Cumulative Effects of Regulation

Osiris Siurano-Perez
Project Manager
Division of Fuel Management
Office of Nuclear Material Safety and Safeguards



Agenda

Time	Торіс	Organization Lead		
	Opening Remarks	Andrea Kock, Director Division of Fuel Management, NMSS Janet Schlueter, NEI		
	Integrated Schedule and Regulatory Activity Updates			
Morning Session 8:30 AM – 11:30 AM Break	Integrated Schedule 10 CFR Part 61 Low Level Waste Disposal 10 CFR Part 73 Enhanced Security for Special Nuclear Material	Osiris Siurano Martha Barillas, June Cai Edward Lohr, Kevin Ramsey		
9:45 AM – 10:00 AM Lunch 11:30 AM – 12:30 PM	Enhanced Weapons Rulemaking 10 CFR Part 73 Cyber Security At Fuel Facilities ANS 57.11 Integrated Safety Analysis	Robert Beall, Kevin Ramsey Edward Lohr, James Downs April Smith		
Afternoon Session 12:30 PM – 2:00 PM Public Questions/Comments 2:00 PM – 2:30 PM	Smarter Licensing Smarter Inspections	Donnie Harrison Jonathan Marcano Topics		
Adjourn 2:30 PM	Non-Fee Billable Work Process for Handling Regulatory Relief Requests Unplanned Contamination Events:	Kevin Ramsey Jacob Zimmerman, James Downs		
	Status and Path Forward NMSS Prioritization Efforts Regarding Annual Fee Expenditures	Kevin Ramsey Jacob Zimmerman, Kevin Ramsey		
	NRC Fuel Cycle Activities for Accident Tolerant Fuel and Advanced Reactor Fuel	Marilyn Diaz, J. Rubenstone Andrea Kock		
	Closing Remarks	Anulea Nock		



Opening Remarks

Andrea Kock, Director
Division of Fuel Management
Office of Nuclear Material Safety and Safeguards



Opening Remarks

- Progress in last year
 - Smarter licensing
 - o Charter approved April 26, 2019
 - Final report (with recommendations) to be issued in April 2020
 - Smarter inspection
 - o Final report issued March 18, 2020
 - Issuance of Honeywell 40 year renewal
- Expectations meeting outcomes
 - Continue making progress on additional long standing issues
 - o Reporting of unplanned contamination events
- Continued engagement
 - Information sharing
 - Response to COVID-19
- Agency support
 - Improved efficiency of regulatory relief requests reviews
 - Developed process for handling relief requests



Cumulative Effects of Regulation

Integrated Schedule

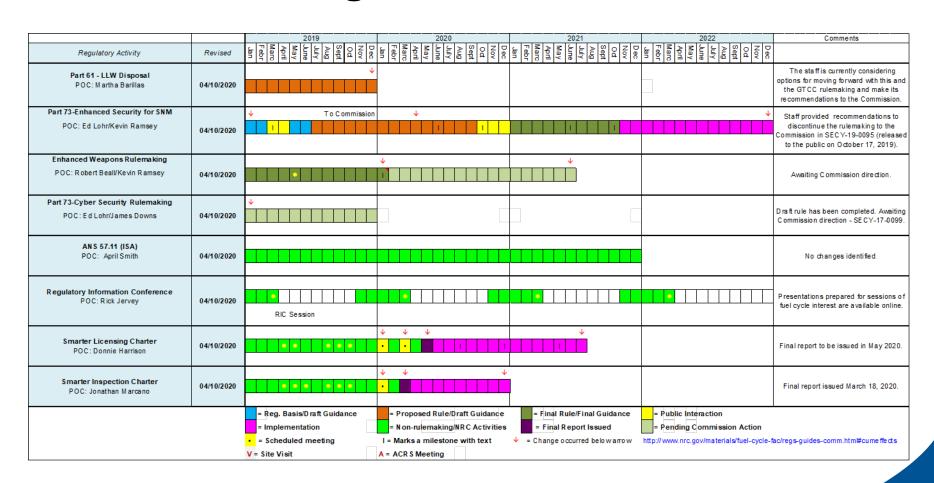


Integrated Schedule

- Updated April 10, 2020
- Regulatory activities
 - List remains unchanged
- Public website
 - Integrated Schedule
 - https://www.nrc.gov/materials/fuel-cycle-fac/regsguides-comm.html#cumeffects
 - Supplement to Schedule
 - https://www.nrc.gov/docs/ML2000/ML20009C803.pdf



