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HL-1643
001646

May 23, 1991

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
RESPONSE TO INSPECTION REPORT 91-06

Gentlemen:

In response to your letter of April 25, 1991, and in accordance with the provisions of 10 CFR 2.201, Georgia Power Company (GPC) is providing the enclosed response to the Notice of Violation associated with NRC Inspection Report 91-06. A copy of this response is being provided to NRC Region II for review. In the enclosure, a transcription of the NRC violation precedes GPC's response.

Should you have any questions in this regard, please contact this office.

Sincerely,

W. G. Hairston, III

JKD/cr

Enclosures

cc: (See next page.)

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1/1

Georgia Power

cc: Georgia Power Company
Mr. H. L. Sumner, General Manager - Nuclear Plant
Mr. J. D. Heidt, Manager Engineering and Licensing - Hatch
NORMS

U.S. Nuclear Regulatory Commission, Washington, D.C.
Mr. K. Jabbour, Licensing Project Manager - Hatch

U.S. Nuclear Regulatory Commission, Region II
Mr. S. D. Ebneter, Regional Administrator
Mr. L. D. Wert, Senior Resident Inspector - Hatch

ENCLOSURE 1

PLANT HATCH - UNITS 1 AND 2
NRC DOCKETS 50-321 AND 50-366
OPERATING LICENSES DPR-57 AND NPF-5
VIOLATION 91-06-01 AND GPC RESPONSE

VIOLATION 91-06-01

10 CFR 70.51(c) requires that each licensee who is authorized to possess at any time special nuclear material (SNM) in the quantity exceeding one effective kilogram of special nuclear material shall establish, maintain and follow written material control and accounting procedures which are sufficient to enable the licensee to account for SNM in his possession under license.

10 CFR 70.51(c) requires, in part, that each licensee who is authorized to possess at any one time and location SNM in a quantity totaling more than 350 grams of contained uranium-235, uranium-233, or plutonium, or any combination thereof, shall conduct a physical inventory of all SNM in his possession under license at intervals not to exceed 12 months.

Standard Operating Procedure (SOP) 42FH-ENG-030-0S, "Special Nuclear Material Inventory and Transfer Control," Section 7.3, Physical Inventories, states that a physical inventory of all SNM in the plant's possession shall be conducted at intervals not to exceed six months. This SOP further states that items other than fuel containing SNM (SNM sealed sources) must meet the requirements for physical inventories at intervals not to exceed six months and a physical inventory of the affected ICAs (Internal Control Areas) will be conducted after each receipt, transfer, and/or shipment of SNM sealed sources. Paragraph 7.3.5 of this SOP further states that, a physical inventory of all non-fuel SNM will be conducted at least once every six months and that a partial inventory (for affected ICAs or storage areas) will be conducted whenever items are received, shipped, moved from the warehouse, installed in the core, or removed from the core.

Contrary to the above requirements, from 1982 to the November 19, 1990, facility physical inventories were not conducted in a manner that was sufficient to account for all SNM in possession under license, and partial physical inventories reflecting the results of transfers and movements of SNM of affected ICAs have not been conducted as required.

This is a Severity Level IV violation (Supplement III).

RESPONSE TO VIOLATION 91-06-01

Admission or denial of violation:

The violation occurred as described in the Notice of Violation.

ENCLOSURE 1 (Continued)

VIOLATION 91-06-01 AND GPC RESPONSE

Reason for the violation:

The violation was caused by less-than-adequate procedures governing the control of nonfuel Special Nuclear Material (SNM). In 1982, the Plant Hatch Reactor Engineering Department reclassified spent detectors as sealed sources rather than SNM and transferred responsibility for their control and tracking to the Health Physics and Chemistry (HP&C) Department. However, plant procedures were not adequately revised to reflect the change in responsibility and to ensure the spent detectors would continue to be labeled, tracked, and controlled as SNM.

Over the 8-year period addressed in the violation, the detectors that were removed from service were not tracked in accordance with SNM accountability requirements. Specifically,

1. Procedure 42FH-ENG-030-0S, "Special Nuclear Material Inventory and Transfer Control," did not require documentation of partial inventories.

2. Plant procedures did not require HP&C personnel to be contacted when detectors were replaced.

3. Plant procedures did not require the spent detectors to be labeled as SNM.

4. Controls that would have prevented the detectors from being discarded as radioactive waste were not in place. The SRM and IRM spent detectors were not adequately controlled, and as a result, were not included in the appropriate SNM inventory records.

Therefore, during the subject time period, the detectors, in all probability, were discarded as radioactive waste rather than included in the SNM inventory maintained by HP&C.

