



UNITED STATES  
NUCLEAR REGULATORY  
COMMISSION WASHINGTON, D.C.  
20555-0001

March 16, 2020

MEMORANDUM TO: Christopher M. Regan, Deputy Director  
Division of Fuel Management  
Office of Nuclear Material Safety  
and Safeguards

FROM: Wendy A. Reed, Chemist  
Materials and Structural Branch  
Division of Fuel Management  
Office of Nuclear Material  
Safety and Safeguards

A handwritten signature in cursive script that reads "Wendy Reed".

SUBJECT: SUMMARY OF MARCH 4, 2020 PUBLIC MEETING TO DISCUSS  
STATUS OF SPENT FUEL REPROCESSING RULEMAKING

Background

The U.S. Nuclear Regulatory Commission (NRC) staff held a Category 3 public meeting on March 4, 2020, to discuss the status of the spent fuel reprocessing rulemaking, which focuses on spent fuel from light water reactors. The purpose of the meeting was to provide stakeholders an opportunity to provide their opinion on the need for the rulemaking, and to seek information from industry regarding interest in constructing, operating and licensing a spent fuel reprocessing facility.

The meeting was noticed on February 9, 2020 (ADAMS Accession No. ML20042D237). The meeting attendance list is provided in Enclosure 1.

Discussion

The meeting discussion followed the meeting agenda, which is provided in Enclosure 2. Enclosure 3 contains the presentation given by the NRC. The staff stated the purpose of the meeting and provided a brief history of NRC's efforts related to reprocessing. The presentation also discussed the current status of the technical basis development which was limited to assessing the application of quantitative risk analysis to reprocessing facility accidents, and the NRC's perception of continued industry interest in the reprocessing rulemaking.

CONTACT: Wendy Reed, NMSS/DFM  
301-415-7213

To stimulate discussion, the NRC proposed two questions for public comment:

1. A typical rulemaking costs approximately 2.4 million dollars. Should the NRC discontinue the spent fuel reprocessing rulemaking?
2. What is the intention of industry with regard to the construction, licensing and operation of spent fuel reprocessing facilities?

Following the presentation by the NRC, nuclear industry representatives and members of the public provided comments and asked questions.

A representative of NEI stated that it is supportive of the technology but believed there is no economic driver to construct spent fuel reprocessing facilities. NEI supports any efforts to preserve the work that has already been done to inform the development of a reprocessing regulatory framework, which will help preserve reprocessing as an option.

A representative of the Union of Concerned Scientists stated that the organization does not support reprocessing, primarily because of proliferation, security and material and accounting concerns. Several other commenters also stated their opposition to reprocessing and the continuation of the rulemaking, stating proliferation, waste management (contamination) and economic concerns. Many commenters used the example of the West Valley Demonstration Project, NY, the site of the first and only commercial reprocessing plant in the United States, and the cost of managing and remediating contamination at this site to support their arguments against reprocessing. Some commenters expressed concerns that reprocessing increases the amounts of radioactive waste generated and is difficult to isolate. A representative of Beyond Nuclear also used the examples of La Hague, Sellafield and the Kyshtym disaster to emphasize concerns with emissions and contamination. One commenter was concerned with the cost of decommissioning a reprocessing facility and asked how these costs would be factored into the cost of constructing a reprocessing facility. Another commenter stated that an Environmental Impact Statement should be developed by the NRC for a reprocessing facility.

Representatives of Orano Federal Services (formerly AREVA) and GE Hitachi made comments regarding the reprocessing rulemaking. These organizations had both submitted letters of interest to the NRC regarding the construction of a commercial reprocessing facility (along with EnergySolutions). Both organizations stated support for the rulemaking, stating that it would allow options for industry and provide regulatory certainty. However, neither organization stated that they would be constructing a reprocessing facility soon. Orano Federal Services stated that they would not be submitting a license application, as previously stated (ADAMS Accession No. ML12298A318) for economic reasons. EnergySolutions informed the NRC via email that they would not be attending the public meeting and were no longer interested in reprocessing (ADAMS Accession No. ML20063M399). A representative of NuScale stated that potential NuScale customers in foreign nations have expressed interest in a U.S. fuel takeback option that involves reprocessing. NuScale also submitted their comments via email (ADAMS Accession No. ML20066F440).

A representative of Virginia Recycles SNF (spent nuclear fuel) stated that even though they think there is a future in reprocessing and recycling spent fuel, the rulemaking should be tabled for now. One commenter suggested that NRC conduct discussions with the Environmental Protection Agency (EPA) to discuss the EPA rule 40 CFR 190 which regulates radiation releases and doses to the public from the normal operations of nuclear power plants and other uranium fuel cycle facilities (including reprocessing).

