OFFICE OF THE UNDER SECRETARY OF DEFENSE

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ACQUISITION AND
TECHNOLOGY

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MEMORANDUM FOR DEPUTY ASSISTANT SECRETARY OF THE ARMY
(ENVIRONMENT, SAFETY& OCCUPATIONAL HEALTH)
DEPUTY ASSISTANT SECRETARY OF THE NAVY
(ENVIRONMENT AND SAFETY)
DEPUTY ASSISTANT SECRETARY OF THE AIR FORCE
(ENVIRONMENT, SAFETY & OCCUPATIONAL HEALTH)
DIRECTOR, DEFENSE LOGISTICS AGENCY

SUBJECT: Guidance on Applying the Emergency Planning and Community Right-to-Know Act (EPCRA) Toxic Release Inventory Requirements to Ranges

We are pleased to provide the attached final DoD guidance for applying EPCRA Toxic Release Inventory requirements to ranges. This guidance supplements the March 1998 guidance on applying EPCRA to munitions related activities and closes the final gap in our EPCRA policy for munitions activities.

Please distribute this guidance to all commands and installations within your organization. My point of contact is (703) 604-1732,

Deputy Under Secretary of Defense
(Environmental Security)

Attachment:
As stated

MARCH 2000

Updated Guidance

EPCRA Compliance for Ranges

Note: This Guidance Supplements DoD's March 1995, June 1996, and March 1998 Guidance

Introduction

Executive Order 12856, "Federal Compliance With Right-To-Know Laws and Pollution Prevention Requirements," requires federal facilities to comply with the Toxic Release Inventory (TRI) reporting requirements of the Emergency Planning and Community Right to Know Act (EPCRA). The Executive Order (EO) states "the Federal Government should be a good neighbor to local communities by becoming a leader in providing information to the public concerning toxic and hazardous chemicals."

Executive Order 12856 requires Federal facilities to reduce EPCRA TRI releases by 50 percent from those reported in the baseline. Future Executive Orders on EPCRA TRI will likely include similar reduction goals. Although DoD has reduced the use of toxic chemicals in some ammunition, further significant reductions of toxic chemicals may not be possible without adversely affecting training and readiness. Thus, for any EPCRA TRI reduction goals, DoD will include only those munitions activities associated with the manufacture of munitions. DoD will meet any collective TRI reduction goals for all its activities by allocating the reductions that would have been required of munitions activities excluded by this policy to other programs. DoD will also continue its efforts to identify and reduce the use of toxic chemicals in ammunition through the acquisition process.

Installation Reporting

Activities conducted on DoD ranges are unique, making application of EPCRA difficult. Most DoD ranges are large areas with few or no structures. As a matter of policy, DoD installations shall apply existing EPCRA definitions, exemptions, and thresholds to determine which ranges will be subject to TRI reporting. EPCRA Section 313's employee work hour and toxic chemical thresholds applicable to range activities will not be included in the employee work hour and toxic chemical thresholds applied to any other contiguous non-range activity. If a TRI report is required, DoD installations will aggregate and report the releases from all reporting DoD ranges at a given site owned or operated by a DoD Component.

Employee Threshold

A range with fewer than ten full time employees or full time equivalents (20,000 employee work hours) is not required to do TRI reporting. For determining employee work hour threshold for ranges, DoD will calculate the work hours on a given range by adding up the time spent by employees, including contractors, working on the range. Employees working on the range are persons who spend time on the range and whose responsibilities include operating, managing, or maintaining the range. (Examples of such employees are target construction and maintenance crews, contractors or military personnel who perform range clearance sweeps or clean-up activities, and natural resources managers.) Civilian and military personnel conducting training or testing on or

over ranges, including those bivouacking on ranges as part of training, do not count toward the employee work hour threshold.

Release Reporting Thresholds

The following are examples of activities on a range that are subject to chemical threshold determinations and release reporting:

a) Munitions used in training (e.g., target practice, live fire exercises, aerial bombing, obscurant and smoke training, burning of unused propellant, etc.),

b) Destruction of munitions on a range (e.g., range clearance or sweep operations, explosive ordnance disposal emergency or training operations, s, etc.).

Unexploded Ordnance

For purposes of threshold determinations and release reporting, installations should assume that all munitions used on the range will function as intended (i.e., the dud rate will be considered as zero) and all energetics will detonate or burn as designed.

Application of EPCRA Exemptions to Ranges

a) Activities in laboratories (40 CFR 372.38(d)): In many cases, DoD ranges are the only laboratories suitable for munitions or weapons research, development, testing, and evaluation (RDT&E). DoD conducts RDT&E activities on DoD ranges under the supervision of technically qualified individuals. Therefore, range activities related to RDT&E of new or existing munitions, weapons systems, and platforms are exempt from threshold determinations and release reporting under this exemption.

b) Personal Use (40 CFR 372.38(c)(3)): Non-military training or other munitions use activities conducted on DoD ranges (e.g., recreational hunting, Rod and Gun Club events, etc.) are exempt from threshold determinations and release reporting under the personal use exemption.

c) Structural Use (40 CFR 372.38(c)(1)): Toxic chemicals in targets are exempt from threshold determinations and release reporting under the structural use exemption.

Implementation

DoD Installations will begin reporting range releases to EPA by July 1, 2002 for calendar year 2001.

QUESTIONS, ANSWERS, AND DEFINITIONS

The following questions and answers provide interpretive guidance for applying EPCRA to ranges.

1. *What is the definition of the term "munitions" as used in this guidance, and what types of items are included?*

ANSWER: "Munitions" in this guidance is based on the definition of the term "military munitions" found at 40 CFR 260.10. In general, the term includes propellants, explosives, pyrotechnics, chemical weapons, incendiaries, and smokes in bulk form and in various munitions items. It also includes non-nuclear components of nuclear devices. The term does not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices and nuclear components thereof.

2. *What is the definition of the term "range" as used in this guidance?*

ANSWER: The definition of the term "range" is based on the definition of the term found at 40 CFR 260.10. The term means: a designated area set aside, managed, and used to conduct research on, develop, test, and evaluate military munitions and explosives, other ordnance, or weapon systems, or to train military personnel in their use and handling. Ranges include firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, and buffer zones with restricted access and exclusionary areas. The definition of a military range does not include airspace, or land areas underlying airspace used for training, testing, or research and development where military munitions have not been used.

3. *What toxic chemicals in munitions should be considered? What munition constituents are NOT EPCRA toxic chemicals?*

Examples of munitions constituents that <u>are EPCRA</u> toxic chemicals:

- Energetics: nitroglycerin, aluminum powder, barium and lead compounds, 2,4 DNT (as an impurity)
- Structural: chromium in steel alloys, lead projectiles, copper in brass
- In addition, minute quantities of certain VOCs and SVOCs may be manufactured incidentally due to incomplete combustion during detonation or burning, for example: propane, acetylene, benzene, and toluene

Examples of munitions constituents that <u>are NOT EPCRA</u> toxic chemicals (therefore need not be reported):

- Energetics: TNT, RDX, HMX
- Structural: Aluminum metal (as opposed to aluminum powder), or iron.

4. *What thresholds apply to basic munitions operations (firing of artillery, dropping of bombs from aircraft, naval gunnery practice, etc.)? What releases should be reported if the threshold(s) are exceeded?*

Answer: As a matter of DoD policy, all ranges at an installation constitute a single EPCRA "facility" for TRI reporting purposes. The intended use of munitions on a military range, when those munitions contain toxic chemicals results in the "otherwise use" under EPCRA of toxic chemicals contained in those munitions. Any toxic chemicals present in the munitions count toward the calendar year "otherwise use" threshold of 10,000 pounds. "Manufacture" under EPCRA includes toxic chemicals produced by munitions functioning as intended on a military range. Toxic chemicals produced by the functioning of munitions on DoD ranges count toward the calendar year manufacture threshold of 25,000 pounds. If either threshold is exceeded for a toxic chemical, releases, onsite waste management, and offsite transfers of that toxic chemical must be determined and reported in accordance with EPCRA and DoD policy for the range "facility."

Example: Over the course of a calendar year, training units fire 150,000 rounds during artillery exercises on a given range. For illustrative purposes, assume each round contains 0.10 pounds of Toxic Chemical A and produces 0.0001 pounds of Toxic Chemical B when it functions as intended. In this case, the total amount of Toxic Chemical A "otherwise used" would be 15,000 pounds, which exceeds the otherwise use threshold. The total amount of Toxic Chemical B "manufactured" would be 15 pounds, which does not exceed the manufacture threshold. Therefore, the amount of Toxic Chemical A released would have to be determined and reported on the Form R for the range "facility," but the amount of Toxic Chemical B released would not have to be reported. For both toxic chemicals, the threshold determinations must be documented, maintained, and available for environmental regulators.

5. *In the conduct of range operations not all ordnance explodes. How should this fact be handled for EPCRA purposes?*

Answer: For EPCRA purposes, DOD is assuming that all munitions function as intended. The relatively low "dud" rate of less than 10 percent for most munitions makes it impracticable to attempt to capture and report individual duds, particularly when EPCRA allows for estimations. Even so, DOD is capturing data regarding the on-range destruction of munitions, as might occur during range clearance activities. DOD acknowledges that some double counting might result (i.e., counting a "dud" when fired, and then again when detonated as part of range clearance activities). However, this double counting will result in an insignificant increase in release amounts. The added administrative burden associated with trying to determine if range clearance activities involve a recently fired (and therefore already counted) munition or a dud from years ago (and therefore not counted) is unwarranted. Because EPCRA allows for estimations, trying to determine the dud rate for each type of munition, subtracting out the "dud"

munitions blown in place, and then conducting separate release calculations is unnecessarily complex.

6. *What procedures and requirements are necessary to qualify for the laboratory exemption ?*

Answer: Toxic chemicals in munitions used as part of a RDT&E program can be exempted from threshold determinations and release reporting. RDT&E programs must have clear plans and procedures for the use of munitions (e.g., a test plan). The use of the munitions in the RDT&E program must also be under the supervision of a technically qualified individual. The plans and procedures should be available (in accordance with any classification restrictions) to environmental regulators to establish that the munitions being used are part of a valid RDT&E program.

7. *What are some examples of munitions use on DoD ranges that would qualify for the laboratory exemption?*

Answer: Examples of range activities that qualify for the laboratory exemption include: research and development of new weapons systems, testing the performance of a modification to an existing weapon system for quality control, and evaluating the effectiveness of an aging stockpile item. In each case, the requirements outlined in answer #6 above must be followed.

8. *What are some examples of munitions use on DoD ranges that would NOT qualify for the laboratory exemption?*

Answer: Testing new troop deployment schemes and evaluating new maneuver tactics are examples of range activities that do not qualify for the laboratory exemption. If these activities use munitions, toxic chemicals in the munitions must be included in threshold determinations and release reporting.