

DS09  
M. Mayfield

NEI  
RECEIVED

62 FR 52166  
Oct. 6, 1997

NUCLEAR ENERGY 1998 FEB-3 AM 11:20

RULES & DIR. BRANCH  
US NRC

Anthony R. Pietrangelo  
DIRECTOR, LICENSING  
NUCLEAR GENERATION

February 2, 1998

Mr. David L. Meyer  
Chief, Rules Review and Directives Branch  
Office of Administration, Mail Stop T6-D59  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555-0001

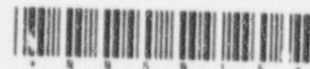
**SUBJECT:** Industry Comments on Draft Regulatory Guide DG-1070,  
"Sampling Plans Used for Dedicating Simple Metallic  
Commercial Grade Items for Use in Nuclear Power Plants" (62  
Fed. Reg. 52166 - October 6, 1997)

The Nuclear Energy Institute<sup>1</sup> offers the following comments on the subject *Federal Register* notice (FRN). We appreciate the opportunity to comment on this matter.

The regulatory guide would provide prescriptive methods for identification of critical characteristics and sampling approaches for "simple metallic items" being dedicated for safety related use. We believe issuance of this additional regulatory guidance is unnecessary for the following reasons:

- Dedicated commercial grade items have achieved an excellent performance and reliability record since implementation of industry procurement initiatives in the early 1990s.
- The regulatory guide would result in a significant resource impact that is not justified on the basis of safety, and has not been subject to regulatory analysis.
- NRC's concerns relative to communication to vendors of clear expectations with regard to sampling methods are being addressed through industry actions.

9802050308 980202  
PDR REGED  
XX. XXX C FDR



<sup>1</sup> NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry, including regulatory aspects of generic operational and technical issues. NEI members include all utilities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel fabrication facilities, materials licensees, and other organizations and individuals involved in the nuclear energy industry.

I+P-11  
Guides  
manuals

We are concerned that NRC is considering promulgation of prescriptive regulatory guidance to address commercial grade dedication issues. The subject of commercial grade dedication received great NRC scrutiny in the early 1990s time frame. Industry undertook an initiative through NUMARC to improve overall procurement practices, including dedication approaches. This initiative, undertaken at no small cost, resulted in significant increases in engineering involvement in the procurement process, and consistent methods for dedication based on guidance developed by the Electric Power Research Institute (EPRI). Many NRC inspections and assessments of dedication programs were subsequently conducted, concentrating on prescriptive considerations relative to use of the four dedication methods, identification of critical characteristics, and verification methods including sampling approaches. These inspections and assessments invariably identified findings due to differences of opinion relative to the degree of assurance necessary to provide reasonable assurance of product performance. However, the inspections failed to identify situations where the components failed or were actually defective. In light of the excellent product performance and the industry initiative, NRC changed the inspection procedure to reflect a performance-based approach as opposed to a prescriptive approach. The inspection procedure provided for prescriptive scrutiny of licensee dedication programs only in the event of defective items resulting from the dedication process.

Industry has now achieved nearly a decade of experience with the improved dedication methods, and performance of commercial grade items continues to be excellent. NRC stated in the introduction to their technical report on sampling issued last February that, "Through the years, nuclear power plant experience has shown that, in general, most plant equipment can be counted on to operate reliably and safely. This observation is also true concerning the parts used to repair or replace the equipment."

We question the need for additional prescriptive guidance given this performance history. We also question how this guidance comports with what has unquestionably been a successful performance-based approach.

The subject of sampling was previously discussed in our July 21, 1997 letter to NRC. The NRC's letter of response, dated September 25, 1997, defined an expectation for a sampling program to provide a 95 percent confidence level that only 5 percent unacceptable items would be expected. This represents a new staff position with respect to the concept of "reasonable assurance" as discussed in 10 CFR 50, Appendix B. The level of sampling required to achieve this confidence value will result in major cost impacts, as are documented in the enclosure. In many cases, procurement costs could increase by several hundred percent. Procurement costs are a significant component of overall operations and



maintenance costs, and the impact of the proposed regulatory guide should not be underestimated. We are concerned that this new regulatory interpretation has been developed without proper justification through a regulatory analysis, given the large resource impacts expected.

