

Group C

FOIA/PA NO: 2013-0062

RECORDS BEING RELEASED IN THEIR ENTIRETY

Herr, Linda

From: MERCHANT, Anne [acm@nei.org]
Sent: Monday, August 08, 2011 3:19 PM
To: Herr, Linda
Subject: Agenda for NEI Communicating Nuclear Issues (CNI) Conference
Attachments: DRAFT.CNIAgenda.8-4-11.docx

Linda – Thanks so much for checking in with me...I'm so sorry you had to do that. Attached is the preliminary agenda for our CNI conference in November in Clearwater Beach, Fla. We haven't circulated this as of yet, but this should give you general timing for Commissioner Ostendorff's schedule. Walter Hill confirmed with Ho that the Commissioner is available on Tuesday, Nov. 15 for the morning session, but I suspect he'll need to arrive the evening of Monday, Nov. 14 due to flight schedules from DC to Tampa. Of course, we hope that he will join us for our welcome reception on Monday evening if he's in town in time.

Once I receive the registration and hotel block information from conferencing, I'll send everything your way. Just fyi – it is the Sheraton Sand Key.

Please let me know if you need anything else in the meantime. Thanks!

All the best,
Anne

Anne Merchant
Senior Administrative Assistant

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Suite 400
Washington, DC 20006
www.nei.org

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acm@nei.org

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C/1

Herr, Linda

From: Herr, Linda
Sent: Tuesday, August 16, 2011 1:26 PM
To: BUTLER, John
Cc: Franovich, Mike
Subject: RE: Fire Protection Information Forum

Good afternoon Mr. Butler:

Thank you for the invitation letter and other pertinent information regarding the NEI Fire Protection conference. By way of this email I am confirming Commissioner Ostendorff's participation as Keynote Speaker scheduled for Monday, September 12, 2011. Mr. Mike Franovich, TA for Reactors will be joining the Commissioner.


I have faxed the Registration form for both the Commissioner and Mike to Linda Wells at 202-833-2282 and will be making hotel reservations this afternoon.

Please don't hesitate to call or email me if you have other items you care to discuss.

Regards,

Linda S. Herr

Administrative Assistant to
Commissioner William C. Ostendorff
U.S. Nuclear Regulatory Commission
PH: 301-415-1759
FAX: 301-415-1757

 Please consider the environment before printing this e-mail.

From: BUTLER, John [mailto:jcb@nei.org]
Sent: Monday, August 15, 2011 10:35 AM
To: Herr, Linda
Cc: Franovich, Mike
Subject: RE: Fire Protection Information Forum

Linda,

The attached invitation letter, inviting Commissioner Ostendorff to speak at the NEI Fire Protection Information Forum, was sent to the Commissioner on Friday. Attached for your use are the agenda and registration form for use by the Commissioner and his staff. Hotel registration information can be found on the NEI website at <http://www.nei.org/newsandevents/conferencesandmeetings/fpif/>.

I would be please to assist you in any way. Please contact me if you have any questions.

John

John C. Butler
Senior Director, Engineering and Operations Support

NEI

NUCLEAR ENERGY INSTITUTE

Alexander Marion
VICE PRESIDENT
NUCLEAR OPERATIONS
NUCLEAR GENERATION DIVISION

August 12, 2011

Dr. William C. Ostendorff
Commissioner
U.S. Nuclear Regulatory Commission
Washington, DC 20555

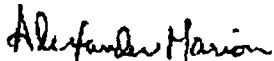
Dear Commissioner Ostendorff,

The purpose of this letter is to extend an invitation to you to provide a keynote address at the 2011 NEI Fire Protection Information Forum. The forum will be held at the Marriott Charleston, in Charleston, South Carolina, September 11th through September 15th. During this opening Executive Session you will be joined by Mr. Jeffrey Archie, Senior Vice President and Chief Nuclear Officer South Carolina Electric and Gas, who will also provide opening remarks.

I have enclosed a draft agenda, as well as the hotel and travel information to assist you with your travel arrangements. Please take note that we have waived the registration fee for you and your staff. If your travel itinerary permits, I also invite you and your staff to join Mr. Archie and me for dinner on Sunday, September 11th at 7:30 p.m. at the Marriott Charleston.

If you or any of your staff have any questions, please do not hesitate to contact me at: (202)739-8080; axm@nei.org or Tom Basso (202) 739-8025; tbb@nei.org.

Sincerely,



Alexander Marion

Kock, Andrea

From: MAUER, Andrew [anm@nei.org]
Sent: Thursday, November 03, 2011 9:11 AM
To: Kock, Andrea
Subject: 74.19

Andrew N. Mauer
Senior Project Manager
Fuel and Materials Safety

Nuclear Energy Institute
1776 I Street, N.W., Suite 400
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Sent through mail.messaging.microsoft.com

Kock, Andrea

From: MAUER, Andrew [anm@nei.org]
Sent: Thursday, November 03, 2011 9:58 AM
To: Kock, Andrea
Subject: FYI: Some numbers for actual SNM quantities

Examples:

Movable In-Core Detectors (PWR "MID") contain 0.0041 g of U-235
Traversing In-Core Detectors (BWR "TIP") contain 0.00075 grams of U-235
Low Power Range Monitor (BWR "LPRM") contain 0.0003 grams of U-235

All of the numbers above are new detectors. They are fission chambers so as they get used in the core to measure neutron fluence, the quantities of SNM decreases.

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Sent through mail.messaging.microsoft.com

Sexton, Kimberly

From: ZORN, Jason [jcz@nei.org]
Sent: Thursday, May 03, 2012 4:35 PM
To: Sexton, Kimberly
Subject: Fwd: Directions to Parking Garage
Attachments: ~WRD000.jpg; image001.jpg

FYI. For parking purposes.

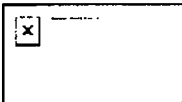
Begin forwarded message:

From: "BENJAMIN, Melissa" <mb@nei.org>
Date: May 3, 2012 4:32:24 PM EDT
To: "ZORN, Jason" <jcz@nei.org>
Subject: FW: Directions to Parking Garage

From: Rolen, Katherine O. [mailto:KRolen@winston.com]
Sent: Thursday, May 03, 2012 2:14 PM
To: BENJAMIN, Melissa
Subject: RE: Directions to Parking Garage

Yes, the parking garage is located in the building of 1700 K Street, NW. The corner street is 17 and K. The garage is right next to Kellari Taverna Restaurant.

Katherine O. Rolen
Marketing & Public Relations Specialist
D: +1 (202) 282-5881
Email | www.winston.com



From: BENJAMIN, Melissa [mailto:mb@nei.org]
Sent: Thursday, May 03, 2012 8:11 AM
To: Rolen, Katherine O.
Subject: Directions to Parking Garage

Good morning, Katherine.

Would you mind providing exact name, address, and cross streets for the parking garage?
Apparently, the Commissioner likes to have full details.

Thanks for your help!

Melissa Benjamin

Melissa Akar Benjamin

Legal Secretary
Nuclear Energy Institute
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www.nei.org

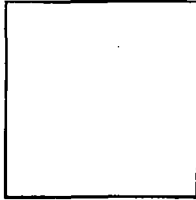
P: 202-739-8151
F: 202-533-0203

E: mb@nei.org

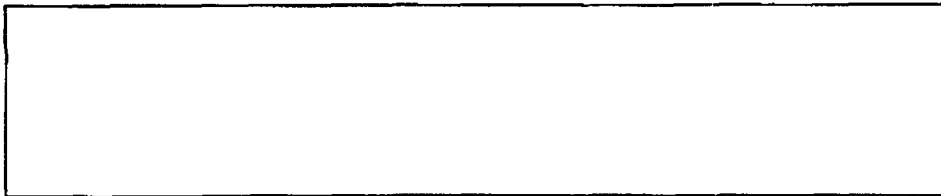
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"Be a yardstick of quality.
Some people aren't used to an environment
where excellence is expected."

Steve Jobs



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Sexton, Kimberly

From: BENJAMIN, Melissa [mb@nei.org]
Sent: Thursday, May 17, 2012 4:12 PM
To: Sexton, Kimberly
Cc: GINSBERG, Ellen; ZORN, Jason; BENJAMIN, Melissa
Subject: Letter of Appreciation
Attachments: Sexton NRC May 2012.pdf

Ms. Sexton –

Please see the attached from Ellen Ginsberg.

Best regards.

Melissa Benjamin

Melissa Akar Benjamin
Legal Secretary
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*"Be a yardstick of quality.
Some people aren't used to an environment
where excellence is expected."*

Steve Jobs

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NUCLEAR ENERGY INSTITUTE

Ellen C. Ginsberg
VICE PRESIDENT, GENERAL COUNSEL AND SECRETARY

May 17, 2012

Ms. Kimberly Sexton
Legal Counsel
Office of Commissioner William C. Ostendorff
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Ms. Sexton,

Thank you very much for your assistance in arranging our roundtable with Commissioner Ostendorff. It was quite obvious that you provided a great deal of input to help guide the Commissioner's presentation. It is equally obvious that he relies on your advice and counsel and highly values the work you do to ensure his decisions are on firm legal and policy footings.

Again, my sincere thanks for your time and efforts to make the roundtable such a success. I look forward to working with you on other matters.

Regards,

A handwritten signature in black ink that reads "Ellen C. Ginsberg". The signature is written in a cursive, flowing style.

Ellen C. Ginsberg

ECG/mab

Frazier, Alan

From: SCHLUETER, Janet [jrs@nei.org]
Sent: Friday, July 20, 2012 10:39 AM
To: Frazier, Alan
Subject: FW: Industry's Current Use of Integrated Safety Analysis Standards and Peer
Attachments: 04-17-12_NRC_ISA Standards and Peer Reviews.pdf; 04-17-12_NRC_ISA Standards and Peer Reviews_Attachment.pdf

Alan – Should have copied you. Thanks and have a great weekend. Janet

From: SCHLUETER, Janet
Sent: Friday, July 20, 2012 10:25 AM
To: 'Castleman, Patrick'; rebecca.tadesse@nrc.gov; 'Kock, Andrea'
Subject: Industry's Current Use of Integrated Safety Analysis Standards and Peer

Pat, Andrea and Rebecca

Good morning. I just read SECY-12-0091, currently before the Commission, and believe that NEI's April letter (attached) referenced in the SECY might further inform your consideration of this matter. Specifically, the SECY did not discuss or capture the exhaustive set of existing industry guidance documents which currently inform the conduct, management and modification of ISAs in place today. Such a list is attached to our letter.

