6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 268

[EPA-R06-RCRA-2025-3129; FRL – 13097-02-R6]

No-Migration Variance from Land Disposal Restrictions for Clean Harbors Lone Mountain, Oklahoma

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final approval.

SUMMARY: The Environmental Protection Agency (EPA) is approving with conditions, no-migration variances for nine categories/groups of wastes, containing up to a combined 100 temporary disposal units ("put piles") at any one time, from the Resource Conservation and Recovery Act (RCRA) Land Disposal Restrictions (LDR) standards at Clean Harbors' Lone Mountain (Clean Harbors) commercial treatment, storage and disposal facility (TSDF) in Waynoka, Oklahoma. These variances will allow Clean Harbors to temporarily store treated hazardous wastes that are awaiting LDR compliance verification in put piles within its Subtitle C (hazardous waste) landfill. The petitioner demonstrated, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the put piles for as long as the wastes remain hazardous. Additionally, once LDR compliance is verified, the put piles will be disposed within the onsite RCRA hazardous waste landfill area and will be subject to the conditions set out in the Compliance Monitoring Plan section of this document.

DATES: This regulation is effective **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

FOR FURTHER INFORMATION CONTACT: Golam Mustafa, Land, Chemicals and Redevelopment Division, EPA Region 6, 1201 Elm Street, Dallas, Texas 75270, Mail Code: R6LCR-RP, telephone number: (214) 665-6576; and email:

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SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this document apply to me?

This action applies only to Clean Harbors' Lone Mountain facility (Clean Harbors) located in Waynoka, Oklahoma.

B. What action is the Agency taking?

The EPA is finalizing no-migration variances (NMV) for up to a combined 100 put piles at any one time for the nine categories/groups of wastes identified in *The Petition* section of this approval as requested by Clean Harbors in their November 29, 2023, petition, for the Lone Mountain facility. For the reasons described in the December 11, 2025, preamble to the proposed approval and in the Agency's response to the single comment received on the proposal, the EPA is finalizing the variance without alteration. The term of this NMV shall be no longer than the term of the RCRA Subtitle C permit for the permitted landfill.

C. What is the Agency's authority for taking this action?

Sections 3004(d) through (g) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6294(d)-(g), prohibit the land disposal of hazardous wastes unless such wastes meet the LDR treatment standards ("treatment standards") established by EPA ("Agency").

However, RCRA 3004(d)(1)[1], and its implementing regulations found at 40 CFR 268.6, provide an option for land disposal of hazardous waste that does not meet the applicable treatment standards where EPA has approved an NMV petition. Specifically,

[1] RCRA 3004(d)(1)(c) states: "…For the purposes of this paragraph, a method of land disposal may not be determined to be protective of human health and the environment for a hazardous waste referred to in paragraph (2)…unless, upon application by an interested person, it has been demonstrated to the Administrator, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the wastes remain hazardous."

40 CFR 268.6(a) describes the components that a demonstration of no migration must address; 268.6(b) specifies certain criteria that must be satisfied for that demonstration, and 268.6(c) describes the monitoring program that will be used to verify that the conditions of the NMV are being met.

II. Background

A. The Petition

On November 29, 2023, Clean Harbors submitted an NMV petition to the EPA for its Lone Mountain facility in Waynoka, Oklahoma, seeking an exemption from the LDR prohibition on placing hazardous waste on the ground, if that waste does not meet the prescribed LDR standards of 40 CFR 268.40, by demonstrating that for as long as the waste remains hazardous, there will be no migration of hazardous constituents from the disposal units. In response to EPA requests following the original November 2023 submission, Clean Harbors provided supplemental information for the Agency's evaluation of Clean Harbors' no-migration demonstration. The original petition and associated responses to Agency information requests (together referred to as "the petition") can be found in the docket (EPA-R06-RCRA-2025-3129).

III. Summary of Conditions for the NMV

A. Types of Wastes and Maximum Quantity of Put Piles Covered by this NMV

Clean Harbors' no migration demonstration applies to the following nine categories/groups of wastes stored in up to a combined 100 put piles at any one time located within the facility's Subtitle C Landfill cell, known as "Cell 15."