The physical inventories performed during the 8-year period were performed using inventory records that did not reflect the addition of spent detectors. As a result, the records reflected only the number of spent detectors on hand at the time inventory and control responsibilities were transferred from Reactor Engineering to HP&C. Since the spent detectors removed from the core were likely discarded and not added to the actual inventory of detectors on hand, no discrepancies between the actual count and the book count were noted. After Reactor Engineering personnel performed an exhaustive records search of Purchase Orders for SRM and IRM detectors, the book count was updated to reflect the total number of detectors that should have been on hand. On November 19, 1990, Reactor

Engineering personnel performed an inventory using the updated records and found a 31-detector discrepancy between actual detectors on hand and detectors shown in inventory.

Corrective steps which have been taken and results achieved:

Procedures 42FH-ENG-030-0S, "Special Nuclear Material Inventory and Control," and 40AC-ENG-007-0S, "Control of Special Nuclear Material," have been revised to explicitly delegate the responsibility for control and accountability of spent SRM and IRM detectors to Reactor Engineering. Reactor Engineering is solely responsible for controlling, tracking, and performing inventories of all SNM, including SNM sealed sources.

In addition, the following plant procedures, which cover the handling of nonfuel SNM (i.e., receipt and warehousing of new detectors and removal and replacement of spent detectors), were reviewed to ensure controls of these activities were adequate:

1. Procedure 26MC-MTL-001-0S, "Materials Receiving," requires all radioactive and special nuclear material be handled in accordance with the requirements of procedures 62RP-RAD-010-0S, "Receipt of Radioactive Material," and 40AC-ENG-007-0S. When material is received, warehouse personnel routinely check the stock number on the computerized material inventory to determine where the material is to be stored. The computer flags the stock numbers for nonfuel SNM as "Special Nuclear Material." In this way, warehouse personnel know the material is SNM, even if the packaging and paperwork do not clearly identify it as such. It also is standard practice for warehouse personnel to notify Reactor Engineering when nonfuel SNM is received and label the material as SNM when it is placed in storage.

   SNM in the form of fuel is handled differently in that it is not processed through the warehouse. Instead, prior to shipping fuel to the plant, the manufacturer directly notifies Reactor Engineering of the date and time of the fuel's arrival. Upon delivery of the fuel to the plant, Security Department personnel notify Reactor Engineering who, in turn, notifies the manufacturer. The fuel is then moved directly to a predetermined Item Control Area (ICA) per the approved transfer authorization.

2. Procedures 52GM-C51-001-0S, "LPRM Removal and Installation," and 57GM-C51-002-0S, "SRM, IRM Detectors and Drives Removal and Installation," cover removal of spent nonfuel SNM detectors. Both procedures require an approved transfer authorization be obtained prior to beginning work. Procedure 52GM-C51-001-0S contains additional notes

and cautions at appropriate points within the body of the procedure reiterating the requirement that an approved transfer authorization listing the Local Power Range Monitors (LPRMs) to be removed and replaced must be obtained before work can begin. Furthermore, the physical nature of the spent LPRMs, four detectors encased in a 40-foot long tube which must be handled underwater due to the radiation hazard, minimizes the possibility of them being inadvertently discarded as radioactive waste.

Procedure 42FH-ENG-030-0S has been revised to require that partial physical inventories be documented. This revision became effective on May 17, 1991.

Corrective steps which will be taken to avoid further violations:

Procedure 26MC-MTL-007-0S, "Material Identification and Issue Control," currently is under development. This procedure will formalize the above-mentioned process for labeling nonfuel SNM and will require SNM to be marked with additional tags indicating who is authorized to approve its release from the warehouse. This will ensure Reactor Engineering is aware of any additions to the physical inventory of nonfuel SNM and new detectors and that they are not released from the warehouse without proper authorization. Procedure 26MC-MTL-001-0S will be revised to formalize the existing process of checking stock numbers on the computerized material inventory and notifying Reactor Engineering of the receipt of nonfuel SNM by August 15, 1991.

Although procedure 57GM-C51-002-0S appears to be adequate, there are areas where it can be strengthened. Specifically, it does not contain any steps requiring that Reactor Engineering be notified when a spent detector is removed or where it has been placed. The procedure also does not require the spent detector (or its container) to be marked as SNM to preclude its being mistaken for waste before the detector can be moved to its permanent storage location. Consequently, procedure 57GM-C51-002-0S will be revised to require that a Reactor Engineer or designee be present when the spent detector is to be removed so that the detector can be moved to its permanent storage location. These enhancements will be incorporated into the procedure August 15, 1991.