The NRC's September 25, 1997 letter also stated that the subject regulatory guidance was necessary due to results of NRC inspections of commercial grade dedication practices for suppliers of nuclear safety related materials. NRC's letter noted that industry had not provided sufficient guidance to suppliers relative to sampling practices to address critical characteristics for commercial grade items being dedicated. Industry is undertaking several activities to address this concern:

- The Nuclear Procurement Issues Committee (NUPIC), which is the primary industry group for coordinating performance and sharing of vendor audits, has improved their auditing checklist to provide additional guidance on ensuring that suppliers have a technically justifiable sampling plan.
- The industry will sponsor several workshops to inform manufacturers and utility procurement and audit personnel on what nuclear utilities consider to be a technically justifiable sampling plan. Information developed for the workshop will be used to enhance the EPRI Nuclear Procurement Training Course Module on Sampling in the Dedication Process.
- The Electric Power Research Institute has made EPRI Report NP-7218, "Utilization of Sampling Plans for CGI Acceptance," available to all nuclear utilities and suppliers who have requested a copy. The report is presented as one industry-recognized standard practice to consider. Utility members have also directed EPRI to develop a revision to NP-7218 to address the following issues:
  - Sampling sizes for destructive testing
  - Consideration of safety function and safety significance when selecting a sample size
  - Lot homogeneity considerations

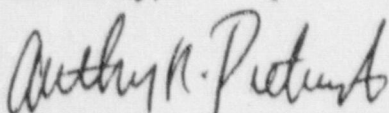
The revision was initiated this month and should be complete by June 1998.

The enclosure was developed by EPRI in conjunction with a utility and vendor task force experienced in dedication practices. Detailed information is provided addressing the performance history of dedicated commercial grade items, and examples are provided of typical resource impacts that would be expected to result if the regulatory guidance was finalized in its current form.

U. S. Nuclear Regulatory Commission  
February 2, 1998  
Page 4

Due to the potential significance of this issue, the industry would welcome further dialogue with the NRC on sampling in the dedication process. Industry is ready to support these discussions at NRC's convenience. We appreciate the opportunity to provide comments on this important matter. If you have any questions in this regard, please contact me at (202) 739-8081, or Biff Bradley at (202)-739-8083.

Sincerely,

A handwritten signature in cursive script, appearing to read "Anthony R. Pietrangelo".

Anthony R. Pietrangelo

REB/ARP/npg  
Enclosure

c: Brian Sheron, NRC  
Larry Campbell, NRC



## **Enclosure**

### **Industry Comments on Draft Regulatory Guide DG-1070 on Sampling in the Dedication Process**

#### **Scope of Draft Regulatory Guide**

The Draft Regulatory Guide states that it applies only to simple metallic items, and these comments provide examples of resource impacts for small metallic items. However, it is not unreasonable to assume the Draft Regulatory Guide would provide a de facto regulatory position for all dedicated items and not just simple metallic items. It is assumed that if an inspector is reviewing a supplier or utility dedication plan for any item, the sampling size would be reviewed. In the absence of any other alternative, the inspector would likely default to the Regulatory Guide for acceptable sampling practices.

The Draft Regulatory Guide also states that it applies only to items intended for high safety significant plant applications or where the plant application is not known. This would require that utilities would almost always be defaulting to the NRC recommended plan (95/5) for the following reasons:

- Most utilities have not performed a safety/risk analysis down to the component level and do not intend to because of the required investment. The Draft Regulatory Guide implies that unless the safety significance has been determined, it must be assumed to be high and the 95/5 confidence level must be used.
- Most utilities procure and stock items for general plant use. These items are dedicated based on the most restrictive or severe plant application. The Draft Regulatory Guide implies that either separate stock numbers must be generated for separate applications, or the NRC recommended sampling sizes must be used.
- Suppliers are typically not aware of the safety significance of the plant application they are supplying the dedicated item for.

#### **Performance History of Dedicated Commercial Grade Items**

Since utilities and 10 CFR 50, Appendix B suppliers first implemented enhanced dedication programs in the mid to late 1980s, they have utilized sampling plans when accepting commercial grade items. Based on the

following considerations, performance of these items has been adequate to ensure safe plant operation:

- The high reliability of safety- and non-safety-related equipment procured and installed in operating units
- Lack of inservice failures of safety-related parts and components related to dedication
- Increasing plant reliability even as the number of Appendix B suppliers is shrinking and the amount of dedication is increasing
- Lack of adverse trends in the quality of material procured as shown by utility QC tests and inspection results
- No appreciable failure rates for the amplified testing (overchecks) of fasteners performed during the late 1980s and early 1990s

