

July 11, 2014

MEMORANDUM TO: William Gott, Chief /RA/  
Fuel Cycle Transportation Security Branch  
Division of Security Policy  
Office of Nuclear Security and Incident Response

FROM: Alex Sapountzis, Senior Program Manager  
Fuel Cycle Transportation Security Branch  
Division of Security Policy  
Office of Nuclear Security and Incident Response

SUBJECT: SUMMARY OF JUNE 12, 2014, PUBLIC MEETING BETWEEN U.S. NUCLEAR REGULATORY COMMISSION AND STAKEHOLDERS TO DISCUSS THE DRAFT REGULATORY BASIS FOR THE TITLE 10 OF THE *CODE OF FEDERAL REGULATIONS* FOR THE PARTS 26 AND 73 RULEMAKING EFFORTS

On June 12, 2014, the U.S. Nuclear Regulatory Commission (NRC) hosted a public meeting. The purpose of this public meeting was to discuss and obtain stakeholder feedback on the NRC's draft regulatory basis available in the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML14113A468. The draft regulatory basis encompasses three separate rulemaking efforts:

- (1) Enhanced security at fuel cycle facilities (FCF);
- (2) Special nuclear material (SNM) transportation security; and
- (3) Security-Force fatigue at certain nuclear facilities.

The staff focused its presentations around the three rulemaking efforts discussed within the draft regulatory basis. Specifically, the staff gave presentations on:

- (1) Overview and major milestones associated with the 10 CFR Parts 26 and 73 rulemaking effort.
- (2) Application of fatigue requirements in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 26 to security officers at Category I FCF.
- (3) Material attractiveness and its role in updating the 10 CFR Part 73 security requirements.
- (4) Security at fixed sites in the protection of SNM.
- (5) Transportation security for the protection of SNM.
- (6) Cost impacts.

The first presentation was on the overview and major milestones associated with the 10 CFR Parts 26 and 73 rulemaking effort (ADAMS accession number ML14156A484). Several commenters felt that a forty-five day comment period is not long enough for a lengthy document tackling complex issues. Some commenters requested that the NRC consider increasing the comment period to over ninety days and consider having another public meeting on the draft regulatory basis. Another commenter asked if the NRC plans to issue draft and final guidance documents in parallel with the proposed and final rules. The NRC responded that it is the intent to issue the draft and final guidance documents at the same time as the proposed and final rule.

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The next presentation was on the application of fatigue requirements in 10 CFR Part 26, Subpart I, to security officers at Category I FCF (ADAMS accession number ML14142A063). The staff elaborated that based on Commission direction in SRM-COMSECY-04-0037, the staff does not rule out the possibility that in the future, it may look at applying fatigue requirements to security officers at other material licensees. Some comments included the potential conflicts of DOE and NRC requirements regarding officers at Category I sites falling under the fatigue provisions of 10 CFR Part 26. Specifically, the stakeholder asked what analysis had been done to avoid duplication or conflict between two sets of regulations. Other comments included why the NRC was taking a different approach to fatigue than other industries. The NRC noted that stakeholders are welcome to provide comments on this issue or alternatives to the fatigue provisions of 10 CFR Part 26. Furthermore, the NRC responded that security officers at Category I sites have similar roles and responsibilities to security officers at nuclear power reactors who fall under the fatigue provisions of 10 CFR Part 26, and thus the staff felt this group should also fall under the same fatigue regulations. Other commenters requested the conclusion of the NRC analysis of security officer workers that were submitted voluntarily from seven FCF in 2011 and 2012. Security officers at the Category I FCF are not required at this time to meet the fatigue requirements in 10 CFR Part 26.

