MIDDLETOWN, IOWA

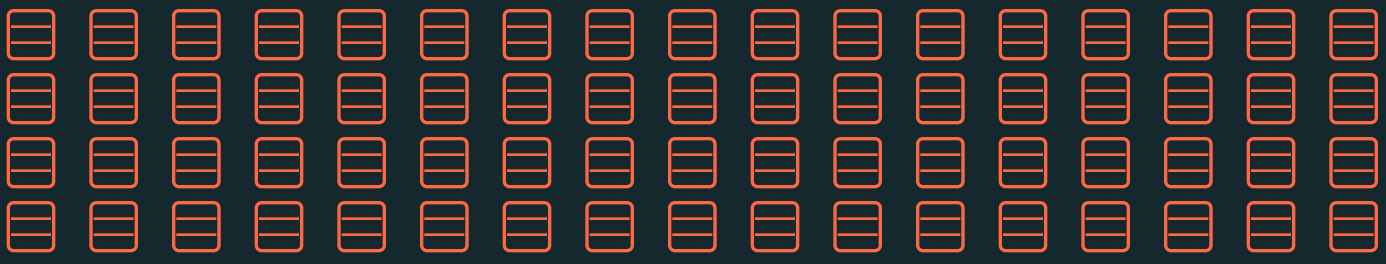
BEFORE THE BLAST

Destroying the explosive does not destroy the lead.

68

DRUMS OF UNSTABLE LEAD AZIDE

Lead azide is an explosive chemical that contains lead. The Army plans to destroy it in two blasts at the Iowa Army Ammunition Plant.



68 DRUMS / EACH ICON REPRESENTS ONE DRUM

PLANNED: NOV 20, AROUND NOON CENTRAL

SOURCES S02 S04 S19 S39

THE ARMY SAYS IT IS TOO DANGEROUS TO MOVE.

The blasts would remove an explosion risk and release some lead dust.

How can the explosion risk be removed while keeping lead out of the community?

The Army says moving or disturbing the material could set it off. It says detonating the drums where they are stored is the safest available choice. The U.S. Environmental Protection Agency (EPA) has issued a permit for the operation.

The Army expects sand barriers, wet soil and water spray to reduce the lead leaving the plant. It predicts lead levels in the air below those at which EPA would require steps to protect the public. The permit says the amount of that reduction is uncertain. Testing must show what actually happens.

TWO QUESTIONS NEED ANSWERS

1. Is this the least risky option now?
Compare risks to workers, nearby residents, land and water.

2. Could earlier action have avoided this emergency?
Review how the material was stored, checked and managed.

WHAT IS IN THIS REPORT

The dangers and timeline 03
Costs and possible harm 09
What officials should do 14
Plant history and other options 06
Testing and cleanup 12
Sources and links 18

SOURCES S02 S03 S04 S43

DESTROYING THE EXPLOSIVE DOES NOT DESTROY THE LEAD.

Lead azide creates two dangers: it can explode, and its lead can harm people. Safe disposal has to deal with both.

HAZARD 01

Accidental explosion

EPA says changes in the crystals have made the material more sensitive to shock and friction. The Army says it is unsafe to move.

HAZARD 02

Lead pollution

The Army expects a cloud of lead-containing dust. Lead left in dust, soil or debris still has to be measured and managed.

WHAT SAFE DISPOSAL MUST ACHIEVE

End the explosion risk →

Confirm that the treated material can no longer explode.

Control the lead →

Capture lead where possible. Measure what escapes.

Check the cleanup

Verify safe recycling or disposal of waste and any needed cleanup.

68

DRUMS

Reports agree on 68 drums, but give different weights.
ABC News reported about 9,700 pounds; Iowa Public Radio reported 9,500. The difference is unexplained. Neither figure tells us how much lead will enter the air.

SOURCES S03 S04 S19 S39 S37 S44

HOW THE DISPOSAL PLAN DEVELOPED.

From the March safety pause to the two blasts planned for November 20, 2026.

MAR 12

Operations paused

S25 Work paused for a review of lead azide safety.

MAR 30

Restart was scheduled

S26 Officials said full operations would resume after the review.

JUL 10

More storage time announced

S27 The Army was still developing a disposal plan.

SEP 29

Third storage permit issued

S28 Allowed storage through Dec 26. Public notice posted Nov 3.