When one considers the potential resources to create an ISA "standard"-which would not be required without a backfit analysis-and related guidance; coupled with other ongoing, higher priority initiatives (e.g., cyber security, Fukushima TI URIs, Part 21, MC&A rule, FCOP and future rulemakings, i.e., Parts 20, 73), the value of this ISA initiative is not clear particularly since, as the staff points out in its Attachment, none of these actions will necessarily impact the ISAs in place today.

Finally, I understand that Commissioner Apostalakis contacted the ANS President to encourage ANS to take the lead in developing an ISA standard.

Thanks for your time,
Janet

P.S. I would appreciate hearing who the Chairman selects as her Materials TA when appropriate.

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Janet R. Schlueter
DIRECTOR
FUEL & MATERIALS SAFETY
NUCLEAR GENERATION DIVISION

April 17, 2012

Mr. John D. Kinneman
Director, Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Materials Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Industry's Current Use of Integrated Safety Analysis Standards and Peer Reviews
(Reference: SRM on M11011B dated 11/10/2011; NRC Public Meeting on 3/29/2012)

Project Number: 689

Dear Mr. Kinneman:

On behalf of the fuel cycle industry, the Nuclear Energy Institute (NEI)¹, provides the following feedback in follow-up to the public meeting conducted by the U.S. Nuclear Regulatory Commission (NRC) in Atlanta, Georgia on March 29, 2012. We appreciate the opportunity to discuss the NRC staff efforts to respond to Commission direction regarding recommendations on the use of peer reviews, and the development of standards to further ensure the completeness and quality of facility-specific Integrated Safety Analyses (ISAs). As you know, the industry previously provided feedback to NRC staff on the use of ISAs in a November 5, 2010 public meeting and a November 19, 2010 (ML103370256), letter on the development of the staff white paper entitled, "A Comparison of Integrated Safety Analysis and Probabilistic Risk Assessment." Further, industry representatives briefed the NRC's Advisory Committee on Reactor Safeguards Subcommittee on Radiation Protection and Nuclear Materials (January 11, 2011; ML110200329), and issued a statement to and briefed the full Committee on this important topic (February 8 and 10, 2011, ML1104702130 and ML110480828, respectively).

¹ NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's 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.

ISA Assures Appropriate Safety Controls

The ISA methodology is a systematic, risk-informed and performance-based analysis that is implemented by fuel cycle facilities and has been demonstrated to maintain safety and achieve compliance with applicable NRC requirements (e.g., 10 CFR 70.61). More specifically, the ISA provides the methodology to assess and establish the needed safety basis to assure that the handling of nuclear material is within the programmatic requirements, that the safety program is appropriate for the risk, and that the measures for carrying out the safety program are appropriately monitored through the existing NRC fuel cycle oversight process. Further, the ISA is both a design and safety analysis methodology to demonstrate and assure that appropriate safety controls are in place to meet performance requirements intended to protect the worker, the public, and the environment. Risk management techniques, on which the ISAs are based, were established approximately 50 years ago, are used throughout the chemical industry (known as "Process Hazards Analysis"), and are a critical element in managing process safety as is evidenced in several industry standards.

Given the small number, diversity, and variable risk profile of the fuel cycle facilities, ISAs provide needed flexibility for each facility to comprehensively address their unique site processes, procedures, and resources using readily available standards, which accommodate the facility-specific operations and circumstances that may be present at any given point in time. In that regard, fuel facilities relied upon the facility's ISA teams of experts to perform the hazards analysis used in development of the their ISAs, and on an as needed basis, the ISAs may be revised or updated based on facility changes, using the methodology approved for the original ISA development.

As NRC is aware, ISAs are "living" documents integrated into the configuration control management processes and procedures of the facilities. Such control measures rely on conservative safety assumptions, always contain or reflect the current safety basis, and include a feedback loop for identifying and correcting deficiencies based on operating experience. The control measures are also adequately quantitative to provide both NRC and fuel facilities with essential information about the risks to facility safety, their likelihood and expected consequences, and how best to avoid and mitigate unacceptable risks. A significant amount of resources has been expended by industry and the NRC to ensure the ISAs are complete and thorough and meet all existing requirements. Annual ISA updates require additional licensee resources and subsequent NRC reviews to assure they demonstrate continued compliance with applicable requirements and are maintained as living assessments. Further, NEI facilitates bi-weekly industry calls where operational, licensing and inspection information (including ISA-related issues) are routinely shared and discussed for the purposes of continuous improvement, sharing of lessons learned and best practices, and identifying generic issues that may be impacting the fleet and warrant some form of response.

Effective ISA Standards in Use Today

The NRC's March 29th public meeting slides identified staff considerations for possible ISA standard development and peer reviews. As we discussed during the meeting, several well-established standards are routinely used across the industry. The attached table provides examples of standards and guidance routinely used across the industry, which have proven to be sufficient tools for ensuring the completeness and high quality of the initial ISA and periodic ISA updates, based on new information or updated analyses. Examples of the professional organizations responsible for these standards include the American Institute of Chemical Engineers, American Nuclear Society, American National Standards Institute, National Fire Protection Association, and the International Standards Organization.

It should be recognized that industry representatives support these professional organizations as committee members and attend technical conferences and meetings where such operational issues, best practices and lessons learned are discussed. These opportunities provide insights that can be applied at a facility as indicated. Finally, industry relies on Chapter 3 of NUREG-1520 to risk rank the analytical results, and industry supports documenting the key standards used across the fleet as references in a future update to NUREG-1520. In addition, there may be an opportunity to eliminate NUREG-1513 and incorporate the key elements into NUREG-1520 since there is some redundancy between the two guidance documents.

Industry's View on ISA Standards Development

The domestic fuel cycle industry does not support industry development of an ISA standard or a standard on selected ISA topics for the following reasons. As you aware, the industry does not, in and of itself, represent a recognized professional organization, society, or governing body; nor does it possess authority to establish scientific standards. Rather, industry has historically, and arguably successfully, relied on existing industry standards such as those discussed above and in the attachment to inform its facility-specific ISA methodologies, which were approved by NRC, as well as development of the initial ISA and maintenance of the "living" ISA. Further, it is not clear what the impetus would be for an professional organization, such as ANSI, to develop an ISA standard, particularly in the absence of a safety issue.

Another point to consider is that the fuel cycle industry has also benefitted from its small size, in that, experienced individuals may have worked in more than one fuel facility either domestically or abroad and can share their risk insights and experiences in facility operations and the ISA. Also, experienced individuals with Department of Energy non-reactor nuclear facilities, commercial power reactor and non-commercial reactor experience have joined the fuel facilities as staff and management and share their relevant perspectives and experiences on risk insights, risk analysis, configuration management and the change control process, just to name a few. Finally, we strongly believe that very limited industry resources should not and cannot be diverted, from ensuring the safe and secure day-to-day operations of the fuel facilities and in the absence of a well-documented safety issue and technical basis, to support an ISA standards development initiative.

John D. Kinneman
April 17, 2012
Page 4

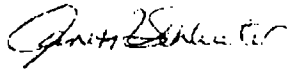
Industry's Use of and View on Peer Reviews

We believe that the flexibility which currently exists for each facility to determine the appropriate method to conduct peer reviews of ISAs for their facility should be preserved. That being said, the industry is committed to continuous improvement and facilities rely on peer reviews in a variety of ways to assure the safety of their facilities and the completeness and quality of the ISAs. It should also be recognized that the small number of domestic facilities are, in some cases, in direct market competition with one another and therefore, for proprietary reasons, peer reviews of fuel facilities by other fuel facilities are not and cannot be conducted in the manner seen in the Reactor fleet. However, we believe that current industry practices meet the intent of such peer reviews through different approaches that have proven effective. Specifically: 1) some facilities utilize foreign counterparts within the parent company to conduct peer reviews; 2) some facilities utilize employees within their facility that are not directly involved with managing the ISAs but have relevant expertise and experience; 3) some facilities take advantage of staff who have had experience at other fuel facilities to gain risk insights; and 4) some facilities contract with independent consultant, some of whom have worked or consulted with more than one fuel facility, which lends itself to cross pollination of information. Further, some facilities may choose to adopt a combination of methods to conduct peer reviews and/or vary their approach from one peer review to another to gain additional insights.

Finally, as stated previously but it bears repeating, our highest priority is the continued safe and secure day-to-day operations, as well as working with NRC to prioritize and identify enhancements to its regulatory programs. Such enhancements could reflect insights from the ongoing NRC assessments of fuel facilities under the post-Fukushima Temporary Instruction issued last fall.

We appreciate the opportunity to provide industry's views on this important matter and look forward to further discussions before submittal of the staff paper to the Commission this summer. If you have any questions, please feel free to contact me at 202-739-8098; jrs@nei.org or Andrew Mauer at 202-739-8018; anm@nei.org.

Sincerely,



Janet R. Schlueter

Attachment

c: Ms. Annette L. Vietti-Cook, SECY, NRC
Ms. Catherine Haney, NMSS, NRC
Mr. Thomas G. Hiltz, NMSS/FCSS, NRC
Mr. Dennis R. Damon, NMSS/FCSS, NRC
Mr. Jonathan S. DeJesus, NMSS/FCSS, NRC

Typical Standards and References Available to the Fuel Cycle Facilities

For Chemical, Radiological, and Fire

Document ID	Document Title
NUREG/CR-6410	Nuclear Fuel Cycle Facility Accident Analysis Handbook
AICHE/CCPS	Guidelines for Hazard Evaluation Procedures, 2 nd Edition with Worked Examples
AICHE/CCPS	Revalidating Process Hazards Analyses
AICHE/CCPS	Guidelines for Consequence Analysis of Chemical Releases
AICHE/CCPS	Guidelines for Risk Based Process Safety
AICHE/CCPS	Guidelines for Technical Management of Chemical Process Safety
NFPA 801	Standard for Fire Protection for Facilities Handling Radioactive Materials
CONF-880558	Uranium Hexafluoride – Safe Handling, Processing, and Transporting
ANSI/ANS-8.1	Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors

For Nuclear Criticality Safety

Document ID	Document Title
ANSI/ANS-8.1	Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors
ANSI/ANS-8.3 (ANSI N-16.2)	Criticality Accident Alarm System
ANSI/ANS-8.7	Guide for Nuclear Criticality Safety in the Storage of Fissile Materials
ANSI/ANS-8.12	Nuclear Criticality Control and Safety of Plutonium-Uranium Fuel Mixtures Outside Reactors
ANSI/ANS-8.15	Nuclear Criticality Control of Special Actinide Elements
ANSI/ANS-8.17	Criticality Safety Criteria for the Handling, Storage

