NOT SCHEDULED FOR ORAL ARGUMENT

IN THE UNITED STATES COURT OF APPEALS
FOR THE EIGHTH CIRCUIT

IOWA ENVIRONMENTAL COUNCIL, et al., *Petitioners*, v. U.S. ENVIRONMENTAL PROTECTION AGENCY, et al., *Respondents*.	Case No. 26-3374

RESPONDENTS' OPPOSITION TO PETITIONERS' EMERGENCY MOTION FOR STAY

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INTRODUCTION

Sixty-eight drums of degraded lead azide, a primary explosive used in detonators, sit in two earth-covered magazines at the Iowa Army Ammunition Plant (the "Facility"). They could explode at any time. The lead azide has been stored in drums for decades and has recrystallized. It is now so sensitive to temperature, friction and shock that it cannot be safely moved, opened, or treated without a significant risk of explosion. And the risk of explosion only increases as winter weather arrives. To address this imminent and substantial endangerment, EPA issued an emergency permit authorizing the Army to conduct a controlled detonation ("the Permit"). Army munitions safety experts determined that controlled detonation is the only safe way to treat the waste, because every alternative requires disturbing material that may explode if disturbed.

The choice therefore is not between a detonation and no detonation. It is between a planned detonation (timed for favorable weather, preceded by public notice, and followed by monitoring and cleanup) and an unplanned explosion that could come at any moment, with no warning and no safeguards. The United States recognizes that the controlled detonation will release lead dust. But a controlled detonation is the only way to minimize the release. The Permit imposes numerous conditions to mitigate harm, including that the Army detonate only in favorable weather conditions to reduce dispersion of lead dust, run conservative modeling of

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the projected dispersion, provide public notice, monitor, maintain records, and complete necessary cleanup. An uncontrolled explosion comes with none of these protections.

Moreover, a permit is not even necessary for the Army to take emergency action against an immediate threat from explosive material. *See* 40 C.F.R. § 270.1(c)(3)(i)(D). The Army's qualified explosives emergency specialist has determined that such a threat exists here. Col. Aaron C. Teller Decl. ¶¶ 8, 30. Even so, the Permit adds protections the public deserves.

Petitioners do not challenge EPA's finding that the lead azide waste poses an imminent and substantial endangerment. Yet they ask this Court to stay the Permit so that EPA can revisit alternative options. But the Army already has conducted that alternatives analysis, and its munitions experts concluded that there is no other safer option. Petitioners' proposed delay would leave an explosion hazard in place, with no end date as Iowa winter arrives. And the additional permit conditions Petitioners propose ignore the reality that some lead dust is unavoidable. The prevailing question is whether its release is controlled.

Petitioners have failed to meet their burden to prove a stay is warranted. They are not likely to prevail on the merits, and the equities weigh heavily against a stay. An uncontrolled explosion would inflict greater irreparable harm on the public than

a controlled detonation. Thus, the Court should lift the administrative stay, deny the stay, and permit the detonation to proceed under the Permit.

BACKGROUND

I. Legal Background

RCRA provides for regulation of solid and hazardous waste, from generation to disposal. *See* 42 U.S.C. § 6901 *et seq.*; *City of Chicago v. Env't Def. Fund*, 511 U.S. 328, 331-32 (1994). RCRA Subtitle C governs hazardous waste as defined under RCRA and EPA's regulations. *See* 42 U.S.C. §§ 6921-39g; 40 C.F.R. pts. 260-279.

Hazardous treatment, storage, or disposal ("TSD") facilities are subject to regulation under RCRA Subtitle C. *See* 42 U.S.C. § 6924(a). Owners and operators of TSD facilities generally must have a RCRA permit to operate. *Id.* § 6925(a). To issue a permit, the permitting authority–in this case, EPA–typically follows a notice and comment process under EPA's regulations. *See* 40 C.F.R. pt. 124.

But EPA's regulations also authorize EPA to issue emergency permits to address an imminent and substantial endangerment to human health or the environment. *Id.* § 270.61(a). Emergency permits are time limited, specify the covered waste and manner of treatment, require a public notice upon issuance, and "incorporate, to the extent possible and not inconsistent with the emergency situation, all applicable requirements" for RCRA permits and TSD regulations. *Id.*

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§ 270.61(b). And for the most urgent situations, EPA's regulations do not require a permit for

> treatment or containment activities taken during immediate response to . . . [a]n immediate threat to human health, public safety, property, or the environment from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an explosive or munitions emergency response specialist[.]

Id. §270.1(c)(3)(i)(D).

In issuing a standard RCRA TSD permit, the permitting authority determines whether the TSD facility complies with RCRA's TSD regulatory standards. 42 U.S.C. § 6925(c)(1). RCRA regulations, through permits, impose generally applicable requirements on all TSD units, like facility standards, preparedness and prevention, and closure and post-closure care. *See* 40 C.F.R. pt. 264, subpts. A-H. There are also unit-specific regulations for particular categories of units, like containers, landfills, or incinerators. *See id.* pt 264, subpts. I-X. The unit in this case is classified as a "miscellaneous unit," a unit that does not fall into one of the specified categories. *See id.* §§ 264.601-.603. Permits for miscellaneous units "are to contain such terms and provisions as necessary to protect human health and the environment." *Id.* § 264.601.

In sum, EPA's regulations scale the process to the danger: standard permits for routine operations, emergency permits for imminent and substantial endangerments, and no permit at all for immediate responses to explosive threats.

II. Factual Background

The Facility is a military installation in Middletown, Iowa, that loads, assembles, and packages medium- and large-caliber munitions. *See* Emergency Hazardous Waste Management Facility Permit for Storage and Treatment of Lead Azide, EPA RCRA ID No. IA7213820445 (the "Permit") at 1, Ex. 1. The Facility operates under a 2018 RCRA TSD permit. *Id.* In March 2026, the Army identified a stockpile of 68 drums in two earth-covered magazines that contained significantly degraded and unstable lead azide. Emergency Permit Approval Memorandum ("Approval Memorandum") at 1, Ex. 2. Lead azide poses an explosion hazard when it deteriorates. Borman Letter, dated Aug. 12, 2026 ("First Army Letter"), Ex. 3. Those risks increase in cold weather because the lead azide crystalizes, which increases the sensitivity of the lead azide—leading to an increased risk of an unintended explosion. Approval Memorandum at 2. In this condition, disruption like friction or movement poses an unacceptable risk of an uncontrolled explosion. *Id.*; First Army Letter. The drums cannot even be opened. Crystal growth inside the barrels and around the lids makes the lids unsafe to remove, so the water-ethanol solution that keeps the material stable has not been checked or replenished since September 2025, and evaporation has left it more prone to freezing. Teller Decl. ¶¶ 11–13.

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EPA confirmed the lead azide stockpile as hazardous waste because of both its reactivity (tendency to explode) and its lead toxicity. Permit at 2. After determining that the location of the lead waste was not authorized for treatment, storage, or disposal under the 2018 permit, the Army applied for three successive emergency permits to continue storing the lead azide waste while it determined an appropriate treatment for it. *Id.*

In September 2026, the Army submitted a permit application proposing to treat the lead azide waste by a controlled detonation. *Id.* at 3. The Army's recommended course was based on an analysis of a range of treatment options. *Id.* at 2; First Army Letter. Army explosives safety experts determined that controlled detonation was the only safe option given the unstable condition of the waste. Borman Letter, dated Sep. 4, 2026 ("Second Army Letter"), Ex. 4. The Army concluded that open detonation (a kind of treatment under RCRA) of this waste at Army's already permitted Open Burn/Open Detonation Unit would involve moving the unstable lead azide and posed an unacceptable risk of an uncontrolled explosion. *Id.* at 2.

On November 13, 2026, EPA approved the Army's emergency permit application and issued the Permit based on three critical findings. First, EPA found that the lead azide waste posed an imminent and substantial endangerment because of the risk of an uncontrolled explosion. Permit at 1. Second, EPA credited the

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Army explosives experts' assessment and treatment alternatives analysis, which found no safe treatment option other than detonation. Approval Memorandum at 3. EPA therefore found that treatment by controlled detonation was necessary to protect human health and the environment from the greater risk of an uncontrolled explosion. *Id.* at 2-3. Third, EPA found that a controlled detonation would allow the Army to time the operation to favorable weather conditions, reducing blast-debris dispersal, while also providing advance public notice and facilitating safe evacuation of nearby areas. *Id*. at 2-6.

EPA included numerous permit conditions to minimize the risks to human health and the environment, including maintenance of blast containment barriers, public notice requirements, weather restrictions that allow detonation only when dispersal of lead dust would be limited and directed away from large population centers, and lead dust remediation requirements over the area of possible dispersal. Approval Memorandum at 4-6; *see also* Permit §§ IV.D, IV.F–G, IV.O.3, IV.U–X, app. C. EPA required very conservative air modelling that assumes 100 percent of the lead waste would become airborne without considering that mitigation measures. Permit at 3, app. B, ¶ A. EPA also included conditions to minimize exposure from all potential sources (e.g., soil, air, etc.). *Id.* §§ IV.Q.1.i, IV.U.1, IV.V, app. C.

For notice, the Permit requires the Army to publicly distribute a preliminary air dispersion estimate at least five days before treatment, update it at least 48 hours

before treatment, and begin hourly updates six hours before detonation. *Id.* §§ IV.G.1.i–ii. The Army also must provide notices to explain the geographic extent and expected duration of potential exposure and to identify protective actions for residents and workers in areas of modeled deposition. *Id.*, app. C ¶¶ B.1.ii.e–f, B.2.i–ii.

The Permit also requires specific cleaning and dust-mitigation instructions for areas where projected surface deposition exceeds 100 micrograms per square foot. *Id.*, app. C, ¶ B.2.ii.b. The Permit separately requires monitoring at the facility and off site, a final air dispersion estimate within six hours after detonation, and corrective action (i.e., clean up) on and beyond the facility as necessary to protect human health and the environment. *Id.* §§ IV.Q.1.i, IV.G.1.iii, and at 3. Within 24 hours after treatment, the Army must initiate soil and high-touch-surface sampling at covered locations in the higher-deposition area where it has permission to enter. *Id.* § IV.U.2.ii.

On November 15, 2026, the Army issued a public advisory announcing that treatment was planned for November 20, 2026.[1] On November 19, 2026, Petitioners filed a petition for review and an emergency motion to stay the Permit. The Army

[1] Army, IAAAP Public Advisory (Nov. 15, 2026), https://www.army.mil/article/296772/iaaap_public_advisory [https://perma.cc/MR56-4C46].

then delayed the planned detonation to November 23, 2026.[2] Also on November 19, 2026, this Court administratively stayed the Permit until the Court rules on Petitioners' motion. The Army postponed the planned detonation to November 23, 2026, and then to November 24.[3] *See* Notice, Dkt. No. 5708596.

ARGUMENT

I. Even if the Court stays the Permit, the Army is not precluded from taking requisite emergency action.

There is an immediate risk that the lead azide at the Facility will spontaneously explode. Teller Decl. The waste has deteriorated to a degree that it is extremely sensitive to friction from crystal formation. *Id.* ¶ 9. The barrels holding the waste cannot be removed due to the risk of explosion, preventing the Army from taking measures to reduce the risk of explosion. *Id.* ¶¶ 12-13. As the temperatures drop, the risk of an uncontrolled explosion increases because the formed crystals can break more easily in freezing temperatures. *Id.* ¶ 13. If the crystals break, this could cause a chain reaction detonation that could cause an uncontrolled dispersal of lead azide into the environment. *Id.* ¶¶ 15, 17. Temperatures have already dropped below 30 degrees Fahrenheit, with temperature swings as low as 24 degrees and high as 70

[2] Army, Postponed: Lead Azide Detonation (Nov. 19, 2026), https://www.army.mil/article/296926 [https://perma.cc/WBS3-69HG].
[3] Army, Postponed: Lead Azide Detonation (Nov. 19, 2026), https://www.army.mil/article/296926 [https://perma.cc/WBS3-69HG].

degrees. *Id.* ¶¶ 28-29. These temperature swings have dramatically increased the risk of an uncontrolled explosion and threat to public safety. *Id.* ¶ 29.

Under these circumstances, EPA's RCRA regulations provide an exemption from both substantive and permitting requirements to allow immediate action. The RCRA regulations provide that the substantive standards "do not apply to":

> a person engaged in treatment or containment activities during immediate response to . . . [a]n immediate threat to human health, public safety, property, or the environment, from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an explosive or munitions emergency response specialist as defined in 40 [C.F.R.] § 260.10.

40 C.F.R. § 264.1(g)(8)(i)(D). The same exclusion from permitting requirements is at 40 C.F.R. § 270.1(c)(3)(i)(D).

Here, an explosive or munitions emergency specialist has made the requisite determination. Teller Decl. ¶ 3. Thus, EPA's RCRA regulations allow the Army to conduct a controlled detonation of the lead azide at the Facility even if the Permit that is at issue here is not in effect. Any other options require handling the lead azide in a way that poses an unacceptable risk of an uncontrolled explosion. *See id.* ¶¶ 6-17. A controlled detonation would minimize the risk associated with the resulting explosion. *See id.* ¶¶ 16-25. Thus, a controlled detonation is necessary now to respond to the immediate threat of an uncontrolled explosion at the Facility. EPA's regulations allow the Army's planned action without the need for a permit, and the Army intends to act on November 24, 2026.

II. The Court should lift the administrative stay and deny Petitioners' stay motion.

A stay, like a preliminary injunction, "is an extraordinary and drastic remedy," and Petitioners have not made a "*a clear showing*" that one should be granted. *Mazurek v. Armstrong*, 520 U.S. 968, 972 (1997). They must demonstrate: (1) a likelihood of success on the merits; (2) irreparable injury if relief is withheld; (3) lack of harm to other parties from a stay; and (4) that a stay would serve the public interest. *Nken v. Holder*, 556 U.S. 418, 434 (2009). The third and fourth criteria merge here. *Id.* at 435. A stay is not a matter of right, even if irreparable injury might otherwise result." *Id*. at 433. Rather, courts "pay particular regard for the public consequences in employing the extraordinary remedy." *Weinberger v. Romero-Barcelo*, 456 U.S. 305, 312 (1982). Accordingly, courts "must balance the competing claims of injury and must consider the effect on each party of the granting or withholding of the requested relief." *Winter v. NRDC*, 555 U.S. 7, 24, (2008).

Petitioners have not made the requisite "clear showing," *Mazurek*, 520 U.S. at 972, that they are "likely" to prevail on the merits. *Starbucks Corp. v. McKinney*, 602 U.S. 339, 349 (2024) (citation modified). EPA issued the Permit because the unstable lead azide at the Facility poses an imminent and substantial endangerment. Petitioners do not challenge that determination. Instead, they ask this Court to second-guess the agencies' technical judgments about the specific permit terms needed to protect human health and the environment during a controlled detonation.

