

Critical Gun Range Operational and Waste Management Requirements

Discussion with Nationally Recognized Experts
to Take the Worry Out of OSHA and US EPA
RCRA Compliance for Your Firing Range.

www.MT2FiringRangeServices.com



Agenda



Firing Range Lead Management Thought-Leadership Series



Topics covered:

OSHA Program Requirements and how to prepare for an inspection.

- OSHA overview (authority and requirements)
- Lead Management Protections for personnel and record keeping
- Noise monitoring and management
- Preparing for a possible OSHA visit
- Review of prior OSHA range actions – what can we learn?

Lead Management Best Practices and how to comply with US EPA RCRA and State requirements

- US EPA and State RCRA authority review
- Turnkey range waste generation lifecycle
- Requirements if Small Quantity Generator
- Management of recyclable lead
- Hazardous vs Non-Hazardous range wastes



Your Industry Leading Experts Presenting Today:

Robert Anderson
Vice President
Range Operations Services
MT2 Firing Range Services
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Dale Krupinski, CIH, CSP
OSHA/Health and Safety
MT2 Firing Range Services
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Qualifications Summary

Mr. Anderson has over 20 years' direct hands-on experience managing a wide variety of hazardous wastes and specifically in implementing RCRA compliant programs at over 1,000 ranges from the East Coast to the West Coast and in nearly all 50 states.

His extensive RCRA Hazardous Waste experience includes handling over 1,000,000 tons of lead-impacted firing range wastes from regular maintenance activities involving filters, cleaning, maintenance, as well as from remediation involving renovation, soil treatment, and range decontamination.

He has managed lead containment and recycling at nearly 1,000 firing ranges successfully handling over 3,000,000 lbs. of lead recycled in just the last 4 years alone.

Mr. Anderson is highly sought-after for his firing range lead waste expertise from Federal/State, Governmental Agencies and local gun clubs including but not limited to: U.S. National Guard, U.S. Coast Guard, U.S. Air Force, U.S. Pentagon, U.S. Capitol Police, U.S. Border Patrol and police ranges from Seattle to New York City. In addition, he has specific expertise in managing small-

Qualifications Summary

Mr. Krupinski is a former OSHA inspector now focused on assisting ranges in achieving full OSHA compliance. He has nearly 20 years' safety and health management experience for lead/metals and firing range operations.

Areas of expertise include OSHA compliance assessments, training, and program development in areas, such as but not limited to: air, ventilation, occupational noise, lead dust management, personal protective equipment, respiratory protection, confined spaces, lockout/tagout, machine guarding, electrical safety, and toxic/hazardous substances exposure monitoring.

Dale's combined OSHA Program familiarity from the inside and his extensive experience in supporting ranges to establish OSHA and safety compliant programs as well as his support to ranges undergoing OSHA actions makes him a highly sought-after expert.

Noise-Induced Hearing Loss

- Permanent
- 100% preventable
- Causes no pain
- Leaves no scars
- Unnoticeable in early stages
- Ototoxicity



OSHA's Noise Standard

- 29 CFR 1910.95
 - Exposure data driven and requires exposure monitoring
 - Hearing Conservation Level = 85 dBA 8-hr TWA
 - Program, training, hearing testing, providing selection of plugs/muffs
 - PEL = 90 dBA 8-hr TWA
 - Hearing protection use is required
 - Implement administrative or engineering controls



