

Army Regulation 700-xx

Logistics

Management of Equipment Contaminated with Depleted Uranium or Radioactive Commodities

UNCLASSIFIED

Summary of Change

This new regulation -

Establishes formal Army policy and procedures for handling equipment that has been determined to be contaminated with depleted uranium or radioactive commodities.

Delineates actions as a result of combat and non-combat situations.

Prescribes guidance for handling foreign equipment that may be contaminated.

Establishes the Army Contaminated Equipment Retrograde Team.

History. This printing publishes a new Department of the Army Regulation.

Summary. This regulation prescribes policy and procedures for the management of equipment of equipment contaminated with DU or radioactive commodities (RCE). Handling procedures for contaminated equipment are prescribed in DA Pamphlet 700-xx.

Applicability. This regulation applies to Department of the Army (DA) commands, installations, and activities. This includes the U.S. Army Reserve (USAR) and the Army National Guard of the United States (ARNGUS). This regulation remains applicable to DA personnel deployed to either humanitarian or peacekeeping missions where the degree of readiness to respond to hostile fire requires the availability of radioactive commodities, such as depleted uranium, as a contingency.

Proponent and Exception Authority. The proponent of this Regulation is the HQDA Office of the Deputy Chief of Staff for Logistics (ODCSLOG). The ODCSLOG has authority to approve exceptions to this regulation that are consistent with controlling law and regulation. Proponents may delegate this approval authority, in writing, to a division chief under their supervision within the proponent agency who holds the grade of colonel or civilian equivalent.

Interim Changes. Interim changes to this regulation are not official unless they are authenticated by the Administrative Assistant to the Secretary of the Army. Users will

destroy interim changes on their expiration date unless sooner superseded or rescinded.

Suggested Improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Headquarters, Department of the Army (HQDA) (DALO-SMR), Washington, DC 20310-0500.

Distribution. Distribution of this publication is made in accordance with DA Form 12-09-E, block 5428, intended for command level B for Active Army, Army Reserve, and Army National Guard.

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Chapter 1 Introduction

1-1. Purpose

This regulation-

- a. Establishes the policies and responsibilities for the safe and effective handling (retrograde, decontamination and use) of:
 - (1) damaged equipment containing depleted uranium or radioactive commodities.
 - (2) any equipment contaminated by depleted uranium or radioactive commodities.
- b. In addition, provide commanders guidance on how these procedures may be modified consistent with operational risk and risk management principles per FM 101-5.

1-2. References

Required and related publications and prescribed and referenced forms are listed in the appendix.

1-3. Explanation of abbreviations and terms

Abbreviations and special terms used in this regulation are explained in the glossary.

1-4. Scope

a. The guidance contained within this document provides general guidelines ~~expected under NRC guidance and regulatory guidance~~ for war and operations other than war. In OCONUS situations, more strenuous regulations and host nation regulations may apply. During peacetime, the NRC license provides detailed guidance to be followed.

b. This regulation applies to the entire range of military operations for RCE which includes:

- (1) Contamination from DU munitions (combat vehicles damaged by DU fire or combat vehicles containing DU armor that have been damaged in any way).
 - (2) Equipment which has been contaminated as a result of the use or damage of DA controlled radioactive commodities such as:
 - (a) Low level night sights/devices containing hydrogen-3 (Tritium), e.g. M1A1 collimator for use with M198 howitzers.
 - (b) M8A1 series Chemical Agent Detectors containing americium-241.
 - (c) M1 Chemical Agent Monitors containing nickel-63.
 - (d) MC-1 Soil Moisture Density Tester containing cesium-137 and plutonium-beryllium.
 - (e) AN/UDM-2 containing strontium/yttrium-90 and AN/UDM-6 containing plutonium.
 - (f) Night Vision Devices containing thorium-232, e.g. PVS-2
 - (g) [Dials and gauges containing radium-226.](#)
 - (3) Foreign Equipment suspected to contain or to have been contaminated with similar radioactive sources as above.
- c. This regulation does not apply to equipment contaminated by sources such as:
- (1) Radiation dispersal weapons.
 - (2) Fallout from nuclear weapons detonations.
 - (3) Nuclear reactor accidents.

