Docket No. 50-298
License No. DPR-46

DEC 7 1990

Nebraska Public Power District
ATTN: George A. Trevors, Senior Staff
Advisor - Nuclear Power Group
P.O. Box 499
Columbus, Nebraska 68602-0499

Gentlemen:

This forwards the final report of the Systematic Assessment of Licensee Performance (SALP) for the Cooper Nuclear Station (CNS) for the period of April 16, 1989, through July 15, 1990. This final SALP report includes the following:

1. The initial SALP report cover letter (no revisions).

2. A summary and list of attendees at our October 9, 1990, SALP management meeting at the CNS Training Facility in Brownville, Nebraska.

3. Your October 19, 1990, response to the initial SALP report.

In response to your letter dated October 19, 1990, in which you requested a review of the SALP Category 2, with an improving trend, rating assigned to the CNS security area by the SALP board, I have completed a review and have considered your submittal.

I want to emphasize that SALP ratings assigned are a synthesis of observations and insights regarding your performance that were made throughout the period. My review concluded that the Board was aware of improvements and accomplishments by NPPD in the security area and took them into consideration when it assigned an improving performance trend to the SALP rating. The initial Board report noted that many of your accomplishments and improvements were completed during the SALP period, and although these changes were having a positive impact on your program, it was concluded that the adequacy of these initiatives had not been demonstrated for a sufficiently long period of time to merit a SALP Category 1 rating.

Your program has shown steady improvement since the Category 3 rating assigned for the period of August 1986 to January 1988, and I have concluded that additional time is needed to demonstrate the effectiveness of these changes. Therefore, the assigned rating of SALP Category 2, with an improving trend, correctly characterized your program at that time, and the rating will remain as identified in the initial SALP report.

RIV:	C:	D:DRP	D:DRS	D:DRSS
WRBennett/ph	GLConstable	SJCollins	LJCallan	ABBeach
12/7/90	12/7/90	12/7/90	12/7/90	12/7/90

NRR	NRR	DRA	RA
PO'Conner	TQuay	JMMontgomery	RDMartin
12/7/90	12/7/90	12/7/90	/ /90

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I consider the discussions in the October 9, 1990, SALP management meeting and your October 19, 1990, response to the initial SALP report to be constructive and request that you keep us informed of the results of your continued evaluation of NRC concerns and recommendations.

As a result of your October 19, 1990, submittal, we have reviewed the initial SALP report and concluded that no changes to pages 18 and 19 of the report are warranted.

The next SALP period for the CNS is scheduled to last 18 months, from July 16, 1990, through January 15, 1992.

Sincerely,

John M. Montgomery
for Robert D. Martin
Regional Administrator

Enclosures:
1. Initial SALP report cover letter (no revisions)

2. Summary and List of Attendees of October 9, 1990, meeting at CNS

3. October 19, 1990, response to Initial SALP report

cc:
Nebraska Public Power District
ATTN: G. D. Watson, General Counsel
P.O. Box 499
Columbus, Nebraska 68602-0499

Cooper Nuclear Station
ATTN: John M. Meacham, Division Manager, Nuclear Operations
P.O. Box 98
Brownville, Nebraska 68321

Nebraska Department of Environmental Control
ATTN: Dennis Grams, Director
P.O. Box 98922
Lincoln, Nebraska 68509-8922

Nemaha County Board of Commissioners
ATTN: Larry Bohlken, Chairman
Nemaha County Courthouse
1824 N Street
Auburn, Nebraska 68305

Nebraska Department of Health
ATTN: Harold Borchert, Director
Division of Radiological Health
301 Centennial Mall, South
P.O. Box 95007
Lincoln, Nebraska 68509-5007

Kansas Radiation Control Program Director

bcc to DMB (IE40)

bcc distrib. by RIV:

R. D. Martin
Section Chief (DRP/C)
DRSS-FRPS
RIV File
RSTS Operator
P. O'Connor, NRR Project Manager (MS: 11-D-23)
DRS
Chairman Carr (MS: 17-D-1)
RRIs at all sites
Commissioner Rogers (MS: 16-H-3)
Commissioner Curtiss (MS: 16-G-15)
Commissioner Remick (MS: 16-G-3)
J. M. Taylor, EDO (MS: 17-G-21)
J. M. Montgomery
J. T. Gilliland, PAO
C. A. Hackney
Resident Inspector
Lisa Shea, RM/ALF
MIS System
Project Engineer (DRP/C)
DRP
Records Center, INPO
G. F. Sanborn, EO
DRP (2)
A. B. Beach, D:DRSS
L. A. Yandell, DRSS
B. Murray, DRSS
D. A. Powers, DRSS

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76011

Enclosure 1

SEP 18 1990

In Reply Refer To:
Docket: 50-298/90-21

Nebraska Public Power District
ATTN: George A. Trevors, Senior Staff
Advisor - Nuclear Power Group
P.O. Box 499
Columbus, Nebraska 68602-0499

Gentlemen:

This forwards the report of the Systematic Assessment of Licensee Performance (SALP) for Cooper Nuclear Station. The SALP Board met on August 21, 1990, to evaluate Cooper Nuclear Station's performance for the period April 16, 1989, through July 15, 1990. The performance analysis and resulting evaluations are documented in the enclosed initial SALP Board report.

In accordance with NRC policy, I have reviewed the SALP Board assessment and concur with their ratings. It is my view that your conduct of nuclear activities in connection with Cooper Nuclear Station was acceptable and, overall, I am pleased with the continued high level of performance in the areas of plant operations and radiological controls. I am also pleased with the positive steps that have been taken to improve the safety assessment and quality verification area. These steps have resulted in an increase in the SALP rating in this area from a Category 3 last SALP period to a Category 2 this SALP period. In addition, improved performance in the areas of maintenance and surveillance, security, and emergency preparedness was noteworthy. I draw your attention, though, to a common theme throughout our evaluation, which indicates a need to improve the training area. Highlights of the report are set forth below:

(1) The areas of plant operations and radiological controls maintained Category 1 ratings indicating a continued high level of performance in those functional areas.

(2) The areas of maintenance/surveillance, emergency preparedness, and security received Category 2 ratings with improving trends. This reflects an improvement from the Category 2 ratings received during the previous SALP period. In the area of maintenance/surveillance, surveillance activities were considered a strength. Maintenance programs were identified as weak during a maintenance team inspection, but program improvements were being implemented. However, insufficient time had elapsed to determine the effectiveness of these program improvements. In the area of security the SALP Board noted significant improvements in the security programs, hardware, and self-assessment capability.

(3) Performance in the engineering/technical support functional area continued at a Category 2 rating. Corporate engineering has improved the

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timeliness of plant operability calls and support of routine plant activities. However, there exists strong evidence of training weaknesses, and performance on recent operator license examinations has declined. Poor morale was noted in the training department, and the actual staffing level was less than authorized.

(4) The area of safety assessment/quality verification received a Category 2 rating reflecting improvements from the Category 3 rating received during the previous SALP period. Although positive changes occurred within the quality assurance staff, you should determine whether a performance based QA plan can be adequately implemented with your present resources, while maintaining the necessary auditor qualifications and technical expertise. A lack of technical expertise on the QA staff was identified in several functional areas.

A management meeting has been scheduled with you and your staff at 1:30 p.m. on October 9, 1990, at your facility to review the results of the SALP. Within 30 days of this management meeting, you may provide written comments on, and amplification of, as appropriate, the initial SALP report. Your comments, a summary of our meeting, and my disposition of your comments will be issued as an appendix to the enclosed initial SALP report and will constitute the final SALP report.

Sincerely,

John M Montgomery for
Robert D. Martin
Regional Administrator

Enclosure:
Initial SALP Board Report
50-298/90-21

cc w/Enclosure:
Nebraska Public Power District
ATTN: G. D. Watson, General Counsel
P.O. Box 499
Columbus, Nebraska 68602-0499

Cooper Nuclear Station
ATTN: John M. Meacham, Division
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Nebraska Department of Environmental
Control
ATTN: Dennis Grams, Director
P.O. Box 98922
Lincoln, Nebraska 68509-8922

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ATTN: Larry Bohlken, Chairman
Nemaha County Courthouse
1824 N Street
Auburn, Nebraska 68305