Document ID	Document Title
	and Transportation of LWR Fuel Outside Reactors
ANSI/ANS-8.19	Administrative Practices for Nuclear Criticality Safety
ANSI/ANS-8.20	Nuclear Criticality Safety Training
ANSI/ANS-8.21	Use of Fixed Neutron Absorbers in Nuclear Facilities Outside Reactors
ANSI/ANS-8.22	Nuclear Criticality Safety Based on Limiting and Controlling Moderators
ANSI/ANS-8.23	Nuclear Criticality Accident Emergency Planning and Response
ANSI/ANS-8.24	Validation of Neutron Transport Methods for Nuclear Criticality Safety Calculations
ANSI/ANS-8.26	Criticality Safety Engineer Training and Qualification Program
LA-10860-MS	Critical Dimensions of Systems Containing U235, Pu239, and U233, 1986
LA-12808	The Nuclear Criticality Safety Guide, September, 1996
LA-13638	A Review of Criticality Accidents, May 2000
ARH-600, Volumes I, II, and III	Criticality Handbook, 1968

For Miscellaneous & External Events

Document ID	Document Title
NUREG-1520	Standard Review Plan for the Review of a License Application for a Fuel Cycle Facility
DOE-STD-3014-96	Accident Analysis for Aircraft Crash into Hazardous Facilities
ISBN 0-683-18334-6	Handbook of Health Physics and Radiological Health, Third Edition
NFPA 5000	Building and Construction and Safety Code
ANSI/ANS 2.26	Categorization of Nuclear Facility Structures, Systems and Components
ASCE 43-05/SEI 43-05	Seismic Design Criteria for Structures, Systems, and Components in Nuclear Facilities

Document ID	Document Title
ASCE-7	Minimum Design Loads for Buildings and Other Structures
IBC	International Building Code as adopted by local regulations
ISBN 1-55617-777-1	Instrument Society of America (ISA) - Safety Integrity Level Selection
ANSI/ISA-S84.00.01-2004 Parts 1-3 (IEC 61511 Mod)	Functional Safety-Safety Instrumented Systems for the Process Industry Sector

ISO Standards Impacting Health and Safety Issues:

Document ID	Document Title
ISO 9001	Quality Management Systems
ISO 14001	Environmental Management Systems
ISO 18001	Occupational Health and Safety
ISO 11320	Nuclear Criticality Safety – Emergency Preparedness and Response
ISO 1709	Nuclear Energy - Fissile Materials - Principles of Criticality Safety in Storing, Handling, and Processing Fissile Materials
ISO 27468	Nuclear Criticality Safety - Evaluation of Systems Containing PWR UOX Fuels - Bounding Burnup Credit Approach

Frazier, Alan

From: SCHLUETER, Janet [jrs@nei.org]
Sent: Tuesday, August 14, 2012 2:50 PM
To: Tadesse, Rebecca; Kock, Andrea; Frazier, Alan
Cc: MAUER, Andrew
Subject: FYI - NEI ltr to NRC on Part 61
Attachments: 08-02-12_NRC_Request for Comment on Low-Level Radioactive Waste Regulatory Management Issues.pdf

Andrea, Rebecca, and Alan -

Good afternoon. In the event you haven't seen it, I have attached our recent letter to NRC on the LLW management/disposal concepts that have been the subject of NRC public meetings this year. Bottom line – industry believes that there is no urgent need for a rulemaking; certain dose methodology updates would be beneficial; and involve the Agreement States in a more open manner since they are the only regulators of operating LLW disposal sites.

Janet R. Schlueter
Director, Fuel and Materials Safety

Nuclear Energy Institute
1776 I St. N.W., Suite 400
Washington, DC 20006

P:202-739-8098

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Ralph L. Andersen, CHP
SENIOR DIRECTOR
RADIATION SAFETY & ENVIRONMENT PROTECTION
NUCLEAR GENERATION DIVISION

August 2, 2012

Ms. Cindy K. Bladey
Chief, Rules, Announcements and Directives Branch
Office of Administration
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Request for Comment on Low-Level Radioactive Waste Regulatory Management Issues,
77 Federal Register 40817, July 11, 2012 [Docket No. NRC-2011-0012]

Project Number: 689

Dear Ms. Bladey:

On behalf of the nuclear industry, the Nuclear Energy Institute (NEI)¹ appreciates the opportunity to provide comments on low-level radioactive waste (LLRW) regulatory management issues described in the subject Federal Register notice. Our comments have been developed from input from nuclear industry staff responsible for LLRW management and experts in technical analysis for licensing and regulation of LLRW disposal sites. Our comments have been informed by the discussions at a series of public meetings held by the Nuclear Regulatory Commission (NRC) earlier this year to hear stakeholder views on the LLRW regulatory management issues.

Part 61 Rulemaking

The nuclear industry supports the intent and direction outlined in the November 3, 2011, Commission Action Memorandum, Revision to Part 61 (COMWDM-11-0002/COMGA-11-0002), to "change the current rulemaking regarding site-specific analysis in order to bring a clearer risk-informed approach to Part 61." We agree that this approach can eliminate the need "for the far more complex rulemaking" that has been envisioned in previous NRC staff recommendations and Commission direction.

¹ NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's 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.

We suggest that the rulemaking be focused on (1) incorporating the latest International Commission on Radiological Protection (ICRP) methodologies; (2) using updated assumptions that are more reflective of the extensive domestic and international operational experience since the time that Part 61 was promulgated; and (3) addressing findings and recommendations of the Risk Management Task Force in its April 2012 report, A Proposed Risk Management Regulatory Framework, that are specifically related to low-level radioactive waste. The rulemaking should be coordinated with anticipated rulemaking to Part 20 to achieve consistency in radiation protection methodologies and alignment between Part 61 and provisions in Part 20 that are directly applicable to low-level radioactive waste management and disposal.

We encourage the NRC to heed the advice of the Risk Management Task Force to “undertake early and substantive outreach to Agreement States (since all existing LLW disposal sites are in Agreement States)...”

As has been concluded in multiple NRC decisions, documents and communications, the current Part 61 provides for safe disposal of low-level radioactive waste. Therefore, we do not believe that there is an urgent need for completing Part 61 rulemaking, especially in light of other, more pressing regulatory priorities. However, the significant changes and increased experience in LLRW management, enhancements to risk assessment techniques, and updating of radiation protection methodologies that have occurred since the promulgation of Part 61 support a commitment of time and resources on the part of the NRC, the states, licensees, and other stakeholders to pursue a well-focused rulemaking on a reasonable schedule (e.g., 5 years, as suggested by the Risk Management Task Force and consistent with the suggested plans for Part 20 rulemaking).

In regard to the specific low-level radioactive waste regulatory management issues identified in the subject Federal Register notice, we offer the following comments.

Use of ICRP methodologies: The use of the best current understanding in dose analysis is a common issue across Federal Agencies in general and NRC regulations in particular. The resolution of this issue should ideally be addressed as part of a larger Federal effort to update all Federal regulations and guidance on the analysis of radiation dosimetry. Such an effort should include general NRC regulations (e.g. 10 CFR Part 20) as well as EPA regulations (e.g. 40 CFR 141 and 40 CFR 190) and Federal guidance (e.g. Federal Guidance Reports 11, 12, and 13). A coordinated effort to update to the most recent ICRP methodologies would lead to greater long-term stability and decreased regulatory uncertainty and inconsistencies.

A two-tiered approach for compliance: Current NRC guidance on low-level waste time frames (NUREG-1573) provides adequate guidance in the area of time frames, and is allowing current regulatory decision making at the State level to proceed without undue difficulties. Therefore, rulemaking or additional guidance is not urgent at this time. However, there are advantages to the use of a two-tiered time frame system, in providing adjudicatory defensibility and regulatory

Ms. Cindy K. Bladey
August 2, 2012
Page 3

stability. NRC is encouraged to explore the use of the two-tiered approach as part of a longer term strategy to update 10 CFR Part 61.

Flexibility to establish site-specific waste acceptance criteria: 10 CFR Part 61.58 provides the flexibility for individual sites and States to propose performance-based waste acceptance criteria. There is therefore no need for urgent action on this issue. In the long term, NRC may consider revising 10 CFR Part 61 to remove the waste classification system from the regulation itself, including it instead in regulatory guidance. This approach would increase the flexibility of the States to respond to specific license conditions and requests at the State level.

Compatibility category for alignment among the States: The nuclear industry recognizes and appreciates the Agreement States' role and responsibility for the licensing and oversight of existing commercial low-level radioactive waste disposal facilities in this country. As such, NRC should better integrate the Agreement States as co-regulators and critical decision makers early in the process when addressing generic LLW management issues such as the ones discussed at the July 19, 2012 public meeting. For example, while NRC has apparently discussed these matters with the affected Agreement States, such discussions have not occurred with stakeholders in a public forum. The experiences and perspectives of South Carolina, Washington, Utah and Texas officials as the regulators of LLW disposal facilities are invaluable and absolutely necessary when considering any Part 61 rulemaking or related guidance development. Finally, each Agreement State is bound by its formal Agreement with NRC to promulgate a rule that is determined by NRC to be adequate from a public health and safety perspective and compatible with NRC's rule. Therefore, NRC, the Agreement States and all stakeholders would benefit from more open and transparent NRC-Agreement State deliberations on these matters.

Thank you for the opportunity to provide our comments on these issues. Should you have any questions, please feel free to contact me at 202-739-8111; rla@nei.org or Janet Schlueter at 202-739-8098; jrs@nei.org.

Sincerely,



Ralph L. Andersen

c: Mr. Larry W. Camper, FSME/DWMEP, NRC
Mr. Andrew Persinko, FSME/DWMEP/EPPAD, NRC
Mr. Gregory F. Suber, FSME/DWMEP/EPPAD/LL, NRC
Mr. James E. Kennedy, FSME/DWMEP/EPPAD/LL, NRC
Mr. Donald B. Lowman, FSME/DWMEP/EPPAD/LL, NRC

Frazier, Alan

From: SCHLUETER, Janet [jrs@nei.org]
Sent: Tuesday, August 14, 2012 11:26 AM
To: Frazier, Alan; Tadesse, Rebecca; Kock, Andrea
Subject: FYI - ANS and ISA

Alan, Rebecca and Andrea –

Good morning.

Given that an SRM has not been issued on the staff's ISA options paper, I thought you might be interested to know that an ANS chairperson has contacted several industry reps (including me), and NRC and other government reps via email, to solicit their interest in supporting a new ANS committee to develop ISA standards for fuel facilities. This raises a lot of questions in our minds including where is the funding coming from.

Also, if the Chairman has selected a Materials TA, please pass on the name. I have communicated with Andy Imboden in the past but did not want to assume he is still there.

Enjoy your day.