The next presentation was on material attractiveness and its role associated with updating the 10 CFR Part 73 security requirements (ADAMS accession number ML14160A029). The staff elaborated that this effort involves updating the physical protection requirements for SNM that takes into account material attractiveness, and incorporating post September 11, 2001, security orders into the regulations. The staff explained that material attractiveness considers what really makes SNM attractive to an adversary (based on the physical and chemical form of the material) for use in an improvised nuclear device (IND). The staff went on to discuss, that in support of this effort, Los Alamos National Laboratory (LANL) developed a model that takes into account adversary actions needed to acquire SNM from a licensee, the knowledge and capabilities needed by the adversary to process the material and to construct and detonate an IND. The model gives the staff insights into the form and quantity of SNM an adversary would consider attractive to acquire to construct a successful IND. The LANL model assisted the staff in better understanding the risks associated with the material and assigning the appropriate security measures for the protection of SNM based on its physical and chemical form (i.e., the level of dilution/weight percent of SNM in the matrix). One commenter asked if it is the intent of the NRC to now require any reportable quantity of SNM, even Category III SNM, to require an NRC approved security plan. The staff in general responded that the draft regulatory basis (see attachment H for this case) has the details of when NRC approval is needed for a security plan and it has changed from the current requirements.

The next presentation was on security at fixed sites for the protection of SNM (ADAMS accession number ML14156A482). The staff presented its desired changes (i.e., via a table) for fixed site SNM physical protection measures based on material attractiveness, risk insights and improving clarity and consistency in our regulations. The staff stated that the requested changes in the draft regulatory basis aim to protect the SNM based on the category and attractiveness, regardless of the facility and where the SNM is located. The staff also indicated in its presentation that it would seek to revise and update some of its terminology and add some new definitions in the regulations, and proposes to eliminate the external dose rate threshold or sometimes referred to as the 100 R/hr self-protection security feature. One commenter's question was associated with the intent of safety/safeguards interface and the staff elaborated that if a licensee was to make a change to a physical protection system, the license shall consider the impact in other program areas before making the change. Another commenter

asked about the applicability of requiring Category III licensees to fingerprint individuals and the staff responded that while it may not be required, the staff would like to hear stakeholder's opinions. Another commenter stated that for Category II moderately dilute, that controlled access area and protected area terms may have been used interchangeably in the presentation materials.

The next presentation was on transportation security for the protection of SNM (ADAMS accession number ML14156A492). The staff explained that it is looking at protecting SNM during different modes of transport that includes rail, road and maritime. The staff stated that unlike fixed sites, the transportation environment is very dynamic and subject to many variables. The staff presented its desired changes (i.e., via a table) for physical protection measures during transport of SNM based on material attractiveness, risk insights and improving clarity and consistency in our regulations. One commenter's question was associated with Category III licensees and stated that during transport of SNM, covered vehicles are not currently required in the regulations, but during the presentation, it shows that covered vehicles will be required. The commenter went on to describe that they typically use flat bed trucks and the containers maybe covered with a tarp during transport of SNM. If the tarp is not considered a covering the container, this will increase transportation costs. The same commenter stated that in the presentation, the NRC staff referred to having a locked vehicle with some form of positive access control which will increase costs. The same commenter also stated that in the presentation, the NRC staff showed that global positioning system (GPS) is required for all transport of SNM. While some transport carriers may offer GPS, it is not required at this time for Category III shipments of SNM. In addition, the commenter stated that with respect to communications, more details are needed to understand any impacts. Lastly, the same commenter stated that with respect to response and launching an immediate investigation if SNM does not arrive on time at its destination, currently the commenter's site's practice is to launch an investigation after four hours. Another commenter stated that the physical protection measures in the presentation will add significant costs to transporting SNM; for example UF<sub>6</sub> containers. It is difficult to retrofit UF<sub>6</sub> containers into some kind of enclosed vehicle since we have a specially designed carrier for the container. This same commenter also inferred that they have SNM shipments everyday or several each day and that the requirement to notify the NRC prior to shipment of any SNM as shown in the presentation would be a significant burden.

The next presentation was on cost impact considerations associated with implementation of the requested changes in the draft regulatory basis (ADAMS accession number ML14156A490). The staff explained that in the draft regulatory basis, the staff used a qualitative approach in determining the cost impacts associated with implementation of these requested changes. The staff stated it is interested in stakeholder comments on this section to more inform the staff of impacts to stakeholders with these requested changes. One commenter inferred that with issuance of the draft regulatory basis just prior to this meeting, they did not have time to review the document for any cost impacts. This same commenter reiterated earlier comments that more time is needed to review this document especially those requested changes that impact transportation of SNM. Another commenter inferred that the requested changes in the regulatory basis lack specifics and therefore any impacts or costs that a stakeholder may provide as a comment may be qualitative at best.