Nebraska Department of Health
ATTN: Harold Borchert, Director
Division of Radiological Health
301 Centennial Mall, South
P.O. Box 95007
Lincoln, Nebraska 68509-5007

Kansas Radiation Control Program Director

U.S. Nuclear Regulatory Commission
ATTN: Senior Resident Inspector
P.O. Box 218
Brownville, Nebraska 68321

U.S. Nuclear Regulatory Commission
ATTN: Regional Administrator, Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

UNITED STATES NUCLEAR REGULATORY COMMISSION

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

MEETING

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

APRIL 16, 1989, THROUGH JULY 15, 1990

COOPER NUCLEAR STATION'S

TRAINING FACILITY

OCTOBER 9, 1990

1:30 P.M.

AGENDA

INTRODUCTION AND SALP PRESENTATION	THOMAS P. GWYNN, ACTING DIRECTOR, DIVISION OF REACTOR PROJECTS, NRC REGION IV
NEBRASKA PUBLIC POWER DISTRICT RESPONSE AND COMMENTS	LICENSEE MANAGEMENT AND STAFF
CLOSING REMARKS	THOMAS P. GWYNN

SALP PROGRAM OBJECTIVES

IMPROVE LICENSEE PERFORMANCE

PROVIDE A MECHANISM FOR FOCUSING ATTENTION
ON OVERALL LICENSEE MANAGEMENT EFFECTIVENESS

PROVIDE A BASIS FOR ALLOCATION OF NRC RESOURCES

IMPROVE NRC REGULATORY PROGRAM

PERFORMANCE ANALYSIS AREAS FOR COOPER NUCLEAR STATION

1. PLANT OPERATIONS
2. RADIOLOGICAL CONTROLS
3. MAINTENANCE/SURVEILLANCE
4. EMERGENCY PREPAREDNESS
5. SECURITY
6. ENGINEERING/TECHNICAL SUPPORT
7. SAFETY ASSESSMENT/QUALITY VERIFICATION

FUNCTIONAL AREA PERFORMANCE CATEGORY

CATEGORY 1

LICENSEE MANAGEMENT ATTENTION AND INVOLVEMENT ARE READILY EVIDENT AND PLACE EMPHASIS ON SUPERIOR PERFORMANCE OF NUCLEAR SAFETY OR SAFEGUARDS ACTIVITIES, WITH THE RESULTING PERFORMANCE SUBSTANTIALLY EXCEEDING REGULATORY REQUIREMENTS. LICENSEE RESOURCES ARE AMPLE AND EFFECTIVELY USED SO THAT A HIGH LEVEL OF PLANT AND PERSONNEL PERFORMANCE IS BEING ACHIEVED. REDUCED NRC ATTENTION MAY BE APPROPRIATE.

CATEGORY 2

LICENSEE MANAGEMENT ATTENTION TO AND INVOLVEMENT IN THE PERFORMANCE OF NUCLEAR SAFETY OR SAFEGUARDS ACTIVITIES ARE GOOD. THE LICENSEE HAS ATTAINED A LEVEL OF PERFORMANCE ABOVE THAT NEEDED TO MEET REGULATORY REQUIREMENTS. LICENSEE RESOURCES ARE ADEQUATE AND REASONABLY ALLOCATED SO THAT GOOD PLANT AND PERSONNEL PERFORMANCE IS BEING ACHIEVED. NRC ATTENTION MAY BE MAINTAINED AT NORMAL LEVELS.

CATEGORY 3

LICENSEE MANAGEMENT ATTENTION TO AND INVOLVEMENT IN THE PERFORMANCE OF NUCLEAR SAFETY OR SAFEGUARDS ACTIVITIES ARE NOT SUFFICIENT. THE LICENSEE'S PERFORMANCE DOES NOT SIGNIFICANTLY EXCEED THAT NEEDED TO MEET MINIMAL REGULATORY REQUIREMENTS. LICENSEE RESOURCES APPEAR TO BE STRAINED OR NOT EFFECTIVELY USED. NRC ATTENTION SHOULD BE INCREASED ABOVE NORMAL LEVELS.

