NUCLEAR ENERGY INSTITUTE

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January 10, 2007

Mr. William Borchardt
Director, Office of New Reactors
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: New Plant Rulemakings, Proposed Regulatory Guides, and NRC Standard Review Plan Update

PROJECT NUMBER: 689

Dear Mr. Borchardt:

NEI has provided comments on numerous new and revised regulatory guides and new plant rulemakings in the last nine months. We wish to commend the NRC staff for developing and publishing these drafts and for providing the opportunity for the public interaction on these guides over a very short period of time.

In general, the industry is supportive of the draft regulatory guides, although we have substantial comments on several guides. In these cases there are significant implications for the ongoing update of the Standard Review Plan, finalization of Regulatory Guide1.206, *COL Applications for Nuclear Power Plants (LWR Edition)*, and combined license (COL) applications that are currently being prepared for submittal to NRC later this year. It is important that the NRC continue the public interactions on these regulatory guides to enable the industry to receive feedback on how our comments and concerns are being addressed. This would allow the industry to move forward with confidence in completing the material to support quality license applications. Enclosure 1 lists the regulatory guides that have been the subject of industry comment and summarizes the comments on those regulatory guides where we have substantial concerns, notably in the areas of fire protection, quality assurance for radiological monitoring and testing of safety-related diesel generators.

We have growing concerns on the schedule for updating the NRC Standard Review Plan. We believe it is important that the schedule allow for public dialogue on those sections that are the subject of substantial change prior to the issuance of the documents for use and comment. Enclosure 2 is a preliminary industry listing of those areas of the Standard Review Plan that are candidates for public dialogue

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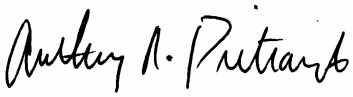
prior to issuance for use on March 31, 2007. This is not a complete list because we are unaware of all the changes being planned for all the sections under review.

If you have any questions in regard to this letter please contact me at (202) 739-8081; arp@nei.org or Russ Bell at (202) 739-8087; rjb@nei.org.

Sincerely,



Anthony R. Pietrangelo

Enclosures

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Industry Comments Submitted on Proposed RG Updates

We appreciate and support the intensive NRC efforts to assure that key regulatory guidance is up to date and in-place to facilitate the preparation of quality COL applications. The proposed update of DG-1164, "*Meteorological Monitoring Programs for Nuclear Power Plants*" to reflect use of modern technology is very positive. Also, very positive are proposed revisions to seismic-related regulatory guides that reflect the significant interaction over the past three years between the staff and industry technical experts. However, for some of the regulatory guides, we have significant concerns regarding the staff proposals.

In particular, our comments on DG-1170, "*Fire Protection for Nuclear Power Plants*", included 95 new comments on technical and process issues, in addition to 16 previously unresolved items regarding backfit application of this guidance. The most serious comments concern the following issues:

- Lack of regulatory stability on circuit analysis (content from disapproved proposed generic letter is in the draft regulatory guide)
- Lack of consistency with industry standards NFPA 804 and NEI 00-01
- Change in interpretation of NRC IN 84-09 (post-fire safe-shutdown)
- Lack of clarity for new plant requirements related to nonpower modes and requirements of design certification vs. COL

The industry comments for DG-1172, "*Application and Testing of Safety-Related Diesel Generators in Nuclear Power Plants*", describe how the proposed revisions include new requirements for testing worst-case conditions that are extreme and in conflict with IEEE requirements and vendor recommendations.

For 6 of the RGs, the industry recommends that the proposals be withdrawn because the proposed revisions or the proposed new regulatory guides are not needed given other available guidance. For example, the guidance provided in DG-1153, "*Availability of Electric Power Sources*", was moved into the Improved Technical Specifications in the 2004 NUREG 1430-1434 series, thus making the regulatory guide obsolete.

In the case of DG-4010, "*Quality Assurance for Radiological Monitoring Programs (Inception through Normal Operations to License Termination) – Effluent Streams and the Environment*", the draft guidance proposes a major change in the monitoring process that the industry as a whole, including the NRC, is not in a position to implement. The scope of the proposed revision has been expanded to cover not only normal operations, but the entire facility lifecycle. Further, the regulatory guide is applicable to all nuclear facilities. Since the *Federal Register* Notice indicated that the updates were applicable only to new reactor licensing, many stakeholders (e.g., fuel cycle facilities) were likely unaware that these revisions would significantly affect their operations. Therefore, we recommended that the NRC withdraw the proposed revision until such time that a comprehensive plan

to update the guidance can be phased in over time including updates to related guidance and training for all stakeholders.

