

Physical Security Plan for US Army Installation Management Command Ranges Affected by Depleted Uranium in M101 Davy Crockett Spotting Rounds

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Contents

Abbreviations and Acronyms.....	ii
1 Introduction	1-1
1.1 Background	1-1
1.2 Purpose	1-1
1.3 Applicability.....	1-1
2 Physical Security Organization and Responsibilities for M101 Spotting Round DU ..	2-1
2.1 US Army Installation Management Command Commander	2-1
2.2 Garrison Commander	2-1
2.3 License Radiation Safety Officer	2-1
2.4 US Army Garrison RSO.....	2-1
2.5 Personnel in the RCA	2-1
2.6 Visitors.....	2-1
3 Radiation Control Areas	3-1
4 Access Control	4-1
4.1 References	4-1
4.2 Some Pertinent Extracts from the References.....	4-1
4.2.1 AR 190-13	4-1
4.2.3 AR 385-63	4-2
4.2.5 DTM 09-012	4-2
4.3 Access to Radiation Control Areas	4-3
5 Aspects of Physical Security Addressed in the Radiation Safety Plan	5-1
5.1 Precautionary Procedures	5-1
5.1.1 Posting Requirements	5-1
5.1.2 Markings on Containers and Equipment	5-1
5.2 Security of Stored Material and Waste Disposal.....	5-1
5.3 Program Audits.....	5-1
5.4 Training.....	5-1
5.5 Recordkeeping	5-1

Abbreviations and Acronyms

AR	Army Regulation
ASR	Archive Search Report
CFR	Code of Federal Regulations
DA PAM	Department of the Army Pamphlet
DOD	Department of Defense
DTM	Directive-Type Memorandum
DU	depleted uranium
FOUO	FOR OFFICIAL USE ONLY
IMCOM	US Army Installation Management Command
km	kilometer
m	meter
NRC	US Nuclear Regulatory Commission
PSP	Physical Security Plan
RCA	radiation control area
RCO	range control officer
RSO	Radiation Safety Officer
RSP	Radiation Safety Plan
RTA	range and training area
UXO	unexploded ordnance

1 Introduction

This Physical Security Plan (PSP) is applicable at US Army Installation Management Command (IMCOM) ranges that Davy Crockett M101 spotting rounds may have affected. The M101 spotting round contains depleted uranium (DU). The Army controls these affected areas (called *radiation control areas* or RCAs) for radiation safety purposes.

This PSP references, for Nuclear Regulatory Commission (NRC) licensing purposes, existing Army security measures for Army training ranges and installations that are in existing regulations (see section 4.1 below). This PSP does not discuss these measures in detail.

This PSP does not introduce any new security measures specifically for M101 DU on installations and training ranges.

The License Radiation Safety Officer (RSO) will obtain NRC approval for all changes to this PSP (other than correction of typographical or grammatical errors) before implementation of those changes.

1.1 Background

See section 1.1 in the Radiation Safety Plan (RSP).

1.2 Purpose

The purpose of this PSP is to describe physical security for M101 spotting round DU in RCAs on IMCOM ranges, in accordance with Title 10, Code of Federal Regulations (CFR), Part 20, § 20.1802, “Control of material not in storage.”¹

1.3 Applicability

The physical security requirements referenced in this PSP applicable to all personnel, including members of the public, who may seek access to an RCA.

¹ The RSP addresses handling, storage, and security of DU removed from IMCOM ranges, in accordance with 10 CFR 20, § 20.1801, “Security of stored material.”

2 Physical Security Organization and Responsibilities for M101 Spotting Round DU

2.1 US Army Installation Management Command Commander

See section 2.1.1 of the RSP.

2.2 Garrison Commander

See section 2.2 of the RSP.

2.3 License Radiation Safety Officer

See section 2.3.2 of the RSP.

2.4 US Army Garrison RSO

See section 2.4.2 of the RSP.

2.5 Personnel in the RCA

See section 2.5.2 of the RSP.

2.6 Visitors

See section 2.6 of the RSP.

3 Radiation Control Areas

The St. Louis District of the US Army Corps of Engineers executed the Archive Search Report (ASR) Project from 2006 to 2011.² The result was a report with annexes for specific installations that described Army efforts to identify Army ranges where the Army fired M101 Davy Crockett spotting rounds. The typical Davy Crockett range impact area is a one-kilometer (km) square; area = 1 km² = 1,000,000 m² ≈ 247 acres.

The Army and the NRC consider RCAs to be any M101 DU-affected areas identified in ASR annexes. Figures included with the license amendment application to the NRC show locations of all the RCAs that the ASR Project identified.