Date when full compliance will be achieved:

Full compliance was achieved on November 19, 1990 when the physical inventory of the spent SRM and IRM detectors was performed.

ENCLOSURE 2
PLANT HATCH - UNITS 1 AND 2
NRC DOCKETS 50-321 AND 50-366
OPERATING LICENSES DPR-57 AND NPF-5
VIOLATION 91-06-02 AND GPC RESPONSE

VIOLATION 91-06-02

10 CFR 70.51(c) requires that each licensee who is authorized to possess at any time SNM in the quantity exceeding one effective kilogram of SNM shall establish, maintain and follow written material control and accounting procedures which are sufficient to enable the licensee to account for SNM in his possession under license.

SOP 40AC-ENG-007-0S, "Control of Special Nuclear Material," requires the licensee to establish and maintain an SNM control program which includes procedures and instructions for receipt, transfer, inventory, analysis, storage and assigned sealed sources and to restrict the use of SNM to locations and purposes authorized in the license. Paragraph 8.3.5 states that all transfers of SNM will be documented.

SOP 42FH-ENG-030-0S, "Special Nuclear Material Inventory and Transfer Control," requires the licensee to conduct physical inventories and to document the use and control of movements of SNM.

Contrary to the above requirements, from 1982 to November 19, 1990, facility approved material control and accounting procedures were inadequate in that they lacked sufficient detail to enable the licensee to account for SNM in his possession under license, to conduct quality physical inventories, or to document the movement of SNM transfers onsite or offsite.

This is a Severity Level IV violation (Supplement III).

RESPONSE TO VIOLATION 91-06-02

Admission or denial of violation:

The violation occurred as described in the Notice of Violation.

Reason for violation:

The violation was caused by less-than-adequate procedures governing the control of nonfuel Special Nuclear Material (SNM). As explained in the response to Violation 91-06-01 (Enclosure 1), the responsibility for inventory and control of spent Source Range Monitor (SRM) and Intermediate

VIOLATION 91-06-02 AND GPC RESPONSE

Range (IRM) Monitor detectors was transferred from Reactor Engineering to the Health Physics and Chemistry (HP&C) Department. However, plant procedures were not adequately revised to reflect the change in responsibility, resulting in deficiencies relative to the responsibilities for the labeling, tracking, and controlling of spent detectors. Consequently, spent detectors were not controlled upon permanent removal from the core and apparently were inadvertently discarded as radioactive waste. Authorization for their transfer and disposal was not obtained. Inventory records were not updated because controls were inadequate to ensure the inventory was updated when the detectors were removed from the core.

Corrective steps which have been taken and results achieved:

The corrective steps that have been taken for Violation 91-06-02 are the same as those taken for Violation 91-06-01. (See Enclosure 1.)

Corrective steps which will be taken to avoid further violations:

The corrective actions that will be taken for Violation 91-06-02 are the same as those that will be taken for Violation 91-06-01. (See Enclosure 1.)

Date when full compliance will be achieved:

Plant Hatch is in full compliance with all requirements regarding the possession and handling of SNM.

ENCLOSURE 3

PLANT HATCH - UNITS 1 AND 2
NRC DOCKETS 50-321 AND 50-366
OPERATING LICENSES DPR-57 AND NPF-5
VIOLATION 91-06-03 AND GPC RESPONSE

VIOLATION 91-06-03

10 CFR 70.51(c) requires that each licensee who is authorized to possess, at any time, SNM in the quantity exceeding one effective kilogram of SNM shall establish, maintain and follow written material control and accounting procedures which are sufficient to enable the licensee to account for SNM in his possession under license.

10 CFR 70.41(a) requires that each licensee shall confine his possession and use of SNM to the locations and purposes authorized in his license.

SOP 40AC-ENG-007-0S, "Control of Special Nuclear Material," Section 8.8 states that SNM program records shall include records for receipt, acquisition, physical inventories of SNM, records of transfers of SNM and records of disposal of SNM.

Contrary to the above requirements, from 1982 to November 19, 1990, unauthorized transfers and disposal of SNM were conducted. During this period, the licensee failed to control the use of SNM in his possession as authorized by license and failed to maintain records supporting the transfer and disposal of Source Range Monitor (SRM) and Intermediate Range Monitor (IRM) incore detectors as required.

This is a Severity Level IV violation (Supplement III).

RESPONSE TO VIOLATION 91-06-03

Admission or denial of violation:

The violation occurred as described in the Notice of Violation.

