



**6450-01-P**

**DEPARTMENT OF ENERGY**

**Request for Information Regarding Key Challenges in Reconstituting Uranium Mining and Conversion Capabilities in the United States**

**AGENCY:** Office of Nuclear Energy, Department of Energy.

**ACTION:** Request for information (RFI).

**SUMMARY:** The U.S Department of Energy (DOE) is issuing this RFI to invite public input on key challenges in reconstituting uranium mining and conversion capabilities in the United States. This invitation is in recognition of the importance of nuclear fuel supply chain capabilities to the United States. The Joint Explanatory Statement of the Energy and Water Development Committees on H.R. 1865, the Fiscal Year 2020 Energy and Water Appropriations Act, requests the Department to contract not later than 60 days after enactment of the Act with a Federally-Funded Research and Development Center (FFRDC) or other independent organization to work with industry to identify key challenges in reconstituting mining and conversion capabilities in the United States. The responses received from this RFI will be provided to the FFRDC or the independent organization.

**DATES:** Written comments and information are requested on or before ***[INSERT DATE 21 DAYS AFTER DATE OF PUBLICATION IN FEDERAL REGISTER]***.

**ADDRESSES:** Interested persons may submit comments by any of the following methods:

1. *Email: rfi-uranium@hq.doe.gov.* Submit electronic comments in Microsoft Word or PDF file format and avoid the use of special characters or any form of encryption. Please include “Response to RFI” in the subject line.
2. *Postal Mail:* Response to Mining and Conversion RFI, c/o Ms. Cheryl Moss Herman, U.S. Department of Energy, Office of Nuclear Energy, NE-42, Room B-409, 19901 Germantown Rd., Germantown, MD 20874-1290..
3. *Hand Delivery/Courier:* Ms. Cheryl Moss Herman, U.S. Department of Energy, Office of Nuclear Energy, NE-42, Room B-409, 19901 Germantown Rd., Germantown, MD 20874-1290. Phone: (301) 903-1788.
4. *Online:* Responses will be accepted online at <https://www.regulations.gov>.

*Instructions:* All submissions received must include the agency name for this request for information. No facsimiles (faxes) will be accepted.

**FOR FURTHER INFORMATION CONTACT:** Requests for further information should be sent to: *rfi-uranium@hq.doe.gov* or Ms. Cheryl Moss Herman, U.S. Department of Energy, Office of Nuclear Energy, NE-42, Room B 409, 19901 Germantown Rd., Germantown, MD 20874-1290. Phone: (301) 903-1788. Please include “Question on RFI” in the subject line.

**SUPPLEMENTARY INFORMATION:**

## **I. Background**

Both the President and Congress have recognized the importance of domestic nuclear fuel production capabilities to the United States.

According to the Energy Information Administration (EIA), U.S. uranium production in 2018 of 1.47 million pounds  $U_3O_8$  was at the lowest level since 1950 (<https://www.eia.gov/todayinenergy/detail.php?id=39352>). U.S. uranium mining capabilities are at risk for closure if production ceases. The only U.S. conversion capability is in “ready idle” status due to poor market conditions.

In a memorandum on July 12, 2019, President Donald J. Trump stated that “the United States uranium industry faces significant challenges in producing uranium domestically and that this is an issue of national security.” The President established the U.S. Nuclear Fuel Working Group to ensure a comprehensive review of the entire domestic nuclear supply chain and “to develop recommendations for reviving and expanding domestic nuclear fuel production.” (<https://www.whitehouse.gov/presidential-actions/memorandum-effect-uranium-imports-national-security-establishment-united-states-nuclear-fuel-working-group/>)

On December 20, 2019, in the Joint Explanatory Statement accompanying the Further Consolidated Appropriations Act, 2020 (Pub. L. 116-94), DOE was requested to contract not later than 60 days after enactment with a Federally-Funded Research and Development Center (FFRDC) or other independent organization to work with industry to identify key challenges in reconstituting mining and conversion capabilities in the United States.

The responses received from this invitation for public input will be considered by the independent organization in its identification of key challenges in, and the formulation of recommendations for, reconstituting mining and conversion capabilities in the United States.

