April 12, 1995

Virginia Electric and Power Company
ATTN: Mr. J. P. O'Hanlon
Senior Vice President - Nuclear
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060

SUBJECT: MEETING SUMMARY - SURRY
SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

Gentlemen:

This refers to the March 9, 1995, meeting held to discuss the Nuclear Regulatory Commission's Systematic Assessment of Licensee Performance (SALP) for your Surry facility. Our report, NRC Inspection Report Nos. 50-280/95-99 and 50-281/95-99 dated February 13, 1995, had been previously sent to you. I have enclosed a list of attendees and a copy of the SALP handout that was used at the presentation.

Thank you for your response of March 30, 1995, to our SALP Report. We appreciate your response and attention to the assessment results.

In accordance with Section 2.790(a) of the NRC's "Rules and Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosures will be placed in the NRC Public Document Room.

No reply to this letter is required; however, if you have any questions concerning this matter, please contact us.

Sincerely,

Orig signed by Ellis W. Merschoff

Ellis W. Merschoff, Director
Division of Reactor Projects

Docket Nos. 50-280, 50-281
License Nos. DPR-32, DPR-37

Enclosures: 1. List of Attendees
2. SALP Handout

cc w/encls: See page 2

IE A3

IE 40
1/1

cc w/encls:
M. L. Bowling, Manager
Nuclear Licensing & Programs
Virginia Electric & Power Company
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060

David A. Christian
Station Manager
Surry Power Station
P. O. Box 315
Surry, VA 23883

Ray D. Peace, Chairman
Surry County Board of Supervisors
P. O. Box 130
Dendron, VA 23839

Dr. W. T. Lough
Virginia State Corporation Commission
Division of Energy Regulation
P. O. Box 1197
Richmond, VA 23209

Michael W. Maupin
Hunton and Williams
Riverfront Plaza, East Tower
951 E. Byrd Street
Richmond, VA 23219

Robert B. Strobe, M.D., M.P.H.
State Health Commissioner
Office of the Commissioner
Virginia Department of Health
P. O. Box 2448
Richmond, VA 23218

Attorney General
Supreme Court Building
101 North 8th Street
Richmond, VA 23219

Distribution w/encls:
G. Hallstrom, RII
B. Buckley, NRR
PUBLIC

NRC Resident Inspector
U.S. Nuclear Regulatory Commission
Surry Nuclear Power Station
5850 Hog Island Road
Surry, VA 23883

NRC Resident Inspector
U.S. Nuclear Regulatory Commission
Route 2, Box 78-A
Mineral, VA 23117

SEND TO PUBLIC DOCUMENT ROOM? (YES) NOR

OFFICE	RII	RII				
SIGNATURE						
NAME	LGarner	ABelisle	KLandis		JStohr	
DATE	04/06/95	04/6/95	04/9/95	04/ /95	04/11/95	04/ /95
COPY?	(YES) NO	YES (NO)	YES (NO)	YES (NO)	(YES) NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: G:\SUASALP.316

UNITED STATES NUCLEAR REGULATORY COMMISSION

SURRY NUCLEAR PLANT

JULY 04, 1993 - JANUARY 21, 1995

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE (SALP)

