance.

To further enforce its expectations, management declared two work stoppage stand-downs during the months of January and February after events occurred which indicated that safety focus and procedural compliance did not meet CPS standards. During the stand-downs, employees attended briefings presented by

supervision during which the recent errors and their significance were discussed. Employees were coached in error-reduction techniques and methods to apply these techniques to help reduce errors. During these meetings, employees also had the opportunity to discuss frustrations, concerns, and problems they were experiencing. Prior to resuming work activities, each site department head submitted written confirmation to the Plant Manager indicating how his organization would satisfactorily implement self-checking techniques. The SALP Board recognized that the stand-downs resulted in noticeable improvements. We will conduct additional training and monitoring of conservative decision-making and procedural adherence as part of our Long-Term Improvement Plan (LTIP) to ensure sustained improvement in procedure quality and adherence and conservative decision-making. The LTIP helps ensure that CPS personnel are held accountable for satisfying management expectations. The LTIP includes:

- Improving management and supervisory skills through training.
- Establishing expectations and goals for each individual, group, and department.
- Developing and implementing a program for managers and supervisors for observing work, training, and other activities of their staff.
- Conducting performance reviews which assess performance against expectations and goals.
- Continuing training on human error reduction, procedure compliance, and conservative decision making.
- Developing and implementing an organization and programmatic performance measurement program.

C. Procedure Reviews

IP formed a team to review and revise procedures to ensure their adequacy and clarity and their capability to be implemented as written. We deleted provisions that could be misinterpreted and lead to procedure noncompliance and clarified management expectations on procedure adherence and when procedure questions are to be brought to the attention of supervision. We changed what steps should be taken when problems or errors in procedure are encountered to clearly reflect the expectation to stop work and have the procedure changed before proceeding.

IP also conducted reviews of several important categories of procedures, with an emphasis on procedure compliance and adherence, and a recognition of the need to have appropriate guidance in station procedures and less reliance on tool box skills. These included:

- Reviewing operating and surveillance procedures for adequacy and enhancements. Revisions to surveillance procedures resulting from this review have been completed.

- Operations Department personnel performed reviews and walkdowns of approximately 160 system operating procedures to identify and correct any procedure inadequacies that might prohibit successful completion of an operational evolution. Procedure revisions resulting from this review have been completed.

- Operating crew personnel have reviewed procedures for scheduled surveillances for the recent refueling outage (RF-6) and startup prior to implementation to identify and correct inadequacies that could have prevented successful completion of surveillance activities. Revisions to surveillance procedures resulting from this review have been completed.

- We revised the procedures for Conduct of Operations and Authorities and Responsibilities for Reactor Operators For Safe Operation and Shutdown to give clear direction on conservative decision making. Procedure steps that could be construed as nonconservative were deleted or modified.

- The Operations procedures associated with various normal and startup activities were exercised in the simulator by the operating crews to ensure clarity, consistency, and ease of use. These included procedures for activities such as plant startup, single loop operation, leak detection, reactor coolant leakage, long cycle lineup, operations, and others. Seventeen operating procedures and documents were revised as a result of this review.

- Startup Readiness Reviews were performed as part of the SRP. These included review of surveillance procedures and establishing benchmarks for CPS procedures.

- The Quality Assurance Department performed an independent, site-wide assessment of procedure use and adherence. Although the findings were generally acceptable, specific areas were identified for additional attention. Corrective actions have been identified and taken to eliminate weaknesses in those areas.

In addition, we will be conducting additional reviews as part of the LTIP. These include:

- Additional surveillance procedure reviews and comparison to industry best practices.
- Reviewing surveillance procedures
  - for fidelity with the USAR and Technical Specifications,
  - preconditioning, and
  - to identify and correct inadequacies that prevent successful completion of surveillance activities.
- Reviewing procedures at other plants to use as a benchmark for comparison against CPS procedures.
- Vendor manuals and the vendor manual update process will be improved by confirming that CPS's vendor technical documents in vendor manuals and the controlled drawing file are up-to-date and verified.
- Reviewing programs that were not reviewed as part of the Startup Readiness Reviews.

D. Improvements in Assessments and Corrective Actions

We have taken and will be taking a number of actions to improve our identification of problems, timeliness of assessments, and effectiveness of corrective actions. These actions include:

- Lower Thresholds for Initiating Condition Reports

  CPS has taken actions to establish a work environment that encourages timely reporting of safety concerns and to strengthen human error reduction measures at CPS. We reinforced management's expectation that questions involving conditions adverse to quality be documented in the CPS Condition Report (CR) program. As a result, our threshold for writing condition reports was lowered dramatically, resulting in a several-fold increase in the rate of initiation of CRs. We can now better identify and address issues at an early stage and improve trending of performance problems for comprehensive corrective action.