OCT 15

Public information meeting held

S29 The Army held a local open house about the disposal plan.

NOV 13

EPA disposal permit takes effect

S03 Requires environmental testing and cleanup when needed.

NOV 15

Army announces November 20 blasts

S43 A public advisory describes the plan and precautions.

NOV 18

Army releases environmental review

S05 Illinois separately raises concerns about possible lead exposure.

NOV 20

PLANNED: Two controlled blasts

S02 Around noon Central time. The schedule may change.

The records reviewed do not establish when the problem could first have been detected.

SOURCES S25 S26 S27 S28 S29 S03 S05 S06 S07 S02

HOW MANY COUNTIES COULD BE AFFECTED?

The published forecasts do not give a complete county count.

The Army has two different maps: one for lead dust in the air and one for lead dust settling on surfaces. Both are forecasts. Weather can change them.

Near the plant	Middletown is in **Des Moines County, Iowa**, near Burlington. This is not the city of Des Moines.
Dust settling on surfaces	The Army map shows a corridor north from the plant through the Morning Sun area in **Louisa County, Iowa**.
Dust traveling in the air	The air map reaches farther north, showing areas near Muscatine and east of Cedar Rapids. It does not give a county-by-county list.
Possible effects in Illinois	Illinois officials specifically identify **Mercer County, Illinois**. They say changing forecasts could identify other communities.

These are examples from the records, not a complete affected-area list. A forecast does not establish how much lead will reach any property. Air, dust and soil tests are needed to measure actual conditions.

Maps issued November 17 and included in the November 18 Army advisory. Johnson County said it was not directly in the path on November 18. Check updates at source S01.

SOURCES S01 S02 S07 S47 S48 S52

EPA SETTLED A CASE OVER PAST DISPOSAL PRACTICES.

$39,311

Settlement announced by EPA in December 2024
The Army and contractor American Ordnance settled allegations that they broke hazardous-waste permit rules in 2023.

01

Blasts in a chamber

EPA alleged improper detonation procedures.

02

Closing a treatment unit

EPA alleged the old unit was not properly closed after relocation.

03

Burning waste outdoors

EPA alleged burning exceeded the permit limits.

EPA said the violations had been corrected. The reviewed records do not show that these violations caused the current drum problem.

AN OLDER CONTAMINATION PROBLEM IS STILL BEING ADDRESSED

1990 — **2026**

ADDED TO SUPERFUND CLEANUP LIST — LATEST CLEANUP REVIEW

Superfund is the federal cleanup program. RDX, a different explosive chemical, contaminated groundwater outside the plant. EPA says exposure and the spread of that pollution are under control, but cleanup construction is unfinished. This is separate from the lead-azide issue.

SOURCES S21 S22 S23 S24

COULD ANOTHER METHOD HANDLE THESE DRUMS SAFELY?

Other treatment methods exist. Each would still need to work safely with these unstable drums, including setup, treatment and the waste left behind.

OPTION	WHAT WE KNOW	THE UNANSWERED QUESTION
Detonate the drums where they sit	The Army's approved plan	How much lead will escape, and is the total risk lower than other choices?
Use chemicals to make the material nonexplosive	The Army considered and rejected this	Can it work without unsafe hands-on work or problems with the stored mixture?
Treat remotely without moving the drums	Safety here has not been established	Can equipment be set up safely, and what happens if it fails?
Bring a contained treatment unit to the plant	Equipment exists; suitability here is unproved	Can these drums be loaded safely? Can the unit contain this material?
Build containment around the drums	No verified design or price	Can it be built safely? How well would it hold in lead, including during a failure?
Pause briefly for further review	The risk of waiting must be assessed	Would the benefit of more review outweigh the added risk of delay?

Bringing equipment to the plant may still require moving the drums. That handling risk has to be part of the comparison.

EPA's 2025 catalog describes a vendor's use of lead azide treatment. That entry does not establish approval for this plant or prove that the method is safe for these drums.

SOURCES S03 S05 S08 S09

REMOTE CONTROL DOES NOT REMOVE EVERY RISK.

OFF-SITE



At another facility

The material has to be transported there.

ON-SITE



At the same plant

The drums may still need to be moved or loaded.

IN-PLACE



Where the drums sit

Equipment must reach and treat the drums there.