The decision to authorize treatment by a controlled detonation was reasonable, and so were the permit terms to minimize risk. And the equities strongly favor a controlled, planned detonation over the imminent, uncontrolled one that the stay invites. Petitioners cannot show that the public will not be harmed if the Permit is stayed. The Court should deny the motion.

A. Petitioners are unlikely to prevail on the merits.

RCRA imposes a high bar to reverse EPA permitting decisions under the Administrative Procedure Act standard of review. *See, e.g.*, *Mueller v. EPA*, 993 F.2d 1354, 1356 (8th Cir. 1993)*; Greenpeace, Inc. v. Waste Techs. Indus.*, 9 F.3d 1174, 1180 (6th Cir. 1993). And Petitioners' burden is even higher when an agency's decisions rest on highly technical judgments. *See Missouri ex rel. Bailey v. U.S. Dep't of Interior*, 73 F.4th 570, 581 (8th Cir. 2023). Plaintiffs have not made a clear showing they are likely to succeed.

1. EPA reasonably authorized a controlled detonation to avert a more damaging uncontrolled explosion.

EPA reasonably determined that controlled detonation of the lead azide waste was necessary based on the imminent and substantial endangerment at the Facility. The crystallized, deteriorated lead azide waste is unstable and can explode spontaneously. Approval Memorandum at 2; First Army Letter. Army explosive experts evaluated the waste and determined that a mitigated, controlled detonation is the only safe treatment option. Approval Letter at 3; First Army Letter. In doing

so, the Army considered "the full range of potential alternative for the treatment of the lead azide," including in place treatment, thermal treatment, relocation of drums, and controlled detonation. Second Army Letter. The Army's technical consensus was that controlled detonation is the only safe option. *Id.* Other options that would disturb the containers, like in-place chemical neutralization, would create an unacceptable risk of an unintentional detonation. First Army Letter. And as the weather gets colder, the risk of unintentional detonation increases as crystal formation increases. Approval Memorandum at 2; First Army Letter.

EPA's determination that the controlled detonation was necessary to protect human health and the environment was reasonable because it is more protective than allowing the waste to unintentionally explode. In a controlled explosion, the Army accounts for weather conditions that limit the spread of lead dust. Approval Memorandum at 5-6. For example, the Army can detonate on a day when the wind is blowing away from population centers and at lower speeds that will reduce the geographic extent of lead dispersion. *Id.* Further, during a controlled detonation, the Army can ensure complete treatment of the waste. As EPA explained, "[t]he possibility of spontaneous detonation may result in greater harm to human health because the conditions of detonation would not be controlled to mitigate its impact." Approval Memorandum at 3. It was reasonable for EPA to give weight to the Army's munitions experts. And that is especially true where qualifying Army

munitions experts are empowered to take immediate action based on immediate threats even without a permit. *See* 40 C.F.R. § 270.1(c)(3)(i)(D).

Petitioners theorize that treatment alternatives other than controlled detonation, like chemical neutralization, may be feasible at the Facility. Mot. 18-22. But the Army's munitions experts considered those options and determined that they are not safe and pose an unacceptable risk of an unintentional explosion. Second Army Letter. Petitioners ignore the critical finding that even disturbing the containers poses an unacceptable risk because friction from any movement can set off an explosion. First Army Letter; Second Army Letter. EPA's and the Army's determination that a controlled detonation is necessary to protect human health and the environment is a highly technical judgment that warrants deference. *See Missouri ex rel. Bailey*, 73 F.4th at 581. The Court should not displace those expert judgments with Petitioners' unsubstantiated hope that a safer method might exist.

2. EPA reasonably crafted the Permit to include necessary terms and conditions to protect human health and the environment.

The terms that EPA included in the Permit were reasonable considering that a controlled detonation is necessary to protect human health and the environment. 40 C.F.R. § 264.601; *see* Permit at 1, 4 (noting that the Permit "incorporates by reference all *applicable* regulations of 40 C.F.R. Part 264, 266 and 270" (emphasis added)). EPA included the requirements necessary to mitigate exposure to lead dust,

Petitioners' principal concern. First, the Permit requires meaningful advance public notice so that people who may be exposed can protect themselves from potential exposure. Permit § IV.G.2.i, app. C, ¶¶ A, B.1.i.c, B.2; Approval Memorandum at 4. *See contra* Mot. 16-17 (arguing Permit does not have notice requirements). Second, the Permit requires containment barriers and limits detonation to weather conditions that will minimize the spread of lead dust and the number of people who could be exposed. Permit §§ IV.D, IV.F, IV.O.3; Approval Memorandum at 5-6. That includes wind speed and direction, which govern where and how far any resulting air dispersion can move. Permit §§ IV.G.1, IV.O.3.ii–iii, app. B ¶ A.1; Approval Memorandum at 5. Third, EPA included conditions to mitigate the risk of exposure through possible pathways: air, dust, soil, surface water and sediment, and groundwater. *See* Permit §§ IV.Q.1.i, IV.U.1, IV.V & app. C. Fourth, the Permit requires soil sampling and wipe sampling of high-touch structural surfaces at all parks, public facilities, and homes (where access is granted) within the area air modeling predicts lead dust will travel. Permit § IV.U.2.ii; Approval Memorandum at 6. The Army must begin sampling within 24 hours of detonation and the Army must submit a proposed work plan and schedule to remediate affected properties. Permit §§ IV.U.2.ii, IV.X; Approval Memorandum at 6.

Permit conditions that require blast containment barriers, public notice, limit the spread of lead dust, and require sampling and remediation where lead dust may

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travel are reasonable. So is EPA's determination that those terms protect human health and the environment, given that a controlled detonation is necessary to address the imminent, substantial, and uncontested endangerment that an uncontrolled explosion poses.

Petitioners' insistence that the Permit terms are insufficient ignores that a controlled detonation is necessary to prevent an uncontrolled explosion. Petitioners fault EPA for authorizing any release of lead dust. But no option prevents every release here; the only choice is between a release the Army can manage and one it cannot. So EPA included conditions to minimize the spread of lead dust in the environment and risk from all potential exposure pathways. *See* Permit §§ IV.D, IV.F, IV.O.3, IV.Q.1.i, IV.U–V, app. C. Minimizing the risks associated with the necessary controlled detonation is the most protective option available considering the imminent and substantial endangerment that an uncontrolled explosion of lead azide poses. *See* 40 C.F.R. §§ 264.601(a), 270.61(b)(6); Approval Memorandum; Second Army Letter.

Moreover, Petitioners misunderstand the procedural requirements for an emergency permit. Petitioners fault EPA for not putting the Permit out for notice and comment. Mot. 22-23. But notice and comment is not required for emergency permits. *See* 40 C.F.R. § 270.61. Nor must EPA provide public access to the entire permit record, including the complete permit application, *id.*, as plaintiffs claim,

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Mot. 14-15. Emergency permits require only limited public notice. 40 C.F.R. § 270.61(b)(5). In fact, emergency permits can be issued orally, with a written permit issued five days later. *Id.* § 270.61(b). Petitioners do not challenge EPA's use of an emergency permit or its imminent and substantial endangerment finding, and thus have no basis to fault EPA for skipping procedures that EPA's regulations do not require.

Petitioners also argue that the Permit does not contain conditions to address releases to various kinds of land, groundwater, and surface water. Mot. 15-16. But the Permit's exposure-pathway conditions address exactly those releases. *See, e.g.*, Permit §§ IV.F, IV.O.3, IV.U-V. Petitioners again separate the Permit's terms from their context and assess their protectiveness without regard for EPA's reasonable determination that this is an emergency situation and the controlled detonation is necessary.

Petitioners also are wrong that the Permit does not require corrective action. Mot. 17-18. The Permit requires sampling and necessary corrective action as noted above. *See* Permit at 3 and §§ IV.Q.1, IV.R.1, IV.U.2.ii.

Finally, Petitioners' insistence that EPA must include provisions for vulnerable populations like children and pregnant women ignore both the notice requirements, which will allow these populations to take actions to minimize risk and the specific requirements to test at parks and public facilities, such as

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playgrounds. Permit § IV.U.2.ii, app. C, ¶¶ B.1.ii.d, B.2, D.6. It also ignores the far greater risk to those same populations from an uncontrolled explosion. Fundamentally, Petitioners argue for delay while the circumstances demand action under the reasonable and lawful conditions of the Permit. They also ask this Court to overrule EPA's technical judgment about the protectiveness of the Permit's terms, which likewise is a highly technical judgment. Like EPA's and the Army's determination that a controlled detonation is necessary, that technical judgment deserves deference. *See Missouri ex rel. Bailey*, 73 F.4th at 581.

B. The equities overwhelmingly favor a controlled detonation over an uncontrolled one.

The United States acknowledges that a controlled detonation will likely cause airborne lead. *See* Mot., Ex. C. But the Permit that Petitioners seek to stay includes full-scale mitigation measures—from before, during, and after detonation—to enhance protection of human health and the environment. And the Army intends to act consistent with the permit conditions regardless of whether the Permit is in effect. Notice at 5, Dkt. No. 5708596.

Petitioners' focus on the lead released by the planned, controlled detonation, and their request to delay this action, ignores the gravity of the situation facing the public absent action by the Army. *See* Mot. at 23-27. As Petitioners do not dispute, the lead azide has recrystallized and become sensitive to shock and friction. *See* Mot. at 3. Even small movements in or around the magazines could set it off.

Particularly with colder temperatures, the water-ethanol mixture surrounding the lead azide will cycle through freezing and thawing, which in turn will create friction and increase the risk of an unintentional explosion. Approval Memorandum at 2-3; Teller Decl. ¶¶ 6, 9, 28-29. And the danger is climbing where the magazines' blast doors are gone, the stabilizing solution has not been replenished in more than a year, and temperatures have swung between 24 and 70 degrees in a single week before dipping below freezing. Teller Decl. ¶¶ 13, 27-29.

Moreover, an unintentional explosion can also result in an incomplete detonation and thus cause the explosive material to disperse onto neighboring communities. *Id*. ¶ 17. In short, the public faces an environmental and health threat that must be promptly addressed. *See id.* ¶¶ 8, 12-17, 29-30; *see* Jim Macy Decl. ¶¶ 14-16; Mot. at 25-26.

So the question is whether the public would be at greater risk of irreparable injury from a planned, controlled detonation or from an imminent, *uncontrolled* explosion with no public notice or safety measures in place to mitigate the risks from lead dispersion. *See* Teller Decl. ¶¶ 18-25 (describing mitigation efforts); Macy Decl. ¶ 25; *cf.* Mot. at 27 (stating that EPA's permitting decision must balance the risk of an unplanned explosion versus a planned detonation). The answer is not close. The status quo is not safe; instead, it is the danger.

Contrary to Petitioners' assertion that an unplanned explosion is merely "possibl[e]," Mot. 27, the unfortunate reality is that the risk of a lead azide detonation is immediate, Teller Decl. ¶¶ 8, 30. Given recent temperature swings and the arrival of freezing weather, the Army's explosives emergency specialist has found "an intolerable likelihood of spontaneous explosion that threatens public safety." Teller Decl. ¶¶ 8, 28-30; *see* Macy Decl. ¶ 15, 25. And because the stabilizing solution has been evaporating for more than a year, it is more likely to freeze inside the barrels, where even a small amount of friction can set off an explosive chain reaction. Teller Decl. ¶¶ 13-14. All the harms Petitioners describe in their stay motion would come to pass, and worse, if the lead azide detonates on its own. *See* Mot. at 23-24.

Under the delay that Petitioners seek with their delay request, the public faces greater risk of irreparable harm from lead inhalation and contamination, because no one can know when an uncontrolled explosion will occur. *See* Macy Decl. ¶ 22. If Petitioners were to have their way, the public, Army Personnel and EPA would have no advanced warning that lead may be in the air. *See* Permit § IV.G.1-.2. And EPA and the Army would be hindered in their ability to provide the public with close to real-time air dispersion modeling to inform the public of the potentially impacted area. *See* Macy Decl. ¶ 32. Further, an uncontrolled explosion may occur in adverse meteorological conditions and may cause lead to disperse over a greater geographic scope or densely populated areas. Approval Memorandum at 5-6; Macy Decl. ¶ 24.

The Army may be unable to implement its complete set of mitigation and control measures beforehand to minimize lead dispersion. *See* Macy Decl. ¶ 31 (noting that the Permit requires the Army to conduct extensive sampling to examine the extent of contamination produced by the detonation soon after the Army acts).

And an uncontrolled explosion may result in some lead azide catapulting onto neighboring properties and detonating there. Teller Decl. ¶ 17. Incomplete destruction would also create "an extremely unsafe condition" for cleanup crews and leave "an ongoing explosives safety issue in the impacted area." *Id.* In short, a stay trades a managed risk for an unmanaged one.

Conversely, the Permit and the Army's planned, controlled detonation will significantly reduce these risks. *See* Approval Memorandum at 4. The Permit identifies weather conditions intended to reduce lead exposure, disperse in less densely populated areas, and prevent harm to the individuals conducting the detonation. *See* Permit §§ IV.D, IV.F, IV.O.3; Approval Memorandum at 5-6. And before detonating, the Army will take numerous mitigation measures. Teller Decl. ¶¶ 18-25. The Army will provide frequent forecasts of the projected air dispersion using a model that includes conservative estimates (i.e., the model assumes that additional safety measures the Army will implement will not reduce lead dispersion) to update the public on where the lead will likely disperse. *See* Permit at 3 and §§ IV.G.1.i-ii, at 10; app. B ¶¶ A–B. The Army will wet the area of the planned

detonation to limit the spread of lead in the air. Teller Decl. ¶ 22. Upon detonation, the Army will sample those impacted areas within 24 hours and remediate properties adversely affected. Permit at 3 and § IV.U.2. In sum, the Permit and the Army's controlled detonation significantly reduces the environmental and public health harms that may imminently result from a spontaneous explosion.

Petitioners' other equitable argument—that there is no public interest in perpetuating an unlawful agency action—fails because Petitioners are unlikely to succeed on the merits. *See* above Arg. I.A. And as Petitioners acknowledge, the equities often favor protecting the environment. *See* Mot. at 25 (citing *Amoco Prod. Co. v. Village of Gambell*, 480 U.S. 531, 545 (1987)). Here, denying the stay is what better protects public health and the environment.

The Army has delayed detonation by three days now. But every day of delay increases the risk of an uncontrolled explosion that will cause far greater public health and environmental harm than the planned, controlled detonation initiated under the protective terms of the Permit.

Thus, the equities weigh decisively against a stay. And Petitioners are not likely to prevail on the merits. EPA's approval of the Permit was reasonable considering the imminent and substantial endangerment the threat of an uncontrolled explosion poses. Petitioners have not met their burden to show that the extraordinary and drastic remedy of a preliminary stay is warranted.

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CONCLUSION

For the foregoing reasons, the Court should lift the administrative stay and deny Petitioners' motion.

