



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

March 24, 2021

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

FROM: Matthew Bartlett, Project Manager
Fuel Facility Licensing Branch
Division of Fuel Management
Office Nuclear Material Safety
and Safeguards

A handwritten signature in blue ink, reading "Matthew Bartlett", is positioned to the right of the "FROM:" field.

SUBJECT: MARCH 2, 2021, TRIP REPORT FOR VISIT TO GLOBAL LASER
ENRICHMENT TO WALK DOWN REVISIONS TO THE STANDARD
PRACTICE PROCEDURE PLAN, MEET WITH THE AUTHORIZING
OFFICIAL, AND MEET WITH THE U.S. BOARD OBSERVER

On March 2, 2021, the U.S. Nuclear Regulatory Commission (NRC) staff from the Office of Nuclear Security and Incident Response (NSIR), Office of the Chief Information Officer (OCIO), and Office of Nuclear Material Safety and Safeguards (NMSS) visited Global Laser Enrichment (GLE) in Wilmington, NC. The purpose of the visit was to review several changes to the Standard Practice Procedures Plan (SPPP), allow the authorizing official (AO) staff from OCIO to review the classified cyber security systems, and meet with GLE and Mr. William Ostendorff, the NRC-approved independent U.S. board manager/observer.

The GLE staff provided a tour of the facility, including the reconfiguration of the secure office area to support a Global Nuclear Fuels-America project, updates to the machine shop, servers, laser area, and walkdown of the test loop. Test loop operations involve mechanical experiments to support industrialization of the laser enrichment process. Currently, there is no special nuclear material (SNM) in use at the facility, and the items relied on for safety related to use of SNM have been discontinued.

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The OCIO staff identified that the level of protections for the secure network previously approved by the U.S. Department of Energy (DOE) may need to be increased now that the AO responsibility has moved to the NRC. This translates into additional controls that GLE may need to implement to maintain the NRC authorization to operate the secure network. The increase in the network security may be needed because the NRC staff has taken over authorizing the classified network in place of DOE, and the NRC has a higher threshold for ensuring security. The OCIO staff stated GLE has sufficient controls in place to continue to operate under the existing interim authorization that was put in place during the transition of the AO responsibility from DOE to NRC.

The NRC staff met with GLE staff and Mr. Ostendorff to discuss foreign ownership, control or influence (FOCI) mitigations and protection of critical information. GLE stated they anticipate the development of additional U.S. Independently Developed Intellectual Property (USIDIP), which cannot be shared with foreign individuals without U.S. Government approval. GLE and Mr. Ostendorff confirmed their commitment to continue to protect against unauthorized access to USIDIP. The GLE staff also discussed the findings from their monthly review of vulnerabilities to FOCI. Several items and their appropriate mitigations were discussed. The GLE staff also identified that the U.S. and Australia have two different versions of the classification guide for protection of classified information, which makes the transfer of this information between the two countries more difficult. They requested NRC to work with the DOE and the Australian Safeguards and Non-proliferation Office (ASNO) to align the guides. GLE also identified the need for several clarifications on language used in the guidance. The NRC staff recognizes the need for clarity and consistency in the guidance and supports DOE and ASNO providing updates.

The NRC staff confirmed that GLE's near-term plans are to work toward industrialization through development of the mechanical operations at the test loop, without the use of SNM. The laser research is being conducted in Australia. No major licensing actions (e.g., Paducah Laser Enrichment Facility application) are anticipated in the next 3–5 years.

The NRC staff will continue to monitor GLE's work to industrialize the laser enrichment technology and to protect the classified information related to the project. The new GLE continues to demonstrate adequate protection of the classified information through security commitments in their SPPP and related documents.

Site Visit Participants

Nuclear Regulatory Commission

J. Keith Everly, NSIR
Charity Pantalo, NSIR
Michael Mangefrida, OCIO
Matt Bartlett, NMSS

Global Laser Enrichment

Tom Owens, President/CEO
Pat Jenny, Licensing Manager
Bill Ostendorf, U.S. Independent Board
Observer for GLE
Other GLE staff

Docket: 07007033

License: Not Applicable

SUBJECT: MARCH 2, 2021, TRIP REPORT FOR VISIT TO GLOBAL LASER ENRICHMENT TO WALK DOWN REVISIONS TO THE STANDARD PRACTICE PROCEDURE PLAN, MEET WITH THE AUTHORIZING OFFICIAL, AND MEET WITH THE U.S. BOARD OBSERVER

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***via e-mail**

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|--------|-------------------|-------------------|-------------------|
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| DATE | 03/15/21 | 03/23/21 | 03/23/21 |

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