To support the statement that dedicated items are performing well in service, a survey was issued to gather data. Utilities were asked to provide the number of items that they have dedicated since January 1994 and the number of failures that were identified related to the dedication process. The following table summarizes the data submitted:

Utility	# of Units	Number of Items Dedicated	Number of Items That Have Failed
A	3	3,645 stock numbers 1,200 non-stock numbers	None
B	4	3,118 P.O. line items	None
C	7	2,500 commercial grade parts Issued	27 (none were simple metallic parts)
D	2	310,000 individual parts	None
E	4	133,924	None
F	12	48,000 line items	None
G	1	4,000 line items	None
H	4	3,107 P.O. line items	None
I	1	218 line items	None
J	2	1,000 line items	None
K	1	1,207 line items	None
L	8	1,700 individual components/parts	None

Because of the different units supplied by the utilities, it is difficult to extrapolate an approximate number the entire industry. One line item could equal 10, 20 or 50 actual items. The results do indicate high performance and a lack of appreciable failures of dedicated items.



## Regulatory Basis for Sampling During the Dedication Process

To ensure that the current sampling programs are in accordance with regulatory requirements, various regulatory documents were investigated to extract any guidance related to sampling:

1. CFR 50, Appendix B, Criterion VII states:

"Measures shall be established to assure that purchased material, equipment, and services, whether purchased directly or through contractors and subcontractors, conform to the procurement documents. These measures shall include provisions, as appropriate, for source evaluation and selection, objective evidence of quality furnished by the contractor or subcontractor, inspection at the contractor source, and examination of products upon delivery.... The effectiveness of the control of quality by contractors and subcontractors shall be reassessed by the applicant or designee at intervals consistent with the importance, complexity, and quantity of the products or services."

The introduction of Appendix B also states: "quality assurance comprises all those planned and systematic actions necessary to provide adequate confidence that a structure, system, or component will perform satisfactorily in service." The procurement and dedication process is just one of the elements of a plant's overall quality assurance program.

2. ANSI N45.2.2 - 1977, Paragraph 11 states:

Examinations, measurements, or tests of items processed shall be performed for each work operation where necessary to assure quality. Where a sample is used to verify acceptability of a group of items, the sampling procedure shall be based on recognized standard practices and shall provide adequate justification for the sample size and selection process."

3. ANSI N45.2.13 - 1976, Section 7.3.2 (endorsed by Reg. Guide 1.123) states:

"Sampling may be used during receipt inspection when conducted in accordance with established procedures or recognized standards."

4. ANSI N45.2.2 - 1972, Section 5.2.2 (endorsed by Reg. Guide 1.38) states:

"Statistical sampling methods may be used for groups of similar items."

5. 10 CFR 21 defines commercial grade dedication to be:

"...dedication is an acceptance process undertaken to provide reasonable assurance that a commercial grade item to be used as a basic component will perform its intended safety function and, in this respect, is deemed equivalent to an item designed and manufactured under a 10 CFR 50, Appendix B, quality assurance program."

### **Cost of Regulatory Guide Implementation**

The cost to implement the guidance provided on the Draft Regulatory Guide would be significant to the industry. The guide not only provides a greater sampling size than most utilities and suppliers use on larger lots, but it provides recommended critical characteristics and acceptance criteria for simple metallic items. Increased costs would be caused by the following:

- The man-hours required to complete additional testing will require adding personnel to staff.
- The procurement of additional test equipment to accommodate increased testing.
- Increased number of stock numbers and total stock to accommodate different levels of safety significance.
- The cost to revise current procurement engineering and dedication procedures to address revised sampling practices.
- The cost to revise all current dedication plans.
- The increased cost of items that were dedicated by approved 10 CFR 50, Appendix B suppliers who significantly increase sampling because they must assume items are intended for safety-significant applications.
- Increased engineering time to evaluate homogeneity of lot. There will also be increased costs to obtain the level of lot homogeneity the Regulatory Guide recommends before sampling.
- Many of the tests the NRC considers nondestructive, would actually be destructive for small simple metallic items. Therefore, a significant number of additional products would need to be procured.



- Increased off-site testing because many utilities and suppliers do not currently have all of the test equipment required to complete testing specified in the Draft Regulatory Guide.
- The time to complete dedication will be increased which may have an affect on parts availability to support plant operation.
- The cost of obtaining additional paperwork from suppliers (such as, CMTRs, Certificates of Conformance, etc.)

