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Report Nos.: 50-327/96-03 and 50-328/96-03

Licensee: Tennessee Valley Authority
 6N 38A Lookout Place
 1101 Market Street
 Chattanooga, TN 37402-2801

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License Nos.: DPR-77 and DPR-79

Facility Name: Sequoyah Nuclear Plant Units 1 and 2

Inspection Conducted: March 11-15, 1996

Inspector: W. W. Stansberry 4/4/96
Date Signed
 W. W. Stansberry, Safeguards Inspector

Approved by: P. E. Fredrickson 4/8/96
Date Signed
 P. E. Fredrickson, Chief
 Special Inspection Branch
 Division of Reactor Safety

SUMMARY

Scope:

This routine, announced inspection was conducted in the area of Physical Security Program of Power Reactors. Specific areas evaluated were audits, corrective action, management support, security program plans, effectiveness of managements control, vehicle access, and testing and maintenance.

Results:

In the areas inspected, violations or deviations were not identified. One Inspector follow-up Item (IFI) was found. This IFI was in the area management support. The new security system had not been operational long enough to provide sufficient data for the tracking and trending of this new equipment. Consequently, this area will be reviewed during a later inspection. Audits and corrective actions were timely, thorough, and effective. Effectiveness of management controls were found adequate. Vehicle access control into the protected area and testing and maintenance of security equipment was found to be meeting regulatory and security plan commitments.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *B. Alsup, Quality Assessment Supervisor, Sequoyah Nuclear Plant (SNP)
- *J. Bajraszewski, Licensing Engineering, SNP
- *V. Baumstark, Plant Manager, SNP
- *L. Bergen, Site Vice President, Program Manager, SNP
- *L. Bryant, Outage Manager, SNP
- *G. Enterline, Operations Manager, SNP
- *T. Flippo, Site Support Manager, SNP
- *M. France, Site Security, SNP
- *J. Haemisch, Human Resource Manager, SNP
- *R. Newsum, Corrective Action Manager, SNP
- *S. Piercy, Performance Analysis, SNP
- *J. Robertson, Independent Review and Analysis Manager, SNP
- *J. Setliffe, Site Security Manager, SNP
- *K. Stevens, Security Field Support Supervisor, SNP
- *J. Summy, Assistant Plant Manager, SNP

Other licensee employees contacted during this inspection included engineers, operators, security force members, technicians, and administrative personnel.

U. S. Nuclear Regulatory Commission

- *R. Starkey, Resident Inspector

*Attended exit interview

2.0 Physical Security Program for Power Reactor (81700)

2.1 Audits

Based on the commitments of the Physical Security Plan (PSP), the inspector evaluated the licensee's audit program. This was to ensure compliance with the requirement for an annual audit of the security and contingency programs.

The licensee's program commitments included auditing its security program, including the Safeguards Contingency Plan, at least every twelve months. Persons conducting the audit were independent of both security management and security supervision. The audit included a review of routine and contingency security procedures and practices. Auditors sent their reports to the licensee's plant and corporate management at least one level higher than that having responsibility for the day-to-day plant operation.

The inspector reviewed the following audits:

- * Audit Report Number SSA95002, dated April 19, 1995, conducted February 13 - March 3, 1995;
One weakness found pertaining to a licensee's safeguards procedural requirement.
- * 1995 Safeguards Information Program Evaluation: Report No. TVA/NSC 95-01, dated November 15, 1995, conducted August 16-18, 1995;
No findings were identified during this review.
- * Site Quality Assessment NA-SQ-95-024, Subject: "Security Upgrade Readiness Assessment", dated November 13-30, 1995;
One weakness found pertaining PSP and procedural revisions that contained incorrect or inaccurate information.
- * Audit Number SSA9601, Security and Safeguards Information - TVA Nuclear Power Wide, conducted January 22 - March 8, 1996;
There were no findings, five "other conditions", and no recommendations. The "other conditions" were nonregulatory procedural/program implementation deficiencies.

Each audit report indicated that the security and safeguards information programs meet regulatory and TVA requirements. Since the items identified by the above audits were nonregulatory, the follow up corrective actions were not reviewed. Licensee-conducted audits were thorough, complete, and effective in terms of uncovering weaknesses in the security system, procedures, and practices.

There were no violations of regulatory requirements found in this area.

2.2 Corrective Actions

During the inspection, a small representative sample of the problems identified by audits, inspections, and safeguards event logs (SELs) was evaluated by the inspector to determine whether review and analysis were appropriately assigned, analyzed and prioritized for corrective action and whether the corrective action taken was technically adequate and performed in a timely manner. There were no licensee event reports (LERs) pertaining to security since the last inspection. In addition, audit corrective actions were discussed in paragraph 2.1.