- Enhancements to the CPS Event Critique Process

  We reviewed and revised the site procedure for conducting critiques and fact findings of events to (1) require appropriate personnel chair and attend critiques, (2) require appropriate independent and objective inputs from

other departments at the critiques, (3) require in-depth fact finding during the critique, (4) establish clear expectations for timeliness of critique evaluations and documentation, (5) require specific determinations on whether procedure noncompliances or nonconservative operations occurred during the event being critiqued, and (6) require a timely review and concurrence of the facts by appropriate senior management. Additional actions to improve our critique process, including additional training, are driven by the LTIP. These actions include revising CPS procedures on event critiques and providing training for personnel and critique chairmen.

- Safety Performance Improvement Initiative

A safety performance improvement initiative is underway at CPS through a partnership arrangement with Performance Improvement International (PII). The safety performance improvement program focuses on prevention, detection, and correction of human errors and equipment failures. We are using the results of a site-wide employee survey taken in September, combined with organizational and programmatic improvements and human error reduction, to address weaknesses and develop departmental improvement plans. We will continue this major safety improvement initiative through 1997 by completing the LTIP which includes human error reduction training, training on procedure performance and conservative decision making, and improvements in trending and monitoring.

- Independent Analysis

IP has created an independent group of root cause analysts, whose full-time responsibilities are investigating and solving problems. IP has also created a new position, Director - Independent Analysis, reporting to the Manager-Nuclear Safety and Performance Improvement to head this group.

The mission of the group is to perform rigorous root cause analyses; develop effective, technology-based corrective actions; develop and maintain a mature performance monitoring program; and ensure proper execution of performance improvement actions. We moved corrective action trending responsibilities from the Quality Assurance (QA) Department to the new group, and filled nine root cause investigator positions. As part of the LTIP, we will further improve our root cause analysis by addressing the PII assessment and establishing root cause analysts to lead investigation teams for significant condition reports. In addition, the Independent Analysis Group will:

- Develop and implement an organization and programmatic

performance measurement program.

- For existing human performance related performance measures, develop and implement a program for evaluating and correcting declining trends and performance which does not satisfy goals.

- Develop and implement a behavior-based performance monitoring program.

• Improvements in Quality Assurance

IP improved its QA department by adding experience in various disciplines and performing more performance-based surveillances. We provided additional training to QA personnel in Quality Assurance Fundamentals and refresher training in regulatory requirements. In addition, where appropriate, QA is enhancing its audit function by incorporating performance-based assessments. We reestablished an Engineering Assurance Group in Engineering to provide greater self-assessment capability. This is part of an Engineering Department restructuring aimed at increasing accountability.

The LTIP continues our actions to improve QA by guiding the development and implementation of a plan to improve audits and assessments performed by QA, including adding additional personnel, providing additional training, and conducting a QA assessment of management oversight activities. The plan also includes the development and implementation of an action plan to improve quality control with a focus on hardware and material conditions by plant area.

• Industry Experience

We will enhance our response to industry experience and information through our LTIP:

- Improving the availability and response to industry experience by creating a database of Industry Feedback Program information, and a plan for upgrading responses to industry experience.

- Improving the quality of daily managers meetings and planned evolutions and pre-job briefings to include pertinent industry information and station events.

- Reviewing operating experience closure packages for adequacy.

E. Improvements in Material Condition

During the recent outage, IP took a number of actions to improve the material condition of CPS and ensure that it will support safe, reliable operation. These actions include:

- System Readiness Reviews

  As part of the SRP, IP conducted system readiness reviews for vital and non-vital systems to identify conditions having any significant potential to affect safe and reliable operation of CPS. The system readiness reviews included plant configuration verification, reviews of main control room deficiencies, open maintenance work requests, and open Condition Reports, to ensure that plant systems are capable of supporting safe operation. We corrected any material deficiencies that were identified.

- Work Control Improvement

  Our Long-Term Improvement Plan will include actions for monitoring and trending system performance and prioritizing work. These actions include:

  - Increasing staffing devoted to monitoring, trending, and supporting hardware performance improvement;

  - Developing a plan for integrating or coordinating the work control process which includes prioritizing work;

  - Maintenance Department improvements in work packages and work control;

  - Improving Engineering work control and prioritization of engineering tasks; and

  - Developing methods to improve planning for outages, including identification and scheduling of support activities, methods to freeze the outage scope, better tools to assess outage readiness, and a schedule tool to perform analyses of the outage schedule.

