

**FINDING OF NO SIGNIFICANT IMPACT FOR THE
ENVIRONMENTAL ASSESSMENT FOR GENERAL MATTER’S SITE PREPARATION
AND LICENSING ACTIVITIES IN PARCEL A OF THE PADUCAH SITE IN
MCCRACKEN COUNTY, KENTUCKY**

July 2026

AGENCY: United States (U.S.) Department of Energy (DOE), Portsmouth/Paducah Project Office (PPPO)

ACTION: Finding of No Significant Impact (FONSI)

SUMMARY: General Matter, Inc. (GeM), prepared the *Environmental Assessment* (EA) for the *General Matter Paducah Enrichment Facility* (hereafter referred to as the EA) under the direction and independent evaluation of DOE pursuant to the National Environmental Policy Act (NEPA) and DOE NEPA Implementing Procedures.

GeM is currently preparing a license application for the U.S. Nuclear Regulatory Commission (NRC) to construct and operate a low-enriched uranium (LEU) and high-assay, low-enriched uranium (HALEU) enrichment facility. This facility will hereby be referred to as the General Matter Paducah Enrichment Facility (GMPEF). This license, if approved, would authorize GeM to possess and use special nuclear, source, and by-product material. However, before the construction and operation of the GMPEF can begin, certain site preparation activities—including the licensing, construction, and operation of essential radiological and nonradiological auxiliary facilities—must take place. These activities, including the eventual construction and operation of the GMPEF, will occur on approximately 100 acres of Federal land leased from DOE’s Paducah Site (Leasing Parcel A). As a result, all proposed activities on Parcel A constitute as a Federal action and are subject to NEPA (Volume 42 of the United States Code [U.S.C.], § 4321 et seq.).

DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES: The Proposed Action is to complete site preparation activities and to license, construct, operate, and eventually decommission essential radiological and nonradiological auxiliary facilities in time to support the broader GMPEF project schedule. These Proposed Action activities include the following:

1. Complete preliminary site preparation activities that are not included in NRC’s 10 Code of Federal Regulations (CFR) 70.4 and 10 CFR 40.4 definitions of “construction,” including site clearing; rough grading; soil characterization, treatment, stabilization and improvements; installation of underground utilities and storage tanks; final grading; and construction of administrative buildings.
2. Construct, operate, and eventually decommission a uranium hexafluoride (UF₆) storage pad, and receive and store Depleted-up-to-Natural UF₆ at the GMPEF Site, licensed by the Commonwealth of Kentucky.

In addition to the Proposed Action, DOE evaluated a No Action Alternative. Under the No Action Alternative, the Proposed Action activities, except for those already completed (i.e., site clearing and rough grading), would not occur.

ENVIRONMENTAL CONSEQUENCES: In the EA, DOE dismissed Land Use, Visual Resources, Socioeconomics, Waste Management, Transportation, Public Health and Safety, and Infrastructure from further analysis due to lack of potential for significant impacts upon these resource areas.

AIR RESOURCES (described in Section 3.3 of the EA): Impacts from the Proposed Action would produce less than significant air quality impacts. Impacts from criteria pollutant and hazardous air pollution emissions from operation of the Proposed Action would remain below the National Ambient Air Quality Standards and hazardous air pollutant regulatory levels.

ECOLOGICAL RESOURCES (described in Section 3.4 of the EA): The implementation of the Proposed Action would noticeably alter the composition of habitat within the GMPEF Project Area but would not destabilize the existence of these communities off site. While the Proposed Action would noticeably alter the composition of 10.55 acres of wetland habitat within the GMPEF Project Area, these features were classified as non-Waters of the United States (WOTUS) by the U.S. Army Corp of Engineer (USACE) (DOE, 2026), as such, impacts to wetlands would not be considered significant under implementation of the Proposed Action.

CULTURAL RESOURCES (described in Section 3.5 of the EA): Implementation of the Proposed Action would not result in adverse effects on National Register of Historic Place-eligible historic properties, as none are present within the GMPEF project area. The only identified archeological site (15McN256) was determined as not eligible for the National Register of Historic Places. The Kentucky State Historic Preservation Officer has concurred with these findings for the GMPEF project area (Leasing Parcel A).

GEOLOGY AND SOILS (described in Section 3.6 of the EA): Potential impacts to geology and soils would be minimized through site and facility design features and through application of the best management practices described Appendix A, *Detailed Description of Proposed Site Preparation Activities*. Coordination with the U.S. Department of Agriculture Natural Resource Conservation yielded a farmland conversion impact rating for the project of lower than the mitigation threshold requirement. Accordingly, no significant effects to geology and soils would occur as a result of the Proposed Action.

NOISE AND VIBRATION (described in Section 3.7 of the EA): Site preparation, construction, and day-to-day operations on the GMPEF Site associated with the Proposed Action would generate noise levels well below the U.S. Environmental Protection Agency effects criteria level of 55 decibels at the closest noise-sensitive location (4,300 feet away). Noise generated by the Proposed Action would not be distinctly audible at times with high ambient sound levels, and vibrations generated by the Proposed Action would not be perceptible at the closest sensitive location. The noise and vibration impacts of the Proposed Action would not be significant.

DEACTIVATION, DECOMMISSIONING, AND DEMOLITION (DD&D) (described in Section 3.8 of the EA): The impacts associated with the eventual DD&D of the Proposed Action activities are anticipated to be bound by, and similar in scale to, the impacts evaluated for site preparation and construction activities. Given the Proposed Action will not significantly degrade the local environment, the execution of DD&D activities are similarly expected to result in negligible, temporary, and localized environmental consequences.

DETERMINATION: The National Environmental Policy Act of 1969, as amended (Pub. L. 91-190, 42 U.S.C. 4321 et seq.) defines a FONSI as a document produced by a Federal agency briefly presenting the reasons why an action, not otherwise excluded, will not have a significant

effect on the human environment, and therefore, would not require preparation of an environmental impact statement (EIS). This FONSI considers all information included in the environmental assessment and project record and raised in the NEPA process.

Based on the information and analysis in the EA, DOE has determined not to prepare an EIS because the Proposed Action will not have a significant effect on the human environment in accordance with the NEPA and the 2025 DOE Implementing Procedures. An EIS will not be prepared, concluding the NEPA process for the Proposed Action.

A handwritten signature in black ink, appearing to read "John R. Zimmerman", is written over a horizontal line.

John Zimmerman
Acting Associate Principal Deputy Assistant
Secretary for Regulatory and Policy Affairs

FOR FURTHER INFORMATION CONTACT: For further information on this EA, contact NEPA Document Manager, Ryan Callihan.

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