



June 17, 2024

The Honorable Michael Regan Administrator U.S. Environmental Protection Agency EPA Docket Center, OLEM Docket Mail Code 28221T 1200 Pennsylvania Avenue NW Washington, DC 20460

Submitted electronically via: https://www.regulations.gov/

RE: Revisions to Standards for the Open Burning/Open Detonation of Waste Explosives, Docket ID No. EPA-HQ-OLEM-2021-0397

Dear Administrator Regan,

The New Mexico Environment Department (NMED) appreciates the opportunity to submit comments to the U.S. Environmental Protection Agency (EPA) on Revisions to Standards for the Open Burning/Open Detonation of Waste Explosives. EPA published public notice of proposed rulemaking in the Federal Register on March 20, 2024, Docket ID No. EPA–HQ–OLEM–2021–0397.

The State of New Mexico has primacy for regulating hazardous waste and constituents. Since 1985, NMED has had the authority to issue Resource Conservation and Recovery Act (RCRA) permits. NMED has permitted twenty-three (23) large-quantity generators (LQGs) of hazardous waste. Nearly half of these LQGs manage waste explosives in facilities owned and operated (directly or indirectly through their contractors) by the U.S. Department of Defense (DOD), the U.S. Department of Energy (DOE), or the National Aeronautics and Space Administration (NASA). So far, DOD, DOE and NASA have treated waste explosives through open burning or open detonation (OB/OD).

NMED welcomes and supports EPA's proposed rules, which clarify existing requirements and add new rules to establish safe, alternative technologies for treating waste explosives. Recent findings from the National Academy for Science, Engineering, and Medicine (NASEM) and the EPA have identified safe alternatives to OB/OD that may effectively treat the waste explosives that are hazardous and characteristic for reactivity (also known as Hazardous Waste Number D003 waste, as defined under § 261.33(a)(6) through (8)). The proposed rules will promote the transition to alternative technologies

that may reduce the air emissions and the clean-up footprint at sites that generate waste explosives, while adding protocols to establish safer standards for treating waste explosives. The proposed regulations will bolster the State's legal authority for requiring alternative technology assessments and monitoring existing and proposed OB/OD units.

For EPA's consideration, the attached comments and recommendations are offered in support of successful implementation of regulatory oversight by State primacy agencies like NMED.

Sincerely,

Jours C. Jonny

James C. Kenney Cabinet Secretary

Attachments (1)

cc: Courtney Kerster, Senior Advisor, Office of Governor Michelle Lujan Grisham Dr. Sydney Lienemann, Deputy Cabinet Secretary of Administration, NMED Rick Shean, Director, Resource Protection Division, NMED Zachary Ogaz, General Counsel, NMED

Attachment

New Mexico Environment Department Comments to the U.S. Environmental Protection Agency Revisions to Standards for the Open Burning/Open Detonation of Waste Explosives Docket ID No. EPA–HQ–OLEM–2021–0397

Introduction

The United States Environmental Protection Agency (EPA) has published revisions to the regulations that allow for the open burning and open detonation (OB/OD) of waste explosives under the Resource Conservation and Recovery Act (RCRA) as miscellaneous units permitted under the Code of Federal Regulation (CFR) 40 CFR 264, Subpart X or as interim status units under 40 CFR 265.382. Currently, the use of OB/OD is prohibited, except for instances in which there are no alternatives to the safe treatment of waste explosives.

The EPA's revisions propose changes in how facilities assess whether safe alternatives are available to replace OB/OD, as well as to provide minimum criteria for protecting human health and the environment for OB/OD units as a new subpart Y. The EPA is also proposing revisions to the regulations for OB/OD emergency permits that include a time limit to help ensure emergency permits will not be used to circumvent permitted treatment. Finally, the EPA is implementing a *de minimus* exemption standard for the use of OB/OD.

The EPA is also proposing a framework for permitting mobile treatment units (MTUs) that may be used as an alternative to OB/OD. Under this framework, MTUs can treat waste explosives on-site and minimize the handling and transport of waste explosives, which may be especially useful for very small quantity generators (VSQGs) or intermittent generators.