- (4) Nuclear weapons accidents.
- (5) Nuclear reactor fuel rods.

1-5. Deviations

- a. Limit deviations to those from Army standards and procedures. Deviations from Federal and DOD regulations and standards are not authorized.
- b. The following personnel may authorize deviations from Army standards and procedures.
 - (1) Each MACOM commanding general.
 - (2) The Superintendent, U.S. Military Academy.
 - (3) The Chief, National Guard Bureau (NGB). (The Chief, NGB may sub-delegate deviation authority to the State Adjutant Generals.)
- c. Only personnel listed in para b may approve residual risk levels deemed to be too high or extremely high. Authority to accept residual risk will be IAW FM 101-5. For the purpose of this regulation, the personnel listed in para b are considered MACOM commanding generals.
- d. Grant deviations for one year or less. The respective approval authority may approve deviation renewals provided conditions cited in the original deviation remain the same.
- e. Any accident or mishap occurring under an approved deviation will cause automatic termination of the approval until the respective approving authority completes an investigation and revalidates the deviation.

Waivers and exceptions:

~~_____ a. Waivers to the procedures in this regulation will not normally be granted. In rare instances, however, deviations from established guidance will be considered. To request a waiver or deviation submit, as a minimum, the following information:~~

~~_____ (1) Reference to the specific paragraph under which the waiver or deviation is being requested.~~

~~_____ (2) Reasons why the waiver or deviation is requested, and explain how the deviation meets the objective of this regulation.~~

~~_____ (3) Interim measure that compensates for the inability to comply with the referenced paragraph.~~

~~_____ (4) Date that compliance with the paragraph may be expected.~~

~~_____ (5) Statement of the impact if the waiver or deviation is not approved.~~

~~_____ b. Forward the request for waiver, extension of waiver, or deviation through command channels to Headquarters, Department of the Army (HQDA), Office of the Deputy Chief of Staff for Logistics, Washington, DC 20310-0500.~~

1-7. Responsibilities

- a. The Assistant Secretary of the Army Manpower and Reserve Affairs (ASA M&RA) will:

- (1) Establish the overall policy for medical concerns.
 - (2) Establish and promulgate operation exposure guidance for peacetime and wartime conditions.
- b. The Assistant Secretary of the Army Installations Logistics and Environment (ASA IL&E) will establish the occupational health and environmental policy for supporting industrial facilities and installations.
- c. The Headquarters, Department of the Army (HQDA), Office of the Deputy Chief of Staff for Logistics (ODCSLOG) will promulgate DA policy for processing RCE.
- d. The HQDA, Office of the Deputy Chief of Staff for Operations and Plans (ODCSOPS) will promulgate operational procedures for processing RCE.
- e. The HQDA, Director of Army Safety (DASAF) will establish Army Radiation ~~Safety~~Protection Policy and oversee the Army Radiation ~~Safety~~Protection Program.
- f. The HQDA, Office of The Surgeon General (OTSG) will-
- (1) ~~Formulate medical surveillance policies with regard to exposures to radioactive commodities and radioactive contamination.~~ Formulate policy governing exposures to radioactive commodities which includes the requirements for medical surveillance.
 - (2) Provide guidance to the HQDA Staff and Major Army Commanders with respect to identifying emergency medical care procedures, exposure assessments, treatment protocols, medical surveillance (dose records), and the medical management of personnel who have been exposed to radioactive and/or mixed waste.
 - (3) Provide Nuclear Medical Science Officers (AOC 72A), Health Physics Specialists (MOS 91SN4), and other personnel as needed to provide field support to monitor ACERT health risks and to perform other duties consistent with performing health risk assessments, personnel/equipment monitoring and the medical treatment missions of the Army Medical Department.
- g. The Commanders of Major Army Commands (MACOMS) will-
- (1) Provide adequate resources to procure, use, handle, store, maintain, repair and dispose of RCE in a safe and compliant manner.
 - (2) Ensure that all personnel receive RCE hazard awareness training as necessary. Additional selected personnel involved in retrograde operations will be trained in battle damage assessment, repair, recovery and retrograde procedures, and/or operational planning, training and implementation procedures as prepared and disseminated by TRADOC.
- h. The Commander, U.S. Army Forces Command (FORSCOM) will furnish Explosive Ordnance Disposal (EOD) personnel to handle known or suspected RCE ammunition and explosives.
- i. The Commander, U.S. Army Material Command (AMC) will-
- (1) Dispense information (appropriate Nuclear Regulatory Commission license information, technical bulletins, manuals, policies, and maintenance procedures) through AMC major subordinate commands concerning characteristics, risks, and proper handling of RCE and that such information is included as part of their commodity fielding plans and logistics assistance operations.
 - (2) Deploy ~~Logistics Assistance Representatives (LAR)/Quality Assurance Specialist Ammunition Surveillance (QASAS)~~ Personnel to:

- (a) Furnish soldiers, commanders, and staffs with the most current safety-of-use messages, materiel management policies, radioactive commodities requirements, and guidelines for handling depleted uranium items [and other radiological items.](#)
- (b) Provide on-site assistance to units as needed.
- (3) Ensure that adequate Radiation Detection, Indication, and Computation (RADIAC) systems are developed and fielded to identify RCE hazards.
- (4) Establish policies regarding maintenance, retrograde, demilitarization, and disposal for all [contaminated](#) equipment.
- (5) Through the HQ, U.S. Army Industrial Operations Command (IOC):
 - (a) Act as the single point of contact for all disposal, retrograde, demilitarization, and decontamination involving RCE. (IOC Low Level Radioactive Waste Disposal Division).
 - (b) Establish and manage the U.S. Army Contaminated Equipment Retrograde Teams (ACERT). The ACERT will be responsible for providing on-site technical and packaging assistance IAW all applicable Federal, state, and international standards during the retrograde of RCE. If requested by the Theater Commander, AMC may deploy the ACERT to act at theater level, assisting in the processing of RCE. See DA PAM 700-xx for a description of the ACERT. The Theater Commander has the choice of location(s) for the major support facility. This makes the Theater Commander aware and responsible that civilians are working in the theater.
 - (c) Provide guidance for the proper storage and handling of RCE at AMC storage/staging areas located in theater.
 - (d) Operate a designated decontamination facility which is responsible for the decontamination of equipment destined for depot rebuild or which could not be decontaminated in theater.
 - (e) When required by AMC, process foreign captured equipment to ensure the proper disposition of any radioactive sources that may remain on them.
 - (f) In coordination with item Project Managers, prioritize reclamation and repair of RCE held at the designated reclamation point.
 - (g) Ensure the proper storage and handling of affected equipment at AMC storage/staging areas located throughout the retrograde process.
 - (h) Coordinate all efforts with the NRC licensee of the material.
- (6) Through the U.S. Army Communications-Electronics Command: When required, utilize the U.S. Army Radiological Control (RADCON) Team to assist in the management of RCE, that requires radiological surveys and characterizations.
- (7) [Through the U.S. Army Ionizing Radiation Dosimetry Branch \(IRBD\), provide personnel monitoring devices and services to DA, DLA, and DA contractors.](#)
- j.
 - The Commander, U.S. Army Medical Command (MEDCOM) will-
 - (1) Provide radiological hygiene services which include bioassay, medical surveillance, health risk assessment, and medical treatment as required to the commanders.
 - (2) Assist in the development of procedure methodologies for the ACERT.
 - k. The Commander, U.S. Army Training and Doctrine Command (TRADOC) will develop and update RCE hazard awareness training. Training will cover the characteristics, risks and proper handling of radioactive and hazardous materials and include:

(1) A general awareness program (tier 1) to be provided to all soldiers entering and currently in the U.S. Army that are not in a specific Military Occupational Specialty requiring Tier 2 or Tier 3 RCE training.