Janet R. Schlueter
Director, Fuel and Materials Safety

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Castleman, Patrick

From: SCHLUETER, Janet [jrs@nei.org]
Sent: Tuesday, November 06, 2012 11:36 AM
To: Tadesse, Rebecca; Kock, Andrea; Castleman, Patrick; Frazier, Alan; Astwood, Heather
Subject: NEI ltr to ANS on ISA Stnd Development
Attachments: 11-06-12_ANS_NEI's Position on Draft ANS ISA Standard.pdf; 11-06-12_ANS_NEI's Position on Draft ANS ISA Standard_Attachment.pdf

TAs – I trust you will find the attached letter, distributed moments ago, of interest to you and relevant to the Part 40 paper before you. Thanks, Janet

From: SCHLUETER, Janet
Sent: Tuesday, November 06, 2012 11:25 AM
Subject: Industry Position on a Potential New ANS Standard, "Integrated Safety Assessments for Fuel Facilities" (ANS 57.11 Working Group PINS)

November 6, 2012

Mr. Carl Mazzola
Chair, Nuclear Facilities Standards Committee
American Nuclear Society
555 North Kensington Avenue
La Grange Park, IL 60526

Subject: Industry Position on a Potential New ANS Standard, "Integrated Safety Assessments for Fuel Facilities" (ANS 57.11 Working Group PINS)

Dear Mr. Mazzola:

On behalf of the fuel cycle industry, the Nuclear Energy Institute (NEI)⁽¹⁾ provides the following information for your consideration on the recent American Nuclear Society (ANS) initiative to develop a standard on conducting Integrated Safety Analyses (ISAs) at fuel cycle facilities (i.e., ANS-57.11, "Integrated Safety Assessments for Fuel Fabrication Facilities"). The fuel cycle industry has carefully considered this important matter for some time, most recently expressed its position and its basis to NRC in a letter dated April 17, 2012 (attached), and continues to believe that this initiative should not proceed.

Specifically, we continue to believe that supporting the development of an ISA standard would be a significant and ill-advised diversion of scarce operational safety resources in the absence of a clearly articulated safety issue or concern with the facility-specific ISAs in use today. Other higher priority NRC regulatory initiatives are competing for our operational safety resources. Further, NRC has previously approved the methodologies underlying the ISAs in place today, and NRC's own Advisory Committee on Reactor Safeguards (ACRS) in 2011 recognized the current ISA methodology and "living" nature of the ISA as adequate to demonstrate compliance with NRC requirements and ensure safety.

Attachment

Janet R. Schlueter
Director, Fuel and Materials Safety

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^[1] NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's 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.



Janet R. Schlueter
DIRECTOR
FUEL & MATERIALS SAFETY
NUCLEAR GENERATION DIVISION

November 6, 2012

Mr. Carl Mazzola
Chair, Nuclear Facilities Standards Committee
American Nuclear Society
555 North Kensington Avenue
La Grange Park, IL 60526

Subject: Industry Position on a Potential New ANS Standard, "Integrated Safety Assessments for Fuel Facilities" (ANS 57.11 Working Group PINS)

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Mr. Carl Mazzola
November 6, 2012
Page 2

We trust that the information contained in this letter will be of value to you and other ANS members as you consider this important matter. To that end, we request that this letter be promptly provided to all members of the Nuclear Facilities Standards Committee and its subcommittee, ANS-2.7, Nuclear Fuel Safety as well as the ANS-57.11 working group. Industry's position on this matter is summarized as follows:

- Limited industry resources should not and cannot be diverted from ensuring the safe and secure day-to-day facility operations in the absence of a well-documented safety issue and technical basis to support any ISA standards development initiative. No such safety issue or basis has been identified.
- Limited industry resources (and we suspect NRC resources) would be more effectively utilized by focusing on higher priority, current NRC regulatory initiatives. These include but are not limited to: 1) promulgation and implementation of a revised 10 CFR Part 40 that applies to conversion/deconversion and fuel fabrication facilities; 2) addressing unresolved items resulting from NRC inspections under the post-Fukushima Temporary Instruction (MC 2600/015); 3) a proposed rule for Part 74 regarding material control and accounting; 4) enhancements to NRC's Fuel Cycle Oversight Process to include Corrective Action Programs; and 5) a draft regulatory basis for potential modifications to Part 21 involving commercial grade dedication among other new and revised requirements.
- Industry has successfully relied on more than 40 existing industry standards developed by such professional organizations as the American Institute of Chemical Engineers, the American National Standards Institute, and the International Standards Organization among others (see attached letter). NRC has approved use of these standards as the basis for existing facility-specific ISAs which are "living documents" that evolve to reflect current facility operations with updates provided to NRC on an annual basis. This approach to ISA development and maintenance was recognized by NRC's ACRS in 2011 as adequate to demonstrate compliance and assure safety. Further, NRC has access to any ISA related information maintained at NRC-licensed fuel facilities that may be of interest to them.
- Finally, industry representatives actively support NEI's Fuel Operations Committee, professional organizations as committee members and attend technical conferences and meetings where operational issues, best practices and lessons-learned are routinely discussed. These opportunities provide risk insights and shared experiences that are applied at a facility as warranted. This practical experience combined with copious industry guidance and that provided in NRC's Chapter 3 of NUREG-1520 on risk ranking the analytical results of an ISA provide a sound foundation to ensuring a complete and high quality ISA.

Mr. Carl Mazzola
November 6, 2012
Page 3

Reflecting on this information coupled with industry's confidence in the existing ISAs, we do not support development of an ISA standard by any organization.

Please contact me at (202) 739-8098; jrs@nei.org if you need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Janet R. Schlueter". The signature is fluid and cursive, with the first name "Janet" and last name "Schlueter" clearly distinguishable.

Janet R. Schlueter

Attachment

- c: Ms. Patricia Schroeder, American Nuclear Society
- Mr. Robert G. Eble, AREVA-MOX Services
- Mr. Michael F. Weber, EDO, NRC
- Mr. John D. Kinneman, NMSS/FCSS, NRC



Janet R. Schlueter
DIRECTOR
FUEL & MATERIALS SAFETY
NUCLEAR GENERATION DIVISION

April 17, 2012

Mr. John D. Kinneman
Director, Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Materials Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Industry's Current Use of Integrated Safety Analysis Standards and Peer Reviews
(Reference: SRM on M11011B dated 11/10/2011; NRC Public Meeting on 3/29/2012)

Project Number: 689

Dear Mr. Kinneman:

On behalf of the fuel cycle industry, the Nuclear Energy Institute (NEI)¹, provides the following feedback in follow-up to the public meeting conducted by the U.S. Nuclear Regulatory Commission (NRC) in Atlanta, Georgia on March 29, 2012. We appreciate the opportunity to discuss the NRC staff efforts to respond to Commission direction regarding recommendations on the use of peer reviews, and the development of standards to further ensure the completeness and quality of facility-specific Integrated Safety Analyses (ISAs). As you know, the industry previously provided feedback to NRC staff on the use of ISAs in a November 5, 2010 public meeting and a November 19, 2010 (ML103370256), letter on the development of the staff white paper entitled, "A Comparison of Integrated Safety Analysis and Probabilistic Risk Assessment." Further, industry representatives briefed the NRC's Advisory Committee on Reactor Safeguards Subcommittee on Radiation Protection and Nuclear Materials (January 11, 2011; ML110200329), and issued a statement to and briefed the full Committee on this important topic (February 8 and 10, 2011, ML1104702130 and ML110480828, respectively).

¹ NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's 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.

ISA Assures Appropriate Safety Controls

The ISA methodology is a systematic, risk-informed and performance-based analysis that is implemented by fuel cycle facilities and has been demonstrated to maintain safety and achieve compliance with applicable NRC requirements (e.g., 10 CFR 70.61). More specifically, the ISA provides the methodology to assess and establish the needed safety basis to assure that the handling of nuclear material is within the programmatic requirements, that the safety program is appropriate for the risk, and that the measures for carrying out the safety program are appropriately monitored through the existing NRC fuel cycle oversight process. Further, the ISA is both a design and safety analysis methodology to demonstrate and assure that appropriate safety controls are in place to meet performance requirements intended to protect the worker, the public, and the environment. Risk management techniques, on which the ISAs are based, were established approximately 50 years ago, are used throughout the chemical industry (known as "Process Hazards Analysis"), and are a critical element in managing process safety as is evidenced in several industry standards.

Given the small number, diversity, and variable risk profile of the fuel cycle facilities, ISAs provide needed flexibility for each facility to comprehensively address their unique site processes, procedures, and resources using readily available standards, which accommodate the facility-specific operations and circumstances that may be present at any given point in time. In that regard, fuel facilities relied upon the facility's ISA teams of experts to perform the hazards analysis used in development of the their ISAs, and on an as needed basis, the ISAs may be revised or updated based on facility changes, using the methodology approved for the original ISA development.

As NRC is aware, ISAs are "living" documents integrated into the configuration control management processes and procedures of the facilities. Such control measures rely on conservative safety assumptions, always contain or reflect the current safety basis, and include a feedback loop for identifying and correcting deficiencies based on operating experience. The control measures are also adequately quantitative to provide both NRC and fuel facilities with essential information about the risks to facility safety, their likelihood and expected consequences, and how best to avoid and mitigate unacceptable risks. A significant amount of resources has been expended by industry and the NRC to ensure the ISAs are complete and thorough and meet all existing requirements. Annual ISA updates require additional licensee resources and subsequent NRC reviews to assure they demonstrate continued compliance with applicable requirements and are maintained as living assessments. Further, NEI facilitates bi-weekly industry calls where operational, licensing and inspection information (including ISA-related issues) are routinely shared and discussed for the purposes of continuous improvement, sharing of lessons learned and best practices, and identifying generic issues that may be impacting the fleet and warrant some form of response.

Effective ISA Standards in Use Today

The NRC's March 29th public meeting slides identified staff considerations for possible ISA standard development and peer reviews. As we discussed during the meeting, several well-established standards are routinely used across the industry. The attached table provides examples of standards and guidance routinely used across the industry, which have proven to be sufficient tools for ensuring the completeness and high quality of the initial ISA and periodic ISA updates, based on new information or updated analyses. Examples of the professional organizations responsible for these standards include the American Institute of Chemical Engineers, American Nuclear Society, American National Standards Institute, National Fire Protection Association, and the International Standards Organization.

It should be recognized that industry representatives support these professional organizations as committee members and attend technical conferences and meetings where such operational issues, best practices and lessons learned are discussed. These opportunities provide insights that can be applied at a facility as indicated. Finally, industry relies on Chapter 3 of NUREG-1520 to risk rank the analytical results, and industry supports documenting the key standards used across the fleet as references in a future update to NUREG-1520. In addition, there may be an opportunity to eliminate NUREG-1513 and incorporate the key elements into NUREG-1520 since there is some redundancy between the two guidance documents.