- Quarterly Material Condition Reviews

  IP established a senior management quarterly review team charged with ensuring that material deficiencies are resolved promptly and efficiently. This review team, comprised of the Vice President-Nuclear, Manager-Clinton Power Station, Manager-Nuclear Station Engineering, and other senior management team members establishes a high level of management

involvement to resolve material deficiencies. This review team has already met twice and prioritized existing material issues and identified goals and expectation to resolve these issues.

- Establishment of Plant or Equipment Condition Limits

  IP has established plant or equipment condition limits to ensure conservatism in the operation of selected key systems. Operation of the plant at power, with reactor recirculation pump seal degradation exceeding conservatively established limited will not be permitted. We will develop additional plant or equipment condition limits as part of the CPS Long-Term Improvement Plan.

- Main Control Room (MCR) Deficiencies

  Coming into the recent outage, CPS had approximately 147 Main Control Room (MCR) Deficiencies. IP made the reduction of MCR deficiencies a high priority. We met our goal of less than 20 outage and 25 non-outage MCR deficiencies prior to startup and ensured that the remaining MCR deficiencies will not significantly affect an operator's ability to safely operate the plant. We are now focusing on achieving "Black Board" in the MCR during normal operations.

- Operator Work-Arounds

  CPS had twelve operator work-arounds entering the current outage. IP undertook a comprehensive review of existing work-arounds to ensure that they have been identified and were appropriately evaluated prior to restart of the plant. This review concluded that CPS had identified and properly evaluated existing work-arounds to permit restart of the plant. The program review did identify an inconsistency in the counting and tracking of the identified items. We corrected this inconsistency. IP also established both startup and long-term goals for reduction of operator work-arounds and has reduced the number of work-arounds to eight.

- System Improvements

  IP has also improved specific material conditions relating to feedwater check valves, drywell floor and equipment drains, electrical circuit breakers, reactor recirculation seals, and the turbine generator assembly.

II. ADDITIONAL IMPROVEMENTS IN OPERATIONS

The SALP Report noted operational weaknesses in procedure use and adherence, quality of procedures, human errors, and the inability of management to provide satisfactory guidance and oversight to the plant staff to address these weakness until after NRC intervention.

In addition to the cross functional improvements described in Section I, Operations has taken, and will be taking additional actions described below to address these weaknesses:

A. In-Plant Crew Monitoring and Observation

We developed a detailed CPS Operations Department In-Plant Crew Monitoring and Observation checklist which is being used by management. The purpose of the monitoring program is to ensure management awareness of crew values, practices, and behaviors, and to provide feedback to the operating crew regarding management expectations. This monitoring provides operating crew members with timely performance feedback and gives management a real-time indication of performance. This feedback ensures that (1) the plant is being operated safely and in accordance with license and regulatory requirements, (2) conservative decisions are made in the daily operation of the plant, (3) procedure compliance and adherence is being maintained, (4) oversight roles and responsibilities are being properly maintained, and (5) three-part communications is utilized in directions for operating plant equipment and components. Additionally, IP has developed a power ascension plan with hold points to provide for management assessment of personnel performance during restart.

Further, as part of the LTIP, we will develop and implement a program for managers and supervisors for observing work, training, and other activities. We will also establish monitoring guidelines for managers and supervisors to use in determining whether personnel are meeting expectations, missions, and goals.

B. Creation of CPS Operations Principles and Standards

IP has created a series of principles and standards regarding the conduct of operations to ensure that expectations and requirements regarding conservative decision-making and procedural compliance are clearly set forth. These principles and standards include:

- Conservative operational decision-making shall always place safety before production or cost. Conservative decisions are: risk averse, time, favor caution over boldness, based on best information, involve team input, consider additional barriers, and anticipate the unexpected.

Reactor operators are authorized and expected to take timely, appropriate, conservative actions, including reactor scrams, to protect the plant. Operators are expected to manually initiate a reactor scram when they find themselves in a situation that jeopardizes a safety function, is out of positive control, or appears to require extraordinary intervention to recover.

C. Improvements in the Rigor of Conduct of Operations

The LTIP contains actions to improve the conduct of operations which include:

- Improving the safety tagging program, including evaluation of the process, and developing goals and a monitoring system.
- Developing and implementing a self-assessment program.
- Continue to review surveillance procedures.