1) general metals (D001, D002, D004 through D011, K046, F006, F019, F039 and U051);

2) cyanide/sulfide with metals (D001 through D011, F006 through F012, F019, K052 and P106);

3) cyanide/sulfide (D001 through D011, F006 through F012, F019, P106 and U135);

4) high-chromium wastes (D001 through D011, F006 and F019);

5) high arsenic wastes (D004, D005, D006, D008, D009, D010, P011 and P012);

6) oxidizers with metals (D001, D002, D003, D005, D007, D008, D011 and K088);

7) acids with metals (D001, D002, D004 through D011, K061, K062, F006, U204 and U134);

8) bases with metals (D002 through D011, D028, K061, F006 through F008, F019, F035, P106, U144, U151, U188 and U210); and

9) waste certified by generators to meet all or some LDR treatment standards (referenced as CBPR by Clean Harbors; codes vary and include K052, F020 and U210).

B. Duration of Temporary Storage

While the basis for EPA's final approval is that Clean Harbors demonstrated to a reasonable degree of certainty that no hazardous constituents will migrate from the put piles for as long as the wastes remain hazardous, this NMV is conditioned upon the temporary nature of the put piles within Landfill Cell 15 and is intended for situations where the put piles are used as part of an overall strategy to confirm consistent and compliant treatment that meets the applicable LDR treatment standards.

The Agency concludes that Clean Harbors has provided sufficient analytical data to justify a six (6)-month duration (i.e. 180 days) for storage of a put pile from the time the pile is first staged until final disposal in the working face of the Landfill Cell 15. If an issue arises where greater than 180 days temporary staging of a put pile is necessary, ODEQ may issue an extension, if warranted.

C. Required Put Pile Engineered Controls

This section describes engineered controls required for put piles in addition to site-wide engineered controls described in the petition and proposed approval found in the docket under Docket ID No. EPA-R06-RCRA-2025-3129.

All put piles must be temporarily stored in a designated area of Landfill Cell 15 until LDR compliance has been confirmed. The put piles must then be moved to the working face of Landfill Cell 15.

The put piles must be encapsulated (liner below and Posi-Shell® atop) by the unit-specific engineered barriers discussed below to prevent migration of hazardous constituents beyond the put pile boundary. These unit-specific barriers are distinct from the existing landfill controls for Landfill Cell 15, such as run-on and run-off controls, that were considered in the overall prevention of migration of hazardous constituents.

1. Liners

A liner of at least 20-mil thickness polyethylene geomembrane must be used as a barrier to vertical and lateral migration for the put piles. The liner beneath the pile will provide a barrier for vertical migration. Because the layout of the put piles is accommodated within the standard width of a prefabricated geomembrane roll, the liner must be one solid piece without the need for welding of seams. The lack of seams lends to additional assurance that hazardous constituents will not migrate through a broken seam. The Agency concludes that a liner of at least 20-mil thickness, in conjunction with the inspection program described in the Compliance Monitoring Program section, is appropriate for use in this temporary disposal scenario; however, there must always be at least 12 inches of the liner visible on all sides of the put pile to prevent potential horizontal migration of the waste from the edge of the liner.

Before placing the put piles in the temporary storage area of Landfill Cell 15, Clean Harbors must grade the temporary storage area where put piles will be located. The grading must be relatively flat but with a slight positive grade to preclude ponding of

water on the polyethylene liners.

2. Covers

Clean Harbors must use a Posi-Shell® cover to act as a rain and wind barrier for put piles, to ensure no migration of hazardous constituents from the put piles occurs via lateral migration or air pathways. Posi-Shell® is a spray-applied mortar applied as a coating to the surface of the put piles, with a minimum cover thickness of 3/8-inch. Because Posi-Shell® is a mortar, curing is necessary to allow it to harden. Curing typically occurs within 12-24 hours in dry weather, forming a relatively impermeable thin layer of durable, hardened mortar. However, if moderate to heavy rainfall occurs unexpectedly or is imminent, sustained freezing temperatures are expected for more than one day, or the temperature falls below 30ºF, the Posi-Shell® will not harden sufficiently. During these times of inclement weather, Clean Harbors must temporarily cover the put piles with polyethylene sheeting of at least 20-mil thickness, anchored with sandbags around its edges, until the adverse weather conditions abate, and the Posi-Shell® coating can be applied. Within twenty-four (24) hours of weather conditions amenable to Posi-Shell® application, Clean Harbors must apply the coating.