Integrated Schedule



Contact:

Osiris Siurano-Perez NMSS/DFM/FFLB 301-415-7827



10 CFR Part 61 Proposed Rule Low-Level Radioactive Waste Disposal

Martha Barillas

Division of Rulemaking, Environmental, and Financial Support Office of Nuclear Material Safety and Safeguards

June Cai

Division of Rulemaking, Environmental, and Financial Support Office of Nuclear Material Safety and Safeguards



10 CFR Part 61 Proposed Rule Low-Level Radioactive Waste Disposal

		2019	2020	2021	2022
Regulatory Activity	Revised	Dec Nov Oct Sept Aug July June May April Marc Febr	Dec Nov Oct Sept Aug July June May April Marc Febr	Dec Nov Oct Sept Aug July June May April	Nov Oct Sept Aug July June May April Marc Febr
Part 61 - LLW Disposal POC: Gary Comfort	12/19/2019	↓			
Part 61 - LLW Disposal POC: Martha Barillas	04/10/2020	V			

Key Information	The staff is currently considering options for moving forward with this and the Greater Than Class C Waste rulemaking and make its recommendations to the Commission.
Related Documents	 Draft 10 CFR Part 61 proposed rule package (SECY-13-0075) dated July 18, 2013 (ML13128A160). Staff requirements memorandum – SECY-13-0075 – proposed rule: Low-Level Radioactive Waste Disposal (10 CFR Part 61) (RIN 3150-A192) dated February 12, 2014 (ML14043A371). Draft 10 CFR Part 61 final rule package (SECY-16-0106) dated September 15, 2016 (ML16188A290). SRM to SECY-16-0106 (ML17251B147) dated September 8, 2017. Transcript of Low-level Radioactive Waste Program Public Meeting (ML18088B087) and presentation (ML18088B012) dated March 23, 2018.
Meeting Information	Expected to occur 30 to 60 days after publication of the proposed rule.

Contact:

Martha Barillas NMSS/REFS/RRPB 301-415-2760



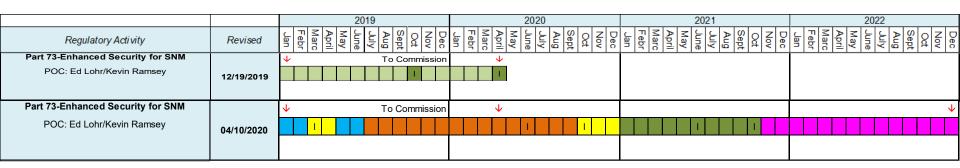
Enhanced Security for Special Nuclear Material

Edward Lohr
Division of Rulemaking, Environmental, and Financial Support
Office of Nuclear Material Safety and Safeguards

Kevin Ramsey
Division of Fuel Management
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Enhanced Security for Special Nuclear Material



Key Information	Staff provided recommendations to discontinue the rulemaking to the Commission in SECY-19-0095 (released to the public on October 17, 2019).
Related Documents	 Drafted Revised Regulatory Basis was published in the <i>Federal Register</i> (84 FR 6980) on March 1, 2019, for public comment. Comment period closed April 19, 2019. SECY-19-0095 - "Discontinuation of Rulemaking - Enhanced Security of Special Nuclear Material," released to the public on October 17, 2019.
Meeting Information	None Scheduled.