## **II. Specific Questions on Which Information is Requested**

Public comment on the following questions is requested. Please provide data, analysis or other justification for all responses:

### *Market-Related*

1. What are the most important market-related challenges to reconstituting the uranium mining and conversion industries? Please consider the following challenges and provide input on additional challenges as needed.
  - U.S. and global demand
    - What level of demand and specific characteristics (U.S. and global, long-term versus short-term, etc.) would incentivize restarting or ramping up uranium production and conversion services capabilities in the United States?
  - What is a viable level of production to support uranium mining and conversion capability and how are you defining “viable”?
    - For U.S. industry in total?
    - For individual projects, such as a mine, extraction or processing facility, company, etc.?
  - Contract terms

- What contract term lengths would support sustainable U.S. supply and what constitutes a “sustainable U.S. supply”?
- What price level would be sufficient to encourage domestic production from existing as well as new production centers, and how much production is assumed in that price level?
- How long would it take from a “restart” decision (presumably after signing needed contracts) to achieve a viable level of production?
- What is the impact of U<sub>3</sub>O<sub>8</sub> and UF<sub>6</sub> inventories on U.S. mining and conversion capabilities?

Technical/Regulatory

2. What are the technical and/or regulatory barriers to the restart of uranium mining and conversion capabilities in the United States?
  - For existing projects and facilities?
  - For new projects and facilities?
  - How do these barriers compare to those in other countries involved in uranium mining? What unique characteristics (e.g., nationalized mines) exist in these countries?
3. Are there concerns or limitations with existing uranium mining and conversion infrastructure (e.g., aging facilities, new regulations)? If so, what impact do they have on the ability to start/restart production, production costs or capacity?

Financial

4. What are the financial challenges related to reconstituting uranium mining and conversion capabilities in the United States?

- What are the challenges related to the ability to raise needed capital?
- What financial incentives are required for new companies to enter the industry?

Human Resources

5. What are the human resource-related considerations for reconstituting uranium mining and conversion services capabilities in the United States?

- Are there specific recruitment and/or training challenges that must be overcome?
- Describe the nature of any potential shortfall in subject matter experts?
- What is the expected timeframe for realizing sufficient human resources to reconstitute the United States' uranium and conversion capabilities?

Other

6. Are there additional considerations that should be taken into account regarding key challenges to reconstituting a uranium mining and conversion capability in the United States?

Importance

7. Please indicate which of the challenges addressed are the most important to reconstituting a uranium mining and conversion capability in the United States?

Recommendations and Timing

8. Please provide any recommendations that might address and mitigate any industry challenges. Indicate the implementation timing needed to be effective.

### **III. Submission of Comments**

DOE invites all interested parties to submit, in writing by ***[INSERT DATE 21 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]***, comments and information on matters addressed in this RFI. Any information that may be business proprietary and exempt by law from public disclosure should be submitted as described in Section IV. Business Proprietary Information.

### **IV. Business Proprietary Information**

Pursuant to 10 CFR 1004.11, any person submitting information he or she believes to be business proprietary and exempt by law from public disclosure should submit via email, postal mail, or hand delivery/courier two well-marked copies: One copy of the document marked “Business Proprietary” including all the information believed to be proprietary, and one copy of the document marked “non-Proprietary” with the information believed to be business proprietary deleted. DOE will make its own determination about the business proprietary status of the information and treat it according to its determination. Factors of interest to DOE when evaluating requests to treat submitted information as business proprietary include: (1) a description of the items; (2) whether and why such items are customarily treated as business proprietary within the industry; (3) whether the information is generally known by or available from other sources; (4) whether the information has previously been made available to others

without obligation concerning its business proprietary nature; (5) an explanation of the competitive injury to the submitting person which would result from public disclosure; (6) when such information might lose its business proprietary character due to the passage of time; and (7) why disclosure of the information would be contrary to the public interest.

Signed in Washington, DC, on February 18, 2020.

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Andrew Griffith  
Deputy Assistant Secretary for Nuclear Fuel Cycle and Supply Chain  
Office of Nuclear Energy

Department of Energy

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