The proposed revisions and standards would provide States with a framework to assess OB/OD permits and to determine whether alternative technologies that are more protective of human health and the environment may be employed, which will reduce the overall contamination footprint. Currently, there are no standardized information requirements or evaluative assessments for alternative technologies. Presently, LQGs are not required to evaluate different technologies, or combinations of technologies, based on their projected waste streams, nor are they required to compare the contamination cleanup costs over the lifetime of the units. The continued use of OB/OD remains the most economical treatment technology per treatment event, as measured in cost to the large-quantity generator (LQG), and not as measured in cost to the environment. As such, OB/OD has remained the predominant treatment selected in the State of New Mexico (NM). To protect the environment, additional standards for the use of OB/OD are necessary.

Many of the current OB/OD permitted and interim status units in New Mexico are located in minority and economically disadvantaged communities that are also adjacent to tribal lands. The proposed rules would provide a framework for States, Tribes, and local governments to monitor the treatment of waste explosives, and potentially reduce contamination and clean-up costs. NMED urges EPA to adopt standards that are respectful of cultural and tribal practices. NMED endorses EPA's Proposed Standards for the Open Burning/Open Detonation of Waste Explosives (Docket No. EPA-HQ-OLEM-2021-0397) and offers the following comments and recommendations to EPA for the successful implementation of the Standards.

Comment 1: EPA's proposed modification to 40 CFR 260.10 to add definitions and clarification to the term open burning (page 19953)

The EPA is proposing to clarify that these terms include, but are not limited to: detonation pits, burn piles, burn cages, and burn pans. NMED recommends EPA also include the term "burn tray" since this this a commonly used OB method.

NMED also supports EPA's proposed modification to remove the term "gaseous" from the definition since recent post-burn soil sampling and active burn drone sampling results indicate that solid-phase combustion byproducts may also be present in burning emissions and as deposition from open burning units. ^{1, 2}

Comment 2: Sanitization (page 19957)

The following quoted statement needs additional refinement and/or restrictions to demonstrate the operational need for sanitization: "Consistent with the MMR and the supporting legislative history discussed therein, EPA does not consider sanitization operations that utilize open burning to be within the scope of applicability for the proposed rule." To avoid ambiguity, NMED suggests that EPA define legitimate sanitization and include a threshold on the amount of waste that can be sanitized.

NMED does not have staff who possess the federal security clearance required to determine if the exemption for OB/OD sanitization is necessary or legitimate. The EPA should provide additional clarification and/or issue a guidance document on how States can determine that the waste meets a sanitization threshold. The guidance document should also provide a path for RCRA-delegated States to challenge non-legitimate OB/OD sanitization or provide a draft decision tree for these determinations.

The EPA should also provide additional guidance for the term "occasional sanitization" to specify that sanitization should not be a routine occurrence or used for more than 50% of the explosive waste stream in a calendar year. The EPA should emphasize that the use of OB/OD for sanitization should not be the standard treatment method and that alternative sanitization methods must also be evaluated periodically or as part of the permitting or permit renewal process for OB/OD units.

Comment 3: De Minimus Exemption (pages 19957 to 19960)

The proposed *de minimus* exemption allowing 15,000 pounds (lbs) or less of net explosive weight annually is too large and will encourage facilities to use OB/OD methods rather than making meaningful alternative technology assessments.

¹ Walsh, M. (2017) "Improving post-detonation energetics residues estimations for the Life Cycle Environmental Assessment process for munitions." Science Direct. November 15, 2017. https://www.sciencedirect.com/science/article/pii/S0045653517318490

² Aurell, J. (2017). "Field determination of multipollutant, open area combustion source emission factors with a *hexacopter unmanned aerial vehicle*." Atmospheric Environment, 2017. https://cfpub.epa.gov/si/si_public_record_report.cfm?Lab=NRMRL&dirEntryId=339722

NMED agrees that the *de minimus* exemption should be restricted to wastes that can demonstrate that the materials or volumes would have a negligible impact on the environment and are unlikely to have a deposition or kick out beyond the boundary of the OB/OD unit. The EPA should also restrict it to wastes that can be easily monitored.

The *de minimus* exemption should be restricted to specific compounds (based on the footprint or kick out of the constituent) and should be limited to either 500 lbs per year or based on the total percentage of the proposed OB/OD waste stream, which is consistent with the 1% wastewater *de minimus* exemption. For example, if a facility has determined that 99% of its waste stream may be safely and effectively treated through a confined burn unit, then it would be allowable to petition the Administrator for a *de minimus* exemption to treat the remaining 1% with OB on an annual basis.