Contact:

Edward Lohr NMSS/REFS/MRPB 301-415-0253

Contact:

Kevin Ramsey NMSS/DFM/FFLB 301-415-7506



Enhanced Weapons, Firearms Background Checks, and Security Event Notifications Rulemaking

Robert Beall

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Kevin Ramsey
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Enhanced Weapons, Firearms Background Checks, and Security Event Notifications Rulemaking

		2019	2020	2021	2022
Regulatory Activity	Revised	Nov Oct Sept Aug July June May April Marc Febr	Nov Oct Sept Aug July June May April Marc Febr	Dec Nov Oct Sept Aug July June May April Marc Febr	Dec Nov Oct Sept Aug July June May April Marc Febr
Enhanced Weapons Rulemaking			\	→	
POC: Robert Beall/Kevin Ramsey	12/19/2019				
Enhanced Mannage Dulamaking					
Enhanced Weapons Rulemaking			V	V	
POC: Robert Beall/Kevin Ramsey	04/10/2020				

Key Information	 On May 22, 2018, the draft final rule, Federal Register Notice, Environmental Assessment, and a history of the rulemaking were sent to the Commission. On February 4, 2020, the staff sent a supplemental Commission Paper to the Commission that revises the draft final rule and supporting document.
Related Documents	 Supplemental Commission revising the draft final rule and supporting documents (ML16264A000). NEI (Bill Pitesa) comments on rulemaking dated August 22, 2018 (ML18236A763).
Meeting Information	None scheduled.

Contact:

Robert Beall NMSS/REFS/RRPB 301-415-3874

Contact:

Kevin Ramsey NMSS/DFM/FFLB 301-415-7506



10 CFR Part 73 Cyber Security

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Office of Nuclear Material Safety and Safeguards

James Downs
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10 CFR Part 73 Cyber Security

		2019	2020	2021	2022
Regulatory Activity	Revised	Nov Oct Sept Aug July June May April Marc Febr	Dec Nov Oct Sept Aug July June May April Marc Febr	Dec Nov Oct Sept Aug July June May April Marc Febr	Dec Nov Oct Sept Aug July June May April Marc Febr
Part 73-Cyber Security Rulemaking POC: Gary Comfort/James Downs	12/19/2019	→			
Part 73-Cyber Security Rulemaking POC: Ed Lohr/James Downs	04/10/2020	<u> </u>			

Key Information	The staff is awaiting Commission direction which is anticipated to follow related rulemaking applicable to reactors.
Related Documents	 Updated Preliminary Draft Proposed Rule Language and Related Draft Regulatory Guide (ML16273A130) to support the November 2, 2016, (ACRS) sub-committee briefing. Updated Draft Regulatory Guide (ML17031A018) to support February 23, 2017, ACRS sub-committee briefing. The NRC staff prepared a draft regulatory guide, "Cyber Security Programs for Nuclear Fuel Cycle Facilities," (DG-5062) (ML17145A340). SECY-17-0099, submitted October 4, 2017, contains the Commission paper, Federal Register notice (FRN), Draft Regulatory Analysis, Draft Backfit Analysis, and Draft Environmental Assessment (ML17018A218).
Meeting Information	None scheduled. (Note: Additional public meetings will be conducted, as needed).

Contact:

Edward Lohr NMSS/REFS/MRPB 301-415-0253

Contact:

James Downs NMSS/DFM/FFLB 301-415-7744

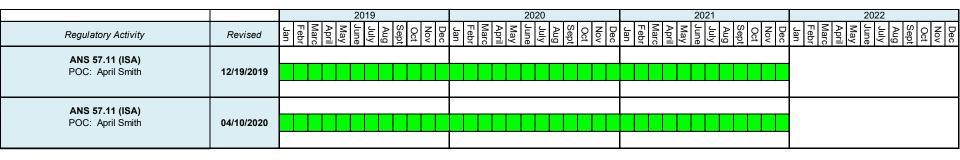


American National Standard 57.11 Integrated Safety Analysis

April Smith
Division of Fuel Management
Office of Nuclear Material Safety and Safeguards



American National Standard 57.11 Integrated Safety Analysis



Key Information	The working group is resolving comments from the subcommittee.
Related Documents	www2.ans.org (search ANS 57.11) http://www2.ans.org/standards/committees/nfsc/calendar/files/ans-57-11pins(2)-fornfscapproval.doc .
Meeting Information	None scheduled.