MEETING MARCH 9, 1995

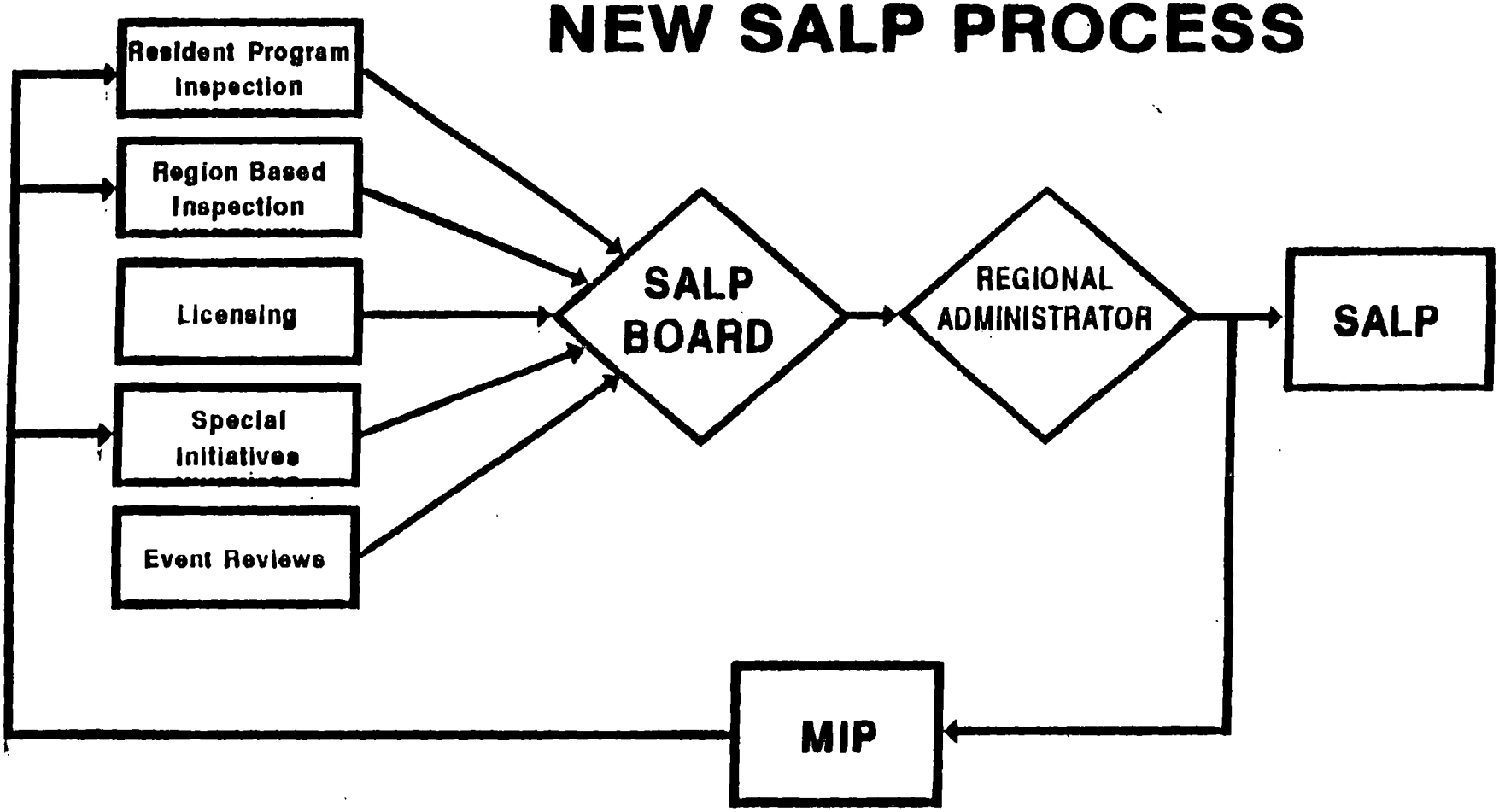
ENCLOSURE 2

SURRY NUCLEAR PLANT

SALP BOARD MEMBERS

J. Philip Stohr	Director (Chairperson) Division of Radiation Safety and Safeguards Region II
Ellis W. Merschoff	Director Division of Reactor Projects Region II
Albert F. Gibson	Director Division of Reactor Safety Region II
David B. Matthews	Director Project Directorate II-2 Office of Nuclear Reactor Regulation

NEW SALP PROCESS



PERFORMANCE CATEGORY RATINGS

Category 1. Licensee attention and involvement have been properly focused on safety and resulted in a superior level of performance. Licensee programs and procedures have provided effective controls. The licensee's self-assessment efforts have been effective in the identification of emergent issues. Corrective actions are technically sound, comprehensive, and thorough. Recurring problems are eliminated, and resolution of issues is timely. Root cause analyses are thorough.

Category 2. Licensee attention and involvement are normally well focused and resulted in a good level of safety performance. Licensee programs and procedures normally provide the necessary control of activities, but deficiencies may exist. The licensee's self-assessments are normally good, although issues may escape identification. Corrective actions are usually effective, although some may not be complete. Root cause analyses are normally thorough.