Routes of Lead Exposure

Inhalation

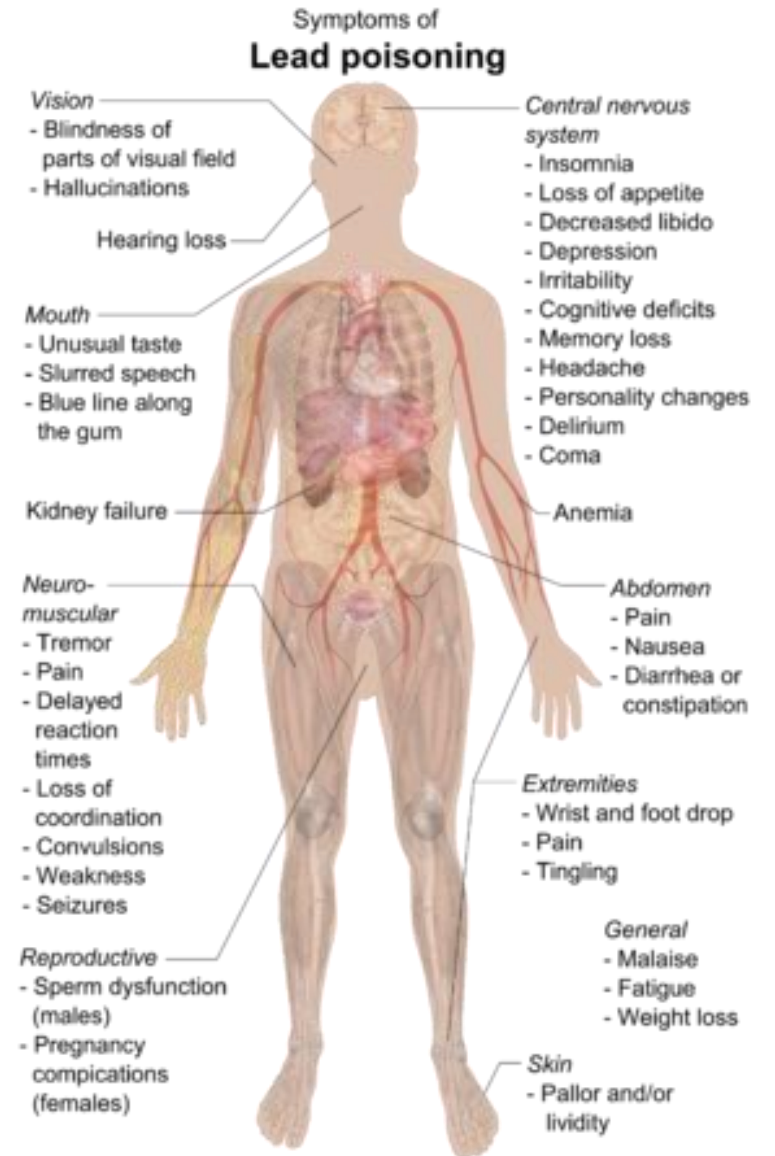


Dermal/ingestion



Lead Health Effects

- Short term (Acute)
 - Encephalopathy
 - Seizures, coma, and death
- Long-term (Chronic)
 - Central nervous system
 - Wrist or foot drop
 - Kidney disease
 - Reproductive system
 - Blood-forming system
- Ototoxin
- “Probably carcinogenic to humans”
 - International Agency for Research on Cancer (IARC)



Cleaning Suggestions

- Effective housekeeping plan
 - Designate lead cleaning supplies for lead areas
 - Do not use lead supplies in non-lead areas
 - Prohibit sweeping (dry or wet) and shoveling
 - Use brass collection devices
 - HEPA vacuum (explosion proof is recommended)
 - Daily behind the firing line
 - Weekly down range
 - Wet wipe tables, chairs, stall walls and benches daily
 - Install sticky mats
 - Mop behind the firing line as needed



OSHA Overview

- OSH Act of 1970
- Ten Regions
- Federal or State Plans
 - 28 State Plans
 - 22 State Plans
 - Private & Public sectors

OSHA Offices by State



Find Office By State

Select a State ▼

OSHA Region Offices

- Region 1: Boston
- Region 2: New York
- Region 3: Philadelphia
- Region 4: Atlanta
- Region 5: Chicago
- Region 6: Dallas
- Region 7: Kansas City
- Region 8: Denver
- Region 9: San Francisco
- Region 10: Seattle

* This is one of the 28 OSHA-approved State Plans. Twenty-two State Plans (21 states and Puerto Rico) cover both private and state and local government workplaces. The other six State Plans (Connecticut, Illinois, Maine, New Jersey, New York, and the Virgin Islands) cover state and local government workers only.

OSHA's National Emphasis Program (NEP)

- Combustible Dust
- Hazardous Machinery
- Hexavalent Chromium
- Lead
- Primary Metal Industries
- Process Safety Management
- Shipbreaking
- Trenching and Excavation

The screenshot shows the OSHA website at <https://www.osha.gov/enforcement/directives/nep>. The page features the OSHA logo and the text "UNITED STATES DEPARTMENT OF LABOR". Below the header, there is a search bar and a navigation menu with options like "OSHA", "WORKER", "EMPLOYER", "STANDARDS", "ENFORCEMENT", "CONSTRUCTION", "TOPICS", "NEWS/RESOURCES", "DATA", and "TRAINING". The main content area is titled "Directives - NEP" and includes a brief description of National Emphasis Programs (NEPs). Below this, there is a table with columns for "Publication Date", "Directive #", "NEP", "Regional LEP", "State Plan Adoption", and "Advanced Search". The table lists several NEPs, including "Combustible Dust", "Hazardous Machinery", "Hexavalent Chromium", "Lead", and "Primary Metal Industries".

Occupational Safety and Health Administration [English](#) | [Spanish](#)

OSHA ▾ WORKER ▾ EMPLOYER ▾ STANDARDS ▾ ENFORCEMENT ▾ CONSTRUCTION ▾ TOPICS ▾ NEWS/RESOURCES ▾ DATA ▾ TRAINING ▾

[Enforcement](#) / [Directives - NEP](#)

Directives - NEP

National Emphasis Programs (NEPs) are temporary programs that focus OSHA's resources on particular hazards and high-hazard industries. Existing and potential new emphasis programs are evaluated using inspection data, injury and illness data, National Institute for Occupational Safety and Health (NIOSH) reports, peer-reviewed literature, analysis of inspection findings, and other available information sources.

Publication Date	Directive #	NEP	Regional LEP	State Plan Adoption	Advanced Search
Combustible Dust					
		OSHA Instruction - CPL 03-00-008 - Combustible Dust National Emphasis Program (Reissued) - 03/11/2008 - PDF			
Hazardous Machinery					
		OSHA Instruction - CPL 03-00-019 - National Emphasis Program on Amputation - 08/13/2015 - PDF			
Hexavalent Chromium					
		OSHA Instruction - CPL 02-02-076 - National Emphasis Program - Hexavalent Chromium - 02/23/2010 - PDF			
Lead					
		OSHA Instruction - CPL 03-00-009 - OSHA Instruction; National Emphasis Program-Lead - 08/14/2008 - PDF			
Primary Metal Industries					
		OSHA Instruction - CPL 03-00-010 - National Emphasis Program - Primary Metal Industries - 10/20/2011 - PDF			

Increased Inspection Potential

- Written request for inspection
 - Current employee
 - Family member
 - Representative
- NEP Hazards
 - Verbal notification
 - Disgruntled or ex-employee
 - Patrons
 - Competitors



OSHA News Release - Region 6

U.S. Department of Labor

February 4, 2019

U.S. Department of Labor Cites Texas Indoor Gun Range For Exposing Employees to Unsafe Lead Levels

KILLEEN, TX – The U.S. Department of Labor’s Occupational Safety and Health Administration (OSHA) has cited Tap Rack Bang Indoor Shooting Range LLC - operating as The Gun Range - for exposing employees to unsafe levels of lead at its facility in Killeen, Texas. The employer faces penalties totaling \$

OSHA investigated the shooting range in August 2018 after receiving a complaint of worker exposure to lead during indoor range activities. Inspectors found airborne lead exceeding the permissible exposure limit, and lead contamination on surfaces throughout the facility. OSHA cited the company for failing to require damaged personal protective equipment, and medically monitor employees for lead-related illnesses, and for sweeping up lead dusts rather than using vacuum methods with high efficiency particulate air filters.

OSHA’s [National Emphasis Program on Lead](#) addresses lead hazards in the workplace. Inspections focus on hydraulic facilities, engine room controls, respiratory protection, exposure monitoring, and medical surveillance. Employers are required to monitor their facilities to ensure workplace health and safety hazards are controlled. OSHA also has a [QuickCard®](#) to educate employers and workers on how to prevent lead exposure.

The company has 15 business days from receipt of its [citations](#) and penalties to comply, request an informal conference with OSHA’s area director, or contest the findings before the independent [Occupational Safety and Health Review Commission](#).

Under the [Occupational Safety and Health Act of 1970](#), employers are responsible for providing safe and healthful workplaces for their employees. OSHA’s role is to ensure these conditions for America’s working men and women by setting and enforcing standards, and providing training, education and assistance. For more information, visit <http://www.osha.gov>.

\$214,387



OSHA News Release - Region 5

U.S. Department of Labor

Please note: Information in some news releases may be out of date or may no longer reflect OSHA policy.

May 25, 2016

OSHA: Ohio gun shop's lead, respiratory hazards endanger workers

Pro Armament LLC Fined \$194K in 2015 for failing to correct deficiencies

CUYAHOGA FALLS, Ohio - Federal safety and health investigators found that employees in an Ohio gun shop may face life-long health impacts because their employer continues to expose them to lead hazards and failed to establish a respiratory protection program.

On May 24, the U.S. Department of Labor's Occupational Safety and Health Administration fined Pro Armament LLC under its Serious Violator Enforcement Program after the company failed to correct serious violations identified in a November 2014 inspection. The agency issued two failure-to-abate citations and six serious safety and health violations to the company, which faces total proposed penalties of \$194,400.

"Failing to correct conditions that cause serious health hazards is unacceptable," said Howard Eber, OSHA's area director in Cleveland. "Eliminating exposure where possible, using engineering controls and personal protective equipment such as respirators and protective clothing, as well as properly cleaning lead dust can limit worker exposure and prevent workers from bringing contamination home to their families, especially young children."

OSHA's November 2015 follow-up inspection found that Pro Armament:

- Overexposed workers to lead.
- Did not monitor workers' exposure to lead.
- Failed to train workers on respiratory and lead hazards.
- Failed to provide protective clothing such as shoe covers.
- Did not provide clean changing rooms or require employees to shower at the end of a work shift to prevent lead contamination.
- Lacked housekeeping procedures to remove lead from surfaces such as cash registers and tables.



OSHA Regional News Brief - Region 3

U.S. Department of Labor

Please note: Information in some news releases may be out of date or may no longer reflect OSHA policy.

May 10, 2016

\$135,000

Employer name: Higher Ground Tactical LLC

Inspection site: 5402 Chestnut Street, Philadelphia, PA

Citations issued: The U.S. Department of Labor's [Occupational Safety and Health Administration](#) issued four [willful](#), eight [serious](#), and two [other-than-serious](#) citations on May 3, 2016.

Inspection findings: The agency's complaint investigation found willful violations related to [lead](#) and [noise](#) hazards, including the company's failures to:

- Use engineering or administrative controls where employees are exposed to excessive noise levels.
- Implement a noise monitoring program.
- Establish an audiometric testing program and evaluate hearing protection.
- Train employees on the hazards of noise.
- Conduct air monitoring for lead.
- Establish a written lead compliance program.

Penalty Amounts

- Examples shown had multiple Willful or Failure-to- Abate violations
- Willful violations
 - Intentional disregard
 - Plain indifference
 - Max penalty: \$132,598 per violation
- Failure-to-Abate
 - \$13,260 per day beyond the abatement date
- Size reduction
 - 40% - 60%



Other Potential Range Considerations

- Hazard communication
- Respiratory protection
- Machine guarding
- Fire extinguishers
- Medical services and first aid
- Bloodborne pathogens
- Electrical
- Recordkeeping



Safety & Health Review

- Noise and lead hazards are manageable
 - Be proactive
- Must conduct the OSHA-required noise and lead exposure determinations
 - No exemption or exception for outdoor ranges
- OSHA is targeting lead workplaces
 - OSHA's Lead NEP



Resource Conservation and Recovery Act (RCRA)



- How did we get here?
 - *1969, the Cuyahoga river in Cleveland caught on fire*
 - *Nixon was coming into office and brought to the nation's attention a lot of environmental concerns*
 - *1970 – OSHA & EPA*
 - *1972 – Clean Water Act (started as Federal Water Pollution Control Act in 1948 but received substantial revisions in 1972, including an update to the name)*
 - *1976 – RCRA*

RCRA & Range Waste



- RCRA gives EPA the authority to control hazardous waste from the "cradle-to-grave"
Cradle-To-Grave- meaning from the time it is created, while it is transported, treated, and stored, and until it is disposed
- RCRA also set forth a framework for the management of non-hazardous solid wastes

Is It Waste?

- ITRC Guidance Document, specifically two terms:
 - Intended use.
 - Best Management Practices or BMPs.



Intended Use / BMPs

- Bullets
- Berm materials
- Target Clays



Disposal Process: Profiling, Documentation



- Generator- individuals that produce hazardous waste, usually as a result of an industrial process; this entity is usually the entity that has the “contamination”
- Agent- given proper third-party authorization, acts on behalf of the generator; in the case of waste management, this would include signing waste disposal documents
- Treatment- Biological, chemical, or mechanical method employed to either remove pollutants from industrial or municipal wastes, change the character and composition of medical waste, or reduce or eliminate its potential for harm to living beings and the environment.
- Sample to determine hazardous or non-hazardous
 - Representative sample sent to a certified laboratory
 - TCLP (**T**oxicity **C**haracteristic **L**eaching **P**rocedure) - is an extraction method for chemical analysis employed as an analytical method to simulate leaching through a landfill

Disposal Process: Profiling, Documentation

- Landfill- entity that accepts or denies waste based on the waste's characteristics and the Landfills' permit status; MT2 typically utilizes Subtitle D landfills for non-hazardous waste disposal.
- Profiling- requires the generator to list the chemical properties of the particular type of waste that will be disposed or transported
 - Transporters and landfills must be permitted and able to accept the waste you intend to dispose - This will be approved by the landfill
- Manifest- document that tracks waste from the time it leaves the generator's facility where it was produced, until it reaches the off-site waste management facility that will store, treat or dispose of the hazardous waste. This is a legally binding document that states who is responsible for the waste throughout the disposal process



Are generators of hazardous waste allowed to treat their waste on-site without having to obtain a RCRA permit?

Yes.

EPA allows generators to treat their waste on-site without having to obtain a RCRA permit. Such treatment must occur only in tanks or containers and these units must meet all applicable RCRA standards.



What are the small-quantity generator requirements for lead waste?



Categories of Hazardous Waste Generators

A generator is any person who produces a hazardous waste as listed or characterized in part 261 of title 40 of the Code of Federal Regulations (CFR). Recognizing that generators produce waste in different quantities, EPA established three categories of generators in the regulations:

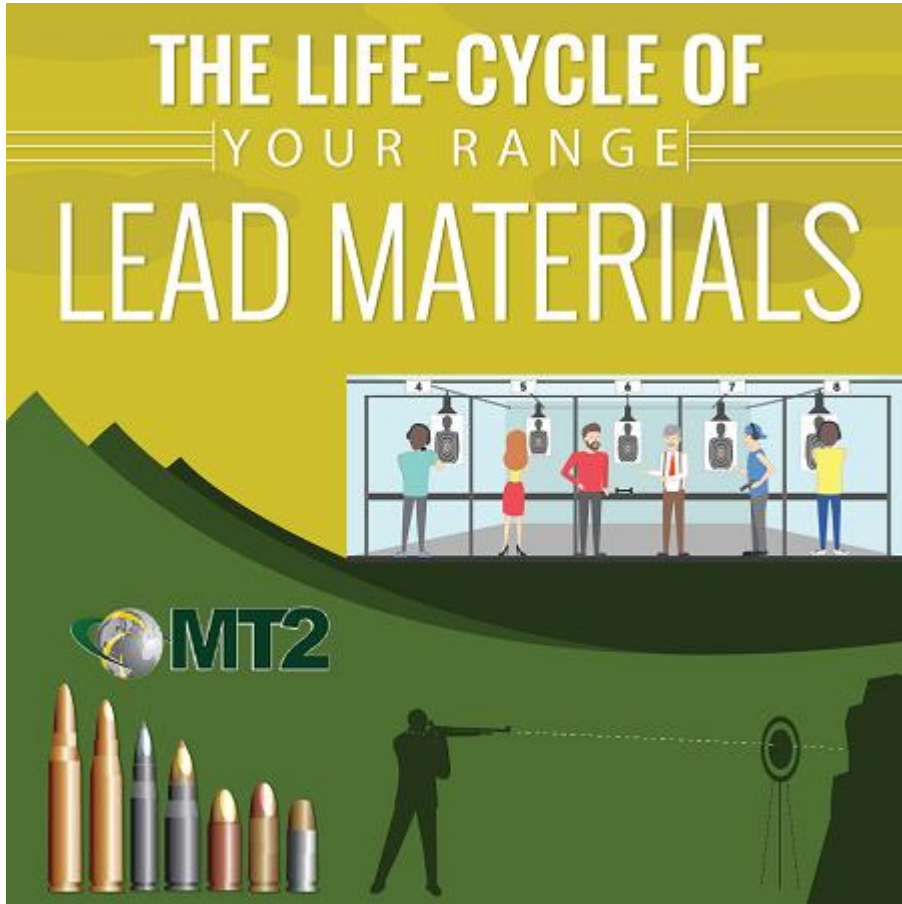
- very small quantity generators,
- small quantity generators, and
- large quantity generators.

The volume of hazardous waste each generator produces in a calendar month determines which regulations apply to that generator. Below is more information about each category of generator.

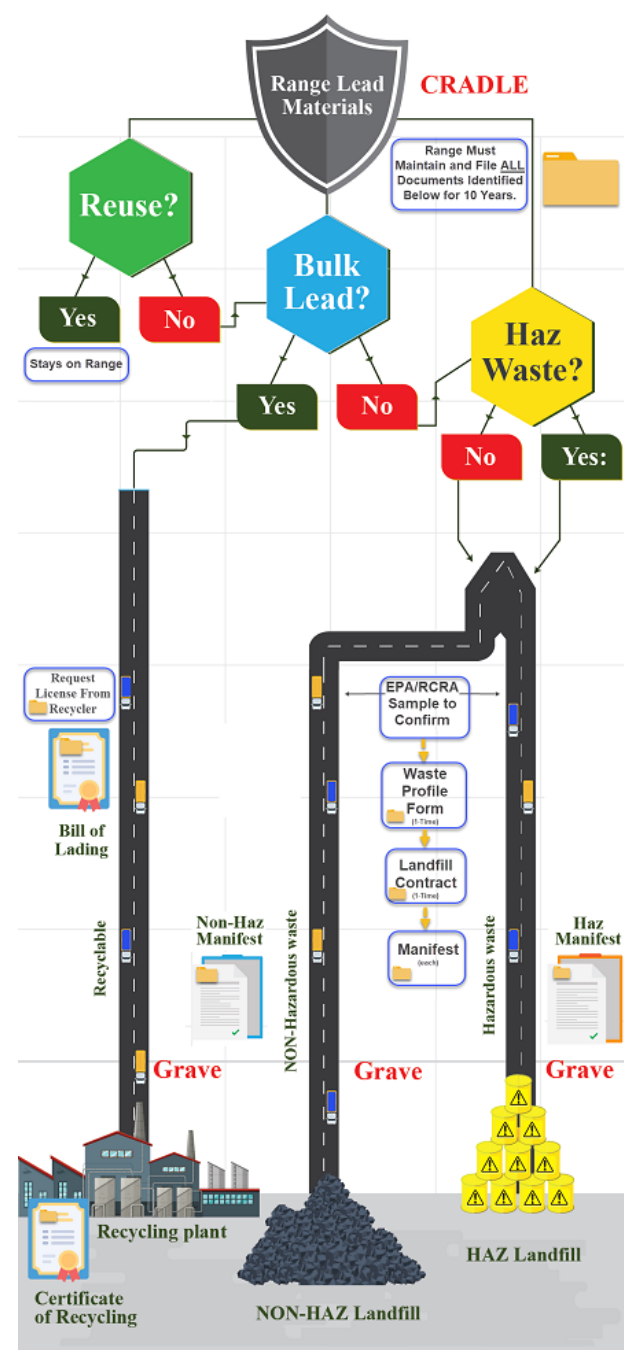
**** NOTE ****

EPA has finalized a rulemaking that made several changes to the hazardous waste generator regulations. The information on this page has been updated to reflect these changes.





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NOTE: As the Generator, You must maintain all records for each waste-stream leaving your range.

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About MT2 Firing Range Services

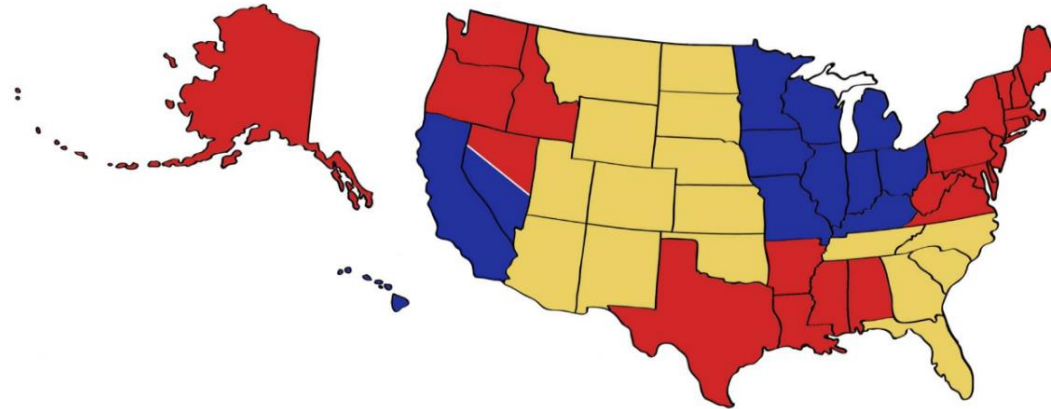


- MT2 is the #1 Largest Nationwide Professional Firing Range Lead Reclamation, Maintenance, Cleaning & Construction Contractor for both Indoor and Outdoor Shooting Ranges.
- With zero-tolerance for regulatory violations at over 3,000 ranges nationwide for Law Enforcement, Military and Commercial ranges in all 50 states. MT2 is the only properly-licensed firing range contractor able to treat lead-impacted soil in California. No one reclaims more lead or finishes a project faster than MT2!
- As the only firing range services provider with Nationwide operations, MT2 operates from our network of regional offices offering full 50 state coverage with OSHA and EPA certified work teams. Contact MT2 in your region to schedule your firing range project in as soon as 1-3 weeks.
- You quickly receive a check for the absolute highest value for your reclaimed lead. MT2 **guarantees** to pay the highest percent of LME lead value at time of service – no one pays more than MT2! We have established a strategic alliance with a national distributor of firearms, ammunition and shooting accessories with a 16,000+ catalog of premium products from filters to firearms and more. Serving retail gun shops, major sporting goods stores, gun clubs, shooting ranges and government agencies since 1984, they are a supplier of nearly 100 of the world's premier shooting industry manufacturers. You are not limited to using your lead credit for just bullets & targets at retail prices- We have negotiated highly preferred pricing for you!
- Now in our 19th year in business, MT2 Firing Range Services is a recent Inc. 5,000 fastest growing company and is the ONLY contractor who is the premier all-in-one solution for firing range lead maintenance and reclamation who also provides the fully integrated combination of design and build construction services.

WHEREVER YOU SHOOT IN THE USA - WE ARE THERE!

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Nationwide Office Network, 50 State Coverage. Call or Email by Region.



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