Contact:

April Smith NMSS/DFM/NARAB 301-415-6547



Development of Smarter Fuel Cycle Licensing Program

Donnie Harrison

Division of Fuel Management

Office of Nuclear Material Safety and Safeguards



Development of Smarter Fuel Cycle Licensing Program

· ·		2019	2020	2021	2022
Regulatory Activity	Revised	Nov Oct Sept Aug July June May April Marc Febr	Dec Nov Oct Sept Aug July June May April Marc Febr	Dec Nov Oct Sept Aug July June May April Marc Febr	Dec Nov Oct Sept Aug July June May April Marc Febr
Smarter Licensing Charter POC: Donnie Harrison	12/19/2019		• •		
Smarter Licensing Charter POC: Donnie Harrison	04/10/2020		· · · · · · · · · · · · · · · · · · ·	↓ 	

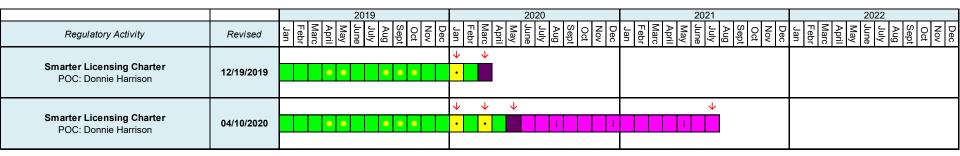
	<u> </u>
Key Information	 On March 13, 2019, the staff introduced the initiative at the NRC Regulatory Information Conference. The staff created a working group to lead and execute this effort. On April 2, 2019, the staff held a public meeting to discuss the working group draft charter which contained the working group's purpose, proposed tasks, and proposed completion schedule. On April 26, 2019, the final working group charter was approved. This phase of the working group project was completed at the end of March 2020 and the final report (with recommendations) issued in early May 2020. An integrated implementation plan to address the thirty-seven individual recommendations is under development and will be issued by the end of May 2020.
Related Documents	 NRC meeting summary for September 25, 2019, Cumulative Effects of Regulation public meeting (ML19274D398). NRC public meeting presentation dated November 15, 2019 (ML19318F609).

Contact:

Donnie Harrison NMSS/DFM 301-415-2470



Development of Smarter Fuel Cycle Licensing Program (cont.)



Related	 NRC meeting summary for November 15, 2019, public meeting (ML19338C823). NRC internal memo "Working Group Recommendations for Building a Smarter Fuel Cycle Licensing Program - Final Draft Report," February 25, 2020 (ML20056C852). NRC Meeting Notice: Meeting to provide an overview of the draft reports for Building a Smarter Fuel Cycle Licensing and Oversight Program (ML20052E707).
Related Documents	Program - Final Draft Report," February 25, 2020 (ML20056C852). • NRC Meeting Notice: Meeting to provide an overview of the draft reports for Building a Smarter Fuel
Meeting Information	Next stakeholder engagement during CER meeting on April 22, 2020.

