

REQUEST FOR INFORMATION

Four Rivers Nuclear Partnership– Paducah Deactivation Project (FRNP)

Decision 2029 – WAC and 435.1 PA/CA Support

1.0 Description

1.1 The FRNP Decision 2029 (D29) Team at the Paducah Site requires continuous support in developing required technical documents and Waste Acceptance Criteria (WAC) for the On-Site Waste Disposal Facility (OSWDF) being considered under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and DOE O 435.1.

1.2 THIS IS A REQUEST FOR INFORMATION (RFI) ONLY. This RFI is issued solely for information and planning purposes – it does not constitute a Request for Proposal (RFP) or a promise to issue an RFP in the future. This request for information does not commit the FRNP to contract for any supply or service whatsoever. Further, FRNP is not at this time seeking proposals and will not accept unsolicited proposals. Respondee are advised that the FRNP will not pay for any information or administrative costs incurred in response to this RFI; all costs associated with responding to this RFI will be solely at the interested party's expense. Not responding to this RFI does not preclude participation in any future RFP, if any is issued. If a solicitation is released, it will be sent to the qualifying Contractor.

2.0 Background

The D29 process will pursue comprehensive regulatory decisions for site-wide Waste Disposition Alternatives (WDA), Decommissioning and Demolition (D&D) and Environmental Media (EM). All three decision paths will involve the development of independent Remedial Investigation/Feasibility Studies (RI/FS) evaluations for each remedy under the NCP (40 CFR 300), leading to Proposed Plans (PP) and Records of Decision (ROD) anticipated to be no later than the end of fiscal year 2029. The successful bidder will be responsible to develop the WAC, the 435.1 PA and CA Reports, and the Site-wide Groundwater Model to support the D29 decision processes.

2.1 Planned Deliverables:

The successful bidder will produce the radiological and chemical WAC for all constituents of concern that will be incorporated into the WDA RI/FS process. The Draft WAC will be included in the D0 version of the WDA RI/FS Report per the preliminary schedule provided below. The Final WAC will be included in the WDA Proposed Plan per the preliminary schedule provided below. A review of existing site information and data will be required under this task. In 2013, DOE issued a WDA RI/FS Report to support the evaluation of on-site disposal alternatives. To support the WDA RI/FS Report, a Preliminary WAC Report was developed in 2013 that included radiological WAC calculations for two potential disposal locations. The WDA RI/FS Report was approved by U.S. EPA Region 4, but a ROD was never issued. The Preliminary WAC Report has not been updated.

The successful bidder would also need to review the current version of the site Groundwater Model and assess its completeness and accuracy for use in the development of the WAC for the OSWDF at the selected location. Based on the review of existing site information, the successful bidder will develop a proposed strategy for modeling and WAC development within 30 days of award. The bidder will be responsible to update and expand the current version of the model and develop a site-wide groundwater model that can be used to develop final remediation levels for soil and groundwater as part of the EM RI/FS process.

The professional and technical support services secured under a Statement of Work (SOW) of this nature will develop the DOE O 435.1 documentation for the potential OSWDF at the Paducah Site. The successful bidder will provide modeling, scientific, and/or engineering resources that will be responsible for the development of the OSWDF Performance Assessment (PA) and Composite Analysis (CA). Follow-on 435.1 documentation will be developed outside of the scope of this contract. These resources will provide calculations and draft sections of DOE O 435.1 and CERCLA documents as requested by D29 personnel. Anticipated work activities include estimating potential source loading in OSWDF from all waste streams, determine hydrogeological parameters, select geochemical parameters, incorporate the preliminary OSWDF engineering designs and underlying geological formations into a 3D numerical model, conduct model necessary simulations and dose calculations, determine acceptable radiological source loading limits, and support interactions with the Low-Level Waste Disposal Federal Facility Review Group (LFRG) Technical Review Team and revisions to the PA, assessing design change impacts to the results of the PA and CA leading to the Preliminary Disposal Authorization Statement (PDAS) from DOE-HQ. The CA will develop public dose projections considering the cumulative interaction of the OSWDF and all other radioactive sources anticipated to remain at the site.