Industry's View on ISA Standards Development

The domestic fuel cycle industry does not support industry development of an ISA standard or a standard on selected ISA topics for the following reasons. As you aware, the industry does not, in and of itself, represent a recognized professional organization, society, or governing body; nor does it possess authority to establish scientific standards. Rather, industry has historically, and arguably successfully, relied on existing industry standards such as those discussed above and in the attachment to inform its facility-specific ISA methodologies, which were approved by NRC, as well as development of the initial ISA and maintenance of the "living" ISA. Further, it is not clear what the impetus would be for an professional organization, such as ANSI, to develop an ISA standard, particularly in the absence of a safety issue.

Another point to consider is that the fuel cycle industry has also benefitted from its small size, in that, experienced individuals may have worked in more than one fuel facility either domestically or abroad and can share their risk insights and experiences in facility operations and the ISA. Also, experienced individuals with Department of Energy non-reactor nuclear facilities, commercial power reactor and non-commercial reactor experience have joined the fuel facilities as staff and management and share their relevant perspectives and experiences on risk insights, risk analysis, configuration management and the change control process, just to name a few. Finally, we strongly believe that very limited industry resources should not and cannot be diverted, from ensuring the safe and secure day-to-day operations of the fuel facilities and in the absence of a well-documented safety issue and technical basis, to support an ISA standards development initiative.

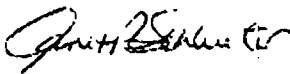
Industry's Use of and View on Peer Reviews

We believe that the flexibility which currently exists for each facility to determine the appropriate method to conduct peer reviews of ISAs for their facility should be preserved. That being said, the industry is committed to continuous improvement and facilities rely on peer reviews in a variety of ways to assure the safety of their facilities and the completeness and quality of the ISAs. It should also be recognized that the small number of domestic facilities are, in some cases, in direct market competition with one another and therefore, for proprietary reasons, peer reviews of fuel facilities by other fuel facilities are not and cannot be conducted in the manner seen in the Reactor fleet. However, we believe that current industry practices meet the intent of such peer reviews through different approaches that have proven effective. Specifically: 1) some facilities utilize foreign counterparts within the parent company to conduct peer reviews; 2) some facilities utilize employees within their facility that are not directly involved with managing the ISAs but have relevant expertise and experience; 3) some facilities take advantage of staff who have had experience at other fuel facilities to gain risk insights; and 4) some facilities contract with independent consultant, some of whom have worked or consulted with more than one fuel facility, which lends itself to cross pollination of information. Further, some facilities may choose to adopt a combination of methods to conduct peer reviews and/or vary their approach from one peer review to another to gain additional insights.

Finally, as stated previously but it bears repeating, our highest priority is the continued safe and secure day-to-day operations, as well as working with NRC to prioritize and identify enhancements to its regulatory programs. Such enhancements could reflect insights from the ongoing NRC assessments of fuel facilities under the post-Fukushima Temporary Instruction issued last fall.

We appreciate the opportunity to provide industry's views on this important matter and look forward to further discussions before submittal of the staff paper to the Commission this summer. If you have any questions, please feel free to contact me at 202-739-8098; jrs@nei.org or Andrew Mauer at 202-739-8018; anm@nei.org.

Sincerely,



Janet R. Schlueter

Attachment

c: Ms. Annette L. Vietti-Cook, SECY, NRC
Ms. Catherine Haney, NMSS, NRC
Mr. Thomas G. Hiltz, NMSS/FCSS, NRC
Mr. Dennis R. Damon, NMSS/FCSS, NRC
Mr. Jonathan S. DeJesus, NMSS/FCSS, NRC

Typical Standards and References Available to the Fuel Cycle Facilities

For Chemical, Radiological, and Fire

Document ID	Document Title
NUREG/CR-6410	Nuclear Fuel Cycle Facility Accident Analysis Handbook
AIChE/CCPS	Guidelines for Hazard Evaluation Procedures, 2 nd Edition with Worked Examples
AIChE/CCPS	Revalidating Process Hazards Analyses
AIChE/CCPS	Guidelines for Consequence Analysis of Chemical Releases
AIChE/CCPS	Guidelines for Risk Based Process Safety
AIChE/CCPS	Guidelines for Technical Management of Chemical Process Safety
NFPA 801	Standard for Fire Protection for Facilities Handling Radioactive Materials
CONF-880558	Uranium Hexafluoride – Safe Handling, Processing, and Transporting
ANSI/ANS-8.1	Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors

For Nuclear Criticality Safety

Document ID	Document Title
ANSI/ANS-8.1	Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors
ANSI/ANS-8.3 (ANSI N-16.2)	Criticality Accident Alarm System
ANSI/ANS-8.7	Guide for Nuclear Criticality Safety in the Storage of Fissile Materials
ANSI/ANS-8.12	Nuclear Criticality Control and Safety of Plutonium-Uranium Fuel Mixtures Outside Reactors
ANSI/ANS-8.15	Nuclear Criticality Control of Special Actinide Elements
ANSI/ANS-8.17	Criticality Safety Criteria for the Handling, Storage

Document ID	Document Title
	and Transportation of LWR Fuel Outside Reactors
ANSI/ANS-8.19	Administrative Practices for Nuclear Criticality Safety
ANSI/ANS-8.20	Nuclear Criticality Safety Training
ANSI/ANS-8.21	Use of Fixed Neutron Absorbers in Nuclear Facilities Outside Reactors
ANSI/ANS-8.22	Nuclear Criticality Safety Based on Limiting and Controlling Moderators
ANSI/ANS-8.23	Nuclear Criticality Accident Emergency Planning and Response
ANSI/ANS-8.24	Validation of Neutron Transport Methods for Nuclear Criticality Safety Calculations
ANSI/ANS-8.26	Criticality Safety Engineer Training and Qualification Program
LA-10860-MS	Critical Dimensions of Systems Containing U235, Pu239, and U233, 1986
LA-12808	The Nuclear Criticality Safety Guide, September, 1996
LA-13638	A Review of Criticality Accidents, May 2000
ARH-600, Volumes I, II, and III	Criticality Handbook, 1968

For Miscellaneous & External Events

Document ID	Document Title
NUREG-1520	Standard Review Plan for the Review of a License Application for a Fuel Cycle Facility
DOE-STD-3014-96	Accident Analysis for Aircraft Crash into Hazardous Facilities
ISBN 0-683-18334-6	Handbook of Health Physics and Radiological Health, Third Edition
NFPA 5000	Building and Construction and Safety Code
ANSI/ANS 2.26	Categorization of Nuclear Facility Structures, Systems and Components
ASCE 43-05/SEI 43-05	Seismic Design Criteria for Structures, Systems, and Components in Nuclear Facilities

Document ID	Document Title
ASCE-7	Minimum Design Loads for Buildings and Other Structures
IBC	International Building Code as adopted by local regulations
ISBN 1-55617-777-1	Instrument Society of America (ISA) - Safety Integrity Level Selection
ANSI/ISA-S84.00.01-2004 Parts 1-3 (IEC 61511 Mod)	Functional Safety-Safety Instrumented Systems for the Process Industry Sector

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Bielecki, Jessica

From: CMRSVINICKI Resource
Sent: Tuesday, November 13, 2012 1:14 PM
To: Lepre, Janet; Riddick, Nicole
Subject: FW: Request for Commission Guidance to Clarify Application of Financial Qualifications Requirements
Attachments: 11 13 12 FINAL Letter & Attachment Commission Guidance FQ License Condition.pdf

From: GINSBERG, Ellen [<mailto:ecg@nei.org>]
Sent: Tuesday, November 13, 2012 12:00 PM
To: CHAIRMAN Resource
Cc: CMRSVINICKI Resource; CMRAPOSTOLAKIS Resource; CMRMAGWOOD Resource; CMROSTENDORFF Resource; Borchardt, Bill; Matthews, David; Doane, Margaret; Nieh, Ho
Subject: Request for Commission Guidance to Clarify Application of Financial Qualifications Requirements

Dear Chairman Macfarlane:

Please see the attached from the Nuclear Energy Institute. We appreciate your consideration of this matter.

Sincerely,



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NUCLEAR ENERGY INSTITUTE

Ellen C. Ginsberg
VICE PRESIDENT, GENERAL COUNSEL AND SECRETARY

November 13, 2012

Dr. Allison M. Macfarlane
Chairman
U.S. Nuclear Regulatory Commission
Mailstop 16 G4
Washington, DC 20555-0001

Subject: Request for Commission Guidance to Clarify Application of Financial Qualifications Requirements in the Context of New Nuclear Plant Development by Merchant Generators

Dear Chairman Macfarlane:

The Nuclear Energy Institute (NEI),¹ on behalf of the nuclear energy industry, is writing to express our views regarding a generic policy issue highlighted by the experience of the applicant for a combined operating license (COL) for the South Texas Project, Units 3 and 4 (STP 3 & 4). Our concern relates to the agency's Financial Qualifications (FQ) requirements in 10 CFR § 50.33(f) and 10 CFR Part 50, Appendix C. As currently being applied, these requirements may impede NRC licensing for STP 3 & 4 and, potentially, other "merchant" reactor projects. The industry believes that Commission guidance on this matter is required.

The FQ requirements in 10 CFR Part 50 require, prior to issuance of a COL, a finding of "reasonable assurance" of the availability of adequate funds to complete construction and to operate the facility safely. However, a developer of a merchant plant is not likely to have the committed funding required for construction prior to COL issuance, particularly when project construction will not begin immediately. Without the COL in hand, many merchant generators may also find it difficult to attract investors and lenders and acquire funding for construction costs. To address this disconnect between issuance of the COL and the availability of financing for the project, NEI recommends that the Commission make clear that it is acceptable to permit an FQ license condition to be incorporated into a COL. Using a robust FQ license condition to

¹ NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry. NEI's 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, nuclear material licensees, and other organizations and individuals involved in the nuclear energy industry.

address the Part 50 requirements is legally sound, as the license condition would specify the criteria that must be met prior to initiation of construction and thereby satisfy the FQ requirements and allow issuance of the license.

We urge the Commission to address this matter as expeditiously as possible given the impact on STP, recognizing, of course, that other priority issues also are pending before the Commission. We offer our views in greater detail below and have attached a legal analysis supporting NEI's proposal for the Commission's further consideration.

