

DISA Technologies

← Abandoned Uranium Mine Waste Remediation

DISA Technologies

On March 28, 2025, DISA Technologies (DISA) submitted a license application to the NRC to use its high-pressure slurry ablation (HPSA) technology to remediate AUM waste. The HPSA process crushes and mixes AUM waste with water to create a slurry. The AUM slurry is then pumped through opposing nozzles into a high-energy impact zone, where the minerals containing source material are separated from the host material. The HPSA process results in the generation of two types of material: (1) “fines concentrates” containing licensable quantities of source material that will be packaged and sent offsite either for disposal, storage, or further processing, and (2) “coarse material” that DISA intends to return to the environment once NRC’s unrestricted site release conditions are satisfied.

Following DISA’s application submission, NRC staff requested additional information (RAIs) and completed a regulatory audit of DISA’s RAI responses in July 2025. After the audit, DISA submitted an application supplement on July 31, 2025. NRC staff completed a safety evaluation report (SER) and conducted an environmental assessment (EA). NRC assessed DISA’s operations under several different scenarios, and concluded that DISA’s proposed actions would be consistent with a finding of no significant impact (FONSI). On September 30, 2025, NRC issued source material license SUA-1605 to DISA. On January 28, 2026, NRC issued an administrative amendment to the license adding possession of Thorium-230 sources for instrument calibration.

On May 14, 2026, DISA submitted a license amendment request (LAR), seeking NRC staff approval to use flocculant to aid in dewatering the fines concentrate fraction produced during the HPSA process. Following a detailed review of the LAR and DISA’s responses to NRC staff RAIs, the NRC staff completed their EA and SER (on July 16 and July 22, 2026, respectively). The NRC staff concluded that implementing the proposed licensing action would not cause significant environmental impacts or harm the health and safety of the public. Accordingly, the NRC staff issued the amended license on July 22, 2026.

DISA is required to provide the NRC with a pre-mobilization notification (PMN) at least 90 days prior to the deployment of HPSA at an AUM waste site, and a subsequent demobilization notification (DMN) within 30 days of completion of HPSA activities. If the NRC determines that a submitted DMN does not fulfil the conditions of their license, DISA must submit a plan to resolve the outstanding issues identified by NRC within 30 days. Detailed PMN and DMN requirements are listed by license conditions.

The following table lists the status of sites where DISA plans to perform HPSA remediation of AUM waste:

DISA Site Status

Site	Status	References
October Pile, Mesa County, Colorado	Review temporarily paused at DISA’s request	PMN: ML26044A176 DISA’s request for temporary pause of review: ML26077A393
Mary Ann Pile, Montrose County, Colorado	PMN approved	PMN: ML26084A517 NRC staff preliminary review letter: ML26111A345 PMN Revision 1: ML26183A289 PMN approval package: ML26237A258

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