Contact:

Donnie Harrison NMSS/DFM 301-415-2470



Development of Smarter Fuel Cycle Inspection Program

Jonathan Marcano
Division of Fuel Management
Office of Nuclear Material Safety and Safeguards



Development of Smarter Fuel Cycle Inspection Program

		2019	2020	2021	2022
Regulatory Activity	Revised	Nov Oct Sept Aug July June May April Marc Febr	Dec Nov Oct Sept Aug July June May April Marc Febr	Dec Nov Oct Sept Aug July June May April Marc Febr	Nov Oct Sept Aug July June May April Marc Febr
			↓ ↓		
Smarter Inspection Charter POC: Jonathan Marcano	12/19/2019				
			↓ ↓		
Smarter Inspection Charter POC: Jonathan Marcano	04/10/2020				

Key Information	On March 18, 2020, the working group issued its final report (see below).	
Related Documents	 September 25, 2019, Summary of Meeting to Discuss Fuel Cycle Regulatory Activities and Cumulative Effects of Regulation https://www.nrc.gov/docs/ML1927/ML19274D398.pdf. October 17, 2019, Meeting with URENCO USA On Specific Recommendations For Building A Smarter Fuel Cycle Inspection Program https://www.nrc.gov/docs/ML1930/ML19303D270.html. November 15, 2019, Public Meeting: Building a Smarter Fuel Licensing and Oversight Program https://www.nrc.gov/pmns/mtg?do=details&Code=20191230. 	

Contact:

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Development of Smarter Fuel Cycle Inspection Program (cont.)

		2019	2020	2021	2022
Regulatory Activity	Revised	Nov Oct Sept Aug July June May April Marc Febr	Dec Nov Oct Sept Aug July June May April Marc Febr	Dec Nov Oct Sept Aug July June May April Marc Febr	Dec Nov Oct Sept Aug July June May April Marc Febr
Smarter Inspection Charter POC: Jonathan Marcano	12/19/2019		• •		
Smarter Inspection Charter POC: Jonathan Marcano	04/10/2020		•		

Related Documents	 March 5, 2020, Meeting Notice: Meeting to provide an overview of the draft reports for Building a Smarter Fuel Cycle Licensing and Oversight Program https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML20_052E707. NEI Letter, "Industry Comments on Near Final Fuel Cycle Smarter Program Working Group Reports Post March 5, 2020 NRC Public Meeting," March 17, 2020 (ML20097E050). Working Group Report: "Proposed Recommendations for Building a Smarter Fuel Cycle Inspection Program," dated March 18, 2020 (ADAMS Accession No. ML20073G659).
Meeting Information	None scheduled.

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Cumulative Effects of Regulation

For more information visit

http://www.nrc.gov/materials/fuel-cycle-fac/regs-guides-comm.html#cumeffects



Cumulative Effects of Regulation

New Topics



Efforts to Improve Tracking and Oversight of Non-Billable Work in the Fuel Facilities Business Line

Kevin Ramsey
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Efforts to Improve Tracking and Oversight of Non-Billable Work in the Fuel Facilities Business Line

Background	 During public meetings in 2018, licensees learned that only a quarter of budgeted resources are recovered from direct services such as licensing actions and inspections. The majority of budgeted resources were expended on non-billable services recovered through annual fees. When licensees asked what services their annual fees funded, NRC was challenged to provide a detailed list of the non-billable projects and their associated costs.
Meeting Information	 On November 5, 2018, a memorandum was issued directing DFM staff to begin opening Enterprise Project Identifiers (EPIDs) for non-billable projects. In December 2018, staff were tasked with performing a self-assessment on non-billable (NB) work in the Fuel Facilities Business Line. On April 15, 2019, a self-assessment report was issued with several recommendations to improve the tracking and oversight of NB resources. Currently, reports of non-billable charges are reviewed each quarter by DFM management for progress on opening EPIDs and tracking NB work. Developing computer tracking system for NB projects. This effort is ongoing. Partner Offices briefed and provided guidance for NB projects.