Category 3. Licensee attention and involvement have resulted in an acceptable level of safety performance. However, licensee performance may exhibit one or more of the following characteristics. Licensee programs and procedures have not provided sufficient control of activities in important areas. The licensee's self-assessment efforts may not occur until after a potential problem becomes apparent. A clear understanding of the safety implications of significant issues may not have been demonstrated. Numerous minor issues combine to indicate that the licensee's corrective action is not thorough. Root cause analyses do not probe deep enough, resulting in the incomplete resolution of issues. Because the margin to unacceptable performance in important aspects is small, increased NRC and licensee attention is required.

FUNCTIONAL AREAS FOR OPERATING REACTORS

1. PLANT OPERATIONS

2. MAINTENANCE

3. ENGINEERING

4. PLANT SUPPORT

   - Radiological Controls
   - Emergency Preparedness
   - Security

PLANT OPERATIONS

OVERALL PERFORMANCE IN THIS AREA HAS REMAINED SUPERIOR - CATEGORY 1

STRENGTHS:

- SAFETY OVERSIGHT
- PERSONNEL PERFORMANCE
- POWER/SHUTDOWN OPERATIONS

CHALLENGES:

- CONTINUED ATTENTION TO DETAIL

MAINTENANCE

OVERALL PERFORMANCE IN THIS AREA REMAINED GOOD - CATEGORY 2

STRENGTHS:

- MATERIAL CONDITION
- PROCEDURES UPGRADE
- COMMUNICATIONS
- SELF-ASSESSMENT

CHALLENGES:

- HUMAN PERFORMANCE DEFICIENCIES
- EQUIPMENT RELIABILITY

ENGINEERING

OVERALL PERFORMANCE IN THIS AREA IMPROVED TO SUPERIOR - CATEGORY 1

STRENGTHS:

- PLANT PROBLEM RESOLUTION
- OPERATIONS SUPPORT
- SELF-ASSESSMENT
- LICENSING ACTIVITIES

CHALLENGES:

- COMMUNICATIONS
- ATTENTION TO DETAIL

PLANT SUPPORT

OVERALL PERFORMANCE IN THIS AREA REMAINED SUPERIOR - CATEGORY 1

STRENGTHS:

- SELF-ASSESSMENT AND AUDIT PROGRAMS
- CONTINUED PROACTIVE ALARA, EXPOSURE CONTROL AND CONTAMINATION CONTROL PROGRAMS
- CHEMISTRY AND EFFLUENT CONTROL PROGRAMS
- PERFORMANCE DURING EMERGENCY EXERCISES AND ACTUAL EVENTS
- SECURITY AND FITNESS FOR DUTY PROGRAMS

CHALLENGES:

- RADIOLOGICAL PROCEDURAL COMPLIANCE
- EMERGENCY RADIOLOGICAL DOSE ASSESSMENT

SURRY NUCLEAR PLANT

SALP RATING SUMMARY

FUNCTIONAL AREA	RATING LAST PERIOD	RATING THIS PERIOD
PLANT OPERATIONS	1	1
MAINTENANCE	2 I	2
ENGINEERING	2	1
PLANT SUPPORT	N/A	1
EMERGENCY PREPAREDNESS	1	
RADIOLOGICAL CONTROLS	1	
SECURITY	1	
SAFETY ASSESSMENT/ QUALITY VERIFICATION	1	

February 13, 1995

Virginia Electric and Power Company
ATTN: Mr. J. P. O'Hanlon
Senior Vice President - Nuclear
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060

SUBJECT: SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE (SALP)
(NRC INSPECTION REPORTS NOS. 50-280/95-99 AND 50-281/95-99)

Gentlemen:

The NRC Systematic Assessment of Licensee Performance (SALP) has been completed for your Surry nuclear facility. The facility was evaluated for the period of July 4, 1993, through January 21, 1995. The results of the evaluation are documented in the enclosed SALP report. This report will be discussed with you at a public meeting to be held at the Surry site on March 9, 1995, at 10:00 a.m.

The assessment was conducted in accordance with the July 19, 1993, revision to the SALP program which addresses four functional areas: Plant Operations, Maintenance, Engineering, and Plant Support.