Respectfully submitted,

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Dated: November 22, 2026

CERTIFICATES OF COMPLIANCE

I hereby certify that this motion complies with the requirements of Fed. R. App. P. 27(d)(2)(A) because it contains 5,169 words according to the count of Microsoft Word, excluding the parts of the motion exempted by Fed. R. App. P. 32(f), and therefore is within the word limit of 5,200 words.

I further certify that this motion complies with the requirements of Fed. R. App. P. 32(a)(5) and (6) because it has been prepared in 14-point Times New Roman, a proportionally-spaced font, and is double-spaced, except for headings, block quotes, and footnotes.

Dated: November 22, 2026

/s/ *David Mitchell*
DAVID MITCHELL

Counsel for Respondents

IN THE UNITED STATES COURT OF APPEALS
FOR THE EIGTH CIRCUIT

IOWA ENVIRONMENTAL COUNCIL, et al., *Petitioners,* v. U.S. ENVIRONMENTAL PROTECTION AGENCY, et al., *Respondents.*	Case No. 26-3374 **DECLARATION OF COL AARON C. TELLER IN SUPPORT OF RESPONDENTS' OPPOSITION MOTION**

I, COL Aaron C. Teller, declares as follows:

1. The facts set forth in this declaration are based on my personal knowledge and, if called to testify as a witness, I could and would competently testify thereto under oath.

2. I am the current Commander of the 71st Ordnance Group (EOD) at Fort Carson, Colorado Springs, CO, leading the Army's EOD forces.

3. I am qualified as an Explosives or Munitions Emergency Response Specialist as that term is defined in 40 C.F.R. 260.10.

4. The Iowa Army Ammunition Plant (IAAAP) mission is to load, assemble, and pack medium and large caliber munitions for the United States Military.

5. Lead azide is a primary explosive used in detonators to set off a larger charge in munitions.

6. Lead azide is extremely sensitive to temperature, shock, and friction.

7. The IAAAP has two Earth Covered Magazines (ECMs) that are currently storing 68 55-gallon plastic drums of wetted lead azide explosive material, with a total weight of 9,773.5 pounds.

8. I have determined that the lead azide, a sensitive primary explosive, in the ECMs pose an immediate threat to human health, public safety, property, or the environment. I am trained in chemical or conventional munitions or explosives handling, transportation, render-safe procedures, and destruction techniques.

9. Lead azide is stored in a mixture of water and ethanol to sustain stability, but over time, the lead azide degraded, causing the formation of needle-shaped crystals that highly increased its sensitivity. Seasonal temperature changes contribute to the increased recrystallization process.

10. On April 28, 2026, US Army EOD conducted an inspection of the lead azide ECMs and found crystallization in 58 of the 68 barrels.

11. The IAAAP operating contractor, American Ordnance (AO), historically does monthly visual inspections of the ECMs. Each September, AO also opens the barrel lids to check the levels and concentrations of the 1:1 water/ethanol solution in each barrel and add additional fluid to each barrel as needed.

12. The barrel lids are no longer safe to remove because of unknown crystal growth inside the barrels with concentrated crystallization found around the internal rim and underside of the lids.

13. Due to the presence of crystals and because the barrel lids thus not being safe to remove, the water/ethanol solution in the barrels was not measured or refilled in September 2026. As a result, AO has not refilled or measured this solution since September 2025, which has led to the decrease of the solution through evaporation. The decreased ethanol concentration increases the freezing point of the barrels causing the solution to be more susceptible to freezing

which can increase sensitivity of the crystals and cause an uncontrolled detonation. Even a small amount of friction can break the crystal formation, causing an explosive chain reaction.

14. The likelihood of an uncontrolled detonation increases as temperatures fluctuate especially if the liquid solution in the barrels freezes.

15. If the crystals unintentionally detonate, it would cause an uncontrolled explosion within the ECMs.

16. An uncontrolled detonation has a number of associated risks and limits the mitigation measures that the Army intends to use as part of a controlled detonation that would mitigate impacts to human health and the environment.

17. Further, an uncontrolled detonation can result in an incomplete destruction of the lead azide during the explosion, causing both the potential for secondary explosive events and an extremely unsafe condition for personnel conducting post-blast cleanup activities. Incomplete destruction of the lead azide during an uncontrolled explosion may also cause unpredictable dispersal of the explosive material, leading to an ongoing explosives safety issue in the impacted area.

18. The Army has prepared for a controlled detonation of the lead azide due to the growing risk of an uncontrolled detonation and has taken significant precautions to limit the effects on human health and the environment.

19. Before a controlled detonation is conducted, the public is notified, limiting the potential harm to human health.

20. The controlled detonation will consist of a combination of bulk C4 explosives, shaped charges, and diesel fuel, which will increase the effectiveness of the destruction of the

lead azide explosive by directing blast effects downward and also enhance consumption of the lead azide.

21. To limit the effects of the detonation, protective works utilizing large sand-filled barriers and earth berms were constructed around each ECM.

22. Mitigation efforts also include a water barrier to reduce the dispersion of lead particles into the environment. This water will be used to wet the area of the controlled detonation to limit the spread of lead in the air to better protect human health and the environment.

23. Mitigation efforts also include evacuations of communities near the detonation site.

24. Moreover, protective structures have been placed around the ECMs to reduce the escape of blast debris.

25. The controlled detonation can be done when the weather conditions are best to limit the spread of lead as a result of the detonation.

26. After the issuance of the EPA Emergency Hazardous Waste Treatment Permit, EOD began preparing for the treatment of the lead azide through a controlled detonation.

27. In preparation for the controlled detonation, the heavy metal blast doors were removed from the magazines and replaced with temporary wooden plywood doors insulated with foam. The metal doors cannot be replaced on the ECMs and, therefore, the temperature in the ECMs is more susceptible to the outside weather conditions.

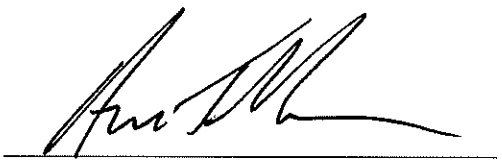
28. Temperatures in Middletown, Iowa, are currently dipping below 30 degrees. The risk of these freezing temperatures under these circumstances greatly increases the risk of an unintended detonation.

29. In fact, the temperature swings in Middletown from as low as 24 degrees to as high as 70 degrees over the past week has dramatically increased the risk of further crystallization and increases the likelihood of spontaneous explosion that threatens public safety.

30. For the foregoing reasons, it is my assessment as an Explosives or Munitions Emergency Response Specialist that these circumstances present an immediate threat to human health, public safety, property, or the environment, as provided in 40 C.F.R. 270.1(c)(3)(i)(D).

31. Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct to the best of knowledge, information, and belief.

Executed at Middletown, Iowa, on this 21st day of November, 2026.



Colonel Aaron C. Teller
Commander
U.S. Army

IN THE UNITED STATES COURT OF APPEALS
FOR THE EIGHTH CIRCUIT

IOWA ENVIRONMENTAL COUNCIL, et al., *Petitioners,* v. U.S. ENVIRONMENTAL PROTECTION AGENCY, et al., *Respondents*.	Case No. 26-3374 **DECLARATION OF JIM MACY IN SUPPORT OF RESPONDENTS' OPPOSITION MOTION**

I, Jim Macy, in accordance with 28 U.S.C. § 1746, declare that the following statements are true and correct to the best of my knowledge and belief and that they are based upon my personal knowledge, information contained in the records of the United States Environmental Protection Agency ("EPA"), or information supplied to me by EPA employees under my supervision and in other EPA offices:

Professional Background

1. I am the Regional Administrator of EPA Region 7, based in Lenexa, Kansas. I have held this position since January 26, 2025. Prior to becoming the Regional Administrator I held several leadership positions in state government. From March 2015 to April 2024, I served as director of the Nebraska Department of Environmental Quality, leading that organization through governmental merger into the Nebraska Department of Water, Energy, and Environment. For 28 years prior to my leadership in Nebraska, I served in numerous roles at the Missouri Department of Natural Resources. I have a Bachelor of Science in Agriculture and hold a Master's in Education, both earned from the University of Missouri-Columbia.

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Delegated Legal Authority

2. Among many other functions, EPA Region 7 is responsible for issuing permits to hazardous waste treatment, storage, and disposal facilities under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901, et seq., in the state of Iowa. This is the only state in EPA Region 7—consisting of Iowa, Kansas, Missouri, and Nebraska—that is not federally authorized to implement the RCRA hazardous waste programs.

3. As Regional Administrator, I hold delegated authority to perform all actions necessary to issue, deny, modify or revoke and reissue permits for owners and operators of hazardous waste treatment, storage and disposal facilities pursuant to Section 3005 of RCRA.

4. RCRA and its implementing regulations authorize EPA to issue emergency permits in certain circumstances. Specifically, upon a finding of an imminent and substantial endangerment to human health or the environment, I may issue a temporary emergency permit to a permitted facility to allow treatment, storage, or disposal of a hazardous waste not covered by an effective RCRA permit. *See* 40 C.F.R. § 270.61(a)(2).

5. On November 13, 2026, I exercised this authority to issue an emergency permit to the United States Department of Army for the storage and treatment of waste lead azide at the Iowa Army Ammunition Plant ("IAAAP").

Permitting History

6. In September 2018, the EPA issued the Army a hazardous waste management permit for IAAAP. Among other permit conditions, the RCRA permit limits the Army's storage and treatment of reactive hazardous wastes to specific quantities and to specific areas at IAAAP.

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7. On or about March 12, 2026, the Army notified the EPA of the presence of degraded lead azide at IAAAP in a secure storage location that is not covered by the Army's 2018 RCRA permit.

8. On March 24, 2026, the Army submitted to the EPA an application for an emergency permit to store the lead azide material at IAAAP in compliance with RCRA. The Army's storage application designated the lead azide at IAAAP as a hazardous waste due to its reactive and toxic characteristics. As documented in that application, lead azide is a chemical compound used as an initiating explosive in ordnances such as that produced at IAAAP. The Army's application also documented that long-term storage of the lead azide at IAAAP had led to recrystallization of the material within the storage containers. The application further documented that crystal formation increases the risk of spontaneous detonation because the crystalized form of lead azide is significantly more sensitive to shock and friction.

9. On April 2, 2026, the EPA issued the Army an emergency permit for storage of lead azide waste at IAAAP. In accordance with the authorizing RCRA regulation, EPA's emergency permit allowed such storage for only 90 days. The agency issued public notice of the permit's issuance in *The Hawk Eye* newspaper of Burlington, Iowa, on May 7, 2026.

10. The EPA authorized the Army's continued storage of the lead azide waste at IAAAP through the issuance of two more 90-day emergency permits dated July 1 and September 29, 2026. Public notices describing EPA's issuance of the subsequent emergency permits were published in *The Hawk Eye* on July 11 and November 3, 2026, respectively.

The Army's Application for an Emergency Permit for Storage and Treatment

11. The EPA's three prior storage permits allowed enough time for the Army and EPA to complete several critical activities. First, the Army completed an evaluation of treatment

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alternatives for the lead azide waste at IAAAP. Second, having concluded that there are no safe alternatives to intentional detonation for the treatment method of the lead azide waste at IAAAP, the Army remained in routine communication with EPA as it prepared and then submitted a permit application for both storage and treatment of the lead azide waste. Third, concurrent with its preparation of the permit application, the Army devoted resources to planning and training for implementation of the planned detonation. Importantly, each of these activities occurred during the spring and summer months when, according to the Army, the lead azide waste at IAAAP remained in its most stable condition.

12. I understood that the Army's engagement with EPA's RCRA permitting process would enhance the protectiveness of treatment activity that the Army could choose to implement without a RCRA permit in accordance with EPA's regulations. I directed my staff to remain in routine contact with the Army to establish substantive expectations for the Army's eventual permit application.

13. Beginning in September 2026, the Army submitted to EPA an emergency permit application for storage and treatment through rolling submission of documents. As is typical for any RCRA permit, EPA conducted a thorough review of the permit application and transmitted substantial comments to the Army for revision and resubmission of the material for EPA's final consideration. As revised, the Army's permit application and other correspondence provided EPA adequate information to support my approval of an emergency permit for storage and treatment.

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Imminent and Substantial Endangerment

14. The Army's permit application for storage and treatment documented that crystallized lead azide is highly sensitive to shock, friction, impact, heat, flame, and static discharge.

15. The Army's permit application further indicated that "temperature fluctuations can cause small amounts [of lead azide] to dissolve and recrystallize into its pure state as needles, platelets, and crystals." In correspondence to the EPA, the Army communicated that the risk of spontaneous detonation will increase as the outdoor temperature decreases toward freezing.

16. The Army's documentation of the condition of the lead azide waste, as well as the condition and configuration of its storage, support EPA's finding of an imminent and substantial endangerment to human health and the environment.

Evaluation of Treatment Alternatives

17. During the permit application process, the Army submitted information documenting the activities that it undertook to evaluate alternatives to open detonation for the treatment of the lead azide waste at IAAAP.

18. In a letter dated August 12, 2026, the Army emphasized the instability of the lead azide waste at IAAAP and communicated that it had evaluated alternatives to open detonation. The Army stated that intentional detonation was determined to be "consistent with the 'Cardinal Rule of Explosives Safety', which requires that we expose the minimum number of people to the minimum amount of explosives for the minimum amount of time."

19. In a letter dated September 4, 2026, the Army outlined its process for considering the range of potential alternatives. In relevant part, the Army stated that it activated an

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"operational planning team" to explore potential treatment alternatives and develop an actionable plan that considered the acute explosive hazard associated with the material. The Army engaged personnel from other federal agencies throughout the process, including the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF). The letter explained as follows:

> From January through April 2026, this multi-agency working group spent many hours conducting extensive literature searches, technical evaluations, and risk analyses of the full range of potential treatment alternatives. The [operational planning team] also performed blast effect analysis, explosives safety quantity distance calculations using advanced modeling and simulation, atmospheric plume modeling, and testing of specialized protective engineering controls. During the development and evaluation of potential alternatives, safety was identified as the single threshold criterion: a fundamental standard and mandatory requirement that must be satisfied for a potential alternative to be considered for selection and implementation.

20. The Army's letter reported that "[t]he following broad categories of alternatives were considered: (1) in-situ chemical treatment; (2) closed-chamber thermal treatment; (3) relocation of individual drums for treatment by open detonation; and (4) intentional detonation inside the earth covered magazines."

21. According to the Army's letter, this working group evaluated various reagents for in-situ treatment of lead azide. The letter reported as follows:

> This evaluation included the proprietary reagent MuniRem®, as well as sodium hydroxide, potassium bichromate, sodium nitrite, glacial acetic acid, and ceric ammonium nitrate. All methods of in-situ chemical treatment, regardless of reagent, require the drums to be opened to initiate the treatment. Potential migration of lead azide crystals into the lid rings and closure gaskets present an acute risk of unintentional detonation if an attempt is made to open the drums. Opening the drums requires the application of rotational torque that can create localized friction and shear forces that exceed the ignition threshold of the lead azide. Furthermore, chemical treatment requires physical mixing to achieve direct reagent-to-compound contact. Inserting mechanical impellers, chemical sparge wands, ultrasonic agitation devices, or other tools into the drums can introduce pinch points, cutting friction, and shear forces, resulting in risk of uncontrolled detonation.