Remote controls can keep workers farther away. But equipment still has to be installed. Handling can still disturb the explosive, and someone may have to deal with a breakdown.

IF AN ALTERNATIVE FAILS, WHAT HAPPENS NEXT?

COMPARE THE CHANCE OF SUCCESS AND THE COST OF FAILURE

A method that could prevent pollution deserves serious review. The comparison must also consider an accident during setup or treatment: who could be hurt, how much lead could escape and whether the situation could be made safe. The public records reviewed do not give reliable odds for this comparison.

SOURCES S05 S08 S09

WHAT THE PUBLIC CONTRACT RECORDS SHOW.

The government has committed money to three contracts related to the lead azide. These are existing contracts, not competing bids for the same disposal job.

CONTRACTOR	MONEY COMMITTED
Cape-Weston JV1	**$3,061,090.18** S11
Pika International	**$770,810** S12
MuniRem Environmental	**$30,300*** S13

Committed does not mean already paid. The database calls these commitments "obligations." The records reviewed do not fully describe the work or show the final amount paid. They do not establish a total disposal price.

PIKA HAS TWO DIFFERENT AMOUNTS

$9,999,999

This is the listed contract value. The $770,810 above is committed funding. Neither amount establishes the final amount paid or the full cost of the blasts.

* THE MUNIREM RECORDS DISAGREE

The federal database reports $30,300 committed. A commercial contract tracker reports $154,947 committed and a $124,647 contract value. The difference remains unexplained.

These amounts do not price a safe alternative for all 68 drums.

SOURCES S11 S12 S13 S14

WHEN IS A CLEANER METHOD WORTH THE EXTRA COST?

A HYPOTHETICAL EXAMPLE / NOT AN ESTIMATE FOR THESE DRUMS

Suppose a safe, cleaner method costs this much more than the planned blasts:

$10,000,000

That extra cost equals 250 property cleanups at $40,000 each:

$10 million	/	$40,000	=	250
EXTRA TREATMENT COST		COST PER PROPERTY		PROPERTIES

Where $40,000 comes from: EPA's 2023 estimate to investigate, clean up and restore a lead-contaminated residential property in a Kansas Superfund cleanup. It is an older estimate from another place, not a forecast for Iowa.

What the example means: spending more to prevent pollution can avoid later cleanup costs. It does not predict 250 damaged properties or prove a cleaner treatment is available for $10 million extra. Testing could show that little or no cleanup is needed.

OTHER HISTORICAL COSTS / NOT QUOTES FOR THESE DRUMS

Sandia equipment, 2005: $3.5 million-$5 million for one Explosive Destruction System. **Camp Minden project contract, 2015-2016:** $27.37 million approved. These involved different equipment or waste and are not adjusted for inflation.

SOURCES S10 S15 S16 S17

HOW LEAD DUST CAN REACH PEOPLE.

Lead released by a blast can travel through the air and settle on surfaces. Testing must show where it goes and how much is there.



Lead can remain in soil and dust. It can harm children's development, learning and attention. Those facts do not tell us how much lead anyone will absorb from this event. That requires evidence of actual exposure.

HOMES

Indoor dust and surfaces

FARMS

Soil, produce and land use

PUBLIC SPACES

Places where children play

A forecast is not a test result. It does not show which people or farms have been harmed.

SOURCES S02 S18 S19 S20

WHAT WILL BE TESTED? WHEN MUST TESTING START?

THE ARMY'S PLANNED ENVIRONMENTAL TESTING

44

areas for soil sampling

7

locations for water and sediment sampling

UP TO 6

wells for testing water underground

800 mg/kg

INDUSTRIAL SOIL CLEANUP TARGET

800 milligrams of lead per kilogram of soil.

What limit applies at homes and farms?
The industrial target is not automatically suitable for those places. Publish the lead levels that would trigger testing or cleanup outside the plant.

NOVEMBER 18 / ILLINOIS STATEMENT

Illinois officials said they had not received key testing details. They also said the federal EPA office responsible for Iowa had not notified Illinois EPA. They called for thorough testing and public results.

Some sampling must START within 24 hours of the blasts. The permit sets this deadline for specified soil and frequently touched surfaces, subject to property access. It requires cleanup and other corrective work inside and outside the plant where needed.

A deadline to start testing is not a deadline to finish cleanup. Residents need both test results and a clear cleanup schedule.