Overall performance at Surry was sustained at a high level in most functional areas during this period and improved from the previous SALP assessment in other areas. Superior performance was achieved in three of the four assessment areas: Operations, Engineering, and Plant Support. Contributing to the superior performance was an effective self-assessment program which focused on identification of problems and continuous improvement. Quality assurance and safety assessment were important elements in the management controls and involvement at the station. Maintenance was assessed as good with major challenges identified as human performance errors and some equipment aging issues.

In accordance with Section 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

OFFICIAL COPY

Should you have any questions or comments. I would be pleased to discuss them with you. I look forward to discussing this assessment with you on March 9, 1995.

Sincerely,

Orig signed by Stewart D. Ebneter

Stewart D. Ebneter
Regional Administrator

Docket Nos. 50-280, 50-281
License Nos. DPR-32, DPR-37

Enclosure: SALP Report

cc w/encl:
M. L. Bowling, Manager
Nuclear Licensing & Programs
Virginia Electric & Power Company
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060

David A. Christian
Station Manager
Surry Power Station
P. O. Box 315
Surry, VA 23883

Ray D. Peace, Chairman
Surry County Board of Supervisors
P. O. Box 130
Dendron, VA 23839

Dr. W. T. Lough
Virginia State Corporation Commission
Division of Energy Regulation
P. O. Box 1197
Richmond, VA 23209

Michael W. Maupin
Hunton and Williams
Riverfront Plaza, East Tower
951 E. Byrd Street
Richmond, VA 23219

cc w/encl cont'd: See page 3

cc w/encl cont'd:
Robert B. Strobe, M.D., M.P.H.
State Health Commissioner
Office of the Commissioner
Virginia Department of Health
P. O. Box 2448
Richmond, VA 23218

Attorney General
Supreme Court Building
101 North 8th Street
Richmond, VA 23219

INPO
700 Galleria Parkway
Atlanta, GA 30339-5957

Distribution w/encl:
Chairman I. Selin
Commissioner K. C. Rogers
Commissioner E. G. de Planque
J. M. Taylor, EDO
J. L. Milhoan, EDO
H. L. Thompson, Jr. EDO
G. M. Tracy, Regional Coordinator, EDO
W. T. Russell, NRR
R. P. Zimmerman, NRR
A. C. Thadani, NRR
J. Lieberman, OE
S. A. Varga, NRR
J. A. Zwolinski, NRR
B. C. Buckley, NRR
D. L. Gamberoni, NRR/ILPB(2 copies)
R. W. Cooper, RI
E. G. Greenman, RIII
A. B. Beach, RIV
K. E. Perkins, WCFO
C. A. Casto, RII
T. A. Peebles, RII
W. E. Cline, RII
D. M. Collins, RII
K. M. Clark, RII
R. E. Trojanowski, RII
S. J. Vias, RII
L. W. Garner, RII
G. A. Hallstrom, RII
PUBLIC

Distribution w/encl: Continued see page 4

Distribution w/encl cont'd:
NRC Resident Inspector
U.S. Nuclear Regulatory Commission
Surry Nuclear Power Station
5850 Hog Island Road
Surry, VA 23883

NRC Resident Inspector
U.S. Nuclear Regulatory Commission
North Anna Nuclear Power Station
Route 2, Box 78-A
Mineral, VA 23117

Mr. Thomas M. Majusiak
Chief, Technical Hazards Branch
Federal Emergency Management Agency
Region III
Liberty Square Building
105 South Seventh Street
Philadelphia, PA 19106

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE REPORT

SURRY NUCLEAR STATION

50-280/95-99 AND 50-281/95-99

I. BACKGROUND

The SALP Board convened on February 2, 1995, to assess the nuclear safety performance of Surry Units 1 and 2 for the period July 4, 1993, through January 21, 1995. The Board was conducted per Management Directive 8.6, "Systematic Assessment of Licensee Performance." Board members were J. P. Stohr (Board Chairperson), Director, Division of Radiation Safety and Safeguards; E. W. Merschoff, Director, Division of Reactor Projects; A. F. Gibson, Director, Division of Reactor Safety; and D. B. Matthews, Director, Project Directorate II-2, NRC Office of Nuclear Reactor Regulation. This assessment was reviewed and approved by the Regional Administrator.