## **Action Items/Next Steps**

The meeting was transcribed to capture the many comments on the spent fuel reprocessing rulemaking (ADAMS Accession No. ML20069H449). The staff will consider the public comments in the transcription received at the meeting and several emails opposed to the rulemaking<sup>1</sup> as they prepare a paper to the Commission recommending next steps for the spent fuel reprocessing rulemaking.

### Enclosures:

1. Meeting Attendees
2. Agenda
3. NRC Presentation

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<sup>1</sup> ADAMS Accession Nos ML20056C932; ML20063M367; ML12298A318; ML20066F770; ML20066F681; ML20066F583

SUMMARY OF MARCH 4, 2020, PUBLIC MEETING TO DISCUSS STATUS OF SPENT FUEL REPROCESSING RULEMAKING

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**ADAMS Accession Nos.: ML20077K144 (Pkg) ML20077K146 (Memo)**

<b>OFC</b>	NMSS/DFM	NMSS/DFM	NMSS/DFM
<b>NAME</b>	WReed	SFiguroa via email	MRahimi via email
<b>DATE</b>	03/13/2020	03/13/2020	03/16/2020

## MEETING ATTENDEES

Topic: Status of Spent Fuel Reprocessing Rulemaking

Date: March 4, 2020, 2:00-4:00 pm.

Location: One White Flint North Building, Commission Hearing Room

NAME	AFFILIATION
Wendy Reed	US NRC
Edward Lohr	US NRC
Patricia Jehle	US NRC
Christopher Regan	US NRC
Meraj Rahimi	US NRC
Sven Bader	Orano Federal Services
Stephen Kung	DOE
Jana Bergman	Curtiss-Wright/Scientech
Ed Lyman	UCS
Kevin Kamps	Beyond Nuclear/Don't Waste Michigan
Fred Schofer	US NRC
Christina Leggett	US NRC
Olivier Lareynie	US NRC
Patricia Townsend (via bridgeline/webcast)	West Valley Citizen Task Force
Mary Anderson (via bridgeline/webcast)	US NRC

Pamela Greenlaw (via bridgeline/webcast)	Sierra Club
Suzanne Rhodes (via bridgeline/webcast)	League of Women Voters of South Carolina

NAME	AFFILIATION
Derick Botha (via bridgeline/webcast)	NuScale
Eric Loewen (via bridgeline/webcast)	GE Hitachi
Tom Clements (via bridgeline/webcast)	Savannah River Site Watch
Barbara Warren (via bridgeline/webcast)	Citizens' Environmental Coalition
Cynthia Wheeler (via bridgeline/webcast)	Private Citizen
Michael Keegan (via bridgeline/webcast)	Don't Waste Michigan
Marvin Lewis (via bridgeline/webcast)	Private Citizen
John Kelly (via bridgeline/webcast)	Private Citizen
Diane D'Arrigo (via bridgeline/webcast)	Nuclear Information and Resource Service
Steve Curtis (via bridgeline/webcast)	Virginia Recycles SNF
Martin Resnikoff (via bridgeline/webcast)	Private Citizen
Jan Boudart (via bridgeline/webcast)	Nuclear Energy Information Service
Kathy Taylor (via bridgeline/webcast)	Private Citizen
Phil Couture (via bridgeline/webcast)	Entergy Nuclear Operations
Terry Lodge (via bridgeline/webcast)	Private Citizen
Carlyn Greene (via bridgeline/webcast)	UxC
Bret Leslie (via bridgeline/webcast)	U.S. Nuclear Waste Technical Review Board

Nigel Mote (via bridgeline/webcast)	U.S. Nuclear Waste Technical Review Board
Kyle Sherman (via bridgeline/webcast)	Private Citizen

NAME	AFFILIATION
Joni Arends (via bridgeline/webcast)	Concerned Citizens for Nuclear Safety
Vina Colley (via bridgeline/webcast)	Portsmouth/Piketon Residents for Environmental Safety and Security
Don Hancock (via bridgeline/webcast)	Southwest Research and Information Center



**MEETING AGENDA**

**Status of Spent Fuel Reprocessing Rulemaking**

**March 4, 2020, 2:00 p.m. – 4:00 p.m.**

**NRC Two White Flint North  
First Floor Commission Hearing Room  
11545 Rockville Pike  
Rockville, MD 20852-2738**

<b><u>Time</u></b>	<b><u>Topic</u></b>	<b><u>Participants</u></b>
<b>2:00 p.m.</b>	<b>Welcome and Opening Remarks</b>	<b>NRC</b>
<b>2:10 p.m.</b>	<b>Presentation on the Rulemaking</b>	<b>NRC</b>
<b>2:25 p.m.</b>	<b>Open Discussion</b>	<b>NRC/Stakeholders</b>
<b>3:45 p.m.</b>	<b>Closing Remarks</b>	<b>NRC/Stakeholders</b>
<b>4:00 p.m.</b>	<b>Meeting Adjourns</b>	