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July 2, 2024

Director, Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Subject: Timing Exemption Request for the Paducah Laser Enrichment Facility

References:

- 1) NRC Docket 70-7033
- 2) NRC Regulation 10 CFR 51.6 "Specific Exemptions"
- 3) NRC Regulation 10 CFR 70.17 "Specific Exemptions"

In accordance with 10 CFR 51.6 and 70.17 (References 2 and 3), Global Laser Enrichment (GLE) hereby submits a request for an exemption from the timing requirement in 10 CFR 51.60(a) to allow submittal of environmental report information required by Part 51 separately from and before the remainder of a license application request is submitted to the U.S. Nuclear Regulatory Commission (NRC).

The attachment to this letter provides GLE's justification and evaluation criteria for the exemption pursuant to 10 CFR 51.6 and 10 CFR 70.17.

GLE also requests that the NRC perform an expedited review of this exemption request and grant an approval no later than November 29, 2024. GLE plans to submit the environmental report to the NRC prior to December 31, 2024.

If there are any questions regarding this letter and its contents, please do not hesitate to contact me at 910-623-4336 or at timothy.knowles@gle-us.com.

Sincerely,

Tim Knowles

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Attachment 1 - Technical Justification for 10 CFR 70.21(h) and 10 CFR 51.60(a) Exemption Request

Pursuant to Title 10, Code of Federal Regulations, Part 70.17 (10 CFR 70.17), Global Laser Enrichment (GLE) hereby submits this request for an exemption from the requirements in 10 CFR 51.60(a) "Environmental Report - Materials Licenses" and 70.21(h) "Filing" in order to submit the Environmental Report (ER) required by 10 CFR 51 separately from and before the remainder of the license application is submitted to the U.S. Nuclear Regulatory Commission (NRC).

10 CFR 70.21(h) states:

A license application for a uranium enrichment facility must be accompanied by an Environmental Report required under subpart A of part 51 of this chapter.

10 CFR 51.60(a) states:

Each applicant for a license or other form of permission, or an amendment to or renewal of a license or other form of permission issued pursuant to parts ... 70 ... of this chapter, and covered by paragraphs (b)(1) through (b)(5) of this section, shall submit with its application ... a separate document, entitled "Applicant's Environmental Report" ...

The location of the future Paducah Laser Enrichment Facility (PLEF) site is adjacent to the Department of Energy (DOE) Gaseous Diffusion Plant in Paducah, KY. The selected site is well characterized and documented such that the preparation of the ER is tracking ahead of the remainder of the license application documents. The environmental report that will be submitted as per 10 CFR 51.60 is on track to be completed and ready to submit to the NRC by the end of December 2024. The remainder of the license application documents that will be submitted as per 10 CFR 70.21 "Filing" are on track to be completed and ready to submit to the NRC by the end of June 2025.

GLE specifically requests that an exemption be granted from 10 CFR 51.60(a) such that the environmental report information can be submitted to the NRC for review approximately 6 months, but no later than 12 months prior to the submittal of the safety and safeguards portions of the license application.

GLE acknowledges that the NRC notice for an opportunity for a hearing under 10 CFR Part 2, that is published in the Federal Register for a major application, will not occur until after submittal of and NRC acceptance of the complete application including the environmental report and license application documents.

The basis for this exemption request is provided below.

Background

As described in GLE's letter of intent dated February 13, 2023, Global Laser Enrichment, LLC advised the NRC of the intent to prepare a license application for the authority to construct and operate a laser enrichment facility under 10 CFR 70. The license application is associated with GLE's plans to construct and operate a laser enrichment facility adjacent to the Paducah Gaseous Diffusion Plant (PGDP) site. This facility, referred to as the Paducah Laser Enrichment

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Facility (PLEF), is anticipated to be deployed as part of an agreement between GLE and the U.S. Department of Energy (DOE) to purchase and re-enrich certain DOE inventories of depleted UF6.

Regulatory Requirements

- 10 CFR 51.20, *Criteria for and identification of licensing and regulatory actions requiring environmental impact statements*, (b)(10) states that a type of action that requires an environmental impact statement is issuance of a license for a uranium enrichment facility.
- 10 CFR 51.60, *Environmental report - material licenses*, states "(a) Each applicant for a license ... issued pursuant to parts ... 70 ... shall submit with its application ... a separate document, entitled "Applicant's Environmental Report ..."
- 10 CFR 51.6, *Specific Exemptions*, states "The Commission may, upon application of any interested person or upon its own initiative, grant such exemptions from the requirements of the regulations in this part as it determines are authorized by law and are otherwise in the public interest.
- Part 70.21, Filing, states "(h) A license application for a uranium enrichment facility must be accompanied by an Environmental Report required under subpart A of part 51 of this chapter."
- Part 70.17, Specific exemptions, states "(a) The Commission may, upon application of any interested person or upon its own initiative, grant such exemptions from the requirements of the regulations in this part as it determines are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest."