II. PLANT OPERATIONS

This functional area addresses the control and execution of activities directly related to operating the plant. It includes activities such as plant startup, power operation, plant shutdown, and response to transients. It also includes initial and requalification training programs for licensed operators.

Management oversight and involvement were effective during the SALP period, and were characterized by conservative decisions and safe operations. While the plant was challenged by six trips during this period due largely to equipment failures, operators' response to these events was well controlled, focused on safety, prompt, and thorough.

The Station Nuclear Safety Operating Committee consistently provided thoughtful review of issues at the appropriate threshold. In addition, reviews associated with temporary leak seal repairs added value to these efforts, in that issues not recognized by the line organization were identified and subsequently addressed. Management fully supported operational personnel and established high performance standards. Prudent testing was initiated for problems associated with the turbine-driven auxiliary feedwater pump. Management's onshift oversight during plant heatups and startups illustrated a strong commitment to plant safety. Shift operations were well controlled with conservative decisions made to control the tempo of operations during steam generator level oscillations. Early in the SALP period, an inadequate evaluation of a reactor coolant system leak resulted in Unit 1 operating with a non-isolable reactor coolant leak. However, conservative actions taken on a subsequent increase in leakage rate resulted in the ultimate detection, analysis and repair of the leak prior to exceeding allowable leakage limits.

Operations personnel performance was excellent throughout the assessment period. Plant evolutions such as shutdowns and startups, reactor trips, power operations and transients were conducted in a highly professional and competent manner. Excellent command and control of the evolutions and the frequent use of feedback communications indicated that management expectations were fully understood. To assure successful evolutions, effective pre-job briefings were consistently conducted. During shutdowns, occasional communication deficiencies contributed to personnel errors involving loop stop valve operation and control of the dilution flow path.

Both the initial licensed operator and operator requalification training programs were satisfactorily implemented. Six of seven personnel tested for initial licensing successfully passed the examination. The training skills learned in the simulator were also evident during plant evolutions. Operators were knowledgeable of plant systems and used procedures successfully.

The operations organization was effectively supported by the station. Engineering and Maintenance support to emerging problems was prompt and effective in assuring operators' ability to manage problems with a conservative safety attitude. Self assessment has remained effective throughout the period due, in large part, to the extensive involvement in and ownership of the assessment program by the operations line management.

The Plant Operations Area is rated Category 1.

III. MAINTENANCE

This functional area addresses activities associated with diagnostic, predictive, preventive and corrective maintenance of plant structures, systems, and components. It also includes all surveillance testing, inservice inspection and other tests associated with equipment and system operability.

Management continued to maintain a strong commitment to upgrade the material condition of the plant. Significant progress was made in reducing leaks, improving coatings, and refurbishing damaged and corroded equipment. Several longstanding and recurring equipment problems were corrected. Examples included replacement of pressurizer safety valves and component cooling water heat exchangers. Effective engineering support and root cause analyses were important contributors to success in this area.

The procedure upgrade program, initiated in a previous SALP period, was continued. Although procedural deficiencies continued to cause problems, the quality of procedures steadily improved.

Plant systems and components were appropriately tested to assure they would function properly in service. Effective programs were implemented for post maintenance, inservice, and surveillance testing. Programs for diagnostically testing motor operated valves, predicting piping

degradation due to erosion and corrosion, and verifying the heat transfer capability of service water heat exchangers were also effective.

Teamwork contributed to good maintenance performance. NRC inspectors noted numerous examples of effective communications between operations and maintenance during pre-job briefings and during the accomplishment of maintenance activities. Engineering assisted Maintenance in the resolution of recurring equipment problems.

Human performance deficiencies in the implementation of maintenance and testing programs remained a challenge during this SALP period. Such deficiencies caused an automatic reactor trip, a manual reactor trip and power runbacks. These deficiencies, and other personnel errors during maintenance and testing activities, were caused by lack of attention to detail and failure to follow procedures.

Equipment failures were also a challenge. Several reactor trips, forced outages and power reductions were caused by equipment failures. Most occurred in the balance-of-plant equipment and some could have been prevented by more effective preventive maintenance of aging plant equipment.

Self-assessments were a strength. The line organization candidly assessed performance trends using the performance annunciator panel program, and the QA organization provided daily performance reports to station management. The plant staff maintained a low threshold for identifying problems as indicated by the large number of deficiency reports generated. Audits and assessments by the QA organization provided valuable performance feedback to station management. Corrective actions taken in response to specific problems identified by self-assessments were generally timely and effective.