PERFORMANCE TREND

THE SALP REPORT MAY INCLUDE AN APPRAISAL OF THE PERFORMANCE TREND IN A FUNCTIONAL AREA FOR USE AS A PREDICTIVE INDICATOR. NORMALLY, THIS PERFORMANCE TREND WILL ONLY BE USED IF BOTH A DEFINITE TREND IS DISCERNABLE AND CONTINUATION OF THE TREND MAY RESULT IN A CHANGE IN PERFORMANCE RATING. THE PERFORMANCE TREND IS INTENDED TO PREDICT LICENSEE PERFORMANCE DURING THE NEXT ASSESSMENT PERIOD AND SHOULD BE HELPFUL IN ALLOCATING NRC RESOURCES.

DETERMINATION OF A PERFORMANCE TREND IS MADE SELECTIVELY AND IS RESERVED FOR THOSE INSTANCES WHEN IT IS NECESSARY TO FOCUS NRC AND LICENSEE ATTENTION ON AN AREA WITH A DECLINING PERFORMANCE TREND OR TO ACKNOWLEDGE AN IMPROVING TREND IN LICENSEE PERFORMANCE.

A TREND IS DEFINED AS:

A. IMPROVING - LICENSEE PERFORMANCE WAS DETERMINED TO BE IMPROVING DURING THE ASSESSMENT PERIOD.

B. DECLINING - LICENSEE PERFORMANCE WAS DETERMINED TO BE DECLINING DURING THE ASSESSMENT PERIOD, AND THE LICENSEE HAD NOT TAKEN MEANINGFUL STEPS TO ADDRESS THIS PATTERN.

EVALUATION CRITERIA

1. ASSURANCE OF QUALITY, INCLUDING MANAGEMENT INVOLVEMENT AND CONTROL

2. APPROACH TO IDENTIFICATION AND RESOLUTION OF TECHNICAL ISSUES FROM A SAFETY STANDPOINT

3. ENFORCEMENT HISTORY

4. OPERATIONAL EVENTS (INCLUDING RESPONSE TO, ANALYSIS OF, REPORTING OF, AND CORRECTIVE ACTIONS FOR)

5. STAFFING (INCLUDING MANAGEMENT)

6. EFFECTIVENESS OF TRAINING AND QUALIFICATION PROGRAM

PLANT OPERATIONS

CATEGORY 1

STRENGTHS

- CONTINUED INVOLVEMENT OF CORPORATE AND PLANT MANAGEMENT
- CONSERVATIVE AND EFFECTIVE OPERATOR PERFORMANCE - CONTROL ROOM PROFESSIONALISM
- EXCELLENT COMMUNICATIONS BETWEEN OPERATIONS STAFF AND OTHER PLANT ORGANIZATIONS
- HARDWARE IMPROVEMENTS

WEAKNESSES

- TRAINING SUPPORT FOR OPERATIONS

RADIOLOGICAL CONTROLS

CATEGORY 1

STRENGTHS

- HIGH QUALITY RADIATION PROTECTION PROGRAM
- STRONG MANAGEMENT SUPPORT
- INTERDEPARTMENTAL INTERFACE
- EFFECTIVE ALARA PROGRAM
- EXTENSIVE DECONTAMINATION EFFORT
- EFFECTIVE RADIOACTIVE WASTE MANAGEMENT AND EFFLUENT CONTROL AND MONITORING PROGRAMS
- EXCELLENT WATER CHEMISTRY PROGRAM

WEAKNESSES

- TRAINING
- LACK OF "EXPERTISE" TO PROVIDE TECHNICAL SUPPORT TO RADIATION PROTECTION MANAGER FROM THE CORPORATE LEVEL

MAINTENANCE/SURVEILLANCE

CATEGORY 2 - IMPROVING

STRENGTHS

- STRONG SURVEILLANCE PROGRAM
- MANAGEMENT INVOLVEMENT
- KNOWLEDGE AND EXPERIENCE LEVEL OF THE CRAFTS
- EXCELLENT INTERDEPARTMENTAL COMMUNICATIONS AND COOPERATION

WEAKNESSES

- MAINTENANCE PROCEDURES/WORK INSTRUCTION
- PREJOB PLANNING
- DOCUMENTATION OF WORK PERFORMED
- CONTROL OF WORK ACTIVITIES