SOURCES S04 S06 S07

COULD EARLIER ACTION HAVE AVOIDED THIS EMERGENCY?

THE DECISION NOW

Given the drums' condition, is this the safest practical method?

EARLIER DECISIONS

Could earlier treatment have prevented this emergency?

The safest choice now may differ from the best choice months or years ago. Officials should explain both the current plan and whether earlier action could have reduced the risk.

OTHER TREATMENT WAS STUDIED DECADES AGO

1978 An EPA report described trial treatment at the Iowa plant. It suggested lead could be recovered, but left questions about leftover waste and releases into the air.

1990 An Army review said treatment addressed the immediate risk of an explosion but left hazardous waste that still needed to be managed.

These studies show that other treatment was explored. They do not prove those methods can safely handle today's drums.

SEPARATE ACCIDENT HISTORY

2006: Federal workplace-safety records document two deaths during explosives testing. **2025:** KCRG reported a production explosion with no injuries. These were separate incidents; they do not prove this disposal plan is unsafe.

SOURCES S31 S32 S33 S34

FIVE STEPS TO PROTECT THE PUBLIC.

RECOMMENDATIONS FOR LOCAL OFFICIALS, THE ARMY AND EPA

01 Have outside experts check the plan

Compare the current plan with a short pause for review. Include the danger of waiting.

02 Explain why other methods were rejected

Publish the comparison and its assumptions, except details that must remain protected.

03 Test before and after the blasts

Publish the results, the lead levels that would require cleanup and an independent check of the findings.

04 Say who pays for damage and cleanup

Name the responsible parties and give residents a clear way to report damage and seek payment.

05 Prevent another stockpile emergency

Find out when the problem was detected. Set deadlines for changes in storage, inspections and disposal.

Local officials can press for answers and ask the Army and EPA to reconsider. A local vote does not automatically cancel the federal permit.

AUTHORITY S35 S36

LOCAL OFFICIALS: ASK FOR ANSWERS NOW.

PUBLIC APPEAL / NOVEMBER 18, 2026

Before the planned November 20 blasts at the Iowa Army Ammunition Plant, local officials should demand clear answers: Why is this the safest choice? How much lead could escape? What will be tested? Who will pay for any required cleanup?

The explosion risk is serious. The Army says moving or disturbing the drums is unsafe. It expects lead dust, but says its protective measures should reduce the lead leaving the plant. It predicts lead levels in the air below those at which EPA would require steps to protect the public. Actual test results must check those predictions.

The full cost includes more than a contractor's bill. It includes testing, any needed cleanup, disruption to residents and any documented harm to health or farms. A fair comparison of disposal methods must count those costs too.

Other treatment methods deserve review. Their use elsewhere does not prove they can safely handle these drums. The Army should explain, in public, why each serious option was accepted or rejected.

The plant has faced an earlier EPA case over disposal practices. Illinois officials have raised concerns about communication and testing for this event. These facts justify close oversight. They do not by themselves prove that officials mishandled the current drums.

Outside experts should compare proceeding now with a short pause for review, including the risk of waiting. The Army and EPA should publish the reasons for the decision, the test results, the cleanup rules and who is responsible for paying.

A separate review should ask how the material reached this condition. Even if the current plan is the safest option now, earlier action might have left better choices. The records should show whether that was possible.

Asking before the blasts matters. Officials can still answer while decisions are being made. The public can later compare those answers with what actually happened.

Residents deserve an explanation now, reliable test results afterward and changes that reduce the chance of another emergency.

SOURCES S02 S03 S08 S21 S07 S17

PUBLIC MONEY ALREADY PAYS TO REDUCE LEAD RISKS.

These two examples show the scale of federal spending and funding. They cover different programs and cannot be added together.

MONEY PAID OUT / FISCAL YEAR 2025

$215 MILLION

HUD, the federal housing department, paid this amount from its Lead Hazard Reduction account. The account also pays for Healthy Homes and other work, so this was **not all for lead cleanup**.

MONEY MADE AVAILABLE / FISCAL YEAR 2026

NEARLY $2.9 BILLION

On May 19, 2026, EPA announced this funding to help states find and replace lead drinking-water pipes. **The announcement does not show how much had already been paid out.**

These are two examples, not the country's total annual spending on lead. They do not estimate the cost of treating the Iowa drums or the cost of any damage from the blasts.