3. Run-on/Run-Off Controls

Upgradient of the staging area for each put pile, Clean Harbors must construct and/or maintain a diversion berm of sufficient height/width to direct run-on away from each of the put piles. As Landfill Cell 15 is filled, if the waste grade changes adjacent to the put pile temporary storage area, additional diversion berms must be added, if necessary to divert stormwater run-on and run-off to isolate the staging area on the working face of Landfill Cell 15. To control run-off, in addition to the Posi-shell® coating, Clean Harbors must include, at a minimum, ditches around the inside perimeter of Landfill Cell 15 embankments and must remove ponded stormwater that accumulates on top of the put piles.

4. Compliance Monitoring Plan

In accordance with 40 CFR 268.6(a)(4), Clean Harbors must maintain at the facility, a put pile monitoring plan that includes, at a minimum, components i-xvi below, many of which were included by Clean Harbors in the petition and the Agency adopts as proposed.

Deficiencies identified during inspection must be remedied/repaired to ensure no migration of hazardous constituents occurs. Deficiencies may include but are not limited to cracking, breakdown, or insufficient application of the Posi-Shell cover; gaps, tears, or holes in plastic sheeting utilized for the management of the unit; presence of stormwater run-on flow and/or ponded water; visibly exposed waste; and poor overall pile condition. Deficiencies must be remedied within one (1) week of discovery, and remedies must be recorded in the facility's operating record.

Deficiencies described by this section must be remedied regardless of whether Clean Harbors determines that a migration of hazardous constituents has occurred or may have occurred if LDR compliance verification of the waste in the unit is not yet available. If Clean Harbors determines that there has been a migration of hazardous constituents from any of the put piles or is unable to remedy any deficiency within one (1) week of discovery, Clean Harbors must immediately suspend receipt of waste at the affected put pile and notify the Region 6 Administrator, in writing, within ten (10) days of the determination that a release has occurred or that a deficiency was unable to be remedied within one (1) week.

Clean Harbors must:

i. Review and track LDR standard “pass rates” for put piles to ensure that the put piles are only being “temporarily stored.” If the failure rate of the initial verification test for treated put piles exceeds 5% in a calendar month, Clean Harbors must

conduct a root cause analysis and adjust the treatment protocol for the affected category of waste.

ii. Inspect the temporary staging area for put piles before installation of the 20-mil polyethylene liner. The underlying area must be free of large, sharp, or rigid objects that may damage the liner.

iii. Observe that the liner is not displaced or damaged during placement of the put piles on the liner to confirm the integrity of the liner beneath a put pile. A damaged liner must be replaced with a new liner.

iv. Perform daily inspection of covered put piles to verify integrity of the liner, cover, and overall pile condition. Inspectors must, at a minimum, check for: 1) signs of stormwater run-on flow that has or is migrating towards a put pile or other signs of the potential for put pile erosion, undermining, or washout of the waste encapsulation barriers; 2) damage from strong winds, heavy rain, or other extreme weather events (e.g., in particular, causing holes, uplift, or other breaches in the Posi-Shell® cover) within 24 hours of such an event; 3) visible exposed waste; 4) releases of waste (washout/undermining, displacement/movement of pile, such as shifting or slumping, windblown waste particles, etc.); 5) other indications of potential for migration or actual observed migration of hazardous constituents from the pile (e.g., liquid seeps on the put pile slopes or emanating from its base); and 6) cracks in the Posi-Shell®.

v. Ensure appropriate Posi-Shell® application and adhering to inclement weather application prohibitions as recommended by the manufacturer. If a put pile is unable to be immediately covered with a Posi-Shell® (e.g., due to moderate to heavy rainfall), the put pile must be temporarily covered with polyethylene liner that is at least 20-mil thick and anchored with sandbags around its edges until the adverse weather conditions abate and the Posi-Shell® coating can then be applied. Posi-Shell® should not be applied when

sustained freezing temperatures are expected for more than one day or during temperatures below 30ºF.

vi. Verify that 100% coverage of Posi-Shell® is achieved over the entire put pile (no bare or thin spots).

vii. Confirm that the minimum 3/8-in thickness of Posi-Shell® is achieved.

viii. Confirm that the Posi-Shell® cover is sufficiently set (hardened) before a moderate to heavy rainfall event.

ix. Promptly re-apply Posi-Shell® cover if any deficiencies are identified during application, including but not limited to lack of coverage, thickness, or hardening.

x. Check for loss of 100% coverage of Posi-Shell® or other signs of cover degradation (imminent potential for loss of barrier effectiveness or thickness).