A review of the last five quarterly SELs (1st-4th Quarter 1995 and 1st Quarter 1996) revealed the following:

- a. Human/Personnel Errors (PE)- During an outage, 4th quarter 1995, the largest number of PE events occurred (15). The range of PE during the five quarters reviewed was from 4-15 events.
- b. Hardware Errors (HE)- Again, during the 4th quarter, the largest number of HE events occurred (111). Most of these events were Closed Circuit Television (CCTV) Environs (11.9 percent) and

Perimeter Intrusion Detection System Failures (43.7 percent). The majority of these events were attributed to the integration of the old and new security systems.

Summary of the last five quarterly security events logs:

<u>QUARTER</u>	<u>HUMAN ERRORS</u>	<u>HARDWARE SYSTEMS ERRORS</u>	<u>TOTAL</u>
1-'95	11	44	55
2-'95	4	41	45
3-'95	13	58	71
4-'95	15	111	126
5-'96	8	101	109

Figures prior to the 4th quarter were from the old security system. The last two quarters have indicated the new security systems start-up problems. These system integration problems should continue to decrease as the system becomes completely integrated and operational. For this reason, the tracking and trending of the security system event entries in the SEL will be reviewed again at a later inspection. It was too early to determine the systems effectiveness based upon the above figure. Consequently, a Inspector Follow-up Item (IFI) Number 96-03-01 will be issued to track this action.

There were nine open work order requests (WOR). The oldest WOR was dated April 20, 1995, a planned major maintenance item, pertaining to access doors. The other eight WORs were minor maintenance items.

The inspector determined that all the above items were reviewed, appropriately assigned, analyzed and prioritized for corrective action. The corrective actions taken were technically adequate and performed in a timely manner.

There were no violations of regulatory requirements found in this area.

2.3 Management Support

The inspector evaluated the degree of the licensee's management support to the site's physical security program. Based on the requirements contained in the PSP, the inspector reviewed the audits and the SEL entries. The quality of management support was determined by reviewing the security organizational structure, level of staffing, the time allowed for training, frequency of training, provisions for motivation of the security staff, and monetary resources allocated for the program.

The licensee had an onsite physical protection system and security organization. Their objective was to provide assurance against an unreasonable risk to public health and safety. The security organization and physical protection system was designed to protect against the design basis threat of radiological sabotage. A proprietary security force implemented the site security program. At least one full-time manager of the security organization was always onsite. This individual had the authority to direct the physical protection activities of the organization. The management system included a mechanism for establishing, maintaining, and enforcing written security procedures. These procedures documented the structure of the security

organization, and detailed the duties of security force and other individuals responsible for security. Licensee's management system provided for written approval of procedures and revisions thereto by the individual who had general responsibility for security functions. Licensee management exhibited an awareness and favorable attitude toward physical protection requirements.

A comparison of the site security weekly activity report of January 30 - February 6, 1995 to the February 26 - March 3, 1996 report, indicated the following:

- a. The security organizational structure has not significantly changed. However, the level of staffing has significantly decreased from total headcount of 145 in January 1995 to 115 as of this inspection. This downsizing did not have any observable negative effect upon the operational performance of the security force.
- b. The annual leave hours decreased by 1.6 percent.
- c. The sick leave hours decreased by .8 percent.
- d. The overtime hours decreased by 403 hours or 3.9 percent
- e. Training hours increased by 4 hours per week.

The plant recognition and award program and the Rising Above Program provided awards down to the lowest pay level of site personnel. Site security provided awards to security force personnel for exceptional performance.

The inspector found that the licensee provided appropriate and adequate support for the physical security program. The 37 million dollar security upgrade program was 95 percent complete as of this inspection. The low number of human error events, low number of backlogged maintenance report requests and the decreased annual and sick leave, and overtime hours, and the increased hours of training demonstrated that there was appropriate station personnel and organizational support. This also was based on the review of the records and interviews with management, support, and security personnel.

There were no violations of regulatory requirements found in this area.

2.4 Security Program Plans

The inspector reviewed appropriate chapters of the licensee's PSP and Safeguards Contingency Plan, revision 0, dated November 20, 1995, the Security Personnel Training and Qualification Plan (T&QP), revision 21, dated July 11, 1994 and Site Security Procedure Physis - 32, appendix C and N.

Review of the November 1995 plan change to the PSP submitted for approval verified the licensee's compliance to the requirements of 10 CFR 50.54(p). The random review by the inspector of plans, records, reports and logs, and interviews with appropriate individuals verified that plan changes had not decreased the effectiveness of the physical security program.

There were no violations of regulatory requirements found in this area.

2.5 Effectiveness of Management Control

The inspector evaluated the effectiveness of the licensee's controls for identifying, resolving and preventing problems by reviewing such areas as corrective action systems, root cause analyses, and self-assessment in the areas of physical security. Also the licensee's controls were reviewed to determine whether there were strengths or weaknesses for identification and resolution of the issues which could enhance or degrade plant operations or safety.