The *de minimus* exemption for waste explosives, as it is currently written in the proposed rules, may encourage facilities to do more frequent OB/OD treatments and may not reduce the total volume of waste treated by OB/OD. If EPA is not going to limit the *de minimus* amount to 500 lbs or 1% per year, then NMED proposes to confine the 15,000 lbs limit to a 5-year time frame, with a 5-year permit reapplication requirement. This limitation will align with the alternative technology assessment requirements and may encourage the adoption of alternative technologies.

Comment 4: Analysis and Characterization of Explosive Wastes (page 19960, and pages 19968 to 19969)

NMED supports the specific requirement for the analysis and characterization of waste explosives and the direction from EPA that permitted facilities should work with the regulator to safely share information on these materials so that regulators can make informed decisions and fairly enforce permit violations.

NMED is concerned that LQGs will not provide sufficient information about waste characterization needed for regulators to approve or deny the OB/OD exemption requests. Regulators need access to facilities' information on waste explosives that includes the key ingredients or chemical composition to determine if the waste treatment proposed will be effective and/or meet the proposed *de minimus* standards. Some LQGs have refused to provide such information to regulators under the guise of trade secret or classification concerns, despite providing little to no evidence to support these security claims. Without this information, regulators are in a position of having to trust, without verification, that the waste was correctly characterized.

NMED supports the language that directs permitted facilities to work with regulators to determine a process for secure information sharing. NMED is aware of the security concerns DOD and DOE may have toward sharing protected information and is also supportive of EPA's direction for federal sponsorship of security clearance to State regulators when necessary.

Comment 5: Alternative Technology Criteria (page 19968)

NMED concurs that it is not acceptable for a facility to eliminate a single alternative treatment technology if that technology is only able to treat a portion of the energetic waste stream in the alternative technology analysis.

NMED supports EPA's assertion that facilities must consider more than one treatment technology for waste explosive streams and must also consider a multi-step approach when evaluating alternative

treatment technologies. NMED recommends that if an alternative treatment can treat a portion of the waste explosives, it must be considered throughout the alternative treatment analysis and in conjunction with other technologies. For example, if a portion of the waste is too large to fit into a confined burn chamber but could be resized with an alternative technology and then treated in the confined burn chamber, then the facility should consider the combination of the confined burn chamber and the cryogenic cutter. It would not be appropriate for a facility to eliminate each type of alternative technology in lieu of OB/OD if a combination of technologies can address the largest portion of the waste stream.

Facilities must evaluate a combination of alternative treatment technologies, or in combination with OB/OD to determine which alternative technology is able to safely and effectively treat the largest portion of the waste while reducing the total amount of solid-phase combustion byproducts from being emitted into the environment.

Comment 6: Implementation and Streamlining Mobile Treatment Units (page 19970)

While the streamlined permitting of mobile treatment units (MTUs) may facilitate the use and adoption of alternative technologies, it should be balanced with requiring necessary documentation to support inspection and enforcement, as well as requiring future clean-up of permitted sites. The EPA should provide clear direction about the need to record and mark where location permitted MTUs will be permitted to be used within the boundary of a facility.

For example, if an MTU is permitted at two or more treatment areas, then each area should be confined to a designated spot (which would be similar to a designated parking spot) and visibly delineated with a cement pad or a painted boundary for ease of inspection. These MTU parking spots should be included in maps of the facility as well as in contingency and closure plans.

Comment 7: Determining that the Waste Cannot be Shipped Offsite for Treatment (page 19970)

NMED supports EPA's proposal that both the rationale and documentation (e.g. letters from DOE, DOD, or Department of Transportation (DOT) explosive safety personnel) must be provided to regulators to support any claims from facilities that waste explosives cannot safely be transported off-site for treatment and are D003 waste eligible for treatment. NMED also recommends that the proposed rules require LQGs to include a certification from the generator or waste expert responsible official confirming the information supporting the facilities' claims is true and accurate under the penalty of law.

