U.S. NUCLEAR REGULATORY COMMISSION
MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	In accordance with:	4. Expiration Date:
1. DISA Technologies, Inc. 2. 1010 Falcon Ave. P.O. Box 1846 Mills, WY 82644	Documents identified in LC 10	September 2045
	3. License Number: SUA-1605	5. Docket No. / Reference No.: 040-38417

6. Byproduct Source, and/or Special Nuclear Material	7. Chemical and/or Physical Form	8. Maximum amount that Licensee May Possess at Any One Time Under This License
Source Material	Any	12,000 tons of AUM waste (see LC 17)

9. Authorized use: Activities necessary for the possession and management of source material concentrated from the operation of a High-Pressure Slurry Ablation (HPSA) remediation system at abandoned uranium mine (AUM) waste sites.

10. Except as specifically provided otherwise, the licensee shall conduct operations in accordance with the commitments, representations, and statements contained in the following documents:
    a. Transmittal letter and Response to NRC Comments, March 28, 2025 (ML25087A095)
    b. Application for a Performance-Based, Multi-Site Radioactive Materials License to Operate a High-Pressure Slurry Ablation Remediation System, Revision 3, March 21, 2025 (ML25087A096)
    c. Environmental Report, Revision 2, March 21, 2025 (ML25087A097)
    d. Response to Requests for Additional Information, June 16, 2025 (ML25167A328)
    e. Application Supplement, July 31 and August 4, 2025, (ML25216A248**,** ML25212A250, ML25216A269, ML25216A270)

11. The licensee is authorized to use its HPSA technology according to the following:
    a. HPSA will be used to remediate AUM waste where the licensee verifies and informs the NRC staff that the waste and the waste site are abandoned, and the waste was generated from uranium production at a site that is not in use for that purpose.
    b. HPSA may be used on private, state, and Federal public lands, and Federal Tribal Lands. This approval does not exempt DISA from satisfying any state, Tribal or municipality requirements for conducting operations or gaining access to privately owned land or land designated as Federal Tribal lands under the control of Tribal nations or under state jurisdiction.
    c. DISA is not authorized to store radioactive materials under this license after demobilization from a treatment site. Following termination of HPSA operation at each remediation site, the coarse material and process water must be dispositioned if not remaining onsite.
    d. The fines concentrates will be transported to a licensed recipient, such as a low-level radioactive waste disposal facility, source material storage facility, or a uranium recovery facility.

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12. Change, Test and Experiment License Condition

A. The licensee may, without obtaining a license amendment pursuant to 10 CFR 40.44, and subject to conditions specified in (B) of this condition:

i. Make changes in the type of equipment used in HPSA as described in the license application (as updated).

ii. Make changes in the standard operating procedures as described in the license application (as updated).

iii. Conduct tests or experiments not described in the license application (as updated).

B. The licensee shall obtain a license amendment pursuant to 10 CFR 40.44 prior to implementing a proposed change, test, or experiment if the change, test, or experiment would:

i. Result in a radiological release scenario that has not been previously addressed in the license application (as updated).

ii. Result in a more than a minimal increase in the likelihood of a radiological release from structures and equipment evaluated in the license application (as updated).

iii. Result in a departure from the method of evaluation described in the license application (as updated) used in establishing the safety evaluation report (SER) or environmental assessment (EA) or technical evaluation reports (TERs) or other analyses and evaluations for license amendments.

iv. Result in inconsistency with NRC's previous conclusions, or the basis of or the analysis leading to those conclusions, regarding actions, designs, or design configurations analyzed and selected in a site or facility SER, TER, and EA associated with the licensed activity. This would include all supplements and amendments to the license, as well as all SERs, TERs, EAs, and EISs associated with amendments to this license.

C. The licensee's determinations concerning (B) of this condition shall be made by a Safety and Environmental Review Panel (SERP). The SERP shall consist of a minimum of three individuals. One member of the SERP shall have expertise in management and shall be responsible for financial approval for changes; one member shall have expertise in operations and/or construction and shall have responsibility for implementing any operational changes; and one member shall be the radiation safety officer (RSO) or equivalent, with the responsibility of assuring changes conform to radiation safety and environmental requirements. Additional members may be included in the SERP, as appropriate, to address operational and technical aspects. Temporary members or permanent members, other than the three above-specified individuals, may be consultants.