SECURITY

CATEGORY 2 - IMPROVING

STRENGTHS

- EXTENSIVE PERIMETER SECURITY HARDWARE IMPROVEMENTS
- NEW CENTRAL AND SECONDARY ALARM STATIONS
- COMPENSATORY POST REDUCTIONS
- SITE MANAGEMENT INVOLVEMENT

WEAKNESSES

- CORPORATE MANAGEMENT SLOW IN ESTABLISHING AUDIT PROGRAM FOR SAFEGUARDS INFORMATION
- 50.54(P) CHANGE DONE IMPROPERLY

EMERGENCY PREPAREDNESS

CATEGORY 2 - IMPROVING

STRENGTHS

- IMPROVEMENT IN EXERCISE PERFORMANCE
- EVENT DETECTION, CLASSIFICATION, AND RECOMMENDATION OF PROTECTIVE ACTIONS
- MAINTENANCE OF EMERGENCY FACILITIES, EQUIPMENT, AND INSTRUMENTATION
- QUALIFIED AND EXPERIENCED EMERGENCY PLANNING STAFF

WEAKNESSES

- FAILURE TO FOLLOW EMERGENCY NOTIFICATION PROCEDURES
- DOSE ASSESSMENTS
- ACCESS AND EGRESS CONTROL

ENGINEERING/TECHNICAL SUPPORT

CATEGORY 2

STRENGTHS

- WELDING PROGRAM
- MANAGEMENT INVOLVEMENT
- NEW SIMULATOR
- OUTAGE ORGANIZATION

WEAKNESSES

- TRAINING
- MAINTENANCE SUPPORT
  - A) DESIGN AND CONFIGURATION CONTROL
  - B) CONTROL OF VENDOR TECHNICAL INFORMATION
  - C) CONTROL OF ON-THE-SPOT CHANGES
- DESIGN PACKAGE APPROVAL

SAFETY ASSESSMENT/QUALITY VERIFICATION

CATEGORY 2

(FORMERLY CATEGORY 3)

STRENGTHS

- ROOT CAUSE DETERMINATION AND CORRECTIVE ACTIONS
- USE OF EXPERTISE FROM OTHER LICENSEES ON AUDITS
- GENERAL PROGRAM IMPROVEMENTS

WEAKNESSES

- SURVEILLANCES ARE MORE COMPLIANCE ORIENTED THAN PERFORMANCE ORIENTED
- LACK OF TECHNICAL "EXPERTISE" IN HEALTH PHYSICS AUDIT

	PLANT OPERATIONS	RADIOLOGICAL CONTROLS	MAINTENANCE/ SURVEILLANCE	EMERGENCY PREPAREDNESS	SECURITY	ENGINEERING/ TECHNICAL SUPPORT	SAFETY ASSESSMENT/ QUALITY VERIFICATION
ASSURANCE OF QUALITY	+						
APPROACH TO RESOLUTION OF TECHNICAL ISSUES FROM A SAFETY STANDPOINT	+	+					+
ENFORCEMENT HISTORY	+	+	+	+	+		+
OPERATIONAL EVENTS	+	+	+	N/A	+		+
STAFFING	+			+		+	
EFFECTIVENESS OF TRAINING AND QUALIFICATION	−					(−)	−

ATTENDEES

Name	Affiliation
T. Gwynn	NRC-Region IV
J. Jaudon	NRC-Region IV
G. Constable	NRC-Region IV
W. Bennett	NRC-Region IV
G. Pick	NRC-Region IV
T. Quay	NRC-NRR
P. O'Connor	NRC-NRR
H. Parris	NPPD
R. Watkins	NPPD
G. Horn	NPPD
D. Whitman	NPPD
S. Peterson	NPPD
J. Meacham	NPPD
R. Wilbur	NPPD
R. Gardner	NPPD

Enclosure 3

Nebraska Public Power District

GENERAL OFFICE
P.O. BOX 469, COLUMBUS, NEBRASKA 68602-0499
TELEPHONE (402) 564-8561

CNSS902233
October 19, 1990

OCT 25 1990

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

Reference: Docket 50-298/90-21 Report of the Systematic Assessment of Licensee Performance (SALP) for Cooper Nuclear Station during the period from April 16, 1989, through July 15, 1990