Reason for violation:

The violation was caused by less-than-adequate procedures governing the control of nonfuel Special Nuclear Material (SNM). As explained in the response to Violation 91-06-01 (Enclosure 1), the responsibility for inventory and control of spent Source Range Monitor (SRM) and Intermediate Range (IRM) Monitor detectors was transferred from Reactor Engineering to the Health Physics and Chemistry (HP&C) Department. However, plant procedures were not adequately revised to reflect the change in responsibility, resulting in deficiencies relative to the responsibilities for the labeling, tracking, and controlling of spent detectors.

VIOLATION 91-06-03 AND GPC RESPONSE

Consequently, spent detectors were not controlled upon permanent removal from the core and apparently were inadvertently discarded as radioactive waste. Authorization for their transfer and disposal was not obtained. Inventory records were not updated because controls were inadequate to ensure the inventory was updated when the detectors were removed from the core.

Corrective steps which have been taken and results achieved:

The corrective steps that have been taken for Violation 91-06-03 are the same as those taken for Violation 91-06-01. (See Enclosure 1.)

Corrective steps which will be taken to avoid further violations:

The corrective actions that will be taken for Violation 91-06-03 are the same as those that will be taken for Violation 91-06-01. (See Enclosure 1.)

Date when full compliance will be achieved:

Plant Hatch is in full compliance with all requirements regarding the possession and handling of SNM.

ENCLOSURE 4

PLANT HATCH - UNITS 1 AND 2
NRC DOCKETS 50-321 AND 50-366
OPERATING LICENSES DPR-57 AND NPF-5
VIOLATION 91-06-04 AND GPC RESPONSE

VIOLATION 91-06-04

10 CFR 70.52(a) requires that each licensee shall notify the NRC Operations Center within one hour after the discovery of any case of accidental criticality or loss, other than normal operating loss, of SNM.

10 CFR 70.52(b) requires that each licensee who possesses one gram or more of contained uranium-235, or plutonium shall notify the NRC Operations Center within one hour after the discovery of any loss or theft or unlawful diversion of special nuclear material which the licensee is licensed to possess or any incident which an attempt has been made or is believed to be have been made to commit a theft or unlawful diversion of such material.

10 CFR 70.52(c) requires, in part, that this notification must be made to the NRC Operations Center via the Emergency Notification System (ENS) if the licensee is party to that system and that the licensee must ensure that the report is received by the NRC Operations Center within one hour.

Contrary to the above requirements, the licensee failed to report the loss of SNM to the NRC, via the ENS, within the allocated time constraints as required. Following the discovery of the loss of SNM on November 19, 1990, the licensee verbally notified the site Resident Inspector of the matter. The licensee's corporate office telephonically notified the Region II office of the loss of SNM on February 12, 1991. The licensee also provided Region II with a written report (dated February 14, 1991) of their investigation of this issue. This written investigation report was received in the Region II office on February 20, 1991. These reports were not made within the required time constraints nor were they made in the manner required by regulatory requirements.

This is a Severity Level IV violation (Supplement III).

RESPONSE TO VIOLATION 91-06-04

Admission or denial of violation:

The violation occurred as described in the Notice of Violation.

VIOLATION 91-06-04 AND GPC RESPONSE

Reason for the violation:

The violation was caused by a misinterpretation of 10 CFR 70.52 reporting requirements. Plant and Corporate Licensing personnel believed the 31 spent Source Range Monitor (SRM) and Intermediate Range Monitor (IRM) detectors that were not included in the SNM inventory were not lost. That is, personnel believed the spent detectors had been buried as radioactive waste in a licensed radioactive material disposal site. Therefore, the location of the spent detectors was thought to be known. The assumed location did not present a threat to the public, since it was a licensed disposal site.

It should be noted offsite NRC personnel were contacted for assistance in determining whether this event was reportable per the requirements of 10 CFR 70.52. They too apparently misinterpreted the requirements because the verbal direction provided to GPC personnel was that the event was not reportable per 10 CFR 70.52 requirements. The NRC's advice confirmed GPC Licensing personnel's interpretation that the event need not be reported via a 1-hour phone notification. GPC informally inquired as to what time frame would be appropriate for reporting such an occurrence and was verbally informed that 90 days was reasonable. This guidance appeared consistent with that provided to another Region II BWR on a very similar issue. Consequently, GPC submitted a written report on February 14, 1991 (i.e., within 90 days of November 19, 1990).

Corrective steps which have been taken and the results achieved:

Appropriate Plant and Corporate Licensing personnel have been made aware of the correct interpretation of the reporting requirements of 10 CFR 70.52.

Corrective steps which will be taken to avoid further violations:

No further corrective actions to prevent recurrence are necessary.

Date when full compliance will be achieved:

Plant Hatch is presently in full compliance with the reporting requirements regarding SNM.