The following hypothetical example was developed to illustrate the additional costs which would be incurred using the guidance provided in the Draft Regulatory Guide.

Item to procured: 1/2 x 20 bolts, ASTM A307 Grade A, carbon steel  
 Number items to be procured: 100  
 Cost per item: \$.08

#### **Scenario A: Current Utility Sampling Practices**

Critical Characteristics: According to the Joint Utility Task Group (JUTG) Technical Evaluation CGIFA01, "Bolts, 1/4 Inch and Above", the following critical characteristics would be verified to provide reasonable assurance the bolts would perform their safety function:

- Material composition
- Material strength (see Note 1)
- Coating or plating material
- Configuration (hex head, heavy hex, etc.)
- Pitch diameter or size
- Threads per inch or pitch
- Overall length
- Head height
- Width across flats or head diameter
- Thread length

Note 1: Appropriate test methods include tensile, load or hardness tests depending upon specific size, geometry and material type. Tests should be conducted in accordance with appropriate industry standard test techniques. Hardness may be used in lieu of tensile or load testing for appropriate materials. ASTM A370 establishes a correlation between hardness values and approximate tensile strengths for carbon and alloy steels. However, surface hardness variations may be present due to heat treatment, machining or other working of the material. The applicability of the ASTM A370

correlation of hardness to desired mechanical properties should be reviewed as appropriate

Based on an engineering review of factors including dedication history, lot formation type, complexity of the item, inservice performance history, engineering would develop a sample size. For this example, the normal sample size out of EPRI Report NP-7218 is selected which results in a sample size of 18. It is assumed that using available test equipment, all dedication testing (including the hardness to verify material strength) can be performed without destroying the bolt.

For this example, it is assumed the fully burdened rate of receipt inspection/testing personnel is \$50.00 per hour. It would take approximately three hours for the items to be tested. Therefore the total cost for this procurement would be \$158.00 (testing cost plus the cost of the material).

#### **Scenario B: Draft Regulatory Guide Practices**

Based on a review of the Draft Regulatory Guide, the following additional characteristics/testing would be required:

- Full chemistry composition analysis within tolerances specified in Draft Regulatory Guide (\$250)
- Full physical testing as specified in Draft Regulatory Guide including destructive testing (\$250)
- Procurement of CMTR or other paperwork to develop lot homogeneity requirements (\$250)
- Review of paperwork against requirements in Draft Regulatory Guide (one additional man hour)
- Preparation of item and paperwork to ship for off-site testing and review of results upon receipt back at the warehouse (3 additional man hours)

The additional cost to the procurement utilizing the Draft Regulatory Guide is \$950.16 which includes the cost of two bolts to destroy. The total cost increases from \$158.00 to \$1,150.16 which is a factor of 7.6.



## NUCLEAR REGULATORY COMMISSION

### Draft Regulatory Guide; Issuance, Availability

The Nuclear Regulatory Commission has issued for public comment a draft of a guide planned for its Regulatory Guide Series. This series has been developed to describe and make available to the public such information as methods acceptable to the NRC staff for implementing specific parts of the Commission's regulations, techniques used by the staff in evaluating specific problems or postulated accidents, and data needed by the staff in its review of applications for permits and licenses.

The draft guide, temporarily identified by its task number, DG-1070 (which should be mentioned in all correspondence concerning this draft guide), is titled "Sampling Plans Used for Dedicating Simple Metallic Commercial Grade Items for Use in Nuclear Power Plants." The guide is intended for Division 1, "Power Reactors." This draft guide is being developed to describe methods acceptable to the NRC staff for complying with the NRC's regulations with regard to quality assurance requirements when using a sampling plan for dedicating simple metallic commercial grade items for unrestricted use in nuclear power plants.

The draft guide has not received complete staff review and does not represent an official NRC staff position.

Public comments are being solicited on Draft Regulatory Guide DG-1070. Comments may be accompanied by additional relevant information or supporting data. Written comments may be submitted to the Rules and Directives Branch, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Copies of comments received may be examined at the NRC Public Document Room, 2120 L Street NW., Washington, DC. Comments will be most helpful if received by December 1, 1997.