D. The licensee shall maintain records of any changes made pursuant to this condition until license termination. These records shall include written safety and environmental evaluations made by the SERP that provide the basis for determining that changes comply with (B) of this condition. The SERP shall document all decisions and determinations required by this specific license and as set forth as commitments in the application and make such documentation available for NRC inspection. SERP records shall be maintained at the address listed in license condition 2.

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13. Financial Assurance. The licensee shall maintain an NRC-approved financial surety arrangement, consistent with 10 CFR 40.36. Pursuant to Table 8-1 of the March 2025 license application, the licensee shall maintain financial assurance at a per site cost while the site is under remediation. Once remediation is completed and the NRC accepts the demobilization notification (DMN), the surety for that site will be removed. DISA will re-evaluate the financial surety amount annually and submit the annual review to the NRC staff 30 days before the anniversary of the license issue date.

14. The licensee shall ensure that written standard operating procedures (SOPs) exist prior to operations for all routine operations or activities involving radioactive materials authorized under this license that address:
    1) all operational activities involving radioactive materials associated with licensed activities that are handled, processed, stored, or transported by employees;
    2) radiation protection and environmental monitoring; and
    3) emergency procedures for potential accident/unusual occurrences including significant equipment.

    The SOPs shall identify the radiological hazards and appropriate radiation safety practices (engineering controls, use of protective equipment) that can be taken by employees to limit or preclude the radiological hazard, in accordance with 10 CFR Part 20. SOPs for operational activities shall enumerate pertinent radiation safety practices to be followed. A copy of the current written procedures shall be kept on every site where HPSA is used. For non-routine operations and activities that do not have a written SOP, radiological hazards and protective measures to limit dose will be documented in a radiation work permit.

15. Remediation Reporting
    a. The licensee must notify the NRC of the commencement of remediation activities prior to installing equipment and beginning operations at an AUM temporary job site and after remediation is complete. See LC 19 for what the notifications must include.
    b. The licensee shall develop a report every year on the anniversary of this license issuance that summarizes HPSA activities at NRC-licensed and Agreement State-licensed sites, including the documented background and post-HPSA analytical data for every site remediated and copies of all shipping papers documenting the fate of the fine concentrates. The report shall be maintained onsite for NRC inspection.
    c. The licensee shall periodically (at least annually) review the radiation protection program content and implementation in accordance with 10 CFR 20.1101(c). Documentation of this review shall be maintained onsite for NRC inspection.
    d. The licensee shall submit to the NRC by January 31st of the following year, a completed DOC/NRC Form AP-1 and any other associated forms needed to satisfy the requirements for Additional Protocol as detailed in 10 CFR 40.31 and 10 CFR 75.11.

16. RSO. The initial RSO will be that person presented in the license application and approved by the NRC, as listed in LC 29. Future RSOs will be nominated by the licensee and approved by the NRC. This person will meet or exceed the qualifications presented in the March 2025 application, as modified by the RAI responses. Replacements for the RSO will be approved by the NRC staff.

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17. The licensee is granted a phased approval to utilize its HPSA remediation system. The first phase will consist of performing a demonstration project to remediate a maximum of 12,000 tons of AUM waste over a maximum of 180 days. During this initial project, DISA will collect samples for analysis to demonstrate that the technology produces a coarse material and process water that meets the dose assessment criteria in LC 25. Post-HPSA remediation samples will be analyzed in accordance with LC 22. The Licensee will also assess doses due to radionuclides found in the fines concentrates, the coarse material, and within process equipment.

    The licensee's SERP will review the analytical data collected and dose assessments produced during this project and provide its assessment regarding the safety of HPSA technology. DISA will submit this SERP report for review to the NRC staff in a license amendment request. The NRC staff will review the license amendment request and provide a response within 30 days of receipt. The response shall either be a letter of concurrence and a revised license or a letter stating further actions are required. If NRC concurs that the release criteria have been met, it will issue an amendment to this license removing LC 17 and reflecting unlimited source material as the possession amount.

18. For all reclamation/remediation projects that DISA undertakes, DISA shall ensure:
    a. That at all times, the source material is and shall remain the property of DISA and that DISA will take title to the source material after it leaves the collision cell.
    b. That DISA shall have access to the HPSA system at all times.
    c. During the HPSA operations, DISA shall be responsible for all system repairs, maintenance and service activities that have the potential for contact with the licensed material.
    d. During the HPSA operations and site release activities, DISA shall be responsible for the containment and remediation of any inadvertent release or spill of licensed material.
    e. DISA shall be responsible for all source material transportation. DISA will transfer possession and control of source material to the appropriately licensed recycling, storage, or disposal facility.