Dear Mr. Martin:

We respectfully request your reconsideration of the Category 2 rating awarded to the Cooper Nuclear Station (CNS) Security assessment area. While the referenced report states that this rating is "with improving trends" and that "the SALP Board noted significant improvements in the security programs, hardware, and self-assessment capabilities", we believe that the improvements and accomplishments in the Security area are very significant, and justify a Category 1 rating. Our justification is based on the following Security accomplishments:

- Completion of a $5.7 million Comprehensive Upgrade of the Security System
- Security Personnel Training Improvements
- Security Guard Morale Enhancements (Contractor)
- Increased Management Effectiveness

The scope and significance of each of these accomplishments is detailed in the attachment to this letter. Additionally, three comprehensive inspections by Region IV Security Inspectors and continuous observation by the Resident NRC Inspectors identified a total of four Security Level IV violations during this assessment period. There were no deviations, noncited violations or weaknesses identified during these inspections. One of these violations referred to incidents of badge and vehicle control that occurred during a refueling outage that was in progress early in this rating period. Corrective actions that were implemented at that time virtually eliminated recurrence of these incidents during a subsequent refueling outage which was concluded prior to the end of this assessment period. Additionally, as a result of aggressive security program management during this period, the NRC Security Inspectors were able to close a total of 19 previously identified items, including 7 violations, 6 open items, 3 unresolved items, and 3 LERs.

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As mentioned in the security analysis section of the SALP Report, we submitted Revision 24 to the Security Safeguards Plan under the provisions of 10CFR50.54(p). One of the changes was determined to be inconsistent with these provisions and, therefore, was considered improper. The change was subsequently withdrawn. While not a regulatory requirement, NPPD does not place into effect any submitted changes until your review concurs with our assessment that the changes do not degrade effectiveness. Because of this policy, we do not subscribe to the direction available to a licensee under 10CFR50.54(p)(2). Therefore, since the mentioned change never took effect it should not be viewed as improper but instead mentioned on a positive note.

Again, based upon the explanation provided, we believe a Category I SALP rating in the security area is justifiable. Your reconsideration of the security area SALP rating would be greatly appreciated.

With respect to the remaining functional areas discussed in the SALP report, we are in fundamental agreement with you assessment of each. The District is evaluating the licensee actions which you have recommended and is formulating plans to continue strengthening its performance in all areas. Should you have any questions or comments regarding this response, please contact me.

Sincerely,

G.R. Horn
Nuclear Power Group Manager

GRH:rdw/cml-CNSS902233
Attachment

cc: NRC Resident Inspector
Cooper Nuclear Station

CNS SECURITY IMPROVEMENTS

COMPLETION OF A $5.7 MILLION COMPREHENSIVE UPGRADE OF THE SECURITY SYSTEM.

The District commenced a major upgrade of the CNS security system in 1986. This upgrade was completed in July 1989 at a final cost of approximately 5.7 million dollars. A new electrical duct bank was constructed around the perimeter of the protected area. All of the microwave IDS zones were redesigned to include the addition of several zones, installation of new microwave head mounting posts/brackets, new wiring and additional microwave heads. The protected area fenceline was rebuilt in several areas to provide sharper contrast and reduce the barrier shadowing effect for easier assessment of the isolation zones by the security guardforce. The entire interior isolation zone and portions of the exterior isolation zone were reworked to provide increased soil stabilization and enhanced microwave coverage of the zones.

Illumination of the CNS Isolation Zones and protected area was upgraded to maintain at least 0.2 foot candles. The upgrade lighting is currently of sufficient intensity to allow the security guardforce to observe the protected area by closed circuit TV or by direct means.

An entirely new Closed Circuit Television system was designed and installed which approximately doubled the number of the exterior perimeter cameras. New cameras, wiring, camera towers/mountings and monitors were purchased and installed. A new video switcher was installed in the Central Alarm Station and was programmed to automatically call up two cameras for each IDS zone. This video switcher increased the assessment capability of the console operators in both the Central Alarm Station and Secondary Alarm Station.