You may also provide comments via the NRC's interactive rulemaking website through the NRC home page (<http://www.nrc.gov>). This site provides the availability to upload comments as files (any format), if your web browser supports that function. For information about the interactive rulemaking website, contact Ms. Carol Gallagher, (301) 415-5905; e-mail [CAG@nrc.gov](mailto:CAG@nrc.gov).

Although a time limit is given for comments on this draft guide, comments and suggestions in connection with items for inclusion in guides currently being developed or

improvements in all published guides are encouraged at any time.

Regulatory guides are available for inspection at the Commission's Public Document Room, 2120 L Street NW., Washington, DC. Requests for single copies of draft or final guides (which may be reproduced) or for placement on an automatic distribution list for single copies of future draft guides in specific divisions should be made by writing to the U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Printing, Graphics and Distribution Branch; or by fax at (301) 415-5272. Telephone requests cannot be accommodated. Regulatory guides are not copyrighted, and Commission approval is not required to reproduce them.

(5 U.S.C. 552(a))

Dated at Rockville, Maryland, this 19th day of September 1997.

For the Nuclear Regulatory Commission.

**Lawrence C. Shao,**

*Director, Division of Engineering Technology,  
Office of Nuclear Regulatory Research.*

[FR Doc. 97-26400 Filed 10-3-97; 8:45 am]

BILLING CODE 7590-01-U

## SECURITIES AND EXCHANGE COMMISSION

[REI. No. IC-22837; 812-10802]

### Salomon Brothers Inc; Notice of Application

September 30, 1997.

**AGENCY:** Securities and Exchange Commission ("SEC").

**ACTION:** Notice of application for an Order under section 12(d)(1)(J) of the Investment Company Act of 1940 (the "Act") for an exemption from section 12(d)(1), under section 6(c) of the Act for an exemption from section 14(a), and under section 17(b) of the Act for an exemption from section 17(a) of the Act.

**SUMMARY OF APPLICATION:** Salomon Brothers Inc. ("Salomon") requests an order with respect to DECS Trusts and future trusts that are substantively similar and for which Salomon will serve as a principal underwriter (collectively, the "Trusts") that would (i) permit other registered investment companies to own a greater percentage of the total outstanding voting stock (the "Securities") of any Trust than that permitted by section 12(d)(1), (ii) exempt the Trusts from the initial net worth requirements of section 14(a), and (iii) permit the Trusts to purchase U.S. government securities from Salomon at the time of a Trust's initial issuance of securities.

**FILING DATES:** The application was filed on September 26, 1997. By letter dated September 30, 1997, applicant's counsel stated that an amendment, the substance of which is incorporated in this notice, will be filed during the notice period.

**HEARING OR NOTIFICATION OF HEARING:** An order granting the application will be issued unless the SEC orders a hearing. Interested persons may request a hearing by writing to the SEC's Secretary and serving Salomon with a copy of the request, personally or by mail. Hearing requests should be received by the SEC by 5:30 p.m. on October 20, 1997, and should be accompanied by proof of service on Salomon, in the form of an affidavit, or, for lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons may request notification of a hearing by writing to the SEC's Secretary.

**ADDRESSES:** Secretary, SEC, 450 Fifth Street, N.W., Washington, D.C. 20549. Salomon, Seven World Trade Center, New York, New York 10048.

**FOR FURTHER INFORMATION CONTACT:** Brian T. Hourihan, Senior Counsel, at (202) 942-0526, or Mary Kay Frech, Branch Chief, at (202) 942-0564 (Division of Investment Management, Office of Investment Company Regulation).

**SUPPLEMENTARY INFORMATION:** The following is a summary of the application. The complete application may be obtained for a fee from the SEC's Public Reference Branch, 450 Fifth Street, N.W., Washington, D.C. 20549 (tel. (202) 942-8090).

### Applicant's Representations

1. Each Trust will be a limited-life, grantor trust registered under the Act as a non-diversified, closed-end management investment company. Salomon will serve as a principal underwriter (as defined in section 2(a)(29) of the Act) of the Securities issued to the public by each Trust.

2. Each Trust will, at the time of its issuance of Securities, (i) enter into one or more forward purchase contracts (the "Contracts") with a counterparty to purchase a formulaically-determined number of a specified equity security or securities (the "Shares") of one specified issuer,<sup>1</sup> and (ii) in some cases, purchase certain U.S. Treasury securities ("Treasures"), which may include interest-only or principal-only securities maturing at or prior to the

<sup>1</sup> No Trust will hold Contracts relating to the Shares of more than one issuer.