GE Nuclear Energy

General Electric Company
175 Curtner Avenue, San Jose, CA 95125

December 22, 1989
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MFN 100-89

Mr. E. William Brach, Chief
Vendor Inspection Branch
US Nuclear Regulatory Commission
Mail Station P1-137
Washington, DC 20555

Subject: **PROCUREMENT OF PARTS UNIQUE TO NUCLEAR APPLICATIONS**

Dear Mr. Brach:

The attached paper outlines certain problems GE is experiencing in procuring replacement parts for safety-related components. By our interpretation of 10CFR21, we cannot always meet the literal definition of Commercial Grade procurement for some parts, but neither are we able in these instances to practically procure the parts as safety-related basic components. We have outlined an alternate procedure for procurement of these parts. We believe this provides equivalent protection of the public health and safety. We are submitting the procedure for your review and concurrence.

It is essential that we reach agreement with the NRC on a basis for procurement of these parts, as failure to do so would mean that we could not support the continued use of these components by our utility customers.

GE-NE believes that the procurement and dedication process outlined in the attachment is in full compliance with the intent of the Commercial Grade category of 10CFR21 for supplying high-quality replacement parts. Such parts supplied by GE will fully meet the critical characteristics required for dedication as safety-related parts. Therefore, it is GE-NE's position that the safety performance of the component purchased by this procedure is fully maintained.

Because of GE-NE's commitment to support our customers in their plant operation by providing high-quality safety-related components, we believe it is necessary to supply parts on the basis outlined. As we

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believe we are complying with the intent of 10CFR21 and that the safety of the plants is not adversely impacted, we intend to continue to follow this practice during your review of this letter.

Sincerely,

R. C. Mitchell

R. C. Mitchell, Manager
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Mail Code 687, Phone (408) 925-2755

rmw

cc B. K. Grimes, USNRC
C. E. Rossi, USNRC
L. S. Gifford
P. W. Marriott

Purchase of Parts Unique to Nuclear

Background

GE is encountering difficulty in purchasing certain spare parts for safety-related components. There are parts which cannot be purchased as safety-related, but which do not technically meet the definition of Commercial Grade items because they are uniquely applied to the nuclear industry. These parts fall into three general categories, as follows:

1) Parts where the vendor declines to participate as a "safety-related" supplier. An example of this is the Swiss-supplied Seitz hermetically sealed solenoids and air valves. These parts are made to the original safety-related specifications by Seitz. The parts provided are very high-quality parts that are manufactured to the requirements of a 10CFR50 Appendix B program, but Seitz will not provide them as safety-related because of the legal ramifications of 10CFR21. Nevertheless, the parts do not meet the Commercial Grade exemptions because they are uniquely designed for and used in nuclear plants.

2) Parts where GE developed the design for BWR applications, now owns the design, and must purchase replacement parts from non-safety-related suppliers for the safety-related components. The volume of these parts does not justify a vendor setting up a safety-related manufacturing process. Thus, they can't be purchased safety-related but don't meet the Commercial Grade screen, as they are unique to nuclear. An example of this is the Dikkers Safety Relief Valve (SRV).

3) Parts where the vendor does not fully meet the 10CFR21 criteria for Commercial Grade supply. Examples are not having the part listed in a catalog, or where GE-NE finds it necessary to specify additional testing and material certification requirements which go beyond normal industrial requirements. These additional requirements assure full functional equivalence to the original part being replaced by the currently manufactured catalog item.

Method of Procurement

In each of the types of procurement outlined above the replacement parts will be purchased in a manner so as to ensure that the safety-related integrity of the component is maintained. The parts will be dedicated by a procedure that is the same as existing procedures for dedication of commercial grade items.

The parts are procured to an engineering design specification, which defines the specific materials and processes to be used in manufacturing. It sets forth critical characteristics required for the parts to filfill their safety function. GE performs QA audits and inspections at the

vendor's facility to assure that the design specification is being satisfied.

After receipt of the part by GE, an approved dedication process is followed. Critical characteristics of the part are confirmed and necessary testing and analyses are performed. After completing the dedication, the part is declared safety related and delivered to the customer with a Certificate of Qualification. We believe this method of procurement fully meets the intent of the requirements of 10CFR21 for Commercial Grade parts being dedicated for safety-related application.

Responsibility for Reportability

One of the key requirements of 10CFR21 is the evaluation and subsequent reporting, if appropriate, of any non-compliances discovered regarding the basic component. GE accepts that responsibility for all aspects of procurement of parts to the procedure outlined above.

In the case where we own the design, we are in the best position to understand and ensure that the design specification is followed. Deviations would be evaluated by GE to determine their significance, and any necessary reporting would be made in accordance with 10CFR21.

In the case of vendors who sell suitably high-quality components, but decline to manufacture safety-related parts to a full 10CFR50 Appendix B program and to accept the responsibility of complying with 10CFR21, we expect (but do not rely upon) vendor cooperation in notifying us of any deviations they discover. We will evaluate those, as well as any which might be noted during our dedication process.

Where additional test and/or material certifications have been required for these unique to nuclear applications, the documentation and acceptability for application of the replacement part is enhanced, not diminished.

GE's responsibility for the 10CFR21 evaluation and reporting requirements in such cases will ensure the thorough and effective evaluation of deviations from the design requirements.

Summary

GE believes that this method of procurement of replacement parts for safety-related components fully conforms to the intent of 10CFR21 and is at least equivalent to the purchase of Commercial Grade items for subsequent dedication. Its implementation allows us to continue to provide high-quality, safety-related replacement parts to our utility customers for nuclear applications. This is accomplished in the face of circumstances which often make it impractical, or even impossible, to procure them either as safety-grade basic components or as fully, technically Commercial Grade items.