Enclosures:

1. Agenda for Public Meeting to Discuss the Regulatory Basis for Enhanced Security at Fuel Cycle Facilities; Special Nuclear Material Transportations; Security Force Fatigue at Nuclear Facilities
2. Attendance List

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Please direct any inquires to Alex Sapountzis at 301-287-3660 or [Alexander.Sapountzis@nrc.gov](mailto:Alexander.Sapountzis@nrc.gov).

Enclosures:

1. Agenda for Public Meeting to Discuss the Regulatory Basis for Enhanced Security at Fuel Cycle Facilities; Special Nuclear Material Transportations; Security Force Fatigue at Nuclear Facilities
2. Attendance List

DISTRIBUTION:

A. Sapountzis	J. Adams	P. Habighorst	L. Harris	T. Harris	W. Gott
J. Danna	T. Young	N. St. Amour	R. Johnson	N. Siu	M. Rodriguez
S. Lynch	T. Pham	M. Baker	J. Bielecki	L. Mayos	J. Nakoski
M. Romano	E. Reed	O. Smith	J. Rivers	A. Tardiff	M. Thaggard
N. Fragoyannis	J. Cook	V. Barnes	T. Gody	D. Ki	O. Bukharin
S. Price	C. Kanatas	R. Gibson	C. Erlanger	M. Bailey	P. Peduzzi

ADAMS Accession No. **ML**

OFFICE	NSIR/DSP/FCTSB	NSIR/DSP/FCTSB
NAME	A. Sapountzis	W. Gott
DATE	7/11/14	7/11/14

OFFICIAL RECORD COPY

**Agenda for Public Meeting on the Regulatory Basis for Enhanced Security at Fuel Cycle Facilities; Special Nuclear Material Transportations; Security Force Fatigue at Nuclear Facilities**

**June 12, 2014  
9:00 A.M. – 5:00 P.M.**

**U.S. NUCLEAR REGULATORY COMMISSION (NRC)**

Teleconference: 888-790-9143; pass code: 7872377#

Webinar link: <https://www1.gotomeeting.com/register/815243696>

**PURPOSE:** To provide an opportunity for interested parties to comment on the NRC's draft regulatory basis to update security regulations within Title 10 of the *Code of Federal Regulations* (10 CFR) Parts 73 and 26, that includes enhanced security at fuel cycle facilities, transportation security for the protection of special nuclear material (SNM) and security force fatigue at nuclear facilities.

June 12, 2014 (times are approximate)

- 9 00 A.M. Opening remarks, introduction and meeting focus. (NRC Manager)
- 9:15 A.M. Overview including major milestones and timelines for the 10 CFR Parts 73 and 26 rulemaking effort worked in parallel. (NRC/Tim Harris)
- 9:30 A.M. Public comments. (All)
- 9:45 A.M. Application of 10 CFR Part 26 fatigue/work hour requirements to security officers at Category I licensees. (NRC/Alex Sapountzis)
- 10:00 A.M. Public comments. (All)
- 10:30 A.M. Material attractiveness and its role associated with updating the 10 CFR Part 73 security requirements (NRC/Joe Rivers)
- 11:15 A.M. Public comments. (All)
- 11:45 A.M. Lunch
- 12:45 P.M. Security at fixed sites for the protection of special nuclear material (NRC/Tim Harris).
- 1:15 P.M. Public comments. (All)
- 1:45 P.M. Transportation security for the protection of SNM. (NRC/Gerry Jackson)
- 2:15 P.M. Public comments. (All)

2:45 P.M. Cost Impact/Considerations. (NRC/Larry Harris)  
3:00 P.M. Public comments. (All)  
3:30 P.M. Public comment on regulatory basis. (All)  
4:45 P.M. Closing remarks. (NRC Manager)  
5:00 P.M. Adjournment

### Attendance List

On June 12, 2014, the NRC met with stakeholders to obtain comments on the NRC's efforts to develop a draft regulatory basis to update 10 CFR Parts 26 and 73.