19. The licensee must notify the NRC through a PMN at least 90 days prior to mobilizing to any new worksite, and the licensee must receive the NRC's approval of the PMN prior to the licensee installing equipment and beginning operations at an AUM waste site.

    The licensee must provide a DMN to the NRC within 30 days after completing remediation at each site. If the NRC finds that the DMN is not acceptable, the licensee shall submit within 30 days after that determination a plan for resolving outstanding issues, including the timeframe for resolution.

    Notifications will include the following information:

    A. Pre-Mobilization Notification:

        1. Estimate of the quantity of gravel and resulting number of truck shipments that would be needed per 10 miles of road.

        2. Schedule for NRC touchpoints:

            a. Mobilization
            b. Commencement of remediation
            c. 50% completion of remediation
            d. Within one week of completion
            e. Expected demobilization

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3. Dose assessment scenario and the associated threshold that will be used for calculating doses for compliance with the 10 CFR 20.1402 unrestricted release criterion. Also include the analysis used to select the scenario.
4. The number of samples per 40,000 tons of coarse material post-HPSA remediation will be presented in the pre-mobilization notification along with the ProUCL output. Automatically assume that 5 samples will be collected if the total AUM waste mass is less than 40,000 tons.
5. Information specified in Appendix A, “Environmental Information Requirements for Premobilization Notification,” of the NRC’s generic Environmental Assessment (EA) (ML25265A212). Respond to the applicability of the assumptions included in NRC’s generic EA to the project site using the checklist.
6. Specific location for that project site and origin of the AUM waste.
7. A description of the site to include anticipated land disturbance activities (i.e., constructing temporary roadways, grading of soil for equipment placement, approximate volume of soils/waste rock to be processed, and whether large volumes of soil/waste rock will be moved at the project site to facilitate remediation). Provide estimated surficial boundaries and depth of ground disturbance.
8. Preliminary data developed by the applicant for each project site to include concentrations of uranium and thorium in the waste rock and the surface soils prior to mobilization, waste rock volumes expected to be processed and the anticipated number of HPSA units, and survey data used to establish background radiation levels that will be used in subsequent public dose calculations.
9. Identify and provide justification for the proposed future land use based on existing land use in the vicinity of the site and other site characteristics.
10. Approximate mass of source material that the licensee will possess (this can later be refined for inventory and material accountability).
11. Anticipated date(s) of mobilization and start of operations as well as the anticipated duration of operations.
12. Methodology used to determine that the project site will meet release criteria including the extent of residual radioactivity remaining at the site from operations and justifications based on land use in the vicinity of the site and other site characteristics for scenarios and parameters used to calculate dose to demonstrate 10 CFR 20 Subpart E release criterion are met.
13. An updated site-specific decommissioning cost estimate, as applicable.
14. A certification that financial assurance for decommissioning has been provided in an amount that is at least that of the updated decommissioning cost estimate.
15. If the project site is an outlier scenario, DISA will incorporate the outlier scenario conditions into a model scenario, calculate screening values, and present the new scenario and associated screening values in PMN.
16. A description of the expected post-HPSA stabilization methods, including scaled map showing area and depth of coarse material disposition.

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B. Demobilization Notification:

1. Dose assessment results and radionuclide concentration results for coarse material, fines concentrates, and process water.
2. Results of the Synthetic Precipitation Leaching Procedure (SPLP) analysis for the coarse material.
3. Results of the Toxic Characteristic Leaching Procedure (TCLP) analysis for the coarse material.
4. Presentation of release criterion, screening criteria, and applicable effluent standards.
5. Comparisons of doses and concentrations to the criteria and standards presented in Items 2 and 3 above.
6. Determination that process water may be discharged onsite or decision to take the process water offsite.
7. Description of how process water was discharged onsite, if applicable.
8. Facility-specific site number to be created by DISA.
9. Name, location, geographic coordinates of the site.
10. Owner and owner's contact information.
11. Actual volume of AUM waste remediated.
12. Name of the actual licensed recycling, disposal, or storage facility receiving fine concentrates.
13. Mass of mineral-rich material transported to the recycling facility.
14. Description of how coarse material was handled and stabilized following processing.
15. Description of any soil mixing measures implemented, if applicable.
16. Final determination on clean coarse material. Did concentrations meet the screening criteria for the scenario specified in the PMN? If not, describe the final survey data and methodology used to determine that the project site meets release criteria, including the extent of residual radioactivity remaining at the site from operations and justifications based on land use in the vicinity of the site and other site characteristics for scenarios and parameters used to calculate dose to demonstrate 10 CFR 20 Subpart E release criterion are met.