The specific issue of concern relates to the timing and means of demonstrating the financial qualifications of a COL applicant that is a "merchant" or "non-utility" generator. Since the enactment of the 1992 Energy Policy Act, there has been a notable increase in "merchant" nuclear generating facilities in the United States. The merchant model is significantly different from the electric utility model contemplated under 10 CFR 50.2. As defined in that regulation, an "electric utility" recovers the cost of the electricity generated "either directly or indirectly, through rates established by the entity itself or by a separate regulatory authority." In contrast, a merchant generator, rather than following a traditional cost-of-service model with a state-sponsored return on the developer's investment, will typically develop new generation projects using the "project finance" approach to funding.²

When using a project finance approach for a new energy generation project of any kind, the final closing on a financing transaction occurs when the lenders agree that the preconditions for the funding of the project have been met so that all documents can be executed. Closing on the financing commits each of the lenders and project participants to the various financial arrangements that assure that construction will be completed and the project will generate the revenue necessary for the developer to support operations and repay the loans. Developers using project finance generally must also demonstrate to lenders at financial closing that they have received all necessary regulatory approvals to begin construction, including, in the case of a new nuclear plant, a COL.

When the NRC's financial qualifications regulations in 10 CFR Part 50.33(f) and Part 50, Appendix C, were developed, the evolution of merchant power markets in the United States had not yet occurred. Therefore, no consideration was given to how COL applicants might demonstrate their financial qualifications where circumstances may not be ripe for immediate start of construction and prior to closing on the project finance. As a result, the sponsors of STP

² As defined by the International Project Finance Association, the "project finance" approach to funding is: "The financing of long-term infrastructure, industrial projects and public services based upon a non-recourse or limited recourse financial structure where project debt and equity used to finance the project are paid back from the cash flow generated by the project."

3 & 4 (and potentially other COL applicants) now face an unnecessary licensing challenge in the absence of Commission guidance on an acceptable approach to satisfying the regulations.

The agency's current application of the FQ requirements suggests that the agency will not issue a COL until committed investors are identified in the application. As a practical matter, however, investors in merchant nuclear plants using a project finance model typically are reluctant to commit funds prior to the issuance of a COL. In particular, lenders participating in a large infrastructure project finance, including the U.S. Federal Finance Bank and guarantors such as the U.S. Department of Energy (DOE), will insist upon issuance of the COL before the financial closing. At the time of the final review prior to COL issuance, a merchant plant applicant may have a "plan" to meet the requirements of 10 CFR 50.33(f) and Part 50, Appendix C, but it may not have the *committed funding* required for construction.

Use of a license condition, where necessary to satisfy the NRC's financial qualifications requirements, is consistent with the applicable statute, regulations, and NRC guidance. Under the Atomic Energy Act, the Commission has broad discretion to determine the financial qualifications of applicants. NRC rules do not require absolute certainty at the time of licensing. They require an applicant to demonstrate "reasonable assurance" of obtaining the funds necessary for the project, rather than requiring that the applicant already have the funds in hand prior to commencement of construction.³ An applicant may, therefore, provide reasonable assurance at the time of licensing by accepting a license condition that requires documentation of the availability of funds prior to commencement of licensed construction activities. A license condition incorporating objective, confirmatory criteria to be met after initial licensing is consistent with Commission precedent.

The specific, verifiable showing required by a license condition would be a pre-condition to beginning licensed construction activity. In the project finance model, if an applicant fails to meet the terms of the project finance (and thus the terms of the FQ license condition), the closing will not take place. Because the applicant must demonstrate that it has satisfied the FQ license condition prior to the beginning of construction, there is no risk that construction could begin without sufficient funding. By ensuring that all funds needed for construction would be available prior to commencement of licensed construction activities, where "construction" is defined in 10 CFR 50.2, the license condition would serve the fundamental purpose of the financial qualifications requirement – namely, to ensure that the safety of licensed activities is not compromised by a lack of funding.

Moreover, the requirements imposed by lenders in a project finance model are far more rigorous than the showing of "reasonable assurance of obtaining the funds necessary to cover estimated

³ For purposes of this discussion, the definition of construction in 10 CFR § 50.2 applies.

construction costs and related fuel cycle costs,” required by the NRC’s FQ regulations. The lenders will require that the licensee demonstrate that it actually “possesses” not only the funds necessary to cover estimated costs, but also additional funds to cover contingencies, to meet working capital requirements, and to make debt payments when due.

An appropriate FQ license condition could require the following: (1) documentation of sufficient funding to construct the project, whether through equity or loan commitments, provided by government loan guarantees, qualified financial institutions, or qualified investors; (2) minimum credit ratings and other standards, as appropriate, for qualified financial institutions or investors; (3) documentation to identify the legal and financial relationships between the applicant and investors or lenders, so as to provide the information contemplated by Part 50, Appendix C; and (4) the specific limitation that construction may not commence until the funding conditions are fully satisfied.⁴

An FQ license condition approach will allow the NRC staff to move forward with its review of pending COL applications. The Commission may adopt this approach without the need for a rulemaking to amend 10 CFR Part 50.⁵ Further, the agency would be maintaining transparency as the sufficiency of specific license conditions in individual applications would be addressed on a case-by-case basis.⁶

⁴ An FQ License Condition could also be premised upon a DOE (or other agency) loan guarantee for the project, which would involve project finance principles that are embodied in affirmative regulatory requirements. DOE’s Loan Guarantee rules provide rigorous standards for project feasibility and the creditworthiness of funding commitments. *See, e.g.*, 10 CFR § 609.10(d). For example, the DOE’s regulations require that committed funds be available to assure the completion of construction of the project. 10 CFR § 609.10(d)(8) (requiring that “[t]he amount of the loan guaranteed, when combined with other funds committed to the project, will be sufficient to carry out the project, including adequate contingency funds”). The requirements also require a demonstration of the financial viability of the project to begin operations and generate revenue not only sufficient to pay operating expenses, but sufficient to repay the debt. 10 CFR § 609.10(d)(9) (requiring that as a condition to issuance of a loan guarantee there must be “reasonable prospect of repayment by Borrower of the principal and interest” for all project debt, *i.e.*, the project revenue must be sufficient to not only pay O&M costs required to generate revenue, but also to make debt payments).

⁵ The Commission could initiate a rulemaking to codify the use of FQ License Conditions and provide additional criteria for the NRC staff to use in assessing proposed license conditions. The clarifying text (for example, in Part 50, Appendix C) would indicate expressly that the FQ requirements may be satisfied by means of a license condition, and should set forth the essential parameters for a license condition. However, as described in the attached paper, this rulemaking approach is unnecessary. The NRC has broad discretion to interpret and apply its FQ regulations, and the proposed approach is consistent with the terms of the regulation, Commission guidance, and precedent. However, a rulemaking could unnecessarily delay agency action on pending COL applications until completion of the rulemaking. Alternatively, to avoid delay, the NRC could issue exemptions pending completion of the rulemaking.

⁶ Upon the Commission providing the guidance on the acceptability of the approach, the use of an FQ license condition should not be an issue for adjudication.

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The NRC has broad discretion to determine the financial qualifications its applicants must demonstrate in order to receive a COL. An appropriately robust FQ license condition can and will address the requirements in 10 CFR 50.33(f) and 10 CFR Part 50, Appendix C, that there be reasonable assurance of the availability of adequate funds to complete construction and operate the facility safely, including identification of the sources of funds. No licensed construction will take place if the terms of the license condition are not satisfied. Accordingly, NEI requests that the Commission direct, either by policy statement, regulatory guidance, or direction to the NRC staff, that it is permissible to use a license condition to satisfy the financial qualifications requirements for issuance of COLs.

We appreciate your timely consideration of these issues and are available to address any questions that you or your staff might have.

Sincerely,

Handwritten signature of Ellen P. Hirschberg in black ink.

Attachment

cc: Commissioner Kristine L. Svinicki
Commissioner George Apostolakis
Commissioner William D. Magwood, IV
Commissioner William C. Ostendorff
R.W. Borchardt, Executive Director, Operations
David B. Matthews
Margaret M. Doane, Esq.
Ho K. Nieh, Jr.

Legal Basis for Financial Qualifications License Condition

I. Issue Summary and Recommendation

The Nuclear Energy Institute (NEI) requests that the Commission take action to address a significant policy issue related to the requirements for the financial qualifications (FQ) of an applicant for a combined license (COL), where the applicant is a “merchant” or “non-utility” generator.

The NRC’s requirements in 10 CFR 50.33(f) and 10 CFR Part 50, Appendix C, require a finding, prior to issuance of a COL, that there is “reasonable assurance” of the availability of adequate funds to complete construction and to operate the facility safely. The rules also require an identification of the source of the funds. However, since the regulations were adopted there has been a significant increase in new “merchant” generation projects in the United States. Merchant generators typically construct new generation projects on a Project Finance basis, without a state-sponsored return on their investments. A new merchant plant project may not have the committed funding required for construction prior to COL issuance. The NRC, therefore, must reconcile its expectations under the FQ regulations with the market realities of the electric industry today.

To do this, NEI recommends that an FQ License Condition be included in the COL to require a demonstration that sufficient funding has been committed through a Project Finance model as a pre-condition to *beginning licensed construction*. Under the Project Finance model, closing the financing transaction commits each of the lenders and project participants to the various financial arrangements that assure construction will be completed and the plant will begin operations in order to then generate the revenue necessary to repay the loans. But, if a developer fails to meet the prerequisites for the Project Finance (and thus the terms of the FQ License Condition), the financing closing could not take place. Because demonstration of satisfaction of the FQ License Condition must take place prior to NRC-licensed construction, there is no risk that construction could begin without sufficient funding. In this way, the proposed approach fully protects the public health and safety.

A generic example of an acceptable FQ License Condition is provided as Appendix A. In general, the appropriate license condition should require documentation of sufficient funding to construct the project, whether through equity or loan commitments, provided by government loan guarantees, qualified financial institutions, or qualified investors. For qualified financial institutions or investors, the license condition may establish minimum credit ratings and other standards, as appropriate. The documentation required to satisfy the condition should identify the legal and financial relationships between the applicant and investors or lenders, so as to provide the information contemplated by Part 50, Appendix C. And, the license condition must provide that construction (as defined in NRC regulations) may not commence until the funding conditions are fully satisfied.

II. Legal Analysis

A license condition addressing the NRC's financial qualifications requirements is consistent with the applicable statute, regulations, and NRC guidance and precedent.