Why this matters: governments already pay large sums to reduce lead risks. Preventing new lead pollution should be part of the disposal decision.

SOURCES S49 S50

WHAT THE PUBLIC SHOULD EXPECT

EXPLAIN THE DECISION.

PUBLISH THE TEST RESULTS.

PREVENT THE NEXT EMERGENCY.

Explain the choice before the blasts. Publish checked test results afterward. Set clear deadlines for changes that prevent another dangerous stockpile.

A good outcome would not prove that every earlier decision was right. A bad outcome would not prove negligence by itself. A fair review must examine what officials knew, what choices they had and what they did.

SOURCES S01 S02

DOCUMENTS AND NEWS SOURCES.

S01-S10 / CLICK A TITLE OR URL TO OPEN THE SOURCE

S01 **Army installation notification hub**
Latest Army advisories, forecast maps and environmental documents for the Middletown operation.
https://www.army.mil/asc#org-iowa-army-ammunition-plant

S02 **Army updated advisory - November 18, 2026**
Schedule, expected lead releases and protective measures. Posted Nov 18; maps issued Nov 17.
https://d34w7g4gy10iej.cloudfront.net/pubs/pdf_78366.pdf

S03 **EPA emergency permit public notice**
Explains the emergency permit and its term: November 13, 2026-February 11, 2027.
https://www.epa.gov/ia/iowa-army-ammunition-plant-middletown-iowa-3

S04 **EPA emergency storage and treatment permit**
Requirements for storage, destruction, public warnings, environmental testing and cleanup.
https://www.epa.gov/system/files/documents/2026-11/iaaap-emergency-permit-for-treatment-and-storage-final_redacted.pdf

S05 **Army Environmental Assessment - November 2026**
The Army's report: disposal options in section 2.2; farming and the local economy in section 3.10.
https://d34w7g4gy10iej.cloudfront.net/pubs/pdf_78364.pdf

S06 **Army signed finding on environmental effects - November 18, 2026**
The Army's environmental decision. Page 5 lists testing and the industrial soil-cleanup target.
https://d34w7g4gy10iej.cloudfront.net/pubs/pdf_78363.pdf

S07 **Illinois EPA / IDPH statement - November 18, 2026**
Illinois officials describe missing information, request testing and give public safety advice.
https://dph.illinois.gov/resource-center/news/2026/november/18-release-2.html

S08 **EPA alternative-technologies compendium - January 2025**
Page 83 reports lead azide treatment using vendor information. The permit-status field says No.
https://www.epa.gov/system/files/documents/2025-01/updated_potential_alternative_technologies_compendium.pdf

S09 **Federal technical guide: Contained detonation chambers**
Explains enclosed treatment equipment, handling needs, limits, costs and waste left afterward.
https://www.frtr.gov/matrix/MEC-Contained-Detonation-Chamber/

S10 **National Academies: Alternatives for Demilitarization - 2019**
Camp Minden costs on pages 50-51; MuniRem chemical treatment on pages 62-63.
https://www.nationalacademies.org/read/25140/chapter/6

Numbers such as S02 link statements to these sources. Click a title or link to read the original.

DOCUMENTS AND NEWS SOURCES.

S11-S20 / CLICK A TITLE OR URL TO OPEN THE SOURCE

S11 **USAspending: Cape-Weston award W9128F26FA096**
Federal record: $3,061,090.18 committed. This does not show final payments or all work completed.
https://api.usaspending.gov/api/v2/awards/CONT_AWD_W9128F26FA096_9700_W9128F23D0020_9700/

S12 **USAspending: Pika award W519TC26CA049**
Federal record: $770,810 committed. Its separate $9,999,999 contract value is not spending.
https://api.usaspending.gov/api/v2/awards/CONT_AWD_W519TC26CA049_9700_-NONE-_-NONE-/

S13 **USAspending: MuniRem award W519TC26C0011**
Federal record: $30,300 committed. The full work performed and its outcome remain unverified.
https://api.usaspending.gov/api/v2/awards/CONT_AWD_W519TC26C0011_9700_-NONE-_-NONE-/

S14 **GovTribe: MuniRem award, conflicting financial fields**
This commercial database reports different amounts from S13; the difference is unexplained.
https://govtribe.com/award/federal-contract-award/definitive-contract-w519tc26c0011