20. The licensee will use engineering controls such as water or dust enclosures to minimize the spread of dust during the crushing process and during operations.

21. The licensee will assess air monitoring data for the first 12 months of operations across multiple sites. If the data indicates that air particulates, radon, and environmental gamma do not create important radiological dose pathways, then DISA will propose the elimination or reduction of all or parts of the air monitoring through a review by its SERP. If DISA is working on one large site, DISA will propose the elimination or reduction of air monitoring through a SERP review for that particular site only.

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22. The licensee will perform post-HPSA characterization as described in Section 3.3 of the application supplement, and summarized below:

A. Fines Concentrates:

a. Collecting 1 sample per 10 to 20 tons of fines concentrates, or approximately 1 to 2 samples for roll-off container.

B. Coarse Fraction:

a. Collecting grab samples of coarse material as it is generated through HPSA and as determined from the PMN (a minimum of 18 samples per 40,000 tons). DISA will collect a minimum of 5 samples of the coarse material to determine compliance with the 10 CFR 20.1402 unrestricted dose limit. These samples will be analyzed by a commercial, accredited laboratory and will be used for final decision making.

b. Collecting samples that will be analyzed by portable X-ray fluorescence equipment; these samples will be used to refine the HPSA process and not for decision making .

c. Analysis of coarse materials and fines for uranium, Ra-226, and Th-230, vanadium, TCLP Resource Conservation and Recovery Act (RCRA) Metals and TCLP mercury.

d. SPLP leaching tests on a coarse material sample and compliance of the leachate with 10 CFR Part 20, Appendix B, Table 2 effluent limits.

C. Process Water:

a. Sampling process water after or during HPSA operation to determine compliance with 10 CFR Part 20, Appendix B limits. DISA will collect three grab samples of each process water tank, per HPSA unit, from different parts of the water column.

b. Analysis of treated process water samples for Total RCRA Metals, uranium, vanadium, mercury, Ra-226, Th-230 to comply with 10 CFR Part 20, Appendix B limits.

c. In Section 9 of the application supplement, DISA states that it will use the 10 CFR Part 20, Appendix B, Table 2, effluent limits to discharge treated process water to the environment. DISA may also discharge water to a sanitary sewer or a sewage treatment plant in compliance with Appendix B, Table 3, sanitary sewer limits.

d. Other radionuclides present in the process water and not part of the natural uranium decay chain must be less that the concentrations listed for each radionuclide in 10 CFR 20 Appendix B Table 2 or Table 3 and a sum of the ratios must be performed to determine if the process water can be returned to the environment or if the process water must be processed via the HPSA system again to meet the release criteria. If DISA reprocesses the process water through the HPSA system twice and it does not achieve the release criteria it will ship the process water offsite for disposal.

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23. SPLP leaching tests will be performed on a coarse material sample. The 10 CFR 20, Appendix B, Table 2, Effluent Concentration values will be used to determine if SPLP leachability is acceptable. These values are as follows:
    - Ra-226 = 60 pCi/L
    - Th-230 = 100 pCi/L
    - Natural uranium = 0.43 mg/L based on 300 pCi/L limit

24. After remediation is completed, DISA will stabilize the site using general standards from typical mining reclamation rules such as those found in the Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for Hard Rock, Metal, And Designated Mining Operations, Effective July 15, 2022, using the guidelines presented in Section 4.0 of the application supplement. The expected future land use (per LC 19(A)(9)) will provide a guide for stabilizing remediated sites.

    The licensee will grade the coarse material into the existing topography and will seed it with seed mixes provided by DISA's ecological resources consultant, as discussed in its RAI responses. The licensee will minimize the potential for dust spreading after demobilizing from the site.

    DISA commits that it will not stabilize a site in a manner that promotes pond formation and will not create streams or wetlands on remediated sites. DISA commits to identifying the specific site stabilization plans in each pre-mobilization notification.

25. DISA's unrestricted release criteria are the 25 mrem/year dose limit in 10 CFR 20.1402 and the 500 mg/kg source material exemption limit in 10 CFR 40.13. DISA will determine compliance with the release criteria using concentration data (for the source material exemption limit).

