UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

June 21, 2001

EA-01-116
EA-01-117
EA-01-118

Southern Nuclear Operating Company, Inc.
ATTN: Mr. D. N. Morey
Vice President
P. O. Box 1295
Birmingham, AL 35201

SUBJECT: FARLEY NUCLEAR PLANT - NRC INSPECTION REPORT 50-348/01-07 AND 50-364/01-07

Dear Mr. Morey:

On July 14, 2000, the NRC completed a safety inspection at your Farley facility. The enclosed report presents the results from our continuing review of that inspection.

This inspection involved an in-office evaluation of three Unresolved Items identified in NRC Inspection Report 50-348,364/00-09, forwarded to you on October 13, 2000. The evaluation involved (1) Unresolved Item 50-348,364/00-09-01, Failure to consider all safety significant equipment in determining a target set to protect against the Design Basis Threat, (2) Unresolved Item 50-348,364/00-09-02, Failure to prevent mock adversaries from gaining access to three target sets, and (3) Unresolved Item 50-348,364/00-09-03, Five Physical Security Plan changes that decreased the Plan's effectiveness without Commission approval. These issues were left unresolved pending the NRC's finalization of a Significance Determination Process for the Physical Protection Cornerstone, and review of regulatory requirements associated with these items. For your information, on January 25, 2001, the Commission approved an interim Significance Determination Process for the Physical Protection Cornerstone (found on the NRC Web site at http://www.nrc.gov/NRC/IM/index.html, MC 0609E). That approved Significance Determination Process was used to perform an initial evaluation of two of those three Unresolved Items (target set adequacy and force-on-force exercises).

As described in Section 4OA5 of this report, your performance during force-on-force drills was assessed using the significance determination process and was preliminarily determined to be Yellow, i.e., an issue with substantial importance to safety that will result in additional NRC inspection and potentially other NRC action. The finding appears to have substantial safety significance due, in part, to the failure to adequately perform multiple portions of the response strategy. The details of our review are discussed in the enclosed report. The circumstances surrounding these findings were discussed with you and members of your staff at the inspection exit meeting on August 25, 2000, and June 21, 2001.

Before the NRC makes a final decision on this matter, we are providing you an opportunity to request a Regulatory Conference where you would be able to provide your perspectives on the significance of the finding and the bases for your position. If you choose to request a Regulatory Conference, we encourage you to submit your evaluation and any differences with the NRC evaluation at least one week prior to the conference in an effort to make the conference more efficient and effective. If a conference is held, it will be closed to public observation because of the discussion of safeguards information.

In addition, based on our review of Unresolved Item 50-348,364/00-09-03, the NRC has determined that this issue represents five apparent violations of 10 CFR 50.54(p). The apparent violations are being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions - May 1, 2000" (Enforcement Policy), NUREG - 1600, as amended December 18, 2000. These apparent violations were not evaluated under the significance determination process because they appear to have impacted the NRC's ability for oversight of licensed activities, and as such will be evaluated in accordance with guidance in Sections IV.A.1 through IV.A.4 and Section IV.B of the NRC's Enforcement Policy. The details of our review of the security plan changes are discussed in the enclosed inspection report.

A closed predecisional enforcement conference to discuss these apparent violations has tentatively been scheduled for July 23, 2001. The decision to hold a predecisional enforcement conference does not mean that the NRC has determined that a violation has occurred or that enforcement action will be taken. This conference is being held to obtain information to assist the NRC in making an enforcement decision. This may include information to determine whether a violation occurred, information to determine the significance of a violation, information related to the identification of a violation and information related to any corrective actions taken or planned. The conference will provide an opportunity for you to provide your perspective on these matters and any other information that you believe the NRC should take into consideration in making an enforcement decision. This conference will be closed to public observation in accordance with Section V of the Enforcement Policy.

Please contact Mr. Stephen J. Cahill at (404) 562-4520 within seven days of the date of this letter to notify the NRC of your intentions regarding the Regulatory Conference for the preliminary Yellow finding. If we have not heard from you within 10 days, we will continue with our significance determination and associated enforcement processes on this finding and you will be advised by separate correspondence of the results of our deliberations on this matter. Please be aware that, should you desire a Regulatory Conference, NRC will attempt to conduct it in sequence with the already scheduled predecisional enforcement conference.

Since the NRC has not made a final determination in this matter, no Notice of Violation is being issued for the inspection findings at this time. In addition, please be advised that the number and characterization of the apparent violations described in the referenced inspection report may change as a result of further NRC review.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system

(ADAMS). ADAMS is accessible from the NRC website at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

If you have any questions regarding this letter, please contact me at 404-56-4600.

