94-013
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GE Nuclear Energy

Nuclear Fuel & Components Manufacturing
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March 4, 1994

Director
Office of Enforcement
U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

Subject: REPLY TO NOTICE OF VIOLATION

References:
(1) NRC License SNM-1097, Docket 70-1113
(2) NRC Inspection Report 93-12, 1/19/94
(3) Enforcement Conference Summary, 2/3/94
(4) Notice of Violation (NRC Inspection Report No. 70-1113/93-12), 2/4/94

GE Nuclear Energy hereby responds to the Notice of Violation dated February 4, 1994, that resulted from the NRC inspection conducted at our licensed fuel fabrication facility by Mr. C. H. Bassett during December 28-30, 1993.

Our reply to the items of apparent noncompliance with NRC requirements is provided as an attachment to this letter. In addition, our response describes particular actions taken and planned to further improve and place a continued high level of management attention on our criticality safety program.

The inspection report comments and suggestions are helpful to us in our constant efforts to improve our programs, ensure the continued health and safety of plant personnel, and ensure our compliance with NRC regulations and license conditions.

Neither your inspection report referred to above nor our response contains information which we believe to be proprietary.

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We welcome further discussions with you or your staff as you deem necessary.

Sincerely,

GE NUCLEAR ENERGY

T. Preston Winslow, Manager
EP&S and MC&A

/zb
attachments

cc: Stewart D. Ebneter, Region II
TPW-94-026

ATTACHMENT 1

The information given below refers to the Notice of Violation dated February 4, 1994, relative to NRC Inspection Report 93-12.

Violation

Condition S-1 of Special Nuclear Materials License No. SNM-1097 authorizes use of special nuclear material in accordance with the statements, representations and conditions of Part I of the license application dated October 23, 1987, and the supplements thereto.

Part I, Chapter 2, Section 2.7.3 of the license application requires that changed activities not be initiated until the nuclear safety analysis demonstrating safety of the activity has been completed, a preoperational inspection has been conducted to verify that the installation is in accordance with the nuclear criticality safety analysis, and appropriate procedures and/or instructions are in place.

The nuclear criticality safety analysis contained in Facility Change Request No. 1138, dated February 7, 1977, indicated that a safe geometry of volume of less than 29 liters must be maintained. A preoperational audit requirement specified in the analysis required that the sumps and collection vessels be safe volumes. An annotation on an attachment to the Facility Change Request indicated that the sump would be maintained as a safe volume (19.7 liters) for the 4B press by drilling a one-inch hole through the cover plate of the sump at a point approximately 4 inches above the bottom of the sump.

Contrary to the above, changed activities related to the use of rotary pellet press 4B were initiated without an adequate preoperational inspection being conducted to verify that installation was in accordance with the nuclear criticality safety analysis in that there was no one-inch hole drilled in the sump so that a safe volume would be maintained as required in the nuclear criticality safety analysis. Also, appropriate procedures and/or instructions were not in place in that there were no procedures and/or instructions to require that the sump be checked to ensure that this control was maintained. In addition, changed activities associated with the installation of pellet presses 7B and 3B did not include the conduct of preoperational inspections to verify that installation was in accordance with the nuclear criticality safety analysis requirement that safe volumes be maintained for the sumps in these presses in that no holes were drilled in the sumps. Also, appropriate procedures and/or instructions were not in place to ensure this control was maintained.

ATTACHMENT 1

The time periods during which operation occurred without these controls and procedures and/or instructions being in place were 1977 through 1989 for press 4B, 1980 through December 21, 1993 for press 7B, and 1990 through December 21, 1993 for press 3B.

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

GE Response to Violation

GE concurs with the violation. The problem was rooted in changes made in 1977/80 wherein the change process was not adequately adhered to resulting in incomplete procedural and operating controls being implemented. The original safety basis was applied to changes until the problem was identified by us in December, 1993.

The situation was identified by a GE shop operator on December 21, 1993. GE management promptly notified the NRC and voluntarily elected to shut down all rotary presses. A "root cause" investigation was initiated by GE management and extensive corrective actions were completed prior to restart of the rotary presses. Physical changes were made to all the rotary presses to physically limit the potential for accumulation of nuclear material, procedural changes were made to institute periodic inspections and cleanouts, and the nuclear criticality safety basis was revalidated for the rotary presses. Once these actions were completed, new procedures were written to address the material accumulation control issues and the operators and maintenance personnel were trained to these new procedures and sensitized to material accumulation issues.

We believe we have taken the necessary corrective actions to be in full compliance with respect to the rotary presses. Notwithstanding this, we have initiated an inspection of all uranium handling equipment and areas for potential accumulation of uranium bearing materials throughout the fuel manufacturing processes. The findings from this "process-wide-inspection" are being used to identify where additional documented periodic verifications need to be implemented and the procedures and training modified to support this need.

Also as part of our continuous improvement activities, we are working to revalidate the criticality safety basis for key operations in the ceramic area over the next 8-12 months. The primary drivers for this revalidation include input from the process-wide-inspection and audit findings, the volume and form of material processed, the complexity of the safety controls and the machine/work station design.

Full compliance has been achieved with respect to the rotary press controls. Our continuous improvement activity will further enhance and strengthen our criticality safety program.