Based on these factors, the working group "unanimously agreed that all alternatives involving in-situ chemical treatment failed to meet the threshold [safety] criterion."

22. The Army's letter also summarized the reasons that closed-chamber thermal treatment was eliminated from consideration:

> On- and off-site closed-chamber thermal treatment, in both an armored, fuel-fired deactivation furnace and a rotary kiln incinerator, and relocation of individual drums for treatment by open detonation were also evaluated. These methods of treatment require manipulation and relocation of the drums, either by Army personnel or remotely operated equipment. Physical lifting, tilting, rigging, or reorienting of the drums using conventional forklifts or remote robotic systems generates internal movement, shifts the drum contents, and introduces drop risk, all of which could spark rapid auto-ignition resulting in unintentional detonation. Transporting the drums over interior floors, loading aprons, conveyor rollers, or roadways exposes the contents to continuous vibrational harmonics, transit shocks, and mechanical jolts. Under these conditions, an initiation in a single drum would propagate instantly across adjacent containers, resulting in an uncontrolled detonation. Based on these considerations, [the working group] universally agreed that all alternatives requiring manipulation or relocation of the drums do not meet the threshold criterion.

23. After receiving these letters, my staff consulted with EPA's subject matter experts in munitions and hazardous waste treatment, who did not question that the Army's analysis was consistent with the available information. Relying on their technical judgment, I concluded that this information documented sufficient consideration of alternative treatment methods in light of the limited time available and the emergency situation posed by the continued storage of crystalized lead azide in the upcoming winter weather. I further acknowledged that the information the Army provided, as reviewed by my staff, supported the Army's conclusion that the lead azide at IAAAP cannot be safely disposed of through any mode of treatment other than intentional detonation. In recognizing this conclusion, I also respected that the Army has unparalleled expertise in matters concerning explosives safety.

24. Based on all of these factors, I recognized that intentional detonation allows for minimal human interaction with the containers of lead azide waste; enables the Army to time the treatment activity to align with favorable weather conditions; allows the Army an opportunity to

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provide prior public notifications to the potentially affected surrounding communities; and positions the Army for swift environmental response.

Optimizing Protectiveness of the Emergency Permit

25. The timeliness of EPA's emergency permit—and the Army's readiness to implement the activity that it authorizes—is critical to the protection of human health and the environment. To make the permit optimally protective, EPA's permitting decision had to balance competing risk factors. On one hand, the permit had to impose requirements that mitigate the environmental impact and human health risks that will inevitably result from the treatment activity. On the other hand, the permit could not be so constraining that the Army would be unable to complete the treatment activity before winter conditions increase the chance of spontaneous explosion.

26. In light of these challenging circumstances, EPA's emergency permit requires the Army to take concrete actions before, during, and after the detonation to enhance protection of human health and the environment. The requirements take the form of special permit conditions that are designed to mitigate the exposures, to the extent feasible, and to remediate the contamination that EPA expects will result from the detonation. Broadly speaking, these risks are presented both on the IAAAP installation itself and, more critically, in the off-site areas that will be affected by airborne lead migration and deposition.

27. After careful review of the Army's permit application, my staff informed me that off-site risk to human health arises from two potential pathways of exposure to lead. The first exposure pathway is from inhalation, dermal contact, and incidental ingestion of lead suspended as a particulate in ambient air. In addition, the airborne transport of lead is expected to result in the deposition of lead particles at varying concentrations across the path of dispersion. Air

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dispersion modeling performed by the Army and by trained members of its own staff clearly indicated that dust-lead deposition is expected to occur at higher concentrations closer to the detonation site and to decrease with distance from IAAAP.

28. To address the air and dust exposure pathways, an essential requirement of the emergency permit is timely public notification of expected exposure risk in areas where air dispersion modeling predicts potential airborne lead migration and dust deposition. To implement such notifications, my staff developed special permit conditions that require the Army to iteratively model projected airborne migration and dust-lead deposition areas. With each iteration, the Army is required to publicly distribute updated imagery of the potential impact area and to provide members of the public with information about protective actions that should be taken within those areas. In practice, implementation of this public notification requirement allows people within affected areas to make informed decisions that minimize their exposure to lead. To maximize such precautionary measures, the permit requires the Army's modeling to utilize conservative parameters that ensure the modeling outputs do not under-predict the extent of potential impact. Specifically, the required modeling assumes that 100 percent of lead content in the lead azide waste will be released to the ambient air, an assumption that both Army and EPA technical teams agree is not realistic but nevertheless necessary for maximal public awareness of potential risk.

29. In addition to public notification, the Emergency Permit aims to mitigate off-site exposures by defining adverse meteorological conditions during which the detonation must not occur. As indicated in the Army's permit application, weather conditions at the time of detonation not only affect the operational safety of the treatment activity itself but also the anticipated environmental and human health effects that may result. Most significantly, both

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Army and EPA air dispersion modeling indicates that wind speed and direction will influence the path and scale of the expected depositional and airborne impact areas. For that reason, EPA's permit establishes minimum and maximum wind speeds at the time of detonation. The permit also stipulates that the Army should exercise careful judgment to avoid dates on which wind direction will disperse lead over heavily populated areas lying to the east of IAAAP.

30. As explained, the Army and EPA modeling indicates that dust deposition will occur off-site, and likely in areas accessible to human exposure. To address this risk, the Emergency Permit requires the Permittee to initiate soil and dust sampling at both public and private properties in the area of projected dust deposition and to do so within 24 hours of the treatment activity to identify. After this sampling, the Permittee is obligated to transmit the validated sampling data to the EPA and concurrently submit a proposed work plan and schedule to implement the dust remediation activity for affected properties.

31. For environmental impacts within and immediately near IAAAP's fenceline, the permit requires the Army to conduct extensive sampling of soil, surface water, sediment, and groundwater to determine the extent of contamination produced by the detonation. The results of this sampling will guide cleanup activities the Army is required to implement to ensure that all environmental impacts are remediated to regulatory standards.

32. The public notification, sampling, and cleanup requirements in EPA's emergency permit highlight the clear advantage of conducting the detonation under controlled conditions. If the explosion is allowed to occur in a spontaneous, unplanned manner then the public will have less time to plan for and take self-protective measures for themselves and their families.

33. Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information, and belief.

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Executed this 22nd day of November, 2026, in Lenexa, Kansas.

JAMES MACY

Digitally signed by JAMES MACY
Date: 2026.11.22 09:50:18 -06'00'

Jim Macy
Regional Administrator
U.S. Environmental Protection Agency, Region 7

EXHIBIT 1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
EMERGENCY HAZARDOUS WASTE MANAGEMENT FACILITY PERMIT

Permittee:	**United States Department of the Army, as owner and operator**
Location of Permitted Facility:	**Iowa Army Ammunition Plant** **17571 Des Moines County Highway 79** **Middletown, Iowa 52638-5000**
EPA RCRA ID No.:	**IA7213820445**
Effective Date:	**November 13, 2026, 12:00 AM CST**
Expiration Date:	**February 11, 2027, 11:59 PM CST**

The U.S. Environmental Protection Agency (EPA) issues this Emergency Permit for Storage and Treatment ("Emergency Permit") to the U.S. Department of the Army (Permittee) to store and treat lead azide—a hazardous waste that exhibits the characteristic of reactivity (energetic) and the characteristic of toxicity for lead—at the Iowa Army Ammunition Plant (IAAAP). IAAAP encompasses approximately 19,000 acres located at 17571 Des Moines County Highway 79, Middletown, Iowa, and all contiguous property at this location under the control of the Permittee (hereinafter "Permitted Facility"). The recrystallization of the lead azide during long-term storage has increased the material's sensitivity to friction and shock, creating a highly unstable and dangerous situation. This Emergency Permit is issued upon the EPA's finding of an imminent and substantial endangerment to human health and the environment pursuant to the Solid Waste Disposal Act (Sections 3004(a), (u), (v), and 3005 of the Resource Conservation and Recovery Act, or RCRA (42 U.S.C. §§ 6924(a), (u), (v); 6925)) and regulations promulgated thereunder (Title 40 of the Code of Federal Regulations (C.F.R) Sections 264 – Subpart X, 270.61). Section 3005(c)(3) of RCRA requires that each Permit issued under Section 3005 shall contain such terms and conditions as the EPA determines necessary to protect human health and the environment.

Under the IAAAP's existing RCRA Permit, issued September 28, 2018 (2018 RCRA Permit), storage of reactive (energetic) waste, ignitable waste, toxicity characteristic waste, listed hazardous waste spent solvents, and listed hazardous waste from explosive operations are allowed to be stored in [redacted]. Pursuant to the 2018 RCRA Permit, the treatment of reactive hazardous waste munitions by open burning in the Open Burn Area shall only be conducted for munitions that are unstable and small explosive loaded munition items which are unsafe for continued storage, unsafe for transport off-site or for which no off-site treatment method exists. The treatment of reactive hazardous waste munitions that cannot be safely transported off-site to a treatment facility is allowed

in the following Subpart X Miscellaneous Treatment Units: Open Detonation area and 44MM Grenade Treatment Unit.

The 2018 RCRA Permit limits storage to no more than 35,000 pounds of hazardous waste and to no more than 35,000 pounds net of explosive weight (on a TNT basis) of reactive waste. The 2018 RCRA Permit limits the treatment of munitions to the following:

- Open burning of munitions in metal pans is limited to a maximum of 140 pounds per hour;
- Open detonation of munitions in pits dug into the ground or in a buried explosion module is limited to a maximum of 100 pounds per hour; and
- Open detonation of 40mm grenades is limited to a maximum of two grenades per detonation and 50 grenades per week in the steel tank detonation chamber.

On September 29, 2026, the EPA issued to the Permittee an Emergency Permit for Storage of the following hazardous waste in [redacted] within Earth Covered Magazines (ECMs) [redacted] and [redacted] (hereinafter "September 2026 Storage Permit"):

Name: Lead Azide
Hazardous Waste Codes: D003 (reactivity), D008 (toxicity characteristic for lead)
CAS Number: 13424-46-9
DOT Shipping Classification: Hazard Class 1.1A, UN0130
Quantity: There are 68 drums of Lead Azide, [redacted]

- [redacted]
- [redacted]

This referenced storage area is not covered for treatment, storage, or disposal of hazardous waste under the 2018 RCRA Permit.

The EPA's issuance of the September 2026 Storage Permit was based on the IAAAP's emergency permit request letter, dated September 2, 2026, including all associated attachments. The September 2026 Storage Permit is scheduled to expire December 26, 2026, at 11:59 pm CST. This Emergency Permit supersedes the September 2026 Storage Permit.

On September 4, 2026, the Permittee submitted a partial application for an Emergency Permit for Storage and Treatment of the hazardous waste subject to the September 2026 Storage Permit. Appendix A summarizes sections contained in the Army's initial permit application, the EPA's comments on those sections, and the Army's resubmission of revised permit application sections.

In addition, the Army submitted to the EPA correspondence dated August 12, 2026, and September 4, 2026, providing its analysis of potential alternatives and the Army's decision-making process that culminated in the Secretary of the Army's selection of intentional detonation for the treatment of lead azide (hereinafter "treatment activity"). The EPA's personnel also attended a briefing for Army decisionmakers in April 2026. Lastly, the Emergency Permit Application—specifically, Section 1 –

Introduction, 1.4 Alternative Treatment Technology Assessment—also includes information pertaining to the Army's evaluation of alternative treatment processes.

The hazardous waste container storage units are [redacted], which are located within [redacted]. The locations of [redacted] are shown in Figure 1-2 of the IAAAP's Emergency Permit Application Section 1 – Introduction. Figure #4 of the Emergency Permit Application Section 1 – Introduction is the construction drawing and floor plan of [redacted].

This Emergency Permit is required to protect human health and the environment and to authorize the continued storage of this hazardous waste in place until the operating conditions, as outlined in this Emergency Permit, allow for the implementation of the treatment activity to safely manage the explosive hazard. To maximize protection of public health, the Emergency Permit requires the Permittee to model depositional impacts and airborne plume migration prior to any targeted detonation date. The required modeling must utilize a conservative coding input to ensure that the Permittee's modeling does not under-predict the extent of potential impact. Technical experts from both the EPA and the Army agree that the modeling on which public notifications will be based is not necessarily representative of actual conditions that may result from the treatment activity. The EPA acknowledges the Army's real-world experience and expert judgment, presented in its permit application, that the realistic airborne release of lead will, in fact, be less than 100 percent due to considerable measures the Permittee will implement to mitigate blast effects. However, considering technical uncertainty regarding a quantifiable reduction of the lead release produced by planned mitigation measures, the EPA has chosen a conservative Emission Factor to ensure that the prior notifications are maximally protective of the public.

This Emergency Permit further requires the Permittee to conduct work as described in the Emergency Permit Application dated October 28, 2026, and the EPA-approved Uniform Federal Policy – Quality Assurance Project Plan dated November 5, 2026 (hereinafter "Emergency Permit Application"). The Emergency Permit Application is incorporated by reference into this Emergency Permit. If a conflict exists between the Emergency Permit Application and the conditions listed in this Emergency Permit, then the permit conditions shall govern. The provisions of this Emergency Permit are severable. If any provision of this Emergency Permit or the application of any provision of this Emergency Permit to any circumstance is held invalid, then the application of such provision to other circumstances and the remainder of this Emergency Permit shall not be affected.

This Emergency Permit is being issued to temporarily allow for the storage and treatment activity of lead azide in the location and amount described above. In accordance with 42 U.S.C. §§ 6924(u)-(v), this Emergency Permit also requires the Permittee to take corrective action for releases of hazardous waste or hazardous constituents resulting from the treatment activity. Such action will be required both on the Permitted Facility and beyond the Permitted Facility boundary as necessary to protect human health and the environment. The duration of this Emergency Permit shall not exceed 90 days from issuance.

This Emergency Permit incorporates by reference all applicable regulations of 40 C.F.R. Parts 264, 266, and 270, and all terms and conditions of this Emergency Permit. Applicable regulations are those which are in effect on the date of issuance of this Emergency Permit, in accordance with 40 C.F.R. § 270.32(c).

I. Schedule of Compliance

A. Within five (5) days of the effective date of this permit, the Permittee shall revise and resubmit Permit Application, Section 13 – Exposure Pathway Analysis, in accordance with any EPA comments.

B. Within seven (7) days of approval by the Iowa Department of Natural Resources, the Permittee shall submit to the EPA any project-specific Stormwater Pollution Prevention Plan (SWPPP) prepared in accordance with applicable Iowa National Pollutant Discharge Elimination System (NPDES) stormwater requirements.

II. Standard Emergency Permit Conditions

A. Any management of hazardous waste not authorized in either this Emergency Permit or the 2018 RCRA Permit is prohibited.