The Central Alarm Station and Secondary Alarm Station consoles were replaced with new consoles that enhance the operators ability to observe, communicate and direct the necessary response. The consoles reflect state-of-the-art human factor engineering.

In the Fall of 1989, a new stride breaker fence was completed around the interior isolation zone. This fence approximates a dual perimeter fence that isolates access to the microwave IDS zones. This fence provides additional time to assess Intrusion Detection System alarms and has reduced the occurrence of nuisance alarms.

A vehicle entrapment area was also completed in the Fall of 1989. Normal vehicle and personnel traffic into the protected area and the entrapment area is now isolated while the vehicle is searched. This entrapment area provides additional perimeter security by having a gate barrier in place during all normal vehicle entries/exits of the protected area.

Aircraft cabling was installed during the Fall of 1989 on the portion of the protected area fence not protected by buildings/terrain. This cabling provides a higher degree of protection against a no-notice vehicle bomb threat.

The security system modifications and upgrades completed during the recent SALP evaluation period were extremely comprehensive in nature and resulted in significant improvement in the overall physical security of the station.

SECURITY PERSONNEL TRAINING IMPROVEMENTS

A Security training review committee was established in May, 1989, to evaluate the entire security officer training program. Twelve areas were identified for upgrade and program improvements implemented. The Security Training instructors attended an instructor training course to enhance their abilities and skills. The use of training aids was also greatly expanded. The Security Training classroom was refurnished, expanded, and upgraded. The curriculum of instruction provides more individualized instruction/evaluation with increased instructor participation in on-the-job observation and evaluation. A formalized program of Security Shift Supervisor Training was established in July, 1989 with increased emphasis on contingency events, compensatory measures and 10CFR73.71 reporting.

These security force training improvements resulted in enhanced guard performance and greater security force effectiveness.

SECURITY GUARD MORALE ENHANCEMENTS (CONTRACT FORCE).

In the Spring of 1989, new uniforms were provided to the guard force. These uniforms project a para-military image and promote both a greater sense of pride and a more professional appearance. Additionally, the security officers prefer the comfort and reduced maintenance of the new uniforms.

During the same period the Contract Security Force established "Guard of the Quarter" and "Supervisor of the Year" awards to promote excellence and recognize consistent performance. These awards provide monetary and plaque incentives, along with the resultant recognition by fellow employees and supervision.

The Contract Security Force also established recognition plaques to honor security officers who met specific standards in firearms and physical demands qualifications. The motivation created by these recognition plaques resulted in an average firearms score increase of 14 points and a significant (approximately 600%) increase in the number qualifying for the physical demands recognition.

These moral enhancement measures have resulted in substantial improvement in guardforce motivation and effectiveness.

INCREASED MANAGEMENT EFFECTIVENESS

Several important measures were taken which improved the management effectiveness in the security area during the recent SALP period.

An exchange was established between the CNS and Wolf Creek Quality Assurance Security sections to augment each other's staff during the respective annual security audits. This exchange provided an outside security specialist's review of the effectiveness of the respective plans and procedures.

Improvements in the trending and tracking of events at CNS, and the resultant root cause analyses, have greatly improved the data available for more efficient and effective management overview and corrective action. The significant improvement in this area was noted by the Region IV Security Inspector in March 1990.

Actions taken to reduce the incidents of badges being taken off site include the purchase and installation of an article detector which has virtually eliminated recurrence of this type of incident. The installation of a Personal Identification Number (PIN) system on the entrance turnstiles has effectively eliminated the issuance/usage of an incorrect encoded access badge. A new badge attachment device has significantly reduced incidents of a badge accidently being lost on site. Installation of an alarm on the ignition system of licensee designated vehicles has virtually eliminated all occurrences where the ignition key is not removed when the vehicle is left unattended. These mechanical/electronic improvements indicate a strong commitment by management to eliminate these occurrences. Additionally, if an incident occurs due to personnel error, a letter is written to the offending individual's supervisor requiring a reply with the actions taken to prevent recurrence.

Formalized checklists and procedures were established during this reporting period to evaluate the effectiveness of a security officer at a compensatory post, and to effectively determine the appropriate reporting of safeguards events.

These steps along with the aggressive overall management and overview of the security function, have resulted in a strong highly effective security organization.