Landfill Cell 15-specific remediation requirements:

xi. Remove ponded water on the landfill surface that could affect the put piles.

xii. Modify, as needed, run-on controls to continue to divert surface water around each put pile staging area.

xiii. Maintain or alter, as appropriate, landfill grading to prevent put pile run-on.

xiv. Isolate the nine waste categories/groups of put piles from each other to prevent potential commingling.

xv. Maintain landfill equipment.

xvi. Submit a duplicate copy of the RCRA annual report required by 40 CFR §268.6(c)(3). This will include all LDR verification sampling, resampling, and retreatment to EPA Region 6 at: Golam Mustafa, Land, Chemicals and Redevelopment Division, EPA Region 6, 1201 Elm Street, Dallas, Texas 75270, Mail Code: R6LCR-RP.

IV. Future Amendments to this NMV

If Clean Harbors anticipates needing to exceed 100 put piles at any one time, it must request approval from EPA Region 6 prior to creating new put piles. Clean Harbors also requested that this variance proactively apply to future put piles of identical waste characteristics that would be staged in a future proposed and permitted Subtitle C landfill cell, known as "Cell 16."

While this Final Approval applies only to those put piles placed within existing Landfill Cell 15, upon permit approval of Cell 16, Clean Harbors may submit to the Agency an addendum to this petition to expand this NMV and all of its conditions and requirements, for the put piles located within the new landfill cell if:

1. Clean Harbors is in compliance with the approved NMV,

2. The new landfill cell uses the same disposal unit engineered controls (e.g., landfill cell interior berms for run-on and run-off control) as approved in this variance,

3. The duration of temporary placement remains at six (6) months or less and complies with the conditions established herein,

4. The waste categories remain the same, and

5. The monitoring program (e.g., groundwater monitoring) is expanded to include the new landfill cell.

Additionally, 40 CFR 268.6(e) acknowledges the potential for post-approval changes in conditions at the no migration unit(s) and/or the environment around the no migration unit(s). For the purpose of this NMV, all changes that significantly depart from the conditions described in the petition and proposed approval found in Docket ID No. EPA-R06-RCRA-2025-3129 must be reported to the Region 6 Administrator if the changes have the potential to affect migration of hazardous constituents from the put piles:

1. If Clean Harbors plans to make changes to the unit(s)' design, construction, or operation, such a change must be proposed, in writing, and include a demonstration to the

Region 6 Administrator at least 30 days prior to making the change. The Region 6 Administrator will determine whether the proposed change invalidates the terms of the approved variance and will determine the appropriate response. A proposed change must first be approved by the Region 6 Administrator before taking any action.

2. If Clean Harbors discovers a site condition that does not occur as modeled or predicted in the petition, this change must be reported, in writing, to the Region 6 Administrator within 10 days of discovery. The Region 6 Administrator will determine whether the reported change from expected conditions alters the terms of the approved variance and thus requires further action.

V. Public Comment Period

EPA announced its proposal to approve Clean Harbors NMV petition, and provided 30-day public comment period on December 11, 2025. The comment period closed on January 12, 2026 (90 FR 236, December 11, 2025). EPA received one comment that is beyond the scope of this action and the Agency responds to the comment in a Response to Comments document in Docket ID No. EPA-R06-RCRA-2025-3129.

VI. Conclusion

The agency concludes that Clean Harbors has demonstrated, to a reasonable degree of certainty, that there will be no migration of hazardous constituents beyond the unit boundary for treated hazardous wastes temporarily stored in put piles within permitted Subtitle C hazardous waste Landfill Cell 15 while awaiting verification of compliance with the LDR standards. Accordingly, EPA hereby approves the NMV for Clean Harbors' Lone Mountain facility, subject to the terms and conditions stated herein and as presented in the petition found in the docket.

List of Subjects in 40 CFR Part 268

Environmental protection, Hazardous waste, and Variances.

Dated: February 12, 2026

Walter Mason,

Regional Administrator,

Region 6.

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