Comment 8: Timing for Rule Compliance (page 19972)

NMED concurs with the approach to tie the alternative technology assessment to the next Class 2 and Class 3 permit modification associated with the OB/OD unit. This approach will naturally stagger out the submittal and the review needed by regulators and would provide facilities with a predictable schedule to prepare for such assessments. Additionally, NMED believes this approach allows for meaningful public participation in the permitting process and in the selection of alternative technologies, as it is tied to public comment periods.

NMED supports EPA's proposal that facilities may use their initial alternative technology assessments which have already been submitted or will be submitted within the three-year window preceding the rule's effective date, with the caveat that the initial assessment must meet the information requirements

outlined in the proposed rule, namely that the evaluation has assessed all chemically specific waste explosive streams.

Comment 9: Interim Status Reevaluations (page 19973)

For the timeline referenced in the statement "Regarding reevaluations, EPA is proposing for permitted facility and interim status facilities at §§ 264.707(d) and 265.707(d), respectively, that the owner/operator would be required to conduct reevaluations at the frequency of at least every five years thereafter", NMED recommends that it is tied to the use of the OB/OD units since some units may only be used intermittently. The suggested revised sentence would read, "Regarding reevaluations, EPA is proposing for permitted facility and interim status facilities at §§ 264.707(d) and 265.707(d), respectively, that the owner/operator would be required to conduct reevaluations at the frequency of at least every five years thereafter, unless the facility can provide certification that the unit has not been used in the five years since the last evaluation or certification of disuse."

Comment 10: Time Allowed for Implementation of Alternative Technologies (page 19973)

NMED agrees with EPA's proposal to allow extension requests as Class 1 permit modification requests requiring prior approval, consistent with the extension process for closure activities. The prior approval process would allow State regulators to evaluate the justification provided by Facilites and to provide flexibility instances where the extension is warranted, without undo burden on the States.

Comment 11: Public Participation and Alternative Technology Evaluations (page 19976)

NMED requests that the EPA clarify the use of the term "permit application" in the following statement: "For interim status facilities, after conducting an alternative technology evaluation within one year of the effective date of the rule, the facility would be required to submit an updated permit application." Specifically, NMED would like to know if the EPA intends for the facility to provide a revised Part A Form, or for the facility to apply separately for a Permit Modification request to add the OB/OD or and alternative technology.

Comment 12: Proposed Changes to 40 CFR Part 264 Subpart X- Miscellaneous Units and 40 CFR Part 265 Subpart P- Thermal Treatment (page 19979).

NMED supports EPA's proposal to amend the environmental performance standards to include stormwater considerations and implementation of run-on and run-off controls to reduce impacts from subpart X units.

Comment 13: Operating Requirements (page 19980)

NMED supports the framework that EPA's operating requirements (atmospheric conditions, frequency of events, quantity of events, restricting to daylight hours) provide for facilities and State regulators when evaluating proposed OB/OD units. These operating requirements may also provide additional safety for preventing the release of off-site contamination and for reducing incomplete combustion products from OB/OD.

NMED proposes that 40 CFR 264.708(b)(1) is expanded to include fire restrictions (including red flag conditions) due to climate conditions such as drought.

In addition, NMED would like for EPA to provide clarification in the proposed rule or in a guidance document on how noise and sound vibrations should be monitored by facilities, and to establish a minimum threshold for this requirement. For example, if the proposed OB/OD unit is within one mile of sensitive receptors such as residences, schools, and daycare centers then the facility must restrict noise to less than 100 decibels ³, and vibrations must not exceed 0.5 inches per second (or approximately 13 mm per second) ⁴.

NMED concurs with the proposed surface water language, and as a predominately arid state, appreciates that temporary waters are explicitly referenced.

Comment 14: Monitoring Requirements (page 19981)

The previous lack of direction on monitoring requirements for Subpart X units has resulted in wildly inconsistent monitoring for OB/OD units, which was further complicated by limited access to information on waste explosive streams. The additional monitoring requirements are imperative to minimizing the release of contamination, and for ensuring that OB/OD units are consistently treating the explosive hazard.

Comment 15: Recordkeeping, Reporting, Inspection and Training Requirements (page 19982)

The proposed recordkeeping and reporting support compliance assurance efforts. Additionally, EPA's proposed unit failure reporting is useful to facilities for promptly identifying and correcting issues with OB/OD units.