B. Compliance with this Emergency Permit constitutes compliance, for purposes of enforcement, with Subtitle C of RCRA, except for: 1) self-implementing statutory or regulatory requirements of RCRA, and 2) violations of RCRA that occurred prior to the effective date of this Emergency Permit.

C. The Permittee must comply with all conditions of its 2018 RCRA Permit, except to the extent and for the duration noncompliance is authorized in this Emergency Permit (40 C.F.R. § 270.30). Any noncompliance of the 2018 RCRA Permit, except under the terms of this Emergency Permit, constitutes a violation of federal law and is grounds for an enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

D. Compliance with the terms of this Emergency Permit does not constitute a defense to any order issued, or any action brought, under: (1) Sections 3008, 3013, or 7003 of RCRA; (2) Sections 106(a), 104, or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9601, *et seq.*); or (3) any other law providing for the protection of public health and/or the environment.

E. In the event of noncompliance with this Emergency Permit, the Permittee shall take all reasonable steps to minimize releases to the environment and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.

F. Any inaccuracies found in the Emergency Permit Application in support of this Emergency Permit may be grounds for the termination, revocation, reissuance, or modification of this Emergency Permit in accordance with 40 C.F.R. §§ 270.41-43 and for enforcement action. The Permittee must inform the EPA within 24 hours of any deviation from or changes in the information in the Emergency Permit Application which would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

G. The Permittee shall comply with all applicable regulations of 40 C.F.R. Parts 264, 266 and 270 not specifically referenced within this document. Failure to comply with any or all conditions specified within this Emergency Permit or the EPA's discovery that any material facts have been misrepresented by the Permittee may result in the termination of this Emergency Permit by the Director and/or the EPA pursuing an enforcement action for the Permittee's failure to comply with the conditions of this Emergency Permit or for the Permittee's misrepresentation.

H. This Emergency Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

I. This Emergency Permit does not convey any property rights of any sort, or any exclusive privilege, nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations.

J. The Permittee shall furnish to the EPA, within the time specified by the EPA, any relevant information which the EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Emergency Permit or to determine compliance with this Emergency Permit. The Permittee shall also furnish to the EPA, upon request, copies of records required to be kept by this Emergency Permit.

K. The Permittee shall allow the EPA, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

1. Enter at reasonable times upon Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Emergency Permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Emergency Permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this Emergency Permit; and

4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location.

L. Monitoring and Records

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

2. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Emergency Permit, the certification required by 40 C.F.R. § 264.73(b)(9) and records of all data used to complete the documentation for this Emergency Permit, for a period of at least three (3) years from the date of the sample, measurement, report, certification, or application. This period may be extended by request of the EPA at any time. The Permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations, for the active life of the Permitted Facility.

3. The monitoring records shall specify information in accordance with 40 C.F.R. § 270.30(j)(2) and (3).

4. The Permittee shall ensure its analytical data meet the Data Quality Objectives (DQOs) in the Uniform Federal Policy - Quality Assurance Project Plan (UFP-QAPP) submitted as Appendix 1 of the Emergency Permit Application.

M. Reporting Requirements

1. *Planned changes* – The Permittee shall give notice to the EPA as soon as possible of any planned physical alterations or additions to the Permitted Facility or treatment activity.

2. *Anticipated noncompliance* – The Permittee shall give advance notice to the EPA of any planned changes in the Permitted Facility which may result in noncompliance with requirements of this Emergency Permit.

3. *Transfers* – This Emergency Permit is not transferable to any person except after notice to and approval by the EPA. The EPA may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under RCRA.

4. *24-hour reporting* –

   i. The Permittee shall report any noncompliance that may endanger human health or the environment orally within 24 hours from the time Permittee becomes aware of the circumstances, including:

      a. Information concerning the release of any hazardous constituent and hazardous waste that may cause an endangerment to public drinking water supplies; or

      b. Any information of a release or discharge of hazardous constituent, hazardous waste or of a fire or explosion from the facility which could threaten the environment or human health outside the facility.

   ii. A written submission (hereinafter "24-hour Noncompliance Report") shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances. The 24-hour Noncompliance Report shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The EPA may waive the 5-day written notice requirement in favor of a written report within fifteen (15) days.

5. *Other information* – Where the Permittee becomes aware that it failed to submit any relevant facts in its Emergency Permit Application dated September 2, 2026 (storage), and September 4, 2026 (treatment), or subsequent submittals, or submitted incorrect information in the attachments to those submittals or in any report to the EPA, the Permittee shall submit such facts or information to the EPA within 24 hours from the time Permittee becomes aware of the circumstances.

N. Recordkeeping

1. The Permittee shall establish an Operating Record for this Emergency Permit that shall include, but not be limited to, this permit, the Emergency Permit Application, all inspection forms and logs, all information and records and reports required and generated to comply with this Permit, hazardous waste determinations, monitoring logs and reports, sampling analysis results, records, reports, final closure plan and closure certification report, and cleanup (corrective action) workplan(s) and report(s).

2. The Permittee shall maintain the Operating Record for a minimum of five (5) years from the effective date of this Emergency Permit. The Permittee shall comply with 40 C.F.R. § 267.74(a) (for the availability of records) and 40 C.F.R. § 267.74(b) (for the automatic extension of the five (5) year retention period during unresolved enforcement action).

III. Special Emergency Permit Conditions for Storage of Lead Azide

A. The storage of hazardous waste lead azide shall only be in containers in [redacted], which are located within [redacted], as shown in Emergency Permit Application Section 1 – Introduction, Figure 1-2. Lead azide being stored in the containers is D003 hazardous waste (reactivity) and D008 (toxicity characteristic for lead).

B. The Permittee shall comply with all the following special conditions for storage:

1. Access to [redacted] shall be limited to only those personnel that require access. Such personnel must have received appropriate training to safely manage the waste authorized under this Emergency Permit, respond to emergencies, and maintain regulatory compliance.

2. The Permittee shall maintain posting of advisory signage at the outermost perimeter gate(s) providing entrance to [redacted]. Such signage must include the following:

i. The EPA RCRA ID Number assigned to the Permitted Facility.

ii. Notice that [redacted] contains "Hazardous Waste" in [redacted], including the Hazardous Waste Codes, nature of the hazard, and the accumulation start date of such materials.

iii. Other appropriate signage including but not limited to "No Smoking."

C. The Permittee shall maintain posting of advisory signage placed on the entrance doors of [redacted].

D. The Permittee shall provide notice to the EPA immediately upon the IAAAP Environmental Coordinator's authorization to enter [redacted]. Within 24 hours of such authorization, containers shall be appropriately labeled in accordance with RCRA regulations.

E. The Permittee shall follow all Permitted Facility-established or newly established Standard Operating Procedures. This includes personnel training and safety requirements.

F. The Permittee shall take all necessary precautions to prevent accidental ignition or reaction of ignitable and/or reactive waste.

G. The Permittee shall immediately carry out the provisions of the Contingency Plan, which was submitted on September 9, 2026, and included in the Permittee's 2018 RCRA Permit (Permit Attachment III-5) if there is a fire, explosion, or release of hazardous waste or hazardous waste

constituents which could threaten human health or the environment. Any activation of the Contingency Plan requires prompt notification to the EPA.

H. The Permittee shall conduct weekly inspections of advisory signage, emergency equipment, and, when applicable, inspections of containers in [redacted]. The inspections shall be performed to confirm placement of advisory signage and emergency equipment, and when applicable, condition of emergency equipment, quantity of containers in [redacted], quantity of containers in [redacted], condition of containers, and note deteriorations and/or leakage from containers. The Permittee shall document observations on the inspection form, actions taken to correct deficiencies, the date and time of the action, and include the signature of the person conducting the inspection. Documentation of the weekly inspections shall be maintained in the Operating Record for this Emergency Permit.

IV. Special Emergency Permit Conditions for Treatment of Lead Azide

A. Treatment activity by intentional detonation shall only be conducted in [redacted] located in [redacted] of the Permitted Facility, as shown in, Emergency Permit Application Section 1 – Introduction, Figure 1-2. Open detonation shall only be conducted to treat the containers storing lead azide (reactive D003 hazardous waste and toxicity for lead D008 hazardous waste).

B. The containers of lead azide shall remain in place inside the referenced ECMs. Explosive charges and an accelerant will be placed on and near each container of lead azide, and the contents of [redacted] will be detonated simultaneously or in rapid succession under controlled conditions.

C. The Permittee shall not conduct the treatment activity authorized by Emergency Permit Condition IV.B. until it has completed the modeling and public notification activities required in Emergency Permit Condition IV.G.

D. The Permittee shall use reasonable best efforts to schedule and conduct the treatment activity authorized by Emergency Permit Condition IV.B. to minimize dust-lead deposition within the boundaries of 2020 Census Tracts 2, 3, 4, 5, 6, 8 and/or 9 of Des Moines County, Iowa, based on modeling performed pursuant to Emergency Permit Condition IV.G. 1.i. or IV.G. 1.ii. a.

E. The Permittee shall maintain the [redacted] to minimize the possibility of a fire, explosion, or any unplanned, sudden or non-sudden release of hazardous waste constituents to air, soil, groundwater or surface water, which could threaten human health or the environment.

F. The Permittee shall maintain the blast containment barriers that have been constructed around [redacted] to reduce and control potential treatment activity-related impacts to surface and subsurface soil, vegetation, surface water, and groundwater. The containment barrier configuration constructed around each referenced ECM includes a designated venting

area intended to direct the blast wave and associated debris release away from installation infrastructure and toward less populated areas if the activity results in material being released beyond the immediate treatment area. Emergency Permit Application Section 4, Figure 4-6, provides dimensional information for the blast containment barriers and identifies the [redacted] and [redacted] venting area. The as-built construction drawing and floor plan of [redacted] and [redacted] located within [redacted] is provided in Emergency Permit Application Section 1 – Introduction, Figure 1-4.

G. Plume Forecasting and Public Notifications

1. *Plume Forecasting* – In accordance with the requirements described in Appendix B, the Permittee shall develop air dispersion and dust deposition modeling to support public notifications on the following schedule:

   i. Preliminary Forecast – No later than five (5) days prior to the treatment activity, the Permittee shall develop and publicly distribute a preliminary plume impact estimate using forecasted weather conditions 48 hours prior to the treatment activity.

   ii. Subsequent Forecasting –

      a. No later than 48 hours prior to the treatment activity, the Permittee shall update and publicly distribute the plume impact estimate using forecasted weather conditions on the date of the treatment activity.

      b. Beginning 6 hours before the treatment activity and every hour thereafter until completion of the treatment activity, the Permittee shall update and publicly distribute the plume impact estimate using forecasted weather conditions at the time of the treatment activity.

   iii. Post-Detonation Plume Impact Estimate – Within 6 hours of completion of the treatment activity, the Permittee shall update and publicly distribute a final plume impact estimate using weather conditions documented at the time of the treatment activity.

2. *Public Notifications* –

   i. The Permittee shall implement the public notifications described in Emergency Permit Condition IV.G.1. in accordance with the requirements set forth in Appendix C.

   ii. The Permittee shall conduct other community engagement activities in accordance with Permit Application Section 5 – Community Engagement Plan.

3. Within 24 hours of publication of the plume impact estimates required in Emergency Permit Conditions IV.G. 1.i., IV.G. 1.ii. a., and IV.G. 1.iii., the Permittee shall submit to the EPA for review and approval an atmospheric dispersion modeling report documenting the parameters that were used and the imagery generated.

H. At a minimum, the Permittee shall maintain the equipment set forth in 40 C.F.R. § 264.32 and the Contingency Plan for Treatment, Emergency Permit Application Section 10 – Contingency Plan for Treatment. The minimum equipment required includes: 1) an internal communication or alarm system; 2) device, such as a telephone available at the scene to summon emergency assistance; 3) portable fire extinguisher or control equipment; and 4) water at adequate volume and pressure or foam producing equipment.

I. The Permittee shall test and maintain the equipment specified in Emergency Permit Condition IV.H as necessary to assure its proper operation in time of emergency, and as required by 40 C.F.R. § 264.33.

J. Whenever hazardous waste is being handled or treated, the Permittee shall maintain immediate access for all personnel to an emergency communication device or an internal alarm system as required by 40 C.F.R. § 264.34 and the Contingency Plan for Treatment, Permit Application Section 10 – Contingency Plan for Treatment.

K. The Permittee shall maintain arrangements with state and local authorities as required by 40 C.F.R. § 264.37 and as described in the Contingency Plan for Treatment, Emergency Permit Application Section 10 – Contingency Plan for Treatment. If state or local officials refuse to enter into preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the Operating Record and notify the Director in writing within five (5) days of such refusal.

L. Contingency Plan for Treatment

1. *Requirements for Treatment Contingency Plan* – The Permittee shall have a Contingency Plan for the activities associated with the treatment of lead azide and the cleanup resulting from the treatment of lead azide designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned or non-sudden release of hazardous waste or hazardous constituents to air, soil, groundwater or surface water. As applicable, the plan must cover the requirements of 40 C.F.R. § 264.50 through § 264.56.

2. *Implementation of Plan* – Upon conducting the treatment activity, the Permittee shall activate and implement the provisions of Emergency Permit Application Section 10 – Contingency Plan for RCRA Emergency Permit.

3. *Copies of Plan* – In accordance with the requirements of 40 C.F.R. § 264.53, a copy of the Contingency Plan for Treatment and all revisions to the plan must be maintained by the Permittee at the Permitted Facility and must be submitted by the Permittee to all local police departments, fire departments, hospitals and State and local emergency response teams that may be called upon to provide emergency services.

4. *Amendment to Plan* – The Permittee shall review and, if needed, immediately amend the Contingency Plan for Treatment, as required by 40 C.F.R. § 264.54, and submit it to the EPA.

5. *Emergency Coordinator* – The Permittee shall have a trained emergency coordinator available at all times in case of an emergency. The emergency coordinator shall have the qualifications, responsibility and authority set forth in 40 C.F.R. § 264.55.

6. *Reporting* – The Permittee shall report in writing to the EPA within five (5) days of all instances within [redacted] no matter how minor, fires, explosions or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constitutes to air, soil, groundwater or surface water.

M. Training Requirements for Treatment – The Permittee shall conduct personnel training as required by 40 C.F.R. § 264.16. The training program for treatment shall follow the outline in Emergency Permit Application Section 9 – Training Requirements for Treatment. The Permittee shall maintain training documents and records, as required by 40 C.F.R. § 264.16(d)-(e).

N. Permitted and Prohibited Waste Identification

1. The Permittee shall only treat the following hazardous waste in accordance with this Emergency Permit

   Quantity: 68 drums of lead Azide, [redacted]

2. The Permittee is prohibited from treating any material containing, contaminated with or suspected of being contaminated with military chemical warfare agents such as choking agents, nerve agents, blood agents, blister agents, incapacitating agents, vomiting compounds, tear-producing compounds, herbicides, radioactive materials, smokes, incendiary devices or biological agents.