Name	Organization
John Adams	Nuclear Regulatory Commission/Nuclear Reactor Regulations
Marissa Bailey	Nuclear Regulatory Commission/Nuclear Materials Safety and Safeguards
Nick Baker	Nuclear Regulatory Commission/Nuclear Materials Safety and Safeguards
Valerie Barnes	Nuclear Regulatory Commission/Research
Kristi Branch	Pacific Northwest National Laboratory
Janet Bryant	Pacific Northwest National Laboratory
Gary Boyd	URENCO
John Carter	Babcock and Wilcox-Nuclear Operations Group
Gary Clark	MOX Service
Jim Costedio	SHINE Medical Technologies
Daniel Cronin	University of Florida
Jim Danna	Nuclear Regulatory Commission/Federal State Materials and Environmental Management Programs
David Desaulniers	Nuclear Regulatory Commission/New Reactors
Devon Englemen	SHINE Medical Technologies
Dealis Guyn	MOX Service-Savannah River Site
Michael Hall	Portage Inc.
Larry Harris	Nuclear Regulatory Commission/Nuclear Security and Incident Response
Paul Harris	Nuclear Regulatory Commission/Nuclear Security and Incident Response
Tim Harris	Nuclear Regulatory Commission/Nuclear Security and Incident Response
Gerry Jackson	Nuclear Regulatory Commission/Nuclear Security and Incident Response
Jessica Jensen	Excelon Energy
Robert Johnson	Nuclear Regulatory Commission/Nuclear Materials Safety and Safeguards
Tim Knowles	URENCO
Melinda Krahenbuhl	Reed College of Oregon
Ray Landis	Nuclear Energy Institute
Andrew Letourneau	Nuclear Regulatory Commission/Nuclear Security and Incident Response
Marvin Lewis	Public
Robert Link	AREVA
Lee Marabella	Public Service Electric and Gas Nuclear
Bryan McGown	URENCO
Joe McManus	Humboldt Bay-ISFSI
Charlene Miller	Pacific Gas & Electric
Charles Morrison	Neal R. Gross
Scott Murray	General Electric-Hitachi
Don Parker	AREVA
Megan Parker	Nuclear Regulatory Commission/Nuclear Reactor Regulations
Nancy Parr	Westinghouse
Beth Reed	Nuclear Regulatory Commission/Nuclear Reactor Regulations
Joe Rivers	Nuclear Regulatory Commission/Nuclear Security and Incident Response

Perry Robinson	URENCO
Michael Rodriguez	Nuclear Regulatory Commission/Nuclear Security and Incident Response
Michelle Romano	Nuclear Regulatory Commission/Region II
Alex Sapountzis	Nuclear Regulatory Commission/Nuclear Security and Incident Response
Andy Schisch	Nuclear Fuel Services
Janet Schlueter	Nuclear Energy Institute
Wayne Sepitico	Westinghouse
Vernon Shanks	U.S. Enrichment Corporation
Nathan Siu	Nuclear Regulatory Commission/Research
Scott Sloan	Nuclear Regulatory Commission/Nuclear Reactor Regulations
David S.	Babcock and Wilcox-Nuclear Operations Group
Will Smith	Nuclear Regulatory Commission/Nuclear Security and Incident Response
Walter Steingass	University of California-Davis
John Stone	Department of Energy/Naval Reactors
Tim Tate	AREVA
Al Tardiff	Nuclear Regulatory Commission/Nuclear Security and Incident Response
Donald Townsend	Pacific Gas & Electric-Diablo Canyon
Mark Trump	Pennsylvania State University
Mathew Tynan	Hogan Lovells
Dan Wight	General Electric
Doug Yates	MOX Service
Mitzi Young	Nuclear Regulatory Commission/General Counsel
Tom Young	Nuclear Regulatory Commission/Federal State Materials and Environmental Management Programs
Jason Zorn	Westinghouse