Sincerely,

***/RA By Harold Christensen Acting For/***

Charles A. Casto, Director
Division of Reactor Safety

Docket Nos.: 50-348 and 50-364
License Nos.: NPF-2 and NPF-8

Enclosure: NRC Inspection Report 50-348/01-07 AND 50-364/01-07

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PUBLIC DOCUMENT (circle one): **YES** NO

| OFFICE | RII:DRS | RII:DRS | RII:RC | NRR:SEC | RII:DRP | RII:EICS | |
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| NAME | DTHOMPSON | KBARR | CEVANS | RALBERT | SCAHILL | ABOLAND | |
| DATE | 6/21/2001 | 6/21/2001 | 6/08/2001 | 6/14/2001 | 6/11/2001 | 6/19/2001 | 6/ /2001 |
| E-MAIL COPY? | YES NO | YES NO | YES NO | YES NO | YES NO | YES NO | YES NO |

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**U. S. NUCLEAR REGULATORY COMMISSION (NRC)**

REGION II

| | |
|---|---|
| Docket Nos.: | 50-348 and 50-364 |
| License Nos.: | NPF-2 and NPF-8 |
| Report Nos.: | 50-348/01-07 and 50-364/01-07 |
| Licensee: | Southern Nuclear Operating Company, Inc. (SNC) |
| Facility: | Farley Nuclear Plant, Units 1 and 2 |
| Location: | 7388 N. State Highway 95<br>Columbia, AL 36319 |
| Dates: | May 1, 2001 - June 21, 2001 |
| Inspectors: | D. Thompson, Physical Security Inspector |
| Approved by: | Kenneth P. Barr, Chief<br>Plant Support Branch<br>Division of Reactor Safety |

## SUMMARY OF FINDINGS

IR 05000348-01-07, IR 05000364-01-07, on 05/01/2001 - 06/21/2001, Southern Nuclear Operating Company, Joseph M. Farley Nuclear Plant, Units 1 & 2, Operational Safeguards Response Evaluation, Open Item Inspection Report

This inspection consisted of an in-office examination of three Unresolved Items (URI) identified in NRC Inspection Report 50-348,364/00-09. The review was conducted by a regional physical security inspector. The inspector identified one preliminary Yellow finding, one Green finding, and one issue involving five apparent violations of 10 CFR 50.54(p). The issue involving the five apparent violations was dispositioned outside the Significance Determination Process (SDP), in accordance with Section IV.A.1 through IV.A.4 and Section IV.B of the Enforcement Policy. The significance of most inspection findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter 0609, Significance Determination Process (SDP). Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at http://www.nrc.gov/NRR/OVERSIGHT/index.html.

Inspector Identified Findings.

Cornerstone: Physical Protection

- Green. The inspector identified that the licensee failed to consider all safety significant equipment when determining target sets that need to be protected against the Design Basis Threat.

  This finding was determined to be of very low significance because no intrusion occurred and there was not two or more similar findings in four quarters. (Section 4OA5)

- To Be Determined. The licensee's protective strategy failed during force-on-force exercises in that the licensee failed to prevent the mock adversaries from gaining access to target sets in two of four exercises and the simulated destruction of the significant plant equipment during a third exercise.

  This finding appears to have substantial safety significance, in part, due to the failure to adequately perform multiple portions of the response strategy. Specifically, the security force failed to effectively interpose themselves between an external mock adversary force and vital areas prior to penetration into these areas, numerous responders were unable to deploy from their normal day-to-day positions without being vulnerable to the adversary, and some responders in the owner controlled area had lengthy response times and were unable to effectively deploy into the protected area in time to be effective against adversary actions. The performance failures resulted in the loss of a target set during each of two exercises, and the loss of other significant plant operation safety equipment during a third exercise further demonstrated significant multiple strategy implementation problems. The finding is considered generally predictable, repeatable, and a broad programmatic problem in that, during three of four exercises,

similar adversary actions were not effectively countered by the responding security force, leading to the loss of target sets or significant safety equipment. (Section 4OA5)

- No Color. The inspector identified five apparent violations of 10 CFR 50.54(p), involving improper changes that the licensee had made to the Physical Security Plan.

  The Physical Security Plan changes were significant in that they decreased the effectiveness of the Security Plan by (1) changing the response strategy to not engage an adversary prior to entrance into the Vital Areas; (2) not preventing acts intended to cause a significant release of radioactivity; (3) reducing search requirements which provided a potential pathway for unauthorized items to be introduced into the protected area; (4) replacing an automatic switch over capability in the power supply for the two-way radio system and implementing a manual action for switch over; and (5) replacing supervision of alarm security data lines with cross monitoring. (Section 4OA5)

## Report Details

4. OTHER ACTIVITIES

4OA5 Response to Contingency Events

.1 (Closed) URI 50-348,364/00-09-01, Failure to consider all safety significant equipment in determining a target set to protect against the Design Basis Threat. Using the Significance Determination Process (SDP), this finding was evaluated as a vulnerability of safeguards systems or plans. Since no intrusion occurred, the significance evaluation considered if there were two or more similar findings in four quarters. Since there was not more than two similar findings in four quarters, the finding regarding the adequacy of the target set analysis was determined to be Green. The NRC also concluded that this finding did not involve a violation of regulatory requirements.

.2 (Open) URI 50-348,364/00-09-02, Failure to prevent mock adversaries from gaining access to three target sets. Based on the force-on-force exercises and additional evaluation, it was determined that the licensee's protective strategy was ineffective in that mock adversaries were successful in simulating the destruction of the intended target sets in two of four exercises. Additionally, during a third force-on-force exercise, the response force failed to prevent the simulated destruction of significant safety equipment by the mock adversary.

Based on the force-on-force exercises, the NRC concluded that this finding represented a failure to adequately perform multiple portions of the response strategy, in that the licensee failed to prevent the mock adversaries from gaining access to two target sets. Specifically, the detected or attempted intrusion at the protected area barrier did not provide sufficient time for a security response force to engage an adversary force to preclude penetration of vital area barriers and any act intended to cause a significant release of radioactivity. Numerous responders were unable to deploy from their normal positions without being vulnerable to the adversary, and some responders in the owner controlled area had lengthy response times and were unable to effectively deploy into the protected area in time to be effective during an adversary action. The performance failures resulted in the loss of at least two target sets during the exercises, and the loss of other significant plant safety equipment during a third exercise. The NRC concluded that this finding is generally predictable, repeatable, and a broad programmatic problem in that, during three exercises, similar adversary actions were not effectively countered by the responding security force, leading to the loss of target sets or significant safety equipment. This finding is preliminarily characterized as a Yellow finding in accordance with the Physical Protection SDP.

.3 (Closed) URI 50-348,364/00-09-03, Five Physical Security Plan (PSP) changes submitted that decreased the Plan's effectiveness without Commission approval. This unresolved item involved a review of five changes that the licensee had made to the PSP that:

- decreased the effectiveness of the PSP by changing the response strategy to not engage an adversary prior to entrance into the Vital Areas;

- decreased the effectiveness of the PSP by not preventing any act intended to cause a significant release of radioactivity;

- decreased the effectiveness of the PSP by reducing search requirements which provided a potential pathway for unauthorized items to be introduced into the protected area;

- decreased the effectiveness of the PSP by replacing an automatic switch over capability in the power supply for the two-way radio system and implementing a manual action for switch over; and,

- decreased effectiveness of the PSP by replacing supervision of alarm security data lines with cross monitoring.

The NRC has determined that these changes represented five apparent violations of 10 CFR 50.54 (p), in that the changes decreased the effectiveness of the PSP. These apparent violations are being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions - May 1, 2000" (Enforcement Policy), NUREG-1600. These apparent violations were not evaluated under the SDP because of their potential to impact the NRC's ability for oversight of licensed activities, and as such were evaluated in accordance with guidance in Section IV.A.1 through IV.A.4 and Section IV.B of the NRC's Enforcement Policy. For tracking purposes, these apparent violations (AV) are identified as AV 50-348,364/01-07-01, 02, 03, 04, and 05, respectively.

4.

4OA6 Management Meetings

.1 Exit Meeting Summary

These inspection results were presented to D. Morey and other members of licensee management by telephone at the conclusion of the inspection on June 21, 2001. The licensee acknowledged the findings presented.

## PARTIAL LIST OF PERSONS CONTACTED

Licensee
Mr. D. Morey, Site Vice President
Mr. M. Stinson, Plant Manager
Mr. K. Dyer, Site Security Manager

NRC
Mr. H. Christensen, Deputy Director, Division of Reactor Safety, RII
Mr. S. Cahill, Chief, Reactor Projects Branch 2, RII
Mr. K. Barr, Chief, Plant Support Branch, RII
Mr. D. Thompson, Security Inspector

## ITEMS OPENED, CLOSED OR DISCUSSED

Opened

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|---|---|---|
| 50-348,364/01-07-01 | AV | PSP changes that decreased the effectiveness of the security force to respond to events to engage an adversary prior to entrance into the Vital Areas (4OA5). |
| 50-348,364/01-07-02 | AV | PSP changes that decreased the effectiveness of the security force to prevent any act intended to cause a significant release of radioactivity (4OA5). |
| 50-348,364/01-07-03 | AV | PSP changes that decreased the search requirements which provided a potential pathway for unauthorized items to be introduced into the protected area (4OA5). |
| 50-348,364/01-07-04 | AV | PSP change to the power supply for the two-way radio system which may result in the loss of radio communications during critical periods (4OA5). |
| 50-348,364/01-07-05 | AV | PSP change that decreased the capability to detect intrusion and detection alarm transmission line tampering (4OA5). |

Closed

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|---|---|---|
| 50-348,364/00-09-01 | URI | Failure to consider all safety significant equipment in determining a target set to protect against the Design Basis Threat (4OA5) |
| 50-348,364/00-09-03 | URI | Five Physical Security Plan changes submitted that decreased the Plan's effectiveness without Commission approval (4OA5) |

Previous Items Discussed

| | | |
|---|---|---|
| 50-348,364/00-09-02 | URI | Failure to prevent mock adversaries from gaining access to three target sets (4OA5) |