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Process for Handling Regulatory Relief Requests

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Process for Handling Regulatory Relief Requests

- Staff developed internal guidance for handling regulatory relief requests
- Temporary Staff Guidance
 - Fuel Facility Regulatory Relief Requests
 Related to COVID-19



Status of Exemptions from Reporting Unplanned Contamination Events

Kevin Ramsey
Division of Fuel Management
Office of Nuclear Material Safety and Safeguards



Status of Exemptions from Reporting Unplanned Contamination Events

Background	Applications Received: Letter dated January 9, 2019, from GNFA (ML19009A271). Letter dated April 24, 2019, from BWXT (ML19120A285). Letter dated May 15, 2019, from NFS (ML19154A368).
Meeting Information	 Granting the exemption would reduce the level of transparency to the public of unplanned contamination events. An estimate of the resources saved is needed to make a finding that a reduced level of transparency is justified. A request for additional information was issued to each applicant in March 2020. GNFA response was received April 16, 2020 – currently under review. NFS and BWXT requested more time to respond.

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NMSS Prioritization Efforts Regarding Annual Fee Expenditures

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NMSS Prioritization Efforts Regarding Annual Fee Expenditures

Non-Billable Projects Currently Working

- Smarter Licensing
- Smarter Inspection
- Tracking and Oversight of Non-Billable Work
- DFM Workload Management Tool
- Accident Tolerant Fuel Support
- Advance Reactor Support
- Quarterly Barasso Report
- Draft Guidance Licensing Greater Than Critical Mass Facilities
- DFM Guidance Consolidation
- COVID-19 Regulatory Relief Working Group



NRC Fuel Cycle Activities for Accident Tolerant Fuel and Advanced Reactor Fuel

Marylin Diaz
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Office of Nuclear Material Safety and Safeguards

James Rubenstone
Division of Fuel Management
Office of Nuclear Material Safety and Safeguards



NRC Fuel Cycle Activities for Accident Tolerant Fuel and Advanced Reactor Fuel

- NRC staff continues to assess regulatory framework to identify challenges and/or data needs
 - NRC Regulations in 10 CFR Part 70 are adequate for conducting reviews of licensing actions associated with new technologies for enrichment and fabrication of fuel at higher enrichments (HALEU 5%-20% U₂₃₅)
- NRC staff continues to improve its processes and conducting risk informed and efficient reviews.
- Applicants are encouraged to engage early to ensure a common understanding of the implications of these advanced fuels.

Contact:

Marilyn Diaz NMSS/DFM/FFLB 301-415-7110



NRC Fuel Cycle Activities for Accident Tolerant Fuel and Advanced Reactor Fuel (cont.)

Accident Tolerant Fuel

- NRC Letter to NEI regarding accident tolerant fuels (ML19235A261) identify timeline for NRC reviews to support industry's 2023 ATF goal.
- NRC is conducting research on criticality benchmarking data for higher enrichments and ATF cladding material properties to gain efficiencies in our reviews.
- NRC is efficiently reviewing licensing actions to allow enrichments above 5wt%U-235.

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NRC Fuel Cycle Activities for Accident Tolerant Fuel and Advanced Reactor Fuel (cont.)

Advanced Reactor Fuel

- Physical Security Requirements for Category II facility will be evaluated on a case by case basis.
- We are conducting technical evaluations to assess necessary updates for the guidance
 - Updating NRC guidance for material control and accounting for Category II fuel cycle facilities.
 - Completed report on possible material control and accounting approaches for a pebble bed reactor (ADAMS Accession No. ML20112F355)

Contact:

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Contact:

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Contact:

Tim Harris NSIR/DPCP/MSB 301-287-3594



NRC Fuel Cycle Activities for Accident Tolerant Fuel and Advanced Reactor Fuel (cont.)

Advanced Reactor Fuel

- Technical reports addressing safety hazards will help staff risk inform their reviews.
 - Hazards Associated with Molten Salt Reactor Fuel Processing Operations Presentation (ORNL, 2019)
 - Metal Fuel Fabrication Safety and Hazards Presentation (PNNL, 2019)
 - o Review of Hazards for Molten Salt Reactor Fuel Processing Operations (ORNL, 2019)
 - Metal Fuel Fabrication Safety and Hazards Final Report (PNNL, 2019)

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Contact:

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Closing Remarks

Andrea Kock, Director

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