Initial identification of problems was accomplished basically by four indicator systems:

- Quality Assurance Audits
- Safeguards Event Log and Licensee Event Reports
- Security Maintenance Work Order Requests
- Licensee Events Reports

The quality assurance audits were discussed in paragraph 2.1. The SELs and LERs were discussed in paragraphs 2.2 and 2.3. The low number of security maintenance work order requests was discussed in paragraph 2.3. The above indicators/items demonstrated the following strengths and weaknesses in the effectiveness of management control:

- Strengths - Minimal back orders of maintenance/repair requests.
 - SEL reportable events response.
 - Thorough audit programs.
 - Security hardware upgrade program.
- Weaknesses - Reportable events trend increased.

Evaluation of the effectiveness of management control of the above noted areas indicated that management was adequately controlling and managing the security program.

There were no violations of regulatory requirements found in this area.

3.0 Protected Areas Access Control - Vehicles (81074)

The inspector evaluated the licensee's program to control access of vehicles to the protected area according to criteria in Chapters 5 of the PSP. This was to ensure that the licensee had positive access controls of vehicles entering and within the protected area.

Security personnel searched certain delivered packages and materials, approved by NRC and specifically designated by the licensee, within vital or protected areas. This was for reasons of safety, security, or operational necessity. Vehicle searches included a search of the cab, engine compartment, undercarriage and cargo areas.

The inspector observed two bulk cargo trucks searched at the vehicle access gate. At 1:56 p.m., March 12, a solid waste truck was searched, then escorted with an armed security force member. At 3:07 p.m., March 14, a TVA dump truck loaded with gravel was searched and escorted into the protected area. The bulk cargo in both vehicles was not searched because the licensee does not commit to searching bulk cargo, and it is not a regulatory requirement.

The inspector found the following circumstances concerning vehicle access control. Individuals who controlled the admittance control hardware that allowed vehicle access to the protected area were in a bullet resistant enclosure. Security force personnel escorted nondesignated vehicles while within the protected area. They were off-loaded in the protected area at specifically designated materials receiving areas that was not next to a vital area. Licensee-designated vehicles were limited to onsite plant use and remained in the protected area except for operational, maintenance, repair, security, and emergency purposes. The licensee exercised positive control over designated vehicles to assure that only authorized persons used them for authorized purposes. The licensee had compensatory measures for defective or inoperative vehicle search equipment.

This evaluation of the access controls for vehicles into the protected area revealed that the criteria in Chapters 5.5 of the PSP were carried out.

There were no violations of regulatory requirements found in this area.

4.0 Testing and Maintenance (81042)

The inspector evaluated the licensee's program for testing and maintenance of security equipment. This was to ensure the reliability of physical protection-related equipment and security-related devices; and licensee's compliance with the criteria in Chapters 8 and 10 of the PSP.

The licensee's program for testing and maintenance was established to ensure that physical protection-related equipment met the general performance requirements. Appropriate onsite personnel tested and maintained the security-related devices and equipment in an operable condition. The licensee employed compensatory measures that included equipment, additional security personnel, and procedures to ensure compliance to the commitments within the PSP. Each intrusion alarm was tested for performance at the beginning and end of any period in which it was used but at least every seven days during continuous use.

Compensatory measures, which equaled the failed or damaged component of the security system were reviewed. These measures consisted of equipment, additional security force personnel and specific procedures to assure that the effectiveness of the security system was not reduced.

At 7:45 p.m., on March 12, the inspector observed the seven day testing of the protected area intrusion detection devices from the Central Alarm Station (CAS). Forty three of the 64 zones were observed being tested by a security officer via the CCTV assessment equipment. The zones that did not pass the testing were promptly posted/compensated as required. Several times during

this inspection, the inspector observed testing and maintenance personnel working with the access control devices at the protected area entry point. No problems were observed with that equipment.

Through observations, interviews, and documentation review, the inspector concluded that the licensee used programs that will ensure the reliability of security related equipment and devices. This evaluation also verified that the licensee employed compensatory measures when security equipment fails or its performance was impaired.

There were no violations of regulatory requirements found in this area.

5.0 Review of UFSAR Commitments

A recent discovery of a licensee operating their facility in a manner contrary to the Updated Final Safety Analysis Report (UFSAR) description highlighted the need for a special focused review that compares plant practices, procedures and/or parameters to the UFSAR descriptions. During a portion of the inspection period (March 11-15, 1996) the inspector reviewed the applicable sections of the UFSAR and Security Program Plans that related to the inspection areas discussed in this report. The inspector verified that the UFSAR wording was consistent with the observed plant practices, procedures and/or parameters.

6.0 Exit Interview

The inspection scope and results were summarized on March 15, 1996, with those persons indicated in paragraph 1. The inspectors described the areas inspected and discussed in detail the inspection results. Proprietary information is not contained in this report. Dissenting comments were not received from the licensee.