



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

April 20, 2021

MEMORANDUM TO: Jacob I. Zimmerman, Chief  
Fuel Facilities Licensing Branch  
Division of Fuel Management  
Office of Nuclear Material Safety and Safeguards

A handwritten signature in black ink that reads "James R. Downs".

Signed by Downs, James  
on 04/20/21

Fuel Facilities Licensing Branch  
Division of Fuel Management  
Office of Nuclear Material Safety and Safeguards

SUBJECT: SUMMARY OF APRIL 8, 2021, CLOSED MEETING TO DISCUSS A  
NEW PROCESS TO PURIFY URANIUM AT NUCLEAR FUEL  
SERVICES, INC.

On April 8, 2021, the U.S. Nuclear Regulatory Commission (NRC) held a closed meeting with Nuclear Fuel Services, Inc. (NFS) to discuss a new process to purify uranium at their facility in Irwin, Tennessee. The meeting notice is available in the NRC's Agencywide Documents Access and Management System (ADAMS) at Accession No. ML21084A162. The presentation slides are not publicly available because of the proprietary information they contain. This was a teleconference meeting, and an attempt was made to capture a list of the attendees as they called into the meeting. Enclosed is a list of attendees as captured by the NRC staff who helped to facilitate the meeting.

During the meeting, NFS staff gave a presentation on a contract that was recently awarded to them from the National Nuclear Security Administration (NNSA) to prepare for future highly enriched uranium (HEU) conversion and purification services. This contract provides for:

- Design of conversion systems, NRC licensing, and pilot plant demonstration with natural uranium;
- Utilization of some existing processes and safety controls;
- Development and/or enhancement of additional processes and safety controls;
- Requests of additional pre-application meetings with the NRC to discuss licensing aspects of the design;
- Application for an amendment of their NRC license (i.e., SNM-124) in November of 2021; and

CONTACT: James R. Downs, NMSS/DFM  
301-415-7744

- Provides for HEU conversion and purification services until the Y-12 National Security Complex re-establishes a future oxide conversion capability.

After the NFS staff concluded their presentation, the NRC staff asked several questions intended to raise awareness of topics that may need to be more fully discussed in the future. These topics included:

- Anticipated “need date” for the license amendment (NFS is planning for an NRC review time of 18 to 24 months);
- Awareness of the applicability of the baseline design criteria and system design considerations from Title 10 of the *Code of Federal Regulations*, Section 70.64;
- Validity of the bounding conditions/scenarios for the existing environmental report and emergency plan;
- Human factors and reliability considerations; and
- Clarifying which Federal agency will provide oversight of information security for this contract.

Docket No. 70-143  
License No. SNM-124

Enclosure:  
Attendance List

[nfs@listmgr.nrc.gov](mailto:nfs@listmgr.nrc.gov)

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## ATTENDANCE LIST

NAME	AFFILIATION	NAME	AFFILIATION
Tim Knowles	Nuclear Fuel Services, Inc.	Jessie Quintero	NMSS/REFS/ERMB: BC
Ken Givens	Nuclear Fuel Services, Inc.	Donald Palmrose	NMSS/REFS/ERMB
Brad Graham	Nuclear Fuel Services, Inc.	Stacey Imboden	NMSS/REFS/ERMB
Melinda Graham	Nuclear Fuel Services, Inc.	Jesse Seymour	NRR/DRO/IOLB/HFT
Danielle Rogers	Nuclear Fuel Services, Inc.	Darryl Parsons	NSIR/DSO/ISB: BC
Mike Tesar	Nuclear Fuel Services, Inc.	Keith Everly	NSIR/DSO/ISB
Andrea Kock	NMSS/DFM: D	Alison Rivera	NSIR/DPCP/MSB: BC
Josh Borromeo	NMSS/DFM/CTCFB: BC	Tim Harris	NSIR/DPCP/MSB
Jimmy Chang	NMSS/DFM/CTCFB	Chuck Teal	NSIR/DPCP/MSB
Jim Hammelman	NMSS/DFM/CTCFB	Jessica Bielecki	OGC/GCRPS/HLWFCNS
Jake Zimmerman	NMSS/DFM/FFLB: BC	Lisa Clark	OGC/GCRPS/HLWFCNS
James Downs	NMSS/DFM/FFLB	Nick Mertz	OGC/GCRPS/HLWFCNS
Kevin Ramsey	NMSS/DFM/FFLB	Dave McIntyre	OPA
Jim Rubenstone	NMSS/DFM/MCAB: BC	Dave Gasperson	OPA/OPA-RII
Suzanne Ani	NMSS/DFM/MCAB	Robert Williams	R-II/DFFI/PB1: BC
Dave Hanks	NMSS/DFM/MCAB	Denise Edwards	R-II/DFFI/PB1
Tom Pham	NMSS/DFM/MCAB	Larry Harris	R-II/DFFI/PB1/NFSSO
Glenn Tuttle	NMSS/DFM/MCAB	Joel Rivera-Ortiz	R-II/DFFI/PB1
Richard Chang	NMSS/DFM/NARAB: BC	Otis Smith	R-II/DRS/PSB
Mike Call	NMSS/DFM/NARAB	Sean Peters	RES/DRA/HFRB: BC
Eli Goldfeiz	NMSS/DFM/NARAB	James Chang	RES/DRA/HFRB
Jeremy Munson	NMSS/DFM/NARAB	Amy D'Agostino	RES/DRA/HFRB
April Smith	NMSS/DFM/NARAB		

Summary of April 8, 2021, NFS purification closed meeting DATE April 20, 2021

DISTRIBUTION:

OFFICE	NMSS/FCSE/FFLB	NMSS/FCSE/FFLB	NMSS/DFM/FFLB	NMSS/DFM/FFLB
NAME	JDowns <i>JD</i>	JDowns <i>JD</i>	ELee <i>EL</i>	JZimmerman <i>JZ</i>
DATE	Apr 16, 2021	Apr 16, 2021	Apr 20, 2021	Apr 20, 2021
OFFICE	NMSS/FCSE/FFLB			
NAME	JDowns <i>JD</i>			
DATE	Apr 20, 2021			

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