Comment 16: Wastes Prohibited from OB/OD (pages 19983 to 19986)

NMED supports the language in the proposed rule prohibiting wastes that are either banned from use or not effectively treated by OB/OD units.

Comment 17: Delay of Closure for OB/OD Units (page 19986)

The rule proposes a 60-day notification deadline for facilities to notify States of their expected date to begin closure and partial closure activities for OB/OD units. NMED agrees with EPA's rationale that OB/OD units resemble land treatment units (incinerators, industrial furnaces, etc.,) and that the 60-day notification deadline is reasonable and consistent.

Comment 18: Minimum Safe Distances for Treatment of Waste Explosives (page 19987)

The three federal LQGs, DOE, DOD, and NASA, regulated by a single State, may provide different or conflicting information on safe distances; therefore, it would be helpful to have one reference on the standard for safe distances for OB/OD units in 40 CFR 265.382. Having one reference published by the EPA would be ideal since it would simplify permitting and enforcement actions and would provide consistency across federal agencies. Additionally, having the table updated through EPA's rulemaking

³ Centers for Disease Control and Prevention (2024) "What Noises Cause Hearing Loss?" CDC Environmental Health 2024 (<u>https://www.cdc.gov/nceh/hearing loss/what noises cause hearing loss.html#print</u>).

⁴ J.S. Held (2022) "Perspectives-Impact of Construction on Adjacent Structures" J.S. Held LLC 2022 (<u>https://jsheld-prod.imgix.net/Perspectives The-Impact-of-Construction-Vibration-on-Adjacent-Structures.pdf</u>); Siskind, D E, Stagg, M S, Kopp, J W, and Dowding, C H (1980). "Structure response and damage produced by ground vibration from surface mine blasting". United States: N. p., 1980

⁽https://www.osti.gov/biblio/6777883).

would allow EPA to consider the comments on safe distances from the regulated community, States, and members of the public.

Comment 19: Emergency Provisions (page 19988)

NMED supports the proposed requirement to provide specific information on the waste stream and the immediate threat to human health and the environment so that regulators can confirm that the emergency treatment was necessary and is not being misused to circumvent RCRA permitting.

The proposed 90-day limitation for emergency permits is reasonable and aligns with other temporary permitted activities under RCRA. The provision that the emergency treatment permit can be renewed for a period of up to an additional 90 days is a flexible accommodation that allows for unforeseen treatment issues to be disclosed and accommodated at the discretion of the regulatory agency.

Comment 20: Mobile Treatment Units for Waste Explosives (page 19990)

NMED generally agrees with the exemption for MTUs used in emergency response operations since they will confine the material and debris and thus reduce the overall contamination footprint at a given site. NMED suggests for this exemption is restricted to a list of EPA-approved MTU vendors and/or have a threshold of treatment requirements and/or standards. For example, thresholds such as the ability to confine materials, control temperature, monitor emissions, etc., would need to be met for a treatment unit to qualify as an MTU. These standards could be used to determine if the MTU exemptions are being used appropriately and would provide a clear delineation between MTU and non-exempt treatment should enforcement be necessary.

Comment 21: Conditions for National Approvals (page 19995)

"Relatedly, EPA is proposing that the nationwide conditional approval include a notification requirement that the owner/operator of an MTU must notify EPA each time an MTU treats waste explosives at a location. This notification would need to include the start and end dates of treatment and the quantity of wastes treated."

NMED asks EPA to clarify whether States and EPA Regional Offices could require biannual reporting and annual fees from federally approved MTUs. NMED also wants to know if federally permitted MTUs must provide notifications to States on the quantities of wastes treated to States, and if so, then on what schedule would they be provided.

Comment 22: Mobile Treatment Units as Generators (page 19996)

This Section should differentiate between MTU activities at permitted hazardous waste facilities and other MTU treatment scenarios. In cases where the waste is from a permitted hazardous waste facility, the MTU should be considered the operator, and not the generator of waste explosives. The original permitted hazardous waste facility is the generator of the waste that must be responsible for providing information and must work with the MTU operator to satisfy 40 CFR 262 to the MTU operator.

In instances where the MTU is being used for non-permitted locations or is being used in an emergency response, it would be permissible for the MTU to be considered both the owner and the operator.