(2) Specific training to students in the following TRADOC schools whose Military Occupational Specialty or Area of Concentration may involve RCE: Armor, Chemical, Infantry, Ordnance (including Battle Damage Assessment and Recovery), Signal, Transportation, and Medical. Officer/NCO training will be incorporated into existing Program of Instruction (POIs) as Tier 2 or Tier 3 RCE training, as

~~appropriate~~ appropriate. The above list is not all inclusive. The intent is that all personnel that use, cannibalize, maintain, and recover the items of equipment will be trained to the degree necessary for safe operations and compliance with this regulation.

(3) Detailed hazard awareness training and instruction on procedures described in DA PAM 700-xx to personnel who possess, store, or use licensed commodity materials as part of their MOS/AOC.

l. The Commander, Military Traffic Management Command (MTMC) will provide shipment of materiel subject to this regulation IAW with the NRC license requirements and all applicable state, Federal, and international transportation standards.

m. The Commander, Transportation Movement Control Agency (TMCA) will command and control all transportation units (Movement Control Battalions and Movement Teams) to coordinate and control all movements of RCE. The TMCA will ensure that RCE is handled within guidelines of the "special movement policy and procedures" and appropriate publications. Monitoring of the sensitive freight will continue to ensure arrival at the final destination.

n.

The Theater/Army Commanders (TAACOM) will-

(1) ~~Ensure their Radiation Safety Officer (RSO) provides guidance~~ ~~Appoint a Radiation Protection Staff Officer (RPSO) to provide guidance~~ to commanders on matters concerning radiation, DU, and radioactive commodities. (This person may be a Nuclear Medical Science Officer (AOC 72A67C) on the Surgeon's Staff or a trained Chemical Corps Officer on the Commander's staff). The ~~RSO~~~~RPSO~~ should coordinate with Chemical Corps Officers in the Chain of Command.

(2) Establish separate collection and storage points located in theater for damaged and contaminated materiel awaiting assessment, cleanup or evacuation. The collection point ~~may~~~~will~~ be operated by ACERT.

(3) Transport RCE from the ~~local~~~~unit level~~ RCE collection points to the ~~theater~~ ACERT operated collection points in accordance with guidance provided by the ACERT.

(4) Coordinate all efforts with the NRC licensee if possible.

o. The Corps/Division Commanders will-

(1) Appoint a Radiation ~~Safety~~~~Protection Staff~~ Officer (~~RSO~~~~RPSO~~) to provide guidance to commanders on matters concerning radiation, DU, and radioactive commodities. (This person may be a Nuclear Medical Science Officer (AOC 72A67C) on the Surgeon's Staff or a trained Chemical Corps officer on Corps Staff). The ~~RSO~~~~RPSO~~ should coordinate with Chemical Corps officers in the Chain of Command.

(2) Process contaminated equipment and materials IAW this AR, TB 9-1300-278, and DA PAM 700-xx.

(3) Coordinate all efforts with the NRC licensee if possible.

p. The Commanders of Support Battalions and Maintenance Companies That Maintain Radioactive Commodities will-

(1) Establish unit level RCE collection points.

(2) Accept RCE from other units, on request.

(3) Retain radioactive equipment which is damaged and potentially contaminated in the RCE collection point. Potentially contaminated equipment will not normally be returned to the originating unit for disposal.

(4) Regularly report the RCE inventory to the ~~MACOM RSO~~~~TAACOM RPSO~~.

(5) Coordinate with the ~~MACOM RSO~~~~TAACOM RPSO~~ for the retrograde of the RCE, and with the NRC licensee, if possible.

(6) Ensure that personnel using radioactive commodities receive recurring training in the proper methods for handling RCE.

1-7. Policy

a. It is DA policy to always ensure that radiation exposures are as low as is reasonably achievable (ALARA). In general, commanders at all levels should take prudent measures to keep exposures to all personnel ALARA that are consistent with the operational risks. An integral part of ALARA is consideration of the risk caused by implementing a protective procedure. Personnel protective measures designed for use in a non-combat environment may not be appropriate during military operations; The risk management process (see paragraph 2-2) should be used to formulate proper protective measures

during military operations.

b. The policies in this regulation are designed to provide a framework for the commanders to make the risk management decisions required to safely process and use radioactively contaminated equipment (RCE) in the full spectrum of military operations. The overall operational commander is responsible for risk management to include the risk from radiation exposure to RCE.

