



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET, SW, SUITE 23T85  
ATLANTA, GA 30303-8931

December 29, 2006

EA-06-013

Southern Nuclear Operating Company, Inc.  
ATTN: Mr. L. M. Stinson  
Vice President  
P. O. Box 1295  
Birmingham, AL 35201-1295

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT - NOTICE OF VIOLATION AND  
PROPOSED IMPOSITION OF CIVIL PENALTY, NRC INSPECTION REPORT  
NO. 05000321/2006014 AND 05000366/2006014

Dear Mr. Stinson:

This refers to an inspection completed on August 18, 2006, at your Edwin I. Hatch Nuclear Plant. The purpose of the inspection was to review the control and accounting program for special nuclear material (SNM) at the facility. The results of the inspection, including the identification of an apparent violation involving the material control and accounting (MC&A) program as required by 10 CFR 74.19, was transmitted to you in NRC Inspection Report No. 05000321,366/2006-401, dated November 20, 2006. The cover letter to the inspection report provided Southern Nuclear Operating Company, Inc. (SNC) with the opportunity to address the apparent violation identified by either attending a predecisional enforcement conference or by providing a written response before we made our final enforcement decision. In a letter dated December 6, 2006, you provided a written response to the apparent violation.

Based on the information developed during the inspection and the information that you provided in your written response, the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the subject inspection report. In summary, SNC was unable to account for the equivalent of approximately 18 inches of irradiated fuel rods (fragments), based on a comparison of book inventory records of SNM from its MC&A program and visual verification efforts (physical inventory). The NRC concluded that SNC's actions in this regard were in violation of 10 CFR 74.19(a), (b), and (c), in that it failed to maintain complete and accurate records of all SNM possessed; failed to establish, maintain, and follow written MC&A procedures sufficient to account for the SNM; and failed to conduct a physical inventory of all SNM possessed at least every 12 months.

The NRC considers the failure of SNC's MC&A program to account for all SNM to be a significant safety and safeguards issue. MC&A programs are designed to prevent the loss or theft of SNM, and to enable timely detection if loss or theft occurred. In this case, a significant failure in your MC&A program designed to prevent and detect the theft, loss, or diversion of SNM existed for several years. In accordance with the NRC Enforcement Policy, this violation is characterized at Severity Level II to reflect the appropriate level of Agency concern. The NRC

has concluded from inspections that it is highly unlikely that any material was removed from the plant or is at an uncontrolled location and because of the extensive radiological and security measures in place, the fuel pieces that cannot be accounted for likely remain in the spent fuel pool.

In accordance with the Enforcement Policy, a base civil penalty in the amount of \$104,000 is considered for a Severity Level II violation. Because this violation has been characterized at Severity Level II, the NRC considered whether credit was warranted for *Identification* and *Corrective Action* in accordance with the civil penalty assessment process in Section VI.C.2 of the Enforcement Policy.

Regarding the factor of *Identification*, the NRC concluded that, on balance, sufficient opportunity existed for SNC to reconcile MC&A issues such that this matter could have reasonably been identified well before SNC's records review in 2004 and spent fuel pool inspections in 2005. Evidence of unaccounted for rod fragments appeared as early as 1981. In addition, the NRC Resident Inspector conducted Phases I and II of Temporary Instruction 2515/154, "Spent Fuel Material Control and Accounting at Nuclear Power Plants", at the facility in February 2004, thus bringing questions about MC&A program effectiveness to the attention of SNC. As such, the NRC has concluded that credit is not warranted for the factor of *Identification*.

Credit is warranted for the factor of *Corrective Action*, based on the results of an NRC inspection completed on August 18, 2006 (NRC Inspection Report No. 05000321,366/2006-401). In summary, the NRC's inspection confirmed that: (1) all located SNM-bearing pieces were included in the physical inventory records; (2) the SNM physical inventory procedure was revised to include instructions for administrative handling of SNM pieces; and (3) personnel assigned to SNM accounting activities had been trained on the new requirements for tracking and inventorying SNM and SNM-bearing pieces. SNC's letter of December 6, 2006, also documented the use of state-of-the-art technology in order to characterize, quantify, and encapsulate SNM found during its review of this matter. On November 10, 2005, the licensee also notified the NRC of this matter in accordance with 10 CFR 20.2201(a)(1)(ii).

Therefore, to emphasize the importance of identification of violations and to emphasize the importance of the MC&A program, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Materials, Waste, Research, State, Tribal, and Compliance Programs, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the base amount of \$104,000 for this Severity Level II violation. The NRC also notes that a base civil penalty is normally proposed for a violation characterized at Severity Level II, in accordance with the NRC Enforcement Policy.

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and the date when full compliance was achieved is adequately addressed on the docket in SNC's letter of December 6, 2006, and in NRC Inspection Report No. 05000321,366/2006-401. Therefore, you are not required to respond to the violation unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

For administrative purposes, this letter is being issued as NRC Inspection Report No. 05000321/2006014, 05000366/2006014, and the above violation is identified as follows: VIO 05000321,366/2006014-001, Failure to keep adequate records of all SNM possessed; failure to establish, maintain, and follow adequate material control and accounting procedures; failure to include all SNM possessed in annual physical inventories. Accordingly, apparent violation 05000321,366/2006401-001 is closed.