A. *The Commission Has Broad Discretion to Assess the Financial Qualifications of Reactor Applicants*

In Section 182(a) of the Atomic Energy Act (AEA), Congress deferred to the Commission to determine what financial qualifications an applicant must demonstrate to construct and operate a reactor.¹ The Commission has recognized that the AEA “does not impose any financial qualifications requirement; it merely authorizes the Commission to impose such financial requirements as it may deem appropriate.”² Federal courts agree that the Commission enjoys unfettered discretion in how it chooses to assess the financial qualifications of an applicant. As the First Circuit concluded: “The Act gives the NRC complete discretion to decide what financial qualifications are appropriate. The regulations require only a ‘reasonable assurance.’ We will not second guess the NRC as to its interpretation of the level of proof that standard requires.”³

B. *The FQ License Condition Satisfies the Commission's Regulatory Requirements for Financial Assurance*

The Commission established FQ requirements for new reactors in 10 CFR 50.33(f):

(1) If the application is for a construction permit, the applicant shall submit information that demonstrates that the applicant possesses or has reasonable assurance of obtaining the funds necessary to cover estimated construction costs and related fuel cycle costs. The applicant shall submit estimates of the total construction costs of the facility and related fuel cycle costs, and shall indicate the source(s) of funds to cover these costs.

(2) If the application is for an operating license, the applicant shall submit information that demonstrates the applicant possesses or has reasonable assurance of obtaining the funds necessary to cover estimated operation costs for the period of the license. The applicant shall submit estimates for total annual operating costs for each of the first five years of operation of the facility. The applicant shall also indicate the source(s) of funds to cover these costs. . . .

¹ See 42 U.S.C. § 2232(a) (2010) (“Each application for a license hereunder . . . shall specifically state such information as the Commission, by rule or regulation, may determine to be necessary to decide such of the technical and *financial qualifications* of the applicant . . . as the Commission may deem appropriate for the license” (emphasis added)).

² *Public Serv. Co. of N.H.* (Seabrook Station, Units 1 & 2), CLI-78-1, 7 NRC 1, 10 (1978).

³ *New England Coalition v. NRC*, 582 F.2d 87, 93 (1st Cir. 1978).

Part 50, Appendix C (Section I.A.2) further requires:

Source of construction funds. The application should include a brief statement of the applicant's general financial plan for financing the cost of the facility, identifying the source or sources upon which the applicant relies for the necessary construction funds, *e.g.*, internal sources such as undistributed earnings and depreciation accruals, or external sources such as borrowings.

The challenge for merchant generators pertains to the financial qualifications for construction, rather than operation. (Merchant plant applicants should be able to meet the financial qualifications requirements of 10 CFR 50.33(f)(2) for operations using projections for energy prices, or by demonstrating the availability of alternative sources of funds to cover operating expenses. In addition, the Project Finance model provides further assurance of the availability of funds to cover operating expenses, because of lender requirements that projects demonstrate the ability to repay debt during the operating period.)

Use of an FQ License Condition to demonstrate that the applicant has "*reasonable assurance of obtaining* the funds necessary to cover estimated construction costs and related fuel cycle costs" under 10 CFR 50.33(f)(1) (emphasis added) is entirely appropriate under the regulation for at least three reasons:

- The regulation does not require that the applicant *possess* the funds necessary for construction and operation, but allows the applicant to demonstrate that it has "*reasonable assurance of obtaining* the funds necessary."⁴ An FQ License Condition sets forth requirements for the applicant to obtain those funds prior to relevant licensed activities.
- The FQ License Condition provides the reasonable assurance required by Commission regulation. "Reasonable assurance" does not require absolute certainty that the developer will secure the funds necessary for the facility.⁵ And there is no requirement that an applicant demonstrate reasonable assurance that it

⁴ 10 CFR 50.33(f)(1) (emphasis added).

⁵ See *Seabrook*, CLI-78-1, 7 NRC at 29-30 ("a 'reasonable assurance' does not mean a demonstration of near certainty that an applicant will never be pressed for funds in the course of construction. It does mean that the applicant must have a reasonable financing plan in the light of relevant circumstances"); see also *Private Fuel Storage, L.L.C.* (Indep. Spent Fuel Storage Installation), CLI-04-10, 61 NRC 131, 137-38 (2004) ("The Commission will accept financial assurances based on plausible assumptions and forecasts, even though the possibility is not insignificant that things will turn out less favorably than expected") (quoting *N. Atl. Energy Serv. Corp.* (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 222 (1999)); *Coal. for the Env't v. NRC*, 795 F.2d 168, 175 (D.C. Cir. 1986) ("financial qualifications review ... never required absolute certainty, only a showing that there was 'reasonable assurance' of financing the costs of operation The Commission[']s determin[ation] ... [of] reasonable assurance ... is not rendered infirm simply because speculative conditions can be posited under which the funds would not all be available, received, and properly spent").

will satisfy a license condition.⁶ Rather, it is the *terms of the license condition* that enable the NRC to conclude that the applicant has demonstrated “reasonable assurance” that it will meet the financial qualifications requirement.⁷ Under the Project Finance model, for example, lenders require assurance that funding is adequate for completion of the entire project, so that the loans will be repaid from project revenues. Preconditions for closing of a Project Finance include the requirement that all sources of funds (debt and equity) be provided or committed at closing. This standard provides *at least* “reasonable assurance” of funding to cover estimated construction and operation costs required by 10 CFR 50.33(f), and would provide a far more robust showing than “reasonable assurance.”

- Perhaps most importantly, an FQ License Condition would satisfy the requirements of 10 CFR 50.33(f) because it would satisfy the fundamental purpose of the regulation. The Commission has instructed that “the fundamental purpose of the financial qualifications provisions ... is the protection of the public health and safety and the common defense and security.”⁸ As an NRC licensing board has further explained, “[t]he purpose of the financial qualification requirements of 10 CFR 50.33(f) is to ensure ‘the protection of the public health and safety and the common defense and security’ and not to evaluate the financial wisdom of the proposed project.”⁹ This purpose would be achieved by the proposed FQ License Condition, because if the project developers are never able to secure funding, then the reactor will not be built or operated. No safety issues can arise if the FQ License Condition is not satisfied, because no licensed construction activity could commence.

In addition to the Commission’s financial qualifications requirements in 10 CFR 50.33(f), Appendix C to 10 CFR Part 50 provides “the general kinds of financial data and other related information that will demonstrate the financial qualification of the applicant to carry out the

⁶ See, e.g., 10 CFR 50.54. 10 CFR 50.54 imposes, by rule, various license conditions on licensees, but requires no prior finding by the NRC staff that any licensee has “reasonable assurance” of fulfilling those conditions. In fact, the regulation does not contemplate *any* subjective evaluation by the NRC staff as to the licensee’s probability of satisfying any license condition. *Id.*

⁷ See, e.g., *Private Fuel Storage, L.L.C.* (Indep. Spent Fuel Storage Installation), CLI-04-27, 61 NRC 145, 147 (2004) (noting that the applicant “had demonstrated reasonable assurance that it is financially capable of building, operating, and decommissioning the proposed facility, *provided that it comply with the various license conditions* in its Memorandum and Order” (emphasis added)).

⁸ Licensing of Production and Utilization Facilities, 33 Fed. Reg. 9704 (July 4, 1968). The Commission has also noted that “[t]he legislative history [of the Atomic Energy Act] is silent as to the purpose of the financial qualifications showing. ... [T]he statute itself does not impose any financial qualifications requirement; it merely authorizes the Commission to impose such financial requirements as it may deem appropriate.” *Seabrook*, CLI-78-1, 7 NRC at 10 (1978).

⁹ *Progress Energy Florida, Inc.* (Levy County Nuclear Power Plant, Units 1 & 2) LBP-09-10, 70 NRC 51, 83 (2009). Indeed, safety considerations are at the heart of the financial qualifications rule. As the Commission has recognized, a licensee in “financially straitened circumstances” could be under more pressure to commit safety violations or take safety “shortcuts” than one in good financial shape. See *Gulf States Util. Co.* (River Bend Station, Unit 1), LBP-95-10, 41 NRC 460, 473 (1995); see also *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 202-03 (2000).

activities for which the permit or license is sought.”¹⁰ Although Appendix C contains more detailed information than does Section 50.33(f), the Commission explains in Appendix C that “[t]he kind and depth of information described in this guide is not intended to be a rigid and absolute requirement.”¹¹ Use of an FQ License Condition is consistent with the flexibility afforded by Appendix C.

C. *Use of the FQ License Condition to Satisfy the NRC's Financial Qualifications Requirements Is Consistent with NRC Regulatory Guidance and Commission Precedent*

The NRC provides guidance on the financial qualifications requirements of 10 CFR Part 50 in NUREG-1577, Rev. 1, the Standard Review Plan for financial qualifications.¹² NUREG-1577 expressly permits an NRC reviewer to condition a license if the applicant does not otherwise meet financial qualifications standards: “If the reviewer determines that a license applicant does not meet these financial qualification standards, he or she will either deny issuance or transfer of the OL, *condition the OL*, or recommend initiation of other regulatory action to mitigate financial qualifications concerns.”¹³ Accordingly, use of an FQ License Condition to satisfy the financial qualification requirements of Part 50 is fully consistent with the NRC’s existing guidance.

In prior licensing decisions, the Commission has also held that a license condition could be fashioned to establish the financial qualifications of applicants for Part 70 and Part 72 licenses.¹⁴ To be sure, in *Claiborne*, the Commission explained that the standard in Part 70, which uses the language “appears financially qualified,” was “more flexible” than the “reasonable assurance” terminology used in Part 50.¹⁵ However, in *Private Fuel Storage*, the Commission extended the principles of *Claiborne* to a Part 72 license, which is subject to financial qualifications regulations that use the same “reasonable assurance” language as used in Part 50.¹⁶

The Commission limited its holding in *Private Fuel Storage* to applications “outside the reactor context,” and stated: “We will not require such applicants to meet the detailed Part 50 requirements.”¹⁷ Nonetheless, the Commission referred to the provisions of 10 CFR Part 50, Appendix C, which identifies prescribed information to be submitted by applicants. The terms of Appendix C provide for substantial flexibility using words throughout, such as “normally,” “should,” and “ordinarily.”

¹⁰ 10 CFR Part 50, Appendix C, General Information.

¹¹ *Id.*

¹² NUREG-1577, Rev. 1, “Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance” (Feb. 1999).

¹³ *See id.* at 10 (emphasis added).

¹⁴ *La. Energy Serv. L.P.* (Claiborne Enrichment Ctr.), CLI-97-15, 46 NRC 294, 299-300 (1997); *Private Fuel Storage, L.L.C.* (Indep. Spent Fuel Storage Installation), CLI-00-13, 52 NRC 23, 29-30 (2000).

¹⁵ *Claiborne Enrichment Ctr.*, CLI-97-15, 46 NRC at 299.

¹⁶ *Indep. Spent Fuel Storage Installation*, CLI-00-13, 52 NRC at 29-30; compare 10 CFR 50.33(f)(1)&(2) with 10 CFR 72.22(e).

¹⁷ *Indep. Spent Fuel Storage Installation*, CLI-00-13, 52 NRC at 30.