The successful bidder will work as part of a larger team. There may be some need to retrieve original modeling files, original data, historical reports, etc. Documentation of calculations and providing software Quality Assurance documentation may also be needed. The primary management support including responsibility for staffing, scheduling, and quality is provided by the D29 Team.

2.2 Delivery Period: The D29 schedule is still being finalized, but the following are tentative dates for the 435.1 process at Paducah:

- August 1, 2024 – Initiate development of the WDA RI/FS Report including the Draft WAC.
- March 17, 2025 – Complete development of D0 WDA RI/FS Report including the Draft WAC.
- March 10, 2026 – Develop the D0 Performance Assessment and Composite Analysis (PA/CA) Report.
- October 27, 2026 – Submit the D0 PA/CA Report to DOE for review.

2.3 Estimated Proposal Period: The bid package, including reference documents, is currently expected to be issued to prospective bidders on June 15, 2024. Proposals are anticipated to be due on July 3, 2024.

2.4 Estimated Award Date: The contract is currently expected to be awarded on, or about, August 1, 2024. Contractor is expected to start work immediately upon award.

2.5 Estimated Contract Value: \$1,000,000 - \$2,000,000

3.0 Requested Information

3.1 Interested parties are requested to respond to this RFI with a Capability Statement.

3.2 Capability Statements in Microsoft Word for Office 2000 compatible format are **due no later than May 22, 2024 9:00 A.M. CT.** Responses shall be submitted via e-mail only to Amanda.Hatton@pad.pppo.gov. Proprietary information, if any, should be minimized and MUST BE CLEARLY MARKED.

4.0 Responses

4.1 Section 1 of the Capability Statement shall provide administrative information, and shall include the following as a minimum:

4.1.1 Name, mailing address, overnight delivery address (if different from mailing address), phone number, fax number, and e-mail of designated point of contact, and CAGE Code.

4.1.2 Business type (large business, small business, small disadvantaged business, 8(a)-certified small disadvantaged business, HUBZone small business, woman-owned small business, very small business, veteran-owned small business, service-disabled veteran-owned small business) based upon North American Industry Classification System (NAICS) code 541620, Environmental Consulting Services.

4.2 Section 2 of the Capability Statement shall provide responses to the following questions, as well as any additional information that is considered pertaining.

- 1) Describe briefly the capabilities of your company including a description of your staff composition and management structure.
- 2) Describe your company's capabilities and experience in developing PA/CA and WAC related deliverables including the generation of technical data, calculations, and reports.
- 3) Describe your company's past experience on previous projects similar in complexity to this requirement. Include contract numbers, a brief description of the work performed, period of performance, agency/organization supported, and individual point of contact (Contracting Officer or Program Manager). Include quantities, customer, and date of delivery and period of performance.
- 4) What quality assurance processes and test qualification practices does your company employ, including Software Quality Assurance? Please provide a description of your quality program (NQA-1, ISO 9000, QS-9000, EIA-599, or otherwise)?
- 5) Would your company be interested in participating in this solicitation to award? Please explain your response.

5.0 Discussions

FRNP representatives may or may not choose to meet with potential offerors. Such discussions would only be intended to get further clarification of potential capability to meet the requirements, especially any development and certification risks.

6.0 Questions

Questions regarding this announcement shall be submitted by e-mail to FRNP Procurement department Amanda.Hatton@pad.pppo.gov . **Questions must be submitted within 3 days of receiving the RFI.** Verbal questions will NOT be accepted.

7.0 Summary

THIS IS A REQUEST FOR INFORMATION (RFI) ONLY to identify sources that can support in developing required technical documents and Waste Acceptance Criteria (WAC) for the On-Site Waste Disposal Facility (OSWDF) being considered under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and DOE O 435.1.