    DISA will determine compliance with the 25 mrem/year dose limit using the screening criteria provided in the application supplement (Table 2-1), presented below as Table 1, as applicable for the site, or through site-specific dose modeling. DISA will determine which scenario applies based on the criteria described in Section 2.3 of the application supplement. If more than one radionuclide is contributing to radiation dose, the sum of the ratios of the radionuclide concentrations to the screening criteria concentration limits, as calculated using the radium benchmark dose method, will not exceed "1".

Table 1: Radionuclide Concentrations Equivalent to 25 mrem/yr per Scenario[1]

Scenario	Ra-226, pCi/g	U-238, mg/kg*	Natural Uranium, mg/kg*	Th-230, pCi/g[2]
Resident Farmer	1.7	556	1,151	12
Resident Gardener	4.1	866	1,792	30
Rural Resident	5.3	970	2,008	42
Rancher	12	2,360	5,445	86
Recreationalist (no ingestion of meat)	63	8,000	16,562	295

[1] Based on Table 2-1 in the application supplement

[2] The concentrations presented here are for the purpose of determining the dose contribution to the sum of fractions calculation described above. The total mass concentration of uranium, thorium, or any combination thereof must also be below the source material exemption limit of 500 mg/kg as specified in 10 CFR 40.13.

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26. If the coarse material does not meet the concentration-based screening criteria or the unrestricted release criteria of 25 mrem/year through dose modeling as described in LC 25, DISA will follow NRC guidance in NUREG-1757, Volume 1, Revision 2, Section 15.13.3 to implement soil mixing methods, as discussed in Section 2.3.8 of the application supplement. If DISA uses soil mixing at a site, it will detail all procedures implemented in the demobilization notification. DISA also retains the option of requesting alternate criteria for license termination pursuant to 10 CFR 20.1404.

27. Until license termination, the licensee shall maintain documentation on unplanned releases of radioactive material including process waters. Documented information shall include but is not limited to, the date, the site, spill volume, total activity of each radionuclide released, radiological survey results, soil sample survey results (if taken), corrective actions, results of post remediation surveys (if taken) and a map of the spill location and impacted area and an evaluation of NRC reporting criteria.

    If the licensee is required to report any spill or other event involving radioactive material, including process water, to another State or Federal agency, the licensee shall make a report to the NRC Headquarters Project Manager by telephone or electronic mail (e-mail) within 24 hours. This reporting shall be followed within 30 days of the notification by submitting a written report to NRC Headquarters detailing the conditions leading to the spill or event, the corrective actions taken and results achieved.

28. Environmental License Conditions

    A. The licensee shall report to the NRC any killing, injury, or other takings of Federally listed threatened or endangered species or critical habitats protected under the Federal Endangered Species Act that occur over the course of implementing HPSA.

    B. Before engaging in any site development activity, the licensee shall conduct a cultural resource inventory and provide the results to the NRC. All disturbances associated with the proposed development shall be completed in compliance with applicable regulations, such as the National Historic Preservation Act (as amended) and its implementing regulations (36 CFR part 800), the Archaeological Resources Protection Act (as amended) and its implementing regulations (43 CFR part 7) and Tribal, state and local regulations and guidance.

    C. In the event that human remains or prehistoric or historic archaeological materials are uncovered during site development, the licensee shall cease work in the vicinity immediately and protect the discovery from further disturbance. Discovery notifications shall follow identified protocols and regulations depending on land jurisdiction. No work in the vicinity of the discovery shall resume until the licensee has received authorization from the NRC to proceed.

29. License documents and records shall be maintained by the RSO. The RSO for this license is Mr. Stephen Cohen who may be contacted at:

    1010 Falcon Ave.
    P.O. Box 1846
    Mills, WY 82644
    s.cohen@DISAusa.com
    (720) 237-2358

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30. All written notices and reports to NRC required under this license shall be submitted through one of the following methods:

- NRC Electronic Information Exchange System (https://eie.nrc.gov/eie/gf/termsOfService.eie)
- Mailed to:

ATTN: Document Control Desk
Director, Division of Decommissioning, Uranium Recovery, and Waste Programs
Office of Nuclear Material Safety and Safeguards, Mailstop T-5A10
U. S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852-2738

Include Docket # 040-38417 and NRC PM on all correspondence. Required telephone notification shall be made to the NRC Operations Center at (301) 816-5100 for emergencies.

FOR THE U.S NUCLEAR REGULATORY COMMISSION

Duane White Signed by White, Duane on 09/30/25

Duane E White, Branch Chief
Low-Level Waste and Projects Branch
Division of Decommissioning, Uranium Recovery and Waste Programs
Office of Nuclear Material Safety and Safeguards

Date: September 30, 2025