

# GENERAL ELECTRIC

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NUCLEAR ENERGY  
PRODUCTS DIVISION

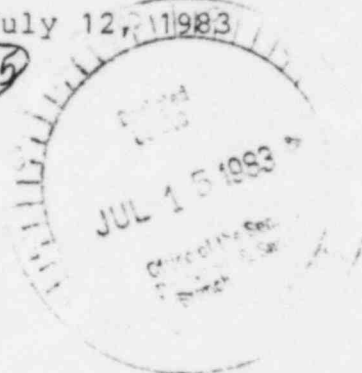
WILMINGTON MANUFACTURING  
DEPARTMENT

SECRET NUMBER  
PROPOSED FILE

PR-20  
448FR 20721

*See Comment No. 5*

July 12, 1983



Secretary of the Commission  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Attention: Docket & Service Branch

Gentlemen:

Reference: Letter, CM Vaughan to Secretary of Commission,  
6/23/83

Attached is a copy of the above referenced letter which has been revised to include several quantity notations which were inadvertently omitted due to an inoperable typing element on our word processor. Please replace the letter in your files with the attached.

Very truly yours,

GENERAL ELECTRIC COMPANY

*Richard F. Leach for*

Charles M. Vaughan, Manager  
Licensing & Nuclear Materials Management  
M/C J26

CMV:bsd  
Attachment

cc: Mr. Donald O. Nellis,  
NRC Project Director  
M/S 1130SS

*DS 10  
add: Donald O. Nellis, 1130SS*

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NUCLEAR ENERGY  
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WILMINGTON MANUFACTURING  
DEPARTMENT

June 23, 1983

Secretary of the Commission  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Attention: Docketing and Service Branch

Gentlemen:

Reference: FR/Vol. 48, No. 90, 5/9/83: 10 CFR Part 20,  
Reports of Theft or Loss of Licensed Material

General Electric operates a large low enriched uranium fuel fabrication plant for the manufacture of boiling water reactor fuel in Wilmington, North Carolina. The facility is licensed under USNRC, Special Nuclear Materials License SNM-1097.

In responding to the request for comments to the referenced proposed NRC action, our comments are specifically addressed to Parts 20, 70, and 73 because these are the most applicable regulations to our operations.

General Electric concurs with the NRC conclusion that the current reporting requirements for loss, theft and attempted theft of various nuclear materials are in need of re-evaluation and revision. It is apparent that as regulations have evolved over time, there has been an extensive promulgation of reporting requirements which has lead to confusion and uncertainty among licensees. The subject of loss or theft of materials is covered in many regulatory references: 10 CFR 20.402, 30.55, 40.64, 50.72, 70.52, 73.27(b), 73.67(e)(3)(vi), 73.67(g)(3)(iii), 73.71, 150.17, and 150.19. The wording in each case is different. Because each was individually developed at separate times and in free-standing issues, their reporting requirements tend to overlap. As a result, in most situations more than one of the regulations appears to apply - causing licensee confusion and inconsistency.

We believe that the NRC should define the objective of all reporting requirements and then promulgate a proposed rule which meets it. In our opinion, the most important NRC objective should be to protect the public health and safety, and specifically in this issue to protect the public from undue radiological exposure. 10 CFR 20.204 would, therefore, be the appropriate place in the regulations to establish the criteria for uniform reporting requirements. Once this is issued, parts 30, 40, 50, 70, 73, and 150 should be revised to reference 20.204.

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However, the proposed revision to 10 CFR 20.204 falls extremely short of an appropriate regulatory objective, in that it is excessively restrictive for certain types of materials, and it increases the regulatory burden on the licensee.

Specific comments on the proposed rule are as follows:

- 1) 20.402(a)(1) uses the term "immediately" without defining - practical guidelines for compliance and therefore interjects a judgemental element into the regulation.

We recommend that "immediately" be replaced by: "as soon as possible, and in all cases within four hours". This wording clearly conveys a sense of urgency and establishes a practical bound while providing time for the reporting licensee to accumulate the facts necessary to provide a meaningful report.

- 2) Appendix C of Part 20 applies to continuous releases by licensees to sanitary sewer systems. The Appendix C limits, specified on the basis of the probability that the waste water could be recycled into potable water supplies, are extremely low. They cannot be reasonably applied to single events such as losses or thefts.

In addition, Appendix C values for material of concern to GE-Wilmington are inappropriate. For example, Appendix C specifies a lower limit for released U-235 activity which is higher by a factor of 10,000 than the value for released U (natural). These relative limits are not supported by currently accepted standard as published in ICRP Publication 30 (1979). The ICRP 30 limits for intake of U-235 and U-238 are equal on an activity basis.

A more rational approach would be to derive an equivalent quantity of LEU equal in hazard to the 15 pounds of natural uranium specified in 10 CFR 40.64 (c). When this is done the equivalent quantity of 20% enriched uranium is 1.06 pounds.

To implement this rationale into the current proposal, Appendix C should be modified to include a material classification of Uranium (low enriched, <20% U-235). The microcurie value for this material should be 500  $\mu$ Ci as a practical limit for radiological concern.

- 3) Notwithstanding the above, we believe that any reference to Appendix C is inappropriate in the proposal. The NRC is now actively developing a major revision to 10 CFR 20 which will completely eliminate Appendix C in its present form. Therefore, if the current proposal is implemented it will shortly become obsolete and unworkable when the revised 10 CFR 20 is issued.

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It is apparent that the NRC should consider an alternate method for establishing the trigger limits which apply to reporting requirements. We propose that when this is done a specific line item be defined for uranium (<20% U-235) with a reporting limit of 5000  $\mu$ Ci.

- 4) 20.402(c) defines lost or missing material as "material whose location is unaccounted for." The term "unaccounted for" is not qualified and is subject to many different interpretations depending upon the type of material, the facility, and other applicable provisions of CFR and licenses.

We propose the phrase "unaccounted for" be written to read "unaccounted for after the licensee has exercised all approved procedures for item/inventory control reconciliation and is still unable to define the disposition of the material, and excluding any inventory differences determined pursuant to Part 70".

General Electric will be happy to discuss the proposed revisions to Part 20.204 and our comments as you deem necessary.

Sincerely yours,

GENERAL ELECTRIC COMPANY

*CM Vaughan*

CM Vaughan, Manager  
Licensing & Nuclear Materials Management  
M/C J26

CMV/cd