O. Operating Requirements

1. The Permittee shall implement the treatment activity in accordance with the Emergency Permit Application Section 4 Treatment Design and Implementation. The treatment will be a

phased implementation performed by Explosive Ordnance Disposal of pre-treatment preparations and safety, treatment, followed by post-treatment assessment.

2. The Permittee shall review, change, revise and/or update Emergency Permit Application Section 4 Treatment Design and Implementation, as necessary to ensure the safe management and treatment of the lead azide reactive (explosive) hazardous waste. Any change, revision or update specifically listed in Appendix I of 40 C.F.R. § 270.42 as a Class 1 modification shall require the Permittee to submit a Class 1 modification within seven (7) days of the revision or update. For all other classes of permit modifications (Class 1 prior Director approval, Class 2, Class 3, or other modifications), the Permittee shall submit the permit modification request in accordance with 40 C.F.R. §§ 270.42(a)(iii), 270.42(b), 270.42(c) or 270.42(d).

3. The Permittee shall conduct the treatment activity only if the following adverse meteorological conditions are not forecasted to be present at the time of detonation and for a period of 3 hours thereafter, based on and as outlined in Emergency Permit Application Section 4 – Treatment Design and Implementation:

   i. Precipitation or forecasted high probability of precipitation for the duration of treatment activity;

   ii. When surface wind speed is less than 1 mile per hour and more than 15 miles per hour;

   iii. Windspeeds aloft (1,000 to 3,000 feet) is more than 30 miles per hour;

   iv. Electrical storms or thunderstorms;

   v. Dense fog, blowing snow/sand, dust storms, or other situations that restrict visibility to 1,000 feet;

   vi. Extremely cloudy days, defined as overcast (more than 80% cloud cover) with a ceiling of less than 2,000 feet;

   vii. Dusk (30 minutes before sunset) to dawn (30 minutes after sunrise); or

   viii. During an inversion (air temperature increase with increasing altitude).

4. The Permittee shall follow all Permitted Facility-established or newly established Standard Operating Procedures, including procedures outlined in the Emergency Permit Application Section 4.1.1 – Donor Materials Handling and Storage, for handling and management of explosive materials (donor material).

P. Special Provisions for Ignitable, Reactive, or Incompatible Waste

1. The Permittee shall take all necessary precautions to prevent accidental ignition or reaction of ignitable and/or reactive wastes.

2. The Permittee shall not store, handle, or otherwise manage incompatible wastes together at [redacted].

Q. Operation, Monitoring, Reporting, and Response Actions

1. *Monitoring* –

   i. The Permittee shall conduct monitoring of the treatment activities at [redacted] and [redacted], at the Permitted Facility, and at off-site locations to document potential migration of releases of hazardous waste and/or hazardous constituents to soil, surface water, sediment, groundwater, and/or air, which may have an adverse impact on human health or the environment.

   ii. The Permittee shall implement the monitoring activities in accordance with the following sections of the Emergency Permit Application and in accordance with 40 C.F.R. § 264.602:

      a. Section 6 – Environmental Monitoring

      b. Section 11 – Treatment Area Closure Plan

      c. Appendix 1 – UFP-QAPP

2. *Reporting* – Within thirty (30) days of completion of the treatment activity, the Permittee shall submit the Final Impact Area Report for the atmospheric dispersion and ground deposition plume to the EPA for review. The Final Impact Area Report shall summarize the atmospheric dispersion and ground deposition plume modeling and mapping of lead release resulting from the treatment activity. Such modeling shall use real-time data collected at the time of the treatment activity.

R. Management of Waste and Residues

1. The Permittee shall sample, analyze, and characterize all wastes and residues resulting from the treatment activity at the Permitted Facility and off-site as described in the Emergency Permit Application Section 7 – Waste Management Plan.

2. All wastes and residues generated from the handling of reactive wastes are considered to be reactive waste until such time that waste analysis demonstrates the waste and/or residue is not reactive.

3. All wastes and residues generated from the treatment activity of reactive wastes are considered to be reactive waste until such time that waste analysis demonstrates that such waste and/or residue is not reactive.

4. Wastes and residues generated from treatment activities under this permit are not considered to be newly generated wastes.

5. Scrap metal separated from wastes and residues must meet the Land Disposal Restriction standards for contaminated debris in 40 C.F.R. § 268.45 prior to disposal or release as non-hazardous scrap metal.

S. Inspections

1. Beginning 24 hours after the treatment activity, the Permittee shall conduct daily inspections for releases, discharges, malfunctions, or deterioration of structures (e.g., containment and fencing) or equipment (e.g., monitoring equipment, safety and emergency equipment, security devices) at the following locations within the [redacted]: waste holding areas, waste preparation areas, waste staging areas, treatment area and appurtenant equipment, residue handling areas, residue treatment areas, safety systems and industrial hygiene systems.

2. The Permittee shall record the completion of the inspections in a written daily inspection document, including the signature of the person who conducted the inspection, the date of inspection, and note the results of the inspection, including all repairs, recommendations for repairs, cleanups, and other activities taken in response to the inspection.

3. The Permittee shall maintain each daily inspection document in the Operating Record for this Emergency Permit.

T. Operating Record – The Permittee shall keep records of operations including, but not limited, to the following:

1. Description, quantity, and location of donor material (number and net explosive weight of each material) stored in [redacted];

2. Date and time of the treatment activity;

3. Meteorological conditions during and after the treatment activity;

4. Daily Inspection log or summary; and

5. Documentation of removal and disposition of treatment residues and debris from the [redacted].

U. Closure (Short-Term Cleanup)

1. *Performance Standard* – The Permittee shall close [redacted] in accordance with 40 C.F.R. §§ 264.111 and 264.601 to control, minimize, or eliminate hazardous constituents, post-closure escape of hazardous waste, leachate, contaminated run-off, or hazardous waste decomposition products to the ground, surface waters, groundwater, or atmosphere to the extent necessary to protect human health and the environment.

2. *Closure Implementation* –

   i. The Permittee shall implement the closure work in accordance with 40 C.F.R. Part 264, Subpart X, and the procedures outlined in the Emergency Permit Application Section 6 – Environmental Monitoring, Section 11 – Closure Plan, and in accordance with the schedule included in the Closure Plan, and Appendix 1 – UFP-QAPP.

   ii. As an additional requirement of Emergency Permit Application Section 6 – Environmental Monitoring, Phase 1 of the Closure Plan, and Appendix 1 – UFP-QAPP, within 24 hours of the treatment activity the Permittee shall initiate both soil sampling and wipe sampling of high-touch surfaces at all parks, public facilities, and private properties to which the Permittee has been granted Rights of Entry within the area of modeled dust-lead deposition ≥ 100 µg/ft² of the post-detonation plume impact estimate that is required under Emergency Permit Condition IV.G.1.iii. Within five (5) days of receipt of the validated analytical data resulting from such sampling, the Permittee shall submit the laboratory report and a proposed Closure Plan Phase 1 Remediation Work Plan (including implementation schedule) based on the analytical data.

3. *Amendment to Closure Plan* – The Permittee shall amend the Closure Plan in accordance with 40 C.F.R. § 264.112(c) whenever necessary. The Permittee shall request a modification of this Emergency Permit in accordance with 40 C.F.R. § 270.42.

V. Disposal, Treatment or Decontamination of Equipment, Structures, and Soils – The Permittee shall decontaminate and/or dispose of all contaminated equipment and structures and dispose

and/or treat contaminated soils in accordance with 40 C.F.R. § 264.114 and Emergency Permit Application Section 11 – Closure Plan.

W. Certification of Closure – The Permittee upon completion of closure shall submit to the EPA the Certification of Closure in accordance with 40 C.F.R. § 264.115 and Emergency Permit Application Section 12 – Closure Certification.

X. Remediation Work Plan (Long-Term Cleanup) – Within ninety (90) days of the EPA's approval of the Closure Report, the Permittee shall submit for the EPA's review and approval a Remediation Work Plan in accordance with Emergency Permit Application Section 11 – Treatment Area Closure Plan and Emergency Permit Application Section 12 – Closure Certification. Such work plan shall describe the long-term cleanup activities identified in the Closure Report, which shall be implemented pursuant to 42 U.S.C. §§ 6924(u)-(v). Such work plan shall include an implementation schedule for conducting the work and submission of a Long-Term Remediation Report for EPA review and approval.

V. Permittee Submittals Permit Conditions

A. The Permittee shall submit to the EPA written notification due on the day the Army formalizes a final decision on each of the following: "Order to Proceed," "Order to Execute," and the actual date and time of detonation.

B. No later than fifteen (15) days prior to the expiration date of this Emergency Permit, if Permittee expects to need additional time to store and/or treat the lead azide hazardous waste material in [redacted], the Permittee shall submit a new request and permit application in accordance with 40 C.F.R. § 270.61.

C. If implementation of Closure (Short-Term Cleanup) described in Emergency Permit Condition IV.U. is not completed prior to the expiration date of this Emergency Permit, the Permittee shall request a Class 1 Permit Modification requiring prior Director Approval of the 2018 RCRA Permit to complete such activity.

D. If the Permittee has submitted but the EPA has not approved the Certification of Closure and Closure Report described in Emergency Permit Condition IV.W. prior to the expiration date of this Emergency Permit, the Permittee shall request a Class 1 Permit Modification requiring prior Direct Approval of the 2018 RCRA Permit to complete such activity.

E. If the implementation of the Remediation Work Plan (Long-Term Cleanup) described in Emergency Permit Condition IV.X. is not completed prior to the expiration date of this Emergency Permit, the Permittee shall request a Class 1 Permit Modification requiring prior Director Approval of the 2018 RCRA Permit to complete such activity.

F. If the Permittee has submitted but the EPA has not approved the Long-Term Remediation Report described in Emergency Permit Condition IV.X. prior to the expiration date of this Emergency Permit, the Permittee shall request a Class 1 Permit Modification requiring prior Direct Approval of the 2018 RCRA Permit to complete such activity.

G. No later than the expiration date of this Emergency Permit, the Permittee shall submit for the EPA's review and approval a Final Report covering the time frame of this Emergency Permit in addition to the Emergency Permit for Storage issued on September 29, 2026. This Final Report shall include documentation supporting the storage and treatment of lead azide in [redacted], inspection reports, monitoring and sampling reports with validated laboratory analysis data packages, photographs/videos, and other information produced during the Permittee's implementation of activities described within the Emergency Permit Application.

H. If the submittal of the Final Report for this Emergency Permit described in Emergency Permit Condition V.G. is not completed by the expiration date of this Emergency Permit to the receipt of EPA's approval, the Permittee shall request a Class 1 Permit Modification requiring prior Director Approval of the 2018 RCRA Permit to complete such activity.

VI. Contacts

A. Submissions to the EPA – Submissions required by this Emergency Permit shall be sent to the following, who serves as the EPA's contact for this Emergency Permit:

Patricia Murrow
U.S. Environmental Protection Agency, Region 7
Land, Chemical, and Redevelopment Division
Corrective Action Branch
11201 Renner Boulevard
Lenexa, Kansas 66219
Email: murrow.patricia@epa.gov
Phone: (913) 551-7627

B. The Permittee's contact for this Emergency Permit is:

William J. Kehoe
Iowa Army Ammunition Plant
IAAAP Deputy to the Commander
17571 Des Moines County Highway 79
Middletown, Iowa 52638-5000
Email: william.j.kehoe.civ@army.mil

VII. Issuance

The Administrator of the EPA has delegated authority to perform all actions necessary to issue, deny, modify or revoke and reissue permits for owners and operators of hazardous waste treatment, storage and disposal facilities pursuant to Section 3005 of RCRA to the Regional Administrator of the EPA, Region 7, or the Regional Administrator's designated representative, by Delegation No. 8-6, dated June 9, 2026.

This Emergency Permit for Storage and Treatment is effective as of November 13, 2026, and will expire on February 11, 2027, unless terminated under 40 C.F.R. § 270.61(b)(4).

JAMES MACY

Digitally signed by JAMES MACY
Date: 2026.11.13 13:04:57 -06'00'

Jim Macy
Regional Administrator
U.S. EPA Region 7

November 13, 2026
Date

Appendix A
Summary of Emergency Permit Application and EPA Comments

A. Initial Permit Application – The Permittee submitted the following materials as a partial application for an Emergency Permit for Storage and Treatment:

1. *September 4, 2026 (Submittal 1 of 4)*:
   i. Section 1 – Introduction
   ii. Section 2 – Iowa Army Ammunition Plant Facility Description
   iii. Section 3 – Organization and Lines of Communication
   iv. Section 5 – Community Engagement Plan
   v. Section 9 – Training Requirements for Implementation of Treatment
   vi. Attachment 1-A – Safety Data Sheet Lead Azide
   vii. Attachment 1-B – Explosive Ordnance Disposal ECM Inspection
   viii. Attachment 1-C – USA (Army) and EPA Correspondence

2. *September 11, 2026 (Submittal 2 of 4)*: Section 6 – Environmental Sampling and Analysis Plan

3. *September 18, 2026 (Submittal 3 of 4)*:
   i. Section 4 – Treatment Design and Implementation
   ii. Section 7 – Waste Management Plan
   iii. Section 8 – Security Plan
   iv. Section 10 – Contingency Plan for RCRA Emergency Permit
   v. Section 12 – Closure Certification
   vi. Section 13 – Explosives Pathway Analysis
   vii. Section 14 – Financial Responsibility

4. *September 21, 2026 (Submittal 4 of 4)*: Section 11 – Treatment Area Closure Plan

5. *October 13, 2026*: Amended Section 6 – Environmental Sampling and Analysis Plan

6. *October 16, 2026*: Working draft Uniform Federal Policy – Quality Assurance Project Plan

7. *October 23, 2026*: Predictive plume model for the Iowa Army Ammunition Plant lead azide treatment (controlled detonation) project (slide deck)

B. EPA Review and Comment – The EPA reviewed the submissions listed above and provided written comments to the Permittee on the following dates:

1. *October 6, 2026* – Sections 1 and 2

2. *October 9, 2026* – Sampling and Analysis Plan

3. *October 21, 2026* – Sections 4, 7, 8, 10, 12, 13, and 14 (September 18, 2026 (Submittal 3 of 4)

4. *October 23, 2026* –
   i. Amended Emergency Permit Application Section 6 – Environmental Monitoring
   ii. Working Draft UFP-QAPP

5. *October 27, 2026* – Predictive plume model

6. *November 3, 2026* – Draft UFP-QAPP

7. *November 6, 2026* – Revised Section 13

C. Final Emergency Permit Application – The following revised permit application materials were subsequently submitted to the EPA in response to the EPA's comments:

1. *October 28, 2026* – Amended Emergency Permit Application, including updated (non-final) working draft of UFP-QAPP

2. *October 30, 2026* – Amended Emergency Permit Application Section 13 – Exposure Pathway Analysis

3. *November 3, 2026* –

   i. UFP-QAPP, Appendix C – Laboratory Certifications and Standard Operating Procedures
   ii. Supplemental predictive plume modeling information

4. *November 5, 2026* – Final UFP-QAPP, and UFP-QAA Appendix D

5. *November 9, 2026* – Amended Section 13 and 6

Appendix B
Air Dispersion and Dust Deposition Modeling Parameters

A. To develop the plume impact estimates required in Emergency Permit Condition IV.G., the Permittee shall utilize either the Specialized Hazard Assessment Response Capability (SHARC) model, the Hazard Prediction and Assessment Capability (HPAC) model, or another model available through the National Atmospheric Release Advisory Center (NARAC), with an Emission Factor of 1.00 to generate air dispersion and dust deposition modeling as follows:

1. *Air Dispersion* – Airborne lead shall be modeled to an outer concentration of 0.18 $\mu g/m^3$. The model shall be produced to present hourly estimations of the plume's location and extent, as calculated from the time of detonation. The hourly estimations shall also depict relative concentrations within the plume boundary.