Moreover, the Commission's discussion in *Private Fuel Storage* of the differences between the Part 50 and Part 72 regulatory schemes is properly viewed as non-controlling. *Private Fuel Storage* does not preclude the use of license conditions in a Part 50 license in order to satisfy the "reasonable assurance" standard.¹⁸ To the contrary, the rationale in *Private Fuel Storage* is equally applicable to reactors under Part 50. But, because the issue of financial qualifications requirements for reactor licensees was not a matter expressly decided by the Commission in either *Claiborne* or *Private Fuel Storage*, further Commission guidance is now necessary, in the context of pending applications for "merchant" plants that, absent an FQ license condition, face an impediment to licensing.

D. An FQ License Condition to Satisfy the NRC's Financial Qualifications Requirements Will Be Appropriately Confirmatory

Use of a license condition is consistent with Commission precedent and longstanding agency practice because it requires only administrative post-hearing verification by the NRC staff.¹⁹

In particular, licensing boards have often commented that a license condition should be structured so that the Staff's post-hearing actions to confirm that the license condition has been met are confirmatory in nature.²⁰ Likewise, the Commission has stated that "[t]he key to the validity of post-licensing Staff reviews is whether the NRC staff inquiry is essentially 'ministerial' and 'by [its] very nature require[s] post-licensing verification.'"²¹ Where an applicant seeks to establish its *financial qualifications* through a license condition, the license condition provisions should be clear and "spelled out," in order to simplify the staff's review of compliance, so as not to put the [S]taff "in a position of making factual and legal judgments simply to determine whether the licensee had complied with its financial qualifications commitments."²²

The NRC staff's verification of the FQ License Condition would be appropriately confirmatory, because the Staff would simply verify that: (1) the funding types, whether sourced from equity or

¹⁸ In this regard, the First Circuit's decision in *New England Coalition v. NRC* stated that NRC has "complete discretion to decide what financial qualifications are appropriate." *New England Coalition*, 582 F.2d at 93.

¹⁹ See, e.g., *Indep. Spent Fuel Storage Installation*, CLI-00-13, 52 NRC at 33 ("[l]ongstanding agency practice holds that matters may be left to the NRC staff for post-hearing resolution where hearings would not be helpful and the Board can make the findings requisite to issuance of the license") (internal quotation marks omitted).

²⁰ See, e.g., *La. Power & Light Co.* (Waterford Steam Elec. Station, Unit 3), LBP-82-100, 16 NRC 1550, 1567 (1982) (providing that license conditions that require "only a purely objective determination" were "appropriate for post-hearing ministerial resolution by the [NRC] staff"); see also *Consol. Edison Co. of N.Y., Inc.* (Indian Point Station, Unit No. 2), CLI-74-23, 7 AEC 947, 951-52, n.8 (1974)) (noting that following the issuance of a license, certain issues, "in clear cases" such as "minor procedural deficiencies," may be "subsequently cured under the scrutiny of the [NRC staff])."

²¹ *Indep. Spent Fuel Storage Installation*, CLI-00-13, 52 NRC at 33 (quoting *Hydro Res., Inc.*, CLI-00-8, 51 NRC 227, 240 (2000)).

²² See *Private Fuel Storage, L.L.C.* (*Indep. Spent Fuel Storage Installation*), CLI-01-9, 53 NRC 232, 235 (2001); see also *id.* (noting that the Commission's financial qualification decisions "sought to reduce post-license verification to an essentially ministerial act").

debt, satisfy pre-established creditworthiness criteria; and (2) the total amount of the funding meets or exceeds the updated cost estimate.

Moreover, NRC case law makes clear that it is an applicant's *commitment* to a license condition, and not an assessment of the applicant's ability to satisfy the license condition, that is the focus of the NRC's inquiry.²³ The Commission has anticipated the possibility that an applicant might not satisfy a license condition relied upon to demonstrate financial qualification.²⁴ If the applicant fails to satisfy the FQ License Condition, the fundamental purpose of the NRC's financial qualifications requirements is still achieved; namely, the project is not constructed with insufficient funds. As the Commission explained in *Claiborne*:

[Intervenors'] prediction of economic doom for the [applicant's] venture may or may not be borne out. But if [intervenors are] correct and the project proves a failure in the marketplace, the lack of economic success will have no adverse effect on the public health and safety or the common defense and security. Under the commitments [the applicant] has made to the Commission, if the market does not allow [the applicant] to raise sufficient capital for construction or to obtain the promised advance purchase contracts, [the applicant] will not build or operate the [proposed facility].²⁵

E. Oversight of Construction and Operation Further Assures Protection of Public Health and Safety

The NRC's FQ requirements establish findings that help to assure adequate funds will exist for construction (and ultimately operation) of the plant involved. Given that the agency does not have jurisdiction over economic issues, the agency's interest in the financial qualifications of its applicants and licensees is tied to its public health and safety mandate. *The public health and safety mandate is served by regulatory monitoring and oversight that far exceeds the scope of a pre-licensing FQ review.* Should financial issues ever plague a licensee, those issues will become manifest in the NRC's oversight programs. Performance deficiencies and violations will be required to be corrected (through lasting corrective actions), regardless of the contributing factors.

In its 1984 rulemaking eliminating FQ reviews for operating license reviews for electric utility

²³ See, e.g., *Private Fuel Storage, L.L.C.* (Indep. Spent Fuel Storage Installation), LBP-00-6, 51 NRC 101, 122. ("we find [the applicant's] *commitment*, as reflected in the proposed Staff license conditions ... provide[s] the requisite reasonable assurance" (emphasis added)).

²⁴ See *Indep. Spent Fuel Storage Installation*, CLI-00-13, 52 NRC at 31 ("Thus, where a license applicant depends upon contractual and other commitments for financial assurance, we do not reject the showing out of hand or require litigation on the feasibility of those aspects of the applicant's financial plan or economic prospects. Here, the PFS license conditions are such that the facility will not be built or operated if PFS cannot raise sufficient funds"); *Private Fuel Storage, L.L.C.* (Indep. Spent Fuel Storage Installation), CLI-98-13, 48 NRC 26, 36 (1998) ("Our financial qualifications standards and other licensing regulations do not require the Board to undertake a full-blown inquiry into an applicant's likely business success").

²⁵ *Claiborne Enrichment Ctr.*, CLI-97-15, 46 NRC at 308.

applicants, the NRC recognized that the agency's concern is safety.²⁶ In the circumstances addressed in that rule (admittedly different from those addressed here), the NRC noted the "lack of any proven link between financial qualifications review and safety given the Commission's long experience in regulating utilities."²⁷ The Commission was willing to make a generic presumption that, at the time of licensing, a rate-regulated utility would have the funds necessary for safe operation. It recognized in establishing this presumption that there would still be ongoing (post-licensing) NRC oversight that would be applied to the licensee's operations.²⁸

In the present context as well, the pre-licensing safety reviews and ongoing post-licensing oversight (including oversight of the satisfaction of the FQ License Condition and construction quality) will provide the NRC with reasonable assurance of construction quality and safe operation. The NRC need not unnecessarily expand the FQ showing required prior to issuance of the COL in order to meet its responsibility for protecting safety.

The benefits of the FQ License Condition approach are that it will allow the NRC staff to move forward with its review of COL applications. It is consistent with the current regulations and finds support in existing NRC guidance and Commission precedent. The Commission could adopt the recommendations above by policy statement or Regulatory Guide interpreting the existing regulations without the need for rulemaking. The sufficiency of individual license conditions still would need to be addressed and could be adjudicated on a case-by-case basis.

III. Conclusion

The NRC has broad discretion to determine how to assess an applicant's financial qualifications, and there exists ample precedent to support use of an FQ License Condition to meet the NRC's financial qualifications requirements. Some applicants, such as merchant generators relying on a Project Finance approach for a planned nuclear plant, will provide the required "reasonable assurance" that the necessary funds for construction and operation of reactor facilities will be available, by virtue of an FQ License Condition specifying objective criteria to be satisfied prior to initiation of licensed construction. The FQ License Condition will ensure that construction could not occur until the necessary funding is in place and, in doing so, will ensure the protection of the public health and safety.

²⁶ See 49 Fed. Reg. 35747, 35749 (1984).

²⁷ *Id.* at 35751.

²⁸ *Id.* at 35750 ("... concerns that available funds will not be spent properly for safety matters, will continue to be separately addressed by the Commission, either in pre-licensing reviews or in the post-licensing inspection and enforcement program").

Appendix A: Example of FQ License Condition

[The Licensee] is financially qualified in accordance with 10 CFR 50.33(f) and Part 50, Appendix C, based upon satisfaction of the following license condition prior to commencing construction authorized by the license:

Construction pursuant to this license shall not commence before funding is substantially committed at a Financial Closing with Lenders in connection with a Project Financing for the Facility. At least 30 days prior to the Financial Closing, the Licensee shall make available for NRC inspection, draft copies of documents to be executed at the Financial Closing of the Project Financing that demonstrate the following:

- 1. One or more Qualified Financial Institutions (Lenders) will provide funding that, when combined with equity either already paid or committed, is adequate to complete construction and commence operations;*
- 2. The Lenders' Independent Engineer has provided an updated estimate of the Total Project Costs;*
- 3. The legal and financial relationships between the Licensee and the entities providing funding are identified in the Financial Closing documents, which also must demonstrate that the Licensee has available funds in a total amount that is not less than the amount of Total Project Costs estimated by the Lenders' Independent Engineer, through: (1) loans committed by one or more Qualified Financial Institutions; and (2) equity either funded or committed in a manner acceptable to the Qualified Financial Institutions (e.g., escrows, guarantees, letters of credit, etc.); and*
- 4. In order to provide financial support during operations, provisions are made in the Financial Closing for the following to be maintained upon initial plant operation: (1) a debt service Reserve in an amount not less than one year's worth debt service payments; and (2) a revolving credit facility of at least \$100 million for operating and maintenance expenses, with a Lenders' requirement that a zero balance be maintained at least once per year.*

For purposes of the foregoing, a Qualified Financial Institution must have a senior, unsecured and unenhanced credit rating of A or better by Standard & Poor's or Fitch's, or A2 or higher by Moody's, or a rating meeting other comparable international standards.

Kock, Andrea

From: Kock, Andrea
Sent: Friday, November 16, 2012 1:30 PM
To: REDMOND, Everett
Cc: srp@nei.org; Herr, Linda; Kock, Andrea
Subject: Nuclear Fuel Supply Forum

Everett: The Commissioner would like to accept your invitation to speak at the Nuclear Fuel Supply Forum on January 30. Could you please call me at your convenience to discuss the details and, if you have one, could you send an agenda?

Thanks

Andrea Kock
United States Nuclear Regulatory Commission
Policy Advisor for Materials
Office of Commissioner Ostendorff
301-415-2896