The Maintenance area was rated Category 2.

IV. ENGINEERING

This functional area addresses activities associated with the design of plant modifications and engineering support for operations, maintenance, surveillance, and licensing activities.

Management demonstrated a strong commitment to providing high quality engineering and technical support in maintaining safe plant operations. In general, conservative and appropriate decisions were made by management with respect to operations, maintenance and surveillance activities.

Engineering and technical support in resolving emerging issues in support of reliable plant operation was generally good. Trending and evaluation of the steam generator water level oscillations was comprehensive, timely, and provided valuable information to the operations staff. Engineering evaluation of a proposed modification to the 2A station battery was sound. Operations, maintenance, and

engineering personnel coordinated efficiently to minimize the amount of time the station battery was out of service and to complete the temporary modification in a controlled manner.

A strong engineering training program was exemplified by the number of engineering personnel with Senior Reactor Operator or Shift Technical Advisor certificates. Management focused attention on engineering backlog control which yielded good results by reducing the number of backlog packages.

Licensing submittals were timely and of high quality, demonstrating thorough understanding of the technical issues and regulatory requirements. Responses to NRC Generic Letters adequately addressed issues of concern.

During the period, there were some problems which indicated a need to improve communications between engineering and station personnel. Examples were an error relating to the main steam calorimetric computer program setpoint, because the impact of the refined main steam scaling values was not recognized by all involved parties; and an incident relating to the gradual degradation of a station battery.

The self-assessment program was well organized, effective, and performed by knowledgeable people. Assessments were effective in identifying a number of areas for improvement in the engineering group. Corrective actions in response to the audits and assessments were developed to address the improvement areas. The review of the Technical Specifications and implementing procedures was thorough and significantly improved the quality of the surveillance program.

The Engineering area was rated Category 1.

V. PLANT SUPPORT

This functional area addresses all activities related to the plant support function including radiological controls, radioactive effluents, chemistry, emergency preparedness, security, fire protection and housekeeping controls.

The radiological control program continued to provide an excellent level of protection for plant workers and the environment during this SALP period. Proactive As Low As Reasonably Achievable (ALARA) efforts resulted in collective dose savings and supported the continued downward trend in collective dose for the site. ALARA initiatives included the effective use of permanent shielding on operating systems, hot spot reduction and refinements to shutdown chemistry. There was strong management and worker involvement in support of the program. Radiological contamination control practices continued to be aggressive and supported the effective control of internal exposures during the period. Self audits of the radiological protection, chemistry, radioactive waste, and transportation programs were comprehensive and well documented. Corrective actions for audit findings were appropriately implemented. Effective implementation of the primary and

secondary chemistry programs maintained primary parameters well within technical specification limits and reduced the source term during outages. Radiological effluents were also effectively controlled. Overall, radiological work procedures were good. During the period there were several instances of failure to comply with procedures and related controls.

Performance in the Emergency Preparedness area continued at an excellent level during this period. The response organization performed effectively during emergency exercises in 1993 and 1994 and responded effectively to four events classified at the Notification of Unusual Event Level. Event recognition, classification and Emergency Plan implementation were appropriate. The training program continued to be effectively implemented, supporting the excellent response performance. There was strong management support for the program. Self audits of the emergency response program were detailed and comprehensive with good assessments of Emergency Plan implementation. Findings, including those from exercise critiques, and corrective actions were tracked. Good support was provided for offsite response agencies. During the period, the area of radiological dose assessment was identified as needing improvement.

The Physical Security Program continued to be implemented in an excellent manner during this period. The security staff was well trained and qualified and implemented security plan requirements in a professional manner. Security barriers were effectively maintained with excellent maintenance of the security equipment. Self-audits were thorough and effective in identifying issues and areas for improvement. Security Plan changes submitted for review were thorough and timely. The Fitness-for-Duty program was considered a strength.

General overall housekeeping practices during the period were good. Plant surface coatings and reclamation activities improved the appearance of the plant and have heightened personnel awareness of housekeeping situations needing attention.

The Plant Support area was rated Category 1.