2. *Dust-Lead Deposition* – Two dust-lead deposition isopleths shall be modeled to predicted deposition concentrations of ≥ 5 $\mu g/ft^2$ and ≥ 100 $\mu g/ft^2$. The dust-lead deposition isopleths shall be layered on a single figure to identify the relative extent of areas that will potentially be impacted by the treatment activity.

The isoconcentration maps generated through this modeling shall be appropriately labeled and of a resolution sufficient to provide members of the public prior knowledge of their potential for exposure to dust-lead surface deposition resulting from the treatment activity.

B. The isoconcentration map developed in accordance with paragraph A of this Appendix B shall be publicly distributed in conjunction with narrative advisory messaging consistent with paragraph B.2. of Appendix C and on the schedule required in Emergency Permit Condition IV.G.1.

Appendix C
Public Notification Requirements

A. The Permittee shall make reasonable best efforts to notify all members of the public who may be potentially affected by dust-lead exposure risks resulting from the treatment activity.

B. Public notifications issued by the Permittee in accordance with paragraph A. of this Appendix shall incorporate the dust-lead deposition and airborne concentration modeling developed in accordance with Emergency Permit Condition IV.G. and Appendix B.

1. *Informational Area Notification* – Using the isoconcentration map developed in accordance with paragraph A.1. of Appendix B, the Permittee's public notifications must identify an "Informational Area" within which the Permittee must communicate as follows:

i. General Information –

a. The planned date and approximate time of the treatment activity;

b. The purpose of the treatment activity is to manage an unsafe explosive hazard;

c. The purpose of the public notification is to provide members of the public sufficient time to alter activities to avoid exposure to the contaminant release resulting from the treatment activity; and

d. Directions to access and/or register for a public information hotline, website, listserv, or other electronically accessible communication platform to receive updates regarding plume status and recommended protective actions.

ii. Exposure Risks –

a. A short-duration airborne release of lead will occur as a result of the detonation;

b. Airborne lead particles may be present for a limited time after the detonation within certain areas affected by the detonation plume;

c. Deposition of lead-containing dust may occur after the detonation on surfaces within certain areas affected by the detonation plume;

d. All humans, but especially children, pregnant individuals, older adults, and other sensitive populations, should avoid outdoor activities within affected areas;

e. The geographic extent of potential exposure risks; and

f. The expected duration of potential exposure risks, including a clear projected start and end time, or other criteria, indicating when protective actions should be taken and when normal activities may resume (hereinafter "potential exposure period").

2. *Advisory Area Notification* – Using the isoconcentration map developed in accordance with paragraph A.2. of Appendix B, the Permittee's public notifications must identify an "Advisory Area" within which the Permittee must instruct as follows:

i. Within areas that are expected to be affected by dust-lead deposition exceeding 5 µg/ft², all members of the public who reside or work within this affected area should:

a. Remain indoors during the potential exposure period if they cannot evacuate beforehand;

b. Close all windows, exterior doors, and other openings during the exposure period;

c. Turn off or place heating, ventilation, and air conditioning (HVAC) systems in recirculation mode, minimize outdoor air intake, and maximize indoor air filtration during the potential exposure period; and

d. Avoid travelling through the affected area during the potential exposure period.

ii. Within areas that are expected to be affected by dust-lead deposition exceeding 100 µg/ft², all members of the public who reside or work within this affected area should:

a. Observe all protective actions listed in paragraph B.2.i. of this Appendix C; and

b. Wet-clean surfaces that may be contacted by children, including outdoor play equipment, toys, tables and chairs, handrails, patios, decks, exterior windowsills, and other high-contact surfaces. Such instructions shall include specific cleaning and dust mitigation procedures to address deposited and airborne lead particles which minimize overall human exposure to lead.

C. To the extent practicable, the Permittee shall coordinate with local emergency response authorities to distribute public notifications issued by the Permittee in accordance with paragraphs A and B of this Appendix C. The Permittee should inquire with such authorities regarding the most effective communication platforms to distribute notifications to the community.

D. *Plain Language Public Notice* – Public notifications issued by the Permittee shall include plain-language statements such as the following:

1. "A short-duration airborne lead release will occur during the detonation."
2. "Avoid breathing outdoor dust or airborne particles during the exposure period."
3. "Stay indoors until emergency authorities advise the public to resume normal activities."
4. "Keep windows and doors closed during the exposure period."
5. "If possible and safe, turn off or place heating, ventilation, and air conditioning systems in recirculation mode, minimize outdoor air intake, and maximize indoor air filtration during the potential exposure period."
6. "All humans, especially children and pregnant women, should remain indoors and avoid outdoor activities during the exposure period."
7. "Avoid unnecessary travel through the affected areas."
8. "Normal activities may resume once the advisory has been lifted and affected areas have been mitigated according to instructions from authorities."

EXHIBIT 2

REGION 7
LENEXA, KS 66219

November 13, 2026

MEMORANDUM

SUBJECT: Request for Approval of Emergency Permit for Storage and Treatment of Lead Azide
Iowa Army Ammunition Plant
17571 Des Moines County Highway 79
Middletown, Iowa 52638-5000
EPA RCRA ID No.: IA7213820445

FROM: Patricia Murrow, LCRD/Corrective Action Branch
PATRICIA MURROW Digitally signed by PATRICIA MURROW Date: 2026.11.13 12:44:12 -06'00'

Jared Pessetto, ORC/Superfund Branch
JARED PESSETTO Digitally signed by JARED PESSETTO Date: 2026.11.13 12:40:26 -06'00'

THRU: Eric Gorman, Manager
Corrective Action Branch
Land, Chemical and Redevelopment Division
ERIC GORMAN Digitally signed by ERIC GORMAN Date: 2026.11.13 12:53:25 -06'00'

Bob Jurgens, Director
Land, Chemical and Redevelopment Division
ROBERT JURGENS Digitally signed by ROBERT JURGENS Date: 2026.11.13 12:56:56 -06'00'

TO: Jim Macy, Regional Administrator
Region 7

Attached for your signature please find an Emergency Permit for Storage and Treatment ("Emergency Permit") (Attachment 1) that has been prepared for issuance to the U.S. Army ("Army" or "Permittee"). The Emergency Permit authorizes the Permittee to store and treat waste lead azide at the Iowa Army Ammunition Plant (IAAAP) located in Middletown, Iowa.

Background

In March 2026, the Army notified the EPA that 68 containers of unstable lead azide had been discovered in two bunkers at the facility. At the time of the discovery, the lead azide was crystalizing, in a dangerous and unstable condition, raising concerns that it could self-detonate. After further investigation, the Army determined the lead azide was in a somewhat more stable condition than

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initially believed, but that the containers could not be safely transported. In May 2026, the Army concluded that intentional detonation would be the only safe course of treatment for such an unstable, shock-sensitive explosive.

To date, the Permittee has applied for, and the EPA has issued, three 90-day emergency permits for in-place storage of the lead azide. The EPA has issued each succeeding permit prior to expiration of the prior permit, with a legal notice published in the Hawk Eye newspaper announcing the issuance of the permit and the availability of the Administrative Record. The third emergency permit for storage expires on December 29, 2026. Issuance of this Emergency Permit will supersede the third storage permit.

Region 7 has maintained regular weekly calls with the Army's personnel to encourage timely development of the emergency permit application for treatment. The EPA has also sent numerous letters to the Army outlining the expected contents of the application and requesting additional information to ensure a complete application is submitted. Army's October 2026 permit application proposes a controlled treatment activity of the containers of waste lead azide by simultaneous detonation. The containers will stay within the bunkers where explosive charges and an accelerant will be placed on/next to each drum.

Legal Authority

This Emergency Permit is being issued upon the EPA's finding of an imminent and substantial endangerment to human health and the environment pursuant to the Solid Waste Disposal Act (Sections 3004(a), (u), (v), and 3005 of the Resource Conservation and Recovery Act, or RCRA (42 U.S.C. §§ 6924(a), (u), (v); 6925)) and regulations promulgated thereunder (Title 40 of the Code of Federal Regulations (C.F.R) Part 264, Subpart X; section 270.61). Pursuant to 40 C.F.R. § 270.61(a)(2), if the Director (defined by regulation as the "the Regional Administrator . . . or an authorized representative") "finds an imminent and substantial endangerment to human health or the environment the Director may issue a temporary emergency permit . . . to a permitted facility to allow treatment, storage, or disposal of hazardous waste not covered by an effective permit." The EPA issued Army a RCRA permit in 2018 ("2018 RCRA Permit"), but that permit does not address this storage and treatment location or proposed treatment method.

Conditions supporting issuance of an emergency permit pursuant to 40 C.F.R. § 270.61(a)(2) are present. First, the lead azide in storage at IAAAP is a RCRA hazardous waste with waste codes D003 (reactivity) and D008 (toxicity characteristic for lead). Second, the storage location and off-site areas that will be affected by intentional detonation of this waste are not covered by the 2018 RCRA Permit, nor is this treatment method of lead azide authorized under that permit. Third, the current conditions at IAAAP create an imminent and substantial endangerment to human health and the environment. Due to deterioration during long-term storage, the lead azide is in an unstable, crystallizing state. Crystal formation increases the probability of spontaneous detonation because the crystalized form of lead azide is significantly more sensitive to shock and friction. With colder temperatures now approaching in Iowa, the water-ethanol mixture that surrounds the cotton bags of lead azide in each container would begin to cycle through freeze and thaw conditions, creating friction within the containers. Importantly, the bunkers in which the waste is stored are not temperature controlled, and although they were designed to mitigate blast impacts, they were not constructed to withstand an

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intentional detonation of this magnitude. The possibility of spontaneous detonation may result in greater harm to human health because the conditions of detonation would not be controlled to mitigate its impact.

Public Notice & Administrative Record

Pursuant to 40 C.F.R. § 270.61(b)(5), the EPA has prepared a public notice of the Emergency Permit's issuance for direct distribution to more than 3,000 addressees in the communities near IAAAP. In addition, this legal notice will be published in the *Hawk Eye* and *Des Moines Register* newspapers.

Attachment 2 lists documentation included in the Administrative Record (AR) that has been prepared for this Emergency Permit pursuant to 40 C.F.R. § 124.18(c). The AR includes draft permit application material submitted by the Permittee, the EPA's comments on the draft material, and the Permittee's revised application submittals. Additionally, as part of its permit application, the Army submitted information to the EPA describing the treatment alternatives it considered prior to identifying intentional in-place detonation as the only safe treatment technology for the lead azide waste in its present condition. Representatives of the EPA also attended an April 2026 briefing at which treatment alternatives were presented to senior Army leadership. The Army's correspondence and a PowerPoint presentation from the April 2026 briefing are included in the AR to document compliance with 40 C.F.R. § 265.382. The Army has unparalleled expertise in matters concerning explosives safety. Intentional detonation allows for minimal human interaction with the containers of waste lead azide, enables the Permittee to conduct the treatment activity during favorable weather conditions, and allows the Permittee opportunity to provide prior notifications to the potentially affected surrounding communities.

Special Emergency Permit Conditions

The Permittee's intentional detonation of lead azide will cause a significant release of lead into the environment that presents numerous routes of potential human and ecological exposure. The exposure risk presented by the treatment activity has both on- and off-site components. To make the Emergency Permit optimally protective of human health and the environment, the EPA has incorporated special permit conditions that are summarized in Attachment 3.

<u>On-Site Impacts</u>

Within IAAAP's fenceline, the detonation is expected to result in contamination of soil, surface water, sediment, and groundwater. Upon conducting the detonation, the Permittee is required to activate and implement its Contingency Plan for Treatment to ensure worker safety. After the detonation, the Permittee will implement the environmental monitoring program and the Closure Plan to characterize and clean up detonation-related contamination on the IAAAP property. The Emergency Permit also obligates the Permittee to utilize the step-out sampling protocols set forth in its Permit Application to identify any contaminants that deposited in soils, groundwater, surface water and sediment beyond the facility's boundary. Due to IAAAP's security restrictions, potential human exposure to detonation-related contaminants surrounding the treatment area will be prevented during implementation of the remedial activities.

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Off-Site Impacts

In addition to treatment-related impacts within IAAAP, the detonation is expected to generate fine lead-oxide particles that will become airborne, travel downwind at distance from the facility, and deposit at ground-surface. This downwind dispersion and deposition of airborne lead presents significant potential for human exposure. The Emergency Permit seeks to mitigate such risk through permit conditions that: 1) require the Permittee to provide meaningful prior public notifications; 2) avoid detonation during defined adverse meteorological conditions and dates that would be likely to impact densely populated downwind areas; and 3) obligate the Permittee to immediately sample and remediate properties impacted by downwind deposition above a regulatory threshold.

Public Notifications

The first measure of protectiveness is prior public notification of risk posed to areas that will possibly be impacted by airborne dispersion and deposition of lead resulting from the detonation. To implement these notifications, the Emergency Permit obligates the Permittee to model depositional impacts and airborne plume migration prior to any targeted detonation date using weather conditions that are forecasted for the date/time of detonation. The modeling outputs must be updated and publicly distributed at specific intervals before the targeted detonation date. The first public notification must occur five days before detonation, followed by an updated notification two days prior, and then hourly updates beginning 6 hours before the detonation is scheduled to occur. The intent of such iterative modeling is to refine the predicted impact area based on more accurate weather forecasting. This will provide the public with as much certainty as possible regarding expected geographic impact of both deposition- and air-related impacts resulting from the detonation.

Importantly, the required modeling must utilize a conservative coding input to ensure that the Permittee's modeling does not under-predict the extent of potential impact. *See* Attachment 4. Specifically, the modeling must be calculated using an Emission Factor of 1.00, which is a coding parameter that assumes 100 percent of lead content will be released to the ambient air. Technical experts from both the EPA and the Army agree that this is an overly conservative assumption and will not be necessarily representative of actual conditions that result from the treatment activity. The EPA acknowledges the Army's real-world experience and expert judgment, presented in its permit application, that the realistic airborne release of lead will, in fact, be less than 100 percent due to considerable measures the Permittee will implement to mitigate blast effects. However, considering technical uncertainty regarding a quantifiable reduction of the lead release produced by mitigation measures, the EPA has chosen a conservative Emission Factor to ensure that the prior notifications are maximally protective of the public.