S15 **Sandia Lab News: Explosive Destruction System - 2005**
Reports a 2005 equipment price of $3.5 million-$5 million per system, not a quote for Iowa.
https://www.sandia.gov/labnews/2005/03/04/050304/

S16 **EPA Cherokee County remedy estimate - January 2023**
Page 9: a 2023 Kansas residential cleanup estimate of $40,000 per property.
https://semspub.epa.gov/work/07/30821131.pdf

S17 **EPA Guidelines for Preparing Economic Analyses - 2024**
How to consider health, environmental effects and who bears costs, including unpriced effects.
https://www.epa.gov/environmental-economics/guidelines-preparing-economic-analyses-3rd-edition

S18 **CDC: Lead exposure symptoms and complications**
General health effects of lead. It does not estimate harm from the Middletown operation.
https://www.cdc.gov/lead-prevention/symptoms-complications/index.html

S19 **EPA: Lead in Soil**
Explains how lead remains in soil and how soil and dust can expose people to it.
https://www.epa.gov/lead/lead-soil

S20 **EPA: Healthy Gardening Practices**
Advice on testing and reducing contact with lead in soil and produce; not a crop-loss estimate.
https://www.epa.gov/lead/healthy-gardening-practices-reduce-exposure-lead-contaminated-soil

Numbers such as S02 link statements to these sources. Click a title or link to read the original.

DOCUMENTS AND NEWS SOURCES.

S21-S30 / CLICK A TITLE OR URL TO OPEN THE SOURCE

S21 **EPA: Plant and contractor waste-disposal settlement - 2024**
The $39,311 settlement over alleged violations; EPA says the facility returned to compliance.
https://www.epa.gov/newsreleases/epa-fines-iowa-army-plant-and-contractor-alleged-hazardous-waste-violations

S22 **EPA: Plant cleanup, health and environment profile**
Older pollution beyond the plant and EPA's assessment of exposure and groundwater spread.
https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Healthenv&id=0700413

S23 **EPA: Plant Superfund cleanup history**
Cleanup listing in 1990; latest review March 11, 2026; cleanup construction remains incomplete.
https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.schedule&id=0700413

S24 **Army: Groundwater cleanup update - September 2, 2026**
Update on RDX in groundwater. This is separate from the planned lead azide disposal.
https://www.army.mil/article/295059

S25 **KCRG: Lead azide safety pause - March 19, 2026**
Reports that plant work paused on March 12, 2026 for a lead azide safety review.
https://www.kcrg.com/2026/03/19/iowa-army-ammunition-plant-still-pause-safety-reasons/

S26 **KWQC: Announced March 30 restart - March 2026**
Reports a planned March 30 restart, not confirmation that work actually resumed.
https://www.kwqc.com/2026/03/27/iowa-army-ammunition-plant-resume-operations/

S27 **Army / DVIDS: Storage extension - July 10, 2026**
Storage permission was extended while the Army developed a disposal plan.
https://www.dvidshub.net/news/printable/569717

S28 **EPA: Third storage permit notice - November 3, 2026**
Permit issued Sept 29. The Nov 3 notice offers 45 days to inspect the supporting documents.
https://www.epa.gov/ia/iowa-army-ammunition-plant-middletown-iowa-2

S29 **Army: Open-house recap - October 28, 2026**
Army account of the October 15 public meeting about the blasts, testing and precautions.
https://www.army.mil/article/296388/iaaap_hosts_open_house_shares_lead_azide_detonation_information

S30 **SAM.gov: Lead azide neutralization notice - September 9, 2025**
A 2025 notice seeking treatment work; not proof of completed work or treatment of these drums.
https://sam.gov/workspace/contract/opp/0b11b64fcab44883a5d10bd8316759d3/view

Numbers such as S02 link statements to these sources. Click a title or link to read the original.

DOCUMENTS AND NEWS SOURCES.