III. ADDITIONAL IMPROVEMENTS IN MAINTENANCE

The SALP report concluded that Maintenance performance was good overall. We take no comfort in this since we see the same problems here as in the rest of the organization. The report did identify weaknesses including procedural adherence, procedure and work package quality, work control, and the timely resolution of equipment concerns. In addition to the improvements discussed in Section I, we have taken or will take the following actions to address the maintenance weaknesses noted in the SALP report.

A. Improvements in Surveillance Procedures

The Electrical, Controls and Instrumentation (ECI) Maintenance Department conducted a self-assessment of its surveillance procedure program. Over 200 surveillance procedures were included in the scope of the evaluation. The self-assessment evaluated how well technicians were meeting procedure compliance expectations, evaluated the quality of thirty completed surveillance tests including assuring that preconditioning did not occur, reviewed thirty-five open requests for procedure changes, assessed personnel qualifications, reviewed the forty-eight most recent changes to procedures for impact upon training and the surveillance program, and performed observations of surveillance tests performed in the field. Although some problems were noted, this review confirmed that no significant deficiencies existed and that site-wide expectations for procedure compliance were being reflected in work activities. In addition, as part of the LTIP, we will identify and implement improvements in post-modification and surveillance testing.

B. Improvements in Work Packages and Work Control

Based on self-assessment results, IP has developed and implemented a new work control program. This program is now staffed and will result in improved work value ranking for routine work. The program expands the use of performance indicators to ensure the proper focus on material condition for important categories such as MCR deficiencies, and improves coordination between departments to increase efficiency and reduce backlogs. As part of the LTIP we will also improve work planning and scheduling to minimize the potential for conflicting work, performance measures, and an improved project management system for scheduling activities.

C. Maintenance Improvement Plan

Due to the identified declining trend on maintenance performance, IP has developed a Maintenance Improvement Plan. The plan is designed to improve performance and address the issues involving root causes and contributing causes for the recently identified weaknesses. Some of these improvement actions will require an increase in staffing on the management level to provide more support in the field. This plan will aggresively monitor supervisor interaction with field work to focus on safety, procedure use and adherence, work package quality, and adequacy of pre-job briefs.

IV. ADDITIONAL IMPROVEMENTS IN ENGINEERING

The SALP report noted weaknesses in the resolution of long-term issues, root cause investigation, corrective actions, design control, operability evaluations, 10CFR50.59 evaluations, and procedural compliance. In addition to the improvements discussed in Section I, we have taken the following actions to address the Engineering weaknesses identified in the SALP report.

A. Revised Operability Evaluation Program

The Operability Evaluation Process used at CPS has been overhauled. The new procedure, prepared by a cross-departmental team, provides guidance for a formal program incorporating the requirements of Generic Letter 91-18 and CPS lessons learned.

The operability evaluation improvement effort received independent oversight from an experienced industry consultant. The past operability review effort received a detailed independent review by an experienced external reviewer. The new operability determination process was tested prior to approval. Substantial training was provided to Operations and Engineering on the requirements of the new program. The program has been fully implemented and is in place to support plant startup.

The Nuclear Station Engineering Department (NSED) assembled a team of senior individuals to conduct a review of documents related to equipment operability evaluations conducted prior to establishment of the new program. Using Generic Letter 91-18 as guidance, the team worked to identify conditions or equipment that may have been incorrectly considered operable. Although no incorrect operability determinations were found, some evaluations were found to be lacking in detail or complete analysis. These operability evaluations were corrected.

The team also performed a thorough investigation of past operability evaluations and determinations that had the potential to affect safety component and system operability. In addition to 140 Condition Reports in the team's original scope, additional scope was added to the team's review to provide plant management the confidence that all equipment is operable. The team uncovered no situations where inoperability exists. The team also assessed the existing operability evaluation practices and identified program deficiencies, both internal and external to NSED, which were documented on a Condition Report.

50.59 Improvement Plan

NRC inspections and an independent assessment of the CPS Nuclear Station Engineering Department (NSED) identified weaknesses in the implementation of the CPS 10 CFR 50.59 safety evaluation program. In response, IP conducted a review of approximately 220 engineering changes implemented during RF-6 to determine whether any change involved an unreviewed safety question. Out of this review, IP identified nineteen safety evaluation screenings that did not adequately justify why full safety evaluation was not needed. Full safety evaluations have been completed for these changes; none have been found to identify an unreviewed safety question. In addition, IP conducted awareness training for approximately 300 people on site at all levels, but primarily directed at those people involved in work processes. This training provided an overview of 10CFR50.59 requirements and included a discussion of identified weaknesses in the implementation of the CPS safety evaluation process.