With respect to dust deposition, the Permittee's modeling must identify an "Advisory Area" associated with two lead concentration contours—one for deposition ≥ 5 µg/ft² and another for ≥ 100 µg/ft². These concentrations are based on the EPA's Dust-Lead Action Levels (DLALs) promulgated pursuant to the Toxic Substances Control Act. *See* "Reconsideration of the Dust-Lead Hazard Standards and Dust Lead Post-Abatement Clearance Levels," 89 Fed. Reg. 89416 (Nov. 12, 2024). The Permittee's public notifications must communicate specific advisory messaging to aid and encourage people within

modeled depositional areas to take actions that will prevent or mitigate their potential exposure to lead dust.

The Permittee's notifications must also identify an "Informational Area" associated with predicted airborne lead migration. The purpose of this notification is to notify the public that detectable concentrations of lead may pass through an area for a relatively short duration after the detonation takes place. The modeled extent of this "Informational Area" will be 0.18 µg/m3, which is the 1-hour equivalent of the EPA's published Method Detection Limit for lead. *See* Attachment 4; *see also* 40 C.F.R. Part 50, Appendix G, "Reference Method for the Determination of Lead in Total Suspended Particulate Matter." In practical terms, this concentration as modeled will represent the furthest distance at which air monitoring equipment could theoretically detect lead in ambient air. For this area, the Permittee's notifications must inform the public of lead's potential presence in ambient air after the detonation.

Meteorological Restrictions

The Emergency Permit's second measure to optimize protectiveness is the identification of meteorological conditions during which the treatment activity is not to occur. Weather conditions not only affect the operational safety of the treatment activity but also the anticipated environmental and human health effects that may result. Most significantly, both Army and EPA air dispersion modeling indicates that wind speed and direction will have a direct influence on the path and scale of the expected depositional and airborne impact areas.

To minimize the magnitude of human health risk, the Emergency Permit requires the Army to exercise reasonable best efforts to avoid conducting the treatment activity if dust-lead deposition is predicted to impact high-population-density areas to the east of the facility. These areas are defined by U.S. Census Tracts that are individually correlated with population density data that is comparatively higher than surrounding census tracts in Iowa and Illinois. Critically, census tracts provide a bright-line boundary against which the Permittee can readily compare depositional modeling footprints, enabling swift operational decision-making. Additionally, for the purpose of permit compliance, the EPA can use this data to objectively validate the Permittee's conduct of the treatment activity.

This directional constraint incorporates a geographic limitation to preserve sufficient operational flexibility for the Permittee. Census Tract 7 of Des Moines County, Iowa, is omitted from the list of designated census tracts to which depositional impact should be avoided. Exclusion of Census Tract 7 narrows the geographic scope of the directional prohibition, in effect widening the Permittee's zone of opportunity to conduct the detonation if all other criteria are met. Although Census Tract 7 is adjacent to others that are included within the directional exclusion zone, it is less densely populated (438.9 persons per square mile) due to a large proportion of undeveloped land and the Southeast Iowa Regional Airport in the western and central portions of the census tract. Notably, the most developed portion of Census Tract 7 is situated directly east of Census Tract 8; consequently, the EPA believes the Permittee's conscious avoidance of depositional impact to Census Tract 8 would guard against impact to the most populated portion of Census Tract 7.

Tailoring the directional constraint as described above is, in fact, an effort to optimize the Emergency Permit's protectiveness by ensuring that the detonation can occur under controlled conditions. If the

EPA's directional constraint is too broadly drawn then it could conceivably preclude target detonation dates that otherwise satisfy the Emergency Permit's meteorological criteria. Balancing the avoidance of impact to populated areas with the significant downside risk of uncontrolled detonation—a risk that is increasing with the approach of freezing winter conditions—is a key consideration in the design of this special condition of the Emergency Permit.

Short-Term Dust Remediation

As noted above, the treatment activity is expected to result in a considerable area of dust-lead deposition. To mitigate human exposure, the Emergency Permit requires the Permittee to conduct both soil sampling and wipe sampling of high-touch structural surfaces at all parks, public facilities, and private properties to which the Permittee has been granted Rights of Entry within the area of modeled dust-lead deposition ≥ 100 µg/ft² of the post-detonation plume impact estimate. This sampling activity must be initiated within 24 hours of the treatment activity to identify properties that warrant short-term cleanup. The Permittee is obligated to transmit the validated sampling data to the EPA within five days of receipt, and concurrently with that transmittal, the Permittee must submit a proposed work plan and schedule to implement the dust remediation activity for affected properties.

Recommendation

Region 7 has shared a draft of this permit with OGC/SWERLO, OLEM/ORCR, and FFEO for review. The attached Emergency Permit incorporates feedback received through comments from these offices. LCRD and ORC jointly request your signature on the Emergency Permit.

Attachments
1. Emergency Permit for Storage and Treatment (Nov. 13, 2026)
2. Administrative Record Index (Nov. 13, 2026)
3. Exposure Pathways Addressed by Emergency Permit Conditions
4. Air and Radiation Division Air Dispersion Technical Memorandum (Nov. 13, 2026)

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EXHIBIT 3

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
INSTALLATIONS, ENERGY AND ENVIRONMENT
[redacted]

August 12, 2026

[redacted]
U.S. Environmental Protection Agency Region 7
[redacted]

Dear [redacted]:

Thank you for your letter to the Iowa Army Ammunition Plant (IAAAP) related to the emergency permit application dated July 17, 2026.

The Army carefully considered potential alternatives for the treatment of lead azide in storage at IAAAP. This analysis of alternatives included both on-site, in-situ treatment options and controlled, intentional detonation.

Lead azide is a highly sensitive primary explosive. When dry or in deteriorated condition, lead azide is extremely unstable and sensitive to shock, heat, and friction. When exposed to shock, heat, or friction, lead azide can spontaneously explode, and the explosion can propagate uncontrollably.

Explosives safety experts from the Army, the Department of War Explosives Safety Office, and the Bureau of Alcohol, Tobacco, Firearms and Explosives evaluated the condition of the lead azide in storage at IAAAP and concluded that disturbing (e.g., moving, manipulating, or opening) the storage containers or attempting to introduce products to neutralize the lead azide in-situ would create an unacceptable risk of unintentional detonation. In consideration of the associated acute explosives safety risks to personnel, facilities, and the surrounding community, on-site treatment was removed from consideration and the Army selected controlled, intentional detonation for treatment of the lead azide. This approach is also consistent with the "Cardinal Rule of Explosives Safety", which requires that we expose the minimum number of people to the minimum amount of explosives for the minimum amount of time.

The Army is exploring mitigation measures to minimize impacts, both on Army property and to the surrounding community. We have already begun to install earthen berms and other physical barriers adjacent to the storage locations to reduce blast effects and fragmentation distance to minimize the potential for off-installation impacts. We are also evaluating the use of suppression foam or water to reduce the footprint that is impacted by contamination following the detonation. All of these efforts are components of the meticulous planning that is underway to ensure the safety of IAAAP personnel and the local community.

In consideration of your request for more time to review submittals related to our emergency permit application, the Army has adjusted its schedule to allow additional time, and we will ensure that our submissions are provided on a rolling basis to the extent feasible; however, an expedited review is critical. The risk of spontaneous detonation of degrading lead azide increases as it continues to remain in storage, and our explosives safety experts are particularly concerned with the increased risk associated with the accelerated crystal formation that is anticipated once temperatures dip below freezing. The Army remains committed to planning and implementing the selected course of action as expediently as possible, and we look forward to your continued partnership.

My point of contact for this action is Mr. Bryan M. Frey, Director for Operational Environmental Management, [redacted].

Sincerely,

AMY L. BORMAN
Deputy Assistant Secretary of the Army
(Environment, Safety and Occupational Health)

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EXHIBIT 4

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY
INSTALLATIONS, ENERGY AND ENVIRONMENT
[redacted]

September 4, 2026

[redacted]
U.S. Environmental Protection Agency, Region 7
Corrective Action Branch
[redacted]

Dear [redacted]:

This letter responds to correspondence from the Region 7 Administrator related to the emergency permit application at Iowa Army Ammunition Plant (IAAAP) dated August 31, 2026.

As previously stated, the Army carefully considered the full range of potential alternatives for the treatment of the lead azide in storage at IAAAP. In January 2026, the Army activated an operational planning team (OPT) to explore potential treatment alternatives. The OPT was tasked to develop an actionable plan that considered the acute explosive hazard associated with this material and that could be executed in a manner that ensured the safety of Army personnel and the surrounding community. An initial assessment revealed complexities that required the involvement of additional subject matter experts from across the U.S. Department of War, including the Department of War Explosives Safety Office (DWESO). Personnel from other federal agencies were also engaged, including the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) and U.S. Environmental Protection Agency Region 7; representatives from both agencies regularly participated in OPT meetings throughout the process.

From January through April 2026, this multi-agency working group spent many hours conducting extensive literature searches, technical evaluations, and risk analyses of the full range of potential treatment alternatives. The OPT also performed blast effect analysis, explosives safety quantity distance calculations using advanced modeling and simulation, atmospheric plume modeling, and testing of specialized protective engineering controls. During the development and evaluation of potential alternatives, safety was identified as the single threshold criterion: a fundamental standard and mandatory requirement that must be satisfied for a potential alternative to be considered for selection and implementation.

The following broad categories of alternatives were considered: (1) in-situ chemical treatment; (2) closed-chamber thermal treatment; (3) relocation of individual drums for

treatment by open detonation; and (4) intentional detonation inside the earth covered magazines.

The OPT evaluated a wide range of potential reagents for in-situ treatment. This evaluation included the proprietary reagent MuniRem®, as well as sodium hydroxide, potassium bichromate, sodium nitrite, glacial acetic acid, and ceric ammonium nitrate. All methods of in-situ chemical treatment, regardless of reagent, require the drums to be opened to initiate the treatment. Potential migration of lead azide crystals into the lid rings and closure gaskets present an acute risk of unintentional detonation if an attempt is made to open the drums. Opening the drums requires the application of rotational torque that can create localized friction and shear forces that exceed the ignition threshold of the lead azide. Furthermore, chemical treatment requires physical mixing to achieve direct reagent-to-compound contact. Inserting mechanical impellers, chemical sparge wands, ultrasonic agitation devices, or other tools into the drums can introduce pinch points, cutting friction, and shear forces, resulting in risk of uncontrolled detonation. As a result of these considerations, explosives safety experts from the Army, DWESO, and ATF universally agreed that all alternatives involving in-situ chemical treatment failed to meet the threshold criterion.

On- and off-site closed-chamber thermal treatment, in both an armored, fuel-fired deactivation furnace and a rotary kiln incinerator, and relocation of individual drums for treatment by open detonation were also evaluated. These methods of treatment require manipulation and relocation of the drums, either by Army personnel or remotely operated equipment. Physical lifting, tilting, rigging, or reorienting of the drums using conventional forklifts or remote robotic systems generates internal movement, shifts the drum contents, and introduces drop risk, all of which could spark rapid auto-ignition resulting in unintentional detonation. Transporting the drums over interior floors, loading aprons, conveyor rollers, or roadways exposes the contents to continuous vibrational harmonics, transit shocks, and mechanical jolts. Under these conditions, an initiation in a single drum would propagate instantly across adjacent containers, resulting in an uncontrolled detonation. Based on these considerations, explosives safety experts from the Army, DWESO, and ATF universally agreed that all alternatives requiring manipulation or relocation of the drums do not meet the threshold criterion.

Following a series of briefings to increasingly higher leadership within the Army, the Secretary of the Army selected in-place, controlled, intentional detonation for treatment of the lead azide on May 8, 2026. This decision is supported by the technical consensus across military and federal explosive safety authorities that this is the only safe method of treatment. I have included correspondence from the ATF that provides further documentation that support the Secretary’s decision.

My point of contact for this action is Mr. Bryan M. Frey, Director for Operational Environmental Management, [redacted].

Sincerely,

Amy L. Borman
Deputy Assistant Secretary of the Army
Environment, Safety and Occupational Health

Enclosure

U.S. Department of Justice
Bureau of Alcohol, Tobacco,
Firearms and Explosives

Office of Field Operations

National Center for Explosives Training and Research
Redstone Arsenal, AL 35898

Dr Theresa Smith
United States Army
Deputy Assistant Secretary of the Army – Sustainment
[redacted]

Dr Smith,

In regard to your request received via electronic mail on Friday, August 21, 2026, please find the below response. ATF and the National Center for Explosives Training and Research (NCETR) were asked to review the lead azide issue at the Iowa Army Ammunition Plant by the Secretary of the Army. From the outset, our role has been to review the available information and provide an unbiased, objective recommendation to Assistant Secretary Ingraham.

Over the past six months, ATF has reviewed studies and documents, participated in stakeholder meetings, and engaged in multiple subgroup discussions. Throughout this process, our position has remained consistent: the best and safest course of action is a controlled detonation of the material in place.

This determination is grounded in science. The training programs ATF provides for public safety bomb technicians and military explosives ordinance personnel (EOD) are rooted in established scientific principles, much of which are derived from Army organizations, including Picatinny Arsenal.

Specifically, Picatinny Arsenal's *Encyclopedia of Explosives and Related Materials* states that "explosives of the initiating type, such as lead azide, cannot be burned; hence relatively large quantities are destroyed by detonating them." A quantity of approximately [redacted] of lead azide clearly qualifies as large, and based on longstanding research, ~~it~~ should be destroyed by detonation.

ATF's Advanced Explosives Disposal Techniques Course relies heavily on validated Army research to ensure that disposal methods we teach are scientifically sound and that both public safety bomb technicians and military EOD personnel can operate safely. As the executive over ATF's NCETR, it is my duty to ensure that our recommendations remain firmly grounded in science.

The current situation presents significant risk factors:

- 68 barrels of lead azide [redacted]

- Material manufactured as early as the [redacted]
- Approximately [redacted] of uncertain storage history
- Storage since [redacted] in [redacted] magazines
- Unknown environmental conditions affecting stability and sensitivity

According to a report from a Devcom Bench Test from the Spring of 2026, the problem is clearly defined: "IAAAP faces increasing safety and operational risks due to deteriorating lead azide stockpiles. Approximately [redacted] are stored in drums containing wetted material. Over time, limited solubility has allowed lead azide to dissolve and recrystallize, leading to the formation of unstable crystalline structures, including buoyant crystals observed in recent inspections."

Given the age, storage conditions, and observed degradation of this material, the risk profile is both significant and uncertain. The decision to conduct a controlled detonation in place is supported by robust, objective scientific evidence, and prioritizes the safety of personnel and facilities. After thorough evaluation, it is ATF's position there are no other viable alternatives.

Should you have any additional questions, please feel free to contact me at [redacted].

Sincerely,

BRICE MCCRACKEN
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Date: 2026.08.25 14:07:28 -05'00'

Brice P. McCracken
Special Agent in Charge