Technical Justification

Authorized by Law

The scope of 10 CFR 51 implements Section 102(2) of the National Environmental Policy Act (NEPA) of 1969, as amended. The proposed exemption would allow for the NRC to begin the review of the environmental report while the safety and safeguards portions of the license application preparation is completed. NRC review of the safety and safeguards portions of the application and the environmental report are typically scheduled in parallel. The proposed exemption would allow for the start of the reviews to be staggered for a few months. The review of the safety and safeguards portion of the application is a separate and distinct activity from the review of the environmental report. The Part 51.20(b)(10) requirement will be met in full through submittal of an Environmental Report, and NRC's preparation of an Environmental Impact Statement. A licensing decision will not be made by the NRC on GLE's application to possess special nuclear material and operate the PLEF under 10 CFR 70 until after the NRC has completed a NEPA review based on the proposed application and environmental report, and the appropriate regulatory findings are made. Granting of the proposed exemption which relates to the timing of the submittals will not result in a violation of the Atomic Energy Act of 1954, as amended, or the NRC's regulations. Therefore, the exemption is authorized by law.

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Will Not Endanger Life or Property or the Common Defense and Security

Since the exemption request relates to the timing of when environmental information documents are submitted and thus when reviews may begin, it would not endanger life or property and does not:

- a) impact the probabilities of evaluated accidents;
- b) affect margins of safety;
- c) affect effectiveness of programs contained in licensing documents;
- d) increase effluents;
- e) increase occupational radiological exposures; or
- f) impact operations or decommissioning activities.

The proposed exemption also will not have an impact on common defense and security since the exemption only relates to the timing of when environmental information and license application documents are submitted and thus when reviews may begin.

Otherwise In the Public Interest

The purpose of the Paducah Laser Enrichment Facility (PLEF) is to deploy enrichment capacity to support the re-enrichment of depleted tails from legacy gaseous diffusion plants and to potentially further enrich natural uranium to low enriched uranium. Accelerated deployment of the PLEF accomplishes several national objectives and is in the public interest.

The PLEF strengthens national security. For the past 30 years, the U.S. nuclear fuel market has been heavily reliant on Russian nuclear fuel imports. Approximately 20 percent of the fuel used by the U.S. reactor fleet currently comes from Russia. This poses a critical national security threat. In response to Russia's invasion of Ukraine, the Administration has prioritized a secure and resilient nuclear fuel supply chain that is free of Russian influence¹. Congress has passed legislation to fully ban Russian enriched uranium imports beginning in 2028². Further, Congress passed the Nuclear Fuel Security Act to fund an expansion of the domestic low enriched uranium fuel supply chain³. The timely deployment of GLE's technology will significantly contribute to efforts by the nation and industry to rebuild a robust domestic supply chain to replace Russian imports.

The PLEF supports the Administration's Clean up to Clean Energy Initiative⁴, which seeks to repurpose DOE-owned lands for clean-energy generation. GLE has a contract with the DOE to re-enrich DOE's depleted uranium materials remaining from legacy gaseous diffusion enrichment in Paducah, KY. GLE's innovative technology aligns perfectly with this vision and can transform DOE's legacy environmental liability of depleted tails into an asset supporting commercial nuclear fuel needs. It is in the public's interest for the PLEF to cleanup DOE's legacy depleted tails while simultaneously expand domestic enrichment capacity.

¹ Biden-Harris Administration Takes Action to Secure Nuclear Fuel Supply Chain, Equip Revitalized Domestic Nuclear Industry for the Future. <https://www.energy.gov/ne/articles/biden-harris-administration-takes-action-secure-nuclear-fuel-supply-chain-equip>

² H.R.1042 - Prohibiting Russian Uranium Imports Act. <https://www.congress.gov/bill/118th-congress/house-bill/1042>

³ Nuclear Fuel Security Act of 2023. <https://www.congress.gov/118/plaws/publ31/PLAW-118publ31.pdf>

⁴ Cleanup to Clean Energy - Expanding Clean Energy Generation on DOE Lands. <https://www.energy.gov/management/osp/cleanup-clean-energy-expanding-clean-energy-generation-doe-lands>

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Environmental Evaluation

The granting of the proposed exemption will not have a significant effect on the quality of the human environment as it is procedural in nature and relates to the timing of the submittals of the environmental report information and the safety and safeguards portions of the license application.

The proposed exemption request meets the criteria in 10 CFR 51.22(c)(25) for a licensing action that is categorically excluded from an environmental assessment because the granting of this exemption:

- (1) Neither involves a significant reduction in the margin of safety nor creates a possibility of an accident, thus resulting in no significant hazards consideration;
- (2) would not result in the release of effluents, thus resulting in no significant change in the types or significant increase in the amounts of any effluents that may be released offsite;
- (3) neither introduces new radiological hazards nor increases existing radiological hazards, thus, resulting in no significant increase in individual or cumulative public or occupational radiation exposure;
- (4) would not involve construction, thus resulting in no significant construction impact;
- (5) would occur prior to any radiological components being in place at the facility and would not create any new accident precursors, thus resulting in no significant increase in the potential for or consequences from radiological accidents; and
- (6) would allow the submission of the required supplemental environmental report information, to be provided approximately 8 months prior to the remainder of the license amendment submittal, which is related to a scheduling requirement and is administrative in nature in accordance with 10 CFR 51.22(c)(25)(G) and (I), respectively.

Conclusion

GLE is requesting an exemption from requirements in 10 CFR 51.60(a) “Environmental Report – Materials Licenses” to submit the supplemental environmental report information required by 10 CFR 51 separately from and approximately 6 months before the remainder of the license application is submitted to the NRC. Approval of this proposed exemption is warranted since it “will not endanger life or property or the common defense and security and are otherwise in the public interest” per 10 CFR 51.6 and 10 CFR 70.17 as evaluated above.





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Final Audit Report

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