S31-S43 / CLICK A TITLE OR URL TO OPEN THE SOURCE

S31 **EPA-600/2-78-012: Historical lead azide treatment pilot**
A 1978 treatment trial at the Iowa plant. Questions about leftover waste remained. Printed p29.
https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=9101Y8QL.TXT

S32 **Army DEV12-88: Treatment review - June 1990**
A 1990 review: treatment addressed the explosion risk but left hazardous waste. pp. 3-57 to 3-60.
https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=2000SYQI.TXT

S33 **OSHA: Accident summary 202106050 - June 12, 2006**
Federal workplace-safety record: two deaths during explosives testing on June 12, 2006.
https://www.osha.gov/ords/imis/accidentsearch.accident_detail?id=202106050

S34 **KCRG: Production explosion - January 22, 2025**
Reports a January 22, 2025 production explosion with no injuries. A separate incident.
https://www.kcrg.com/2025/01/22/investigation-underway-after-explosion-iowa-ammunition-plant/

S35 **Iowa DNR: Hazardous-waste program authority**
Explains that EPA administers the federal hazardous-waste program in Iowa.
https://www.iowadnr.gov/environmental-protection/land-quality/waste-planning-programs/solid-waste/special-waste-authorization

S36 **40 CFR 270.61: Emergency permits**
Federal rule governing emergency permits, including termination under subsection (b)(4).
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-I/part-270/subpart-F/section-270.61

S37 **ABC News: Planned lead azide detonation - November 18, 2026**
Reports about 9,700 pounds, attributed to Army spokesperson Justine Barati.
https://abcnews.com/US/iowa-army-plant-lead-azide-detonation/story?id=138261613

S39 **EPA: Guide to solidification and stabilization**
Explains treatments that limit how pollutants spread without destroying the pollutants.
https://www.epa.gov/sites/production/files/2020-06/documents/iss_cg_fs_eng.pdf

S42 **EPA incident response profile**
EPA's overview of the operation, permit requirements and the Army's safety assessment.
https://response.epa.gov/site/site_profile.aspx?site_id=17211

S43 **Army public advisory - November 15, 2026**
Army announcement of two controlled blasts and precautions for the public.
https://www.army.mil/article/296772/iaaap_public_advisory

Numbers such as S02 link statements to these sources. Click a title or link to read the original.

DOCUMENTS AND NEWS SOURCES.

S44-S52 / CLICK A TITLE OR URL TO OPEN THE SOURCE

S44 **Iowa Public Radio: November 17, 8:41 a.m. CST entry**
Reports 9,500 pounds and the Army's account of storage conditions. The page changes over time.
https://www.iowapublicradio.org/live-updates/news-of-the-day

S45 **Iowa Capital Dispatch: Lead azide operation - November 18, 2026**
Original reporting by Cami Koons. KCCI republished the same story, not a second independent report.
https://iowacapitaldispatch.com/2026/11/18/u-s-army-is-scheduled-to-detonate-lead-azide-near-middletown-elevating-risk-for-lead-in-air/

S47 **Louisa County government: community directory**
Confirms that Morning Sun is a community in Louisa County, Iowa.
https://louisacountyia.gov/

S48 **Johnson County Public Health: November 18 notice**
Says Johnson County was not directly in the forecast path on November 18, 2026.
https://www.johnsoncountyiowa.gov/public-health-public-notice-middletown-plant-detonation

S49 **U.S. Budget Appendix FY2027: HUD program accounts**
Printed p597: $215 million in FY2025 net outlays from the broader lead-hazard / healthy-homes account.
https://www.whitehouse.gov/wp-content/uploads/2026/04/hud_fy2027.pdf

S50 **EPA FY2026 lead-pipe funding announcement**
Nearly $2.9 billion made available for FY2026 lead-pipe work; not a measure of money paid out.
https://www.epa.gov/newsreleases/epa-announces-29-billion-states-reduce-lead-drinking-water-and-protect-americans

S51 **Des Moines County Board of Health: public notices**
Des Moines County's health board republishes the Army advisory on November 16.
https://dmcountyboardofhealth.iowa.gov/news/

S52 **Iowa DOT: Des Moines County and its cities**
Lists Middletown and Burlington as cities in Des Moines County, Iowa.
https://iowadot.gov/travel-tools/maps/city-county-traffic-maps/all-counties/des-moines

HOW THIS REPORT USES THE EVIDENCE

Independent public-interest analysis based on public records and news available as of November 18, 2026, Central time. Forecasts describe what could happen; tests establish actual conditions. Recommendations state what this report asks officials to do.

For the latest schedule, maps and public-safety instructions, use the Army advisory page listed as S01.