~~_____ c. With the exception of some soil moisture/density testers, the radioactive commodities in our system do not present a risk greater than that incurred by other occupational radiation workers when the commodities are damaged or destroyed. the MC-1 Soil Moisture Density Tester (NSN 6635-01-030-6896), the radioactive commodities in our systems do not present an acute health risk nor do they present a risk greater than that incurred by occupational workers to the operator when they are damaged or destroyed. The guidance in the regulation is based upon this.~~

CHAPTER 2

Radiologically Contaminated Equipment Management

2-1. General.

a. In peacetime, the US Army will comply with the NRC license requirement and all applicable federal, state, Army, and host nation laws (including status of forces agreements), regulations, and policies regarding radioactive materials and contaminated equipment.

b. The Commander for the deployment/operation will assume responsibility for risk management based upon the Commander-in-Chief's (CINC's) assessment of the risks posed by the operation and the guidance and policies in this regulation.

~~_____ c. Exceptions from peacetime procedures are granted by ODCSLOG and only allowed when operational risks demand modification. Even in combat, there are areas in the theater of operations (e.g. major support facilities in the rear area) where personnel risks are comparable to those found in peacetime. At these locations, all peacetime precautions and procedures will be followed.~~

cd. Emergency medical considerations outweigh radiological contamination concerns. The health and safety of the individual is the primary concern. The condition of injured personnel should be assessed and stabilized prior to considering any decontamination operations.

de. In general, commanders at all levels should take prudent measures to keep radiation exposures to all personnel as low as is reasonably achievable that are consistent with the operational risks

2-2. Risk Management.

The risk management process per FM 101-5 will~~should~~ be utilized by commanders throughout the entire retrograde process to ensure that the needs for mission

accomplishment, ~~safety~~ protection of personnel, and proper handling of the contaminated equipment are balanced. This should include:

- (a) Health Risk Assessments to the degree applicable to the operational environment.
- (b) Safety Risk Assessments in conjunction with Mission, Enemy, Terrain, Troops, Time, Civilian Considerations (METT-TC).
- (c) Guidance in this regulation and DA PAM 700-xx.

2-3. Training.

a. Personnel who handle radioactive commodities as a part of their duties will receive the basic training required for personal safety and hazard awareness. ~~of and personal protection against those commodities.~~

~~———— b. Personnel involved in handling of RCE will receive detailed hazard awareness training and training in the recovery, use and cannibalization of the items of equipment they possess, store or use.~~

~~———— be.~~ Recovery and maintenance personnel will receive training in retrograde procedures for radioactive commodity contamination and material for all systems they will be required to recover, repair or maintain.

c. This training will be repeated on an annual basis. Personnel turn-over may require more frequent training.

2-4. Handling of RCE.

a. General

- (1) During peacetime or as soon as operational risk permits, the Corps Commander's ~~RSPO~~ identify, segregate, isolate, secure, and label all RCE. Procedures to minimize the spread of radioactivity will be implemented as soon as possible.
- (2) The operational situation, mission, level of contamination and type of contaminant should be considered by the Corps Commander ~~RSPO~~ when evaluating the need to utilize equipment that has been contaminated. Specifically, radiological contamination does not prevent the use of a combat vehicle or equipment to complete combat missions.
- (3) After the Corps Commander certifies the equipment is decontaminated to the standards as established in the Operational Exposure Guidance (OEG) or peacetime regulations for the appropriate operational situation, it may be reutilized.
- (4) For release for unrestricted use, the equipment must be decontaminated to comply with peacetime regulations.
- (5) Explosives Ordnance Disposal (EOD) Units will render equipment safe prior to retrograde operations when appropriate.

b. Use and cannibalization

(1) RCE should be removed from service if possible.

~~————~~(2) The use of contaminated equipment (or cannibalization of this equipment) is prohibited unless the commander has determined that the operational risks are comparable to that found in combat and the equipment is required for mission completion. In no cases shall - tThe only exception to this policy is the following items be used or cannibalized if damaged: MC-1 