The updated RGs are to be issued by March 31, 2007, making them applicable to COL applications submitted to NRC starting in the fourth quarter of the year. COL applications will be undergoing final pre-submittal industry reviews starting in June. In light of the significant concerns identified above and the potential impact on ongoing COL application preparations, we request that the NRC provide feedback to stakeholders regarding the disposition of these comments as soon as possible (within 30 days). For example, this feedback could be provided in connection with a workshop planned in this time frame on RG 1.206, or in a separate public meeting.

Table 1. NEI Comments on Proposed Revisions to Regulatory Guides in Support of New Reactor Licensing

DG	RG	RG Title	Date of NEI Comment Letter	Nature of Comments
DG-1142	DG-1142	Guidelines for Environmental Qualification of Safety-Related Computer-Based Instrumentation and Control Systems in Nuclear Power Plants	12/15/2006	Withdraw proposed revisions
DG-1153	1.93	Availability of Electric Power Sources	12/8/2006	Withdraw proposed revisions
DG-1160	1.112	Calculation of Releases of Radioactive Materials in Gaseous and Liquid Effluents from Light-Water-Cooled Power Reactors	12/14/2006	Withdraw proposed revisions
DG-1165	1.37	Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants	12/15/2006	Withdraw proposed revisions
DG-1167	1.71	Welder Qualification for Areas of Limited Accessibility	12/8/2006	Withdraw proposed revisions
DG-4010	4.15	Quality Assurance for Radiological Monitoring Programs (Inception through Normal Operations to License Termination) - Effluent Streams and the Environment	12/18/2006	Withdraw proposed revisions
DG-1170	1.189	Fire Protection for Nuclear Power Plants	12/22/2006	Significant technical comments
DG-1172	1.9	Application and Testing of Safety-Related Diesel Generators in Nuclear Power Plants	12/21/2006	Significant technical comments
DG-1146	DG-1146	Performance-Based Approach to Define the Site-Specific Earthquake Ground Motion	12/7/2006	Technical comments
DG-1154	1.128	Installation Design and Installation of Vented Lead-Acid Storage Batteries for Nuclear Power Plants	11/20/2006	Technical comments
DG-1155	1.129	Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Nuclear Power Plants	11/20/2006	Technical comments
DG-1156	1.29	Seismic Design Classification	12/4/2006	Technical comments
DG-1157	1.61	Damping Values for Seismic Design of Nuclear Power Plants	12/4/2006	Technical comments
DG-1158	1.57	Design Limits and Loading Combinations for Metal Primary Reactor Containment System Components	12/11/2006	Technical comments
DG-1159	1.136	Design Limits, Loading Combinations, Materials, Construction, and Testing of Concrete Containments	12/15/2006	Technical comments
DG-1163	1.20	Comprehensive Vibration Assessment Program for Reactor Internals During Preoperational and Initial Startup Testing	12/21/2006	Technical comments
DG-1164	1.23	Meteorological Monitoring Programs for Nuclear Power Plants	11/27/2006	Technical comments
DG-1166	1.68	Initial Test Programs for Water-Cooled Nuclear Power Plants	12/15/2006	Technical comments
DG-1162	1.13	Spent Fuel Storage Facility Design Basis	12/13/2006	Editorial comments

Key: withdraw proposed revision = eliminate revision; significant technical comments = numerous comments on scope and consistency with industry standards; technical comments = recommendations for clarity and consistency; editorial comments = minor editorial suggestions

SRPs Proposed for Public Dialogue

The Standard Review Plan updates in support of new reactor licensing are being conducted in a compressed time frame similar to the process for regulatory guides. In some cases, such as seismic and tsunami flooding, the NRC staff has been proactive; for example the NRC staff has scheduled a meeting to discuss SRP 2.4.6, "*Maximum Probable Tsunami Flooding*." It is our understanding that this SRP has changed substantially and the staff would like to explain the changes to aid the industry in use and acceptance of this revision. This is an exemplary case of utilizing an interaction to assist a smooth transition.

There is a very short time before their release date in late March; therefore the industry requests public dialogue in the same manner as being provided for SRP 2.4.6 for the SRPs listed in the table below to ensure these SRP revisions support preparation of quality license applications. This list represents the key areas where there is likely to be need for clarification to support the preparation of quality COL applications.