Comment 23: MTU National Conditional Approval Process (page 19998)

The EPA is proposing that MTUs be required to request and receive national approval for technologies that they use. This approval process would go through the following five (5) steps summarized below: (1) application signature and submission,

(2) a tentative finding by EPA on the application's completeness and consistency with the applicable regulatory standards,

(3) preparation of a draft conditional approval or notice of intent to deny;

(4) public notice and comment; and

(5) final determination of the nationwide conditional approval, followed by a potential appeal process.

NMED is generally in favor of the transition to alternative technologies which may provide more control of the contamination and combustion by-products. NMED also is in favor of EPA's efforts to make the adoption of MTUs accessible to episodic generators. NMED would like for this approval process to include a State permitting working group at Step 3, similar to the Subpart X working group, to provide feedback to EPA on some of the initial applications until this process has been refined.

Comment 24: MTU State Authorization (page 19998)

The EPA is requesting comments on two options:

(1) EPA is the sole national authority on issuing MTUs conditional approval and location-specific permitting ("National Conditional Permit") or

(2) States become authorized to issue state-wide approvals and location-specific permitting of MTUs ("State Authorization").

NMED requests clarification as to how these operating standards will be enforced under each option and how a potential discrepancy between the States' enforcement findings and EPA's Permit would be resolved under option 1.

While option 1 would be acceptable, NMED would prefer a hybrid of options 1 and 2. NMED proposes that initially the MTU is issued under option 1, then after the MTU program and treatment standards are more established, the program would transition to State authorization of local permits, option 2 "State Authorization."

The hybrid option would allow the MTU program to become established with EPA expertise on a relatively new technology while allowing States to provide site-specific permitting knowledge to local MTU permitting. NMED suggests a provisional 10-year period to allow States to plan for this update and for EPA and States to come to agree upon terms for how to implement it.

The EPA has a valid concern that if States were allowed to permit local MTUs, it would cause a national MTU to apply for multiple RCRA permits; however, it is not burdensome for the RCRA permitted facilities to apply for multiple RCRA permits. Additionally, if an MTU operator were to treat explosive waste in multiple states, it would be prudent to have multiple financial assurance demonstrations since some States may have clean-up requirements that are more stringent than the national standard. Currently, this variety in standards is highlighted by differences in States' adoption of PFAS standards and thresholds.

The reference to Section IV on pages 19978 and 19998, in EPA's statement, "See Section IV for more discussion about state authorization and MTUs," does not seem to be correct. The state authorization appears to be in Section III.

Comment 25: Closure and Financial Requirements (page 20000)

NMED supports the additional clarification on closure and agrees that it is appropriate for the MTU operator to be responsible for clean-closing the MTU at the end of the treatment operation, particularly in instances where the MTU is both the generator and operator.

In New Mexico, many of the federal facilities have waste that was generated prior to RCRA, and as such the recordkeeping and generator's knowledge of the waste is very limited. Therefore, NMED requests that EPA provide additional guidance on resolving release or clean-up when the MTU operator is provided with incorrect or incomplete waste information from the original permitted hazardous waste generator.

The EPA is also proposing that the financial assurance requirements are provided to EPA headquarters for review under nationwide conditional approval (option 1) and that the references to the Regional Administrator are replaced with EPA Headquarters. Under this option, NMED proposes that copies of the Financial Assurance documents are simultaneously submitted to RCRA authorized States in which the MTU is operating.

Comment 26: EPA's Proposed Five (5) Year Term Limit (page 20002)

The EPA is proposing a five (5) year term limit for MTUs. NMED urges EPA to consider a 10-year term limit. A 10-year term limit would provide hazardous waste permitted facilities more stability in planning and implementing an MTU. While cost should only be considered when comparing equivalent technologies, a ten-year term would reduce the upfront costs of implementing an MTU and may provide an additional incentive to facilities to transition away from OB/OD treatment. NMED also notes that the 10-year term limit better aligns with the RCRA permit renewal lifecycle and forthcoming alternative technology assessments.

Comment 27: Section III.B Summary and Request for Comment (page 20009)

The EPA proposes for this rule to take effect in RCRA authorized States and RCRA unauthorized states at the same time. NMED supports this approach and notes that it is consistent with the hybrid approach NMED is proposing in Comment 24.