After completing these immediate actions, IP developed a 50.59 action plan that addressed both short-term and long-term measures aimed at achieving lasting improvements to our program. The following actions have been completed:

- IP revised the CPS procedure governing the conduct of safety reviews to require review of all safety screenings and evaluations by persons designed in writing by the Licensing Department as core reviewers;

- CPS Plant Staff, Licensing, and Engineering Departments designated personnel as core reviewers based on their demonstrated performance or experience in implementing 10 CFR 50.59 requirements. Also, outside experts were hired to work with and help training core reviewers;

- CPS qualified safety evaluation preparers have been provided enhanced training on the CPS safety evaluation process that included lessons learned from the violations documented in NRC inspection reports and weaknesses identified by the NSED assessment and core reviewers were provided with additional specialized training on 10CFR50.59 requirements; and
- IP conducted a root cause determination of CPS safety evaluation weaknesses, which included a review of condition reports covering safety evaluation deficiencies.

Our long-term improvements to our safety evaluation program include:

- Implementing additional corrective actions identified by the root cause investigation, including establishing and implementing performance measures and indicators for the CPS Safety Evaluation Program, and establishing more comprehensive training on the Updated Safety Analysis Report (USAR) and other licensing basis documents;

- Establishing annual refresher training for safety evaluation preparers and core reviewers; and

- Performing a self-assessment or our safety evaluation program scheduled for the fourth quarter of 1997. Additionally, IP is developing performance indicators for the program.

C. Other Long Term Improvements

In addition, the LTIP contains additional actions to improve work control, design and design control, and the resolution of equipment problems. These include:

- Improving engineering work control and prioritization of engineering tasks including:

  - revising responsibilities and processes for work initiation;

  - prioritization, scheduling, assignment, accountability, management, and timely completion, and;

  - providing a management oversight function.

- Redefining system engineer responsibilities to focus on monitoring and analysis of system health.

- Increasing staffing devoted to monitoring, trending, and supporting hardware performance improvement.

- Performing a vertical slice inspection of a system to assess compliance of the system configuration and procedures with the design and licensing basis.
- Assess the accuracy of the Updated Safety Analysis Report (USAR) and Technical Specifications and develop a plan to address weaknesses identified by this assessment including assessment scope expansion if warranted.

V. ADDITIONAL IMPROVEMENTS IN PLANT SUPPORT

The SALP report noted a decline in Plant Support performance, primarily due to a performance decline in Radiation Protection (RP). RP weaknesses identified included sensitivity towards and understanding of radiological controls and alarms and procedural adequacy and adherence. Similar problems with procedural adherence and understanding requirements were also noted in Security. The following additional improvements address these weaknesses:

Radiation Protection Procedure Review

IP assembled a dedicated enhancement team to review RP procedures for accuracy, usability, and compliance with regulations. This team is initially focused on approximately fifty procedures deemed critical for safe, reliable operation of CPS. The product of this review is analyzed independently by the CPS Procedures Group in Plant Support Services. To date, several enhancements to RP procedures have been made to improve RP performance and efficiency.

In addition, the Station procedure on Radiological Safety Work Plans will be reviewed and revised prior to the next refueling outage and vendor procedures are now subject to a biennial review requirement to ensure that they are kept current with station program requirements.

Radworker Performance

In addition to the cross-functional actions described earlier, we have taken a number of measures aimed at strengthening radiation worker performance, including the weaknesses identified in the SALP Report relating to Security. These measures include:

- Strengthening self-assessment activities conducted by line organizations to incorporate adherence to radiological requirements. This will be accomplished by

Radiation Protection personnel assisting in developing or revising self-assessment items to be observed;

- Consolidating Radiological Worker Requirements into a single series of Radworker procedures; and

- Replacing Radiological Deficiency Reports with Condition Reports and increasing Radiation Protection monitoring of radworker practices to strengthen station sensitivity toward and response to radworker performance issues.

Additionally, as part of the LTIP, we will be:

- Implementing a Radworker Assessment Plan.

- Developing and implementing a higher level radworker training course as a follow-up to training to initial radworker qualification.

- Increasing accountability for good radworker performance by confirming that radworker performance is being satisfactorily investigated by the line organization and individuals with unsatisfactory performance are held accountable and understand the radiological expectations.

VI. CONCLUSION

IP has carefully assessed the SALP Report to ensure that we have identified the weaknesses discussed in the Report and that our improvement initiatives address these weaknesses. We will continue to seek improvements in these areas in conjunction with our Long-Term Improvement Plan and will continue to monitor our progress through self-assessment and performance indicators.