The benefits of public dialogue for these types of documents are evident in examples of some of the interactions for topics where industry standards or regulatory requirements are undergoing significant change. SRP 13.3, "*Emergency Planning*", has benefited from several meetings and interactions. For example, NRC has allowed the industry to clarify comments on ITAAC concerns, the industry had an opportunity to share verbal comments at the ACRS meeting, and we believe the NRC intends to address industry concerns on "EP Generic Communications" usage and submittal of offsite implementing procedures. This transparent process has been mutually beneficial and will result in a better product for SRP 13.3 when it is issued for use. Although the NRC has listened to our concerns regarding the limited availability of DHS/FEMA/REP offsite emergency response plan related to the review criteria in the SRP, we are still concerned about the actions of those agencies relative to this SRP.

Another example of positive interactions comes in the area of seismic issues. A great deal of progress has been made in the past three years of discussions with the staff on this complex topic. Similarly, the industry and NRC Digital Instrumentation and Controls (DI&C) technical experts have embarked on a path to resolve technical issues through increased interactions. However, to ensure the progress in these areas is maintained going forward, continuing public dialogue will be needed in the areas of seismic and DI&C. The table below lists the SRPs where public dialogue would be of benefit to the NRC and the industry.

The radiation protection, fire protection, offsite power, probabilistic risk assessment and diesel generator SRPs in the table below are listed as a result of the significant comments on the proposed RGs related to these topics that we recently reviewed. SRP

3.11 has been identified for inclusion in this list by the review team that is working with the technically complete draft that is available from the NRC.

The updated SRPs are to be issued for use and comment by March 31, 2007, making them applicable to COL applications submitted to NRC starting in the fourth quarter of the year. COL applications will be undergoing final pre-submittal industry reviews starting in June, if not earlier. In light of the significant concerns identified above and the potential impact on ongoing COL application preparations, we request that the NRC provide, within 30 days, an opportunity for dialogue on the proposed revisions to the SRPs listed below in a workshop format similar to what is planned for SRP 2.4.6.

Table 2. Preliminary List of SRPs Recommended for Public Dialogue

SRP	SRP Title	Target Release	Actual Release
2.5.2	Vibratory Ground Motion	1/31/2007	
2.5.3	Surface Faulting	1/31/2007	
2.5.4	Stability of Subsurface Materials and Foundations	1/31/2007	
3.7.1	Seismic Design Parameters	1/15/2007	
3.7.2	Seismic System Analysis	2/15/2007	
3.11	Environmental Qualification of Mechanical and Electrical Equipment	11/15/2006	12/4/2006
7.1-C	Guidance for Evaluation of Conformance to IEEE Std - 603	11/3/2006	
7.1-D	Guidance for Evaluation of Conformance to IEEE Std -7-4.3.2 (new)	11/3/2006	
BTP 7-19	Guidance for Evaluation of Defense-in-Depth and Diversity in Digital Computer-Based Instrumentation and Control Systems	11/17/2006	
8.2	Offsite Power System	11/1/2006	12/14/2006
8.4	Station Blackout (NEW)	11/1/2006	
9.5.4	Emergency Diesel Engine Fuel Oil Storage and Transfer System	1/19/2007	
9.5.5	Emergency Diesel Engine Cooling Water System	1/19/2007	
9.5.6	Emergency Diesel Starting System	1/19/2007	
9.5.7	Emergency Diesel Engine Lubrication System	1/19/2007	
9.5.8	Emergency Diesel Engine Combustion Air Intake and Exhaust System	1/19/2007	
9.5.1	Fire Protection Program	10/15/2006	11/6/2006
11.2	Liquid Radwaste Management Systems	1/6/2007	12/14/2006
11.3	Gaseous Waste Management Systems	1/6/2007	

SRP	SRP Title	Target Release	Actual Release
11.4	Solid Waste Management Systems	1/6/2007	
11.5	Process and Effluent Radiological Monitoring Instrumentation and Sampling Systems	1/6/2007	
12.1	Assuring that Occupational Radiation Exposures are As Low As Reasonably Achievable	1/6/2007	
12.2	Radiation Sources	1/6/2007	
12.5	Operational Radiation Protection Program	12/30/2005	12/30/2005
12.3-12.4	Radiation Protection Design Features	1/6/2007	
14.3	Inspections, Tests, Analyses, and Acceptance Criteria - Design Certification	12/22/2006	
19.0	Probabilistic Risk Assessment	12/22/2006	