In accordance with 10 CFR 2.390 and the NRC's "Rules of Practice," a copy of this letter and enclosures 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/reading-rm/adams.html> (The Public Electronic Reading Room).

Should you have any questions concerning this letter, please contact Mr. Charles Casto, Director, Division of Reactor Projects, at (404) 562-4500.

Sincerely,

**Doug Collins /RA for/**

William D. Travers  
Regional Administrator

Docket Nos. 50-321, 50-366  
License Nos. DPR-57 and NPF-5

cc w/encl: (See page 4)

Enclosures:

1. Notice of Violation and Proposed Imposition of Civil Penalty
2. NUREG/BR-0254

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PUBLICLY AVAILABLE    NON-PUBLICLY AVAILABLE    SENSITIVE    NON-SENSITIVE

ADAMS: YES   ACCESSION NUMBER: ML070090039

OFFICE	RII:ORA	RII:DRP	RII:OE			
SIGNATURE	CFE /RA/	HOC/RA for/				
NAME	CEVANS	CCASTO	CCARPENTER			
DATE	12/27/2006	12/27/2006				
E-MAIL COPY?	YES   NO	YES   NO	YESNO	YES   NO	YESNO	YES   YESNO

cc w/encls:

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Distribution w/encl: (See page 5)

Letter to L.M. Stinson from William Travers dated December 29, 2006

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT - NOTICE OF VIOLATION AND  
PROPOSED IMPOSITION OF CIVIL PENALTY, NRC INSPECTION  
REPORT NO. 05000321/2006014 AND 05000366/2006014

Distribution w/ encls:

L. Reyes, EDO  
M. Virgilio, DEDMRT  
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K. Clark, RII  
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OEMAIL  
PUBLIC

## NOTICE OF VIOLATION

Edwin I. Hatch Nuclear Plant  
Units 1 and 2

Docket Nos.: 50-321, 50-366  
License Nos.: DPR-57 and  
NPF-5  
EA-06-013

During a NRC inspection that concluded on August 18, 2006, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the NRC proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violation and associated civil penalty is set forth below:

10 CFR 74.19(a)(1), (b) and (c) (formerly 10 CFR 70.51(b)(1), (c) and (d)) requires, in part, that each licensee shall keep records showing the receipt, inventory (including location and unique identity), acquisition, transfer, and disposal of all special nuclear material (SNM) in its possession regardless of its origin or method of acquisition. In addition, each licensee that is authorized to possess SNM in a quantity exceeding one effective kilogram at any one time shall establish, maintain, and follow written material control and accounting (MC&A) procedures that are sufficient to enable the licensee to account for the SNM in its possession; and each licensee who is authorized to possess SNM, at any one time and site location, in a quantity greater than 350 grams of contained uranium-235, uranium-233, or plutonium, or any combination thereof, shall conduct a physical inventory of all SNM in its possession under license at intervals not to exceed 12 months.

Contrary to the above,

- From November 1981, when records first indicated the existence of spent fuel rod fragments in the spent fuel pools (SFPs), the licensee, authorized to possess SNM in a quantity exceeding one effective kilogram, failed to keep records showing the inventory (including location and unique identity), transfer or disposal of SNM contained in approximately 233 inches of irradiated fuel rod fragments.
- From November 1981, when records first indicated the existence of spent fuel rod fragments in the SFPs, the licensee, authorized to possess SNM in a quantity exceeding one effective kilogram, failed to establish, maintain, and follow written MC&A procedures sufficient to enable the licensee to account for the SNM in its possession under license. Specifically, the licensee failed to implement procedures which included provisions for inventorying and accounting for approximately 233 inches of spent fuel rod fragments in the SFPs. The licensee's failure to implement adequate MC&A procedures resulted in failure to account for approximately 18 inches of irradiated fuel rods (fragments).
- From November 1981, when records first indicated the existence of spent fuel rod fragments in the SFPs, the licensee, authorized to possess SNM in a quantity exceeding one effective kilogram, failed to include spent fuel rod fragments in their annual physical inventories of SNM possessed.

This is a Severity Level II violation (Supplement III).  
Civil Penalty - \$104,000 (EA-06-013).

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and the date when full compliance was achieved is already adequately addressed on the docket in SNC's letter of December 6, 2006, and in NRC Inspection Report Nos. 05000321,366/2006-401. Therefore, you are not required to respond to this Notice. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation - EA-06-013," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, Region II, and a copy to the NRC Resident Inspector at the facility that is the subject of this Notice, within 30 days of the date of the letter transmitting this Notice.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

You may pay the civil penalty proposed above in accordance with NUREG/BR-0254 and by submitting to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, a statement indicating when and by what method payment was made, or may protest imposition of the civil penalty in whole or in part, by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should you fail to answer within 30 days of the date of this Notice of Violation and Proposed Imposition of Civil Penalty, an order imposing the civil penalty will be issued. Should you elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation listed in this Notice, in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section VI.C.2 of the Enforcement Policy should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.



Your response (if you choose to provide one) will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request that such material is withheld from public disclosure, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

Dated this 29th day of December 2006