² USACE St Louis. *Project Archive Search Report: Use of Cartridge, 20mm Spotting M101*. St Louis, Missouri: US Army Corps of Engineers, St Louis District, 2011.

4 Access Control

4.1 References

The following are primary references governing access control to Army installations and ranges. All are available to the NRC and the public on Army websites, except Army Regulation (AR) 190-13, which is FOR OFFICIAL USE ONLY (FOUO). The Army will provide AR 190-13 to the NRC upon request.

- AR 190-13, *The Army Physical Security Program* (FOUO)
- AR 385-63, *Range Safety*
- Directive-Type Memorandum (DTM) 09-012, “Interim Policy Guidance for DOD Physical Access Control” (Under Secretary of Defense)

4.2 Some Pertinent Extracts from the References

4.2.1 AR 190-13, 27 June 2019

(Paragraph 1-1 Purpose) This regulation describes policy and assigns responsibility for developing, executing, and maintaining practical, economical, and effective physical security programs.

(Paragraph 1-27 Responsibilities) b. Commanders and directors with mission command responsibility ... will protect personnel and property in their commands against trespass, terrorism, sabotage, theft, arson, and other illegal acts, and secure personnel, places, and property under their command...

(Chapter 8 Army Installation and Facility Access Control) Paragraph 8–1 General. This chapter prescribes general policies and requirements for controlling access to Army standard installations (defined as IMCOM full service domestic garrisons) and nonstandard installations.. Installation access control is a critical aspect of the Army Physical Security Program .. Commanders and directors will employ access control measures at the installation perimeter to ensure security and protection of personnel and resources.

(8–17. Installation area access control plan) a. An area access control plan will be implemented containing clearly defined access control measures required to safeguard facilities and accomplishment of the mission...plans for increased vigilance and restricting access at installations...b. A defense-in-depth concept to provide graduated levels of protection from the installation or activity perimeter to critical resources that includes—(2) The designation of and supplemental protection for...restricted areas.

4.2.2 AR 385-63

(Chapter 1 Introduction, Section I General, 1-1, Purpose. This regulation/order prescribes the policies and related administrative procedures governing range safety operations and requirements for the Army's...Range Safety Programs.

(Chapter 1 Introduction, Section II Responsibilities, 1-24 Army..., f. The Installation [range management authority] RMA will ... (7) approve, control, and monitor personnel access into the installation [range and training area] RTA complex for both training and administrative activities. All visitors to RTAs will be approved by the RMA. (8) For the Army, before personnel who have an operational requirement are granted access to range impact areas...The RMA (Army), in coordination with garrison safety (Army)... and EOD representatives, determines whether it is safe to permit access and, if required, establishes prerequisite precautions, including escort by EOD or unexploded ordnance (UXO)-qualified personnel. Personnel permitted access to any area known or suspected to contain ICM or sub-munitions will be fully appraised of the potential dangers and the safeguards to be exercised...

(Chapter 2 Ranges, 2-1 Restricting access to and activities on impact areas)

a. Unauthorized persons are prohibited from entering the installation training complex.

...

b. Unauthorized persons are prohibited from entering impact areas and other areas known or suspected to contain [UXO] by use of positive controls to include fencing and/or posting of UXO hazard warning signs. Commanders will ensure appropriate measures are used to restrict access to areas known or suspected to contain UXO.

...

j. Unauthorized personnel are prohibited from handling UXO and munitions or removing them from the training complex. ...

(Glossary, Section II Terms)

Range when used in a geographic sense, means a designated land or water area that is set aside, managed, and used for range activities of the [Department of Defense] (DOD). [Such terms] includes the following ... firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, electronic scoring sites, buffer zones with restricted access, and exclusionary areas.

Range activities include research, development, testing, and evaluation of military munitions, other ordnance, and weapon systems [and the] training of members of the armed forces in the use and handling of military munitions, other ordnance, and weapon systems.

4.2.3 DTM 09-012

It is DOD policy that ... [installation access] control standards shall include identity proofing, vetting to determine the fitness of an individual requesting and/or requiring access to installations, and issuance of local access credentials.

4.3 Access to Radiation Control Areas

See section 15 of the RSP.

5 Aspects of Physical Security Addressed in the Radiation Safety Plan

5.1 Precautionary Procedures

5.1.1 Posting Requirements

See section 14 of the RSP.

5.1.2 Markings on Containers and Equipment

See section 16 of the RSP.

5.2 Security of Stored Material and Waste Disposal

See section 18 of the RSP.

5.3 Program Audits

See section 19 of the RSP.

5.4 Training

See section 20 of the RSP.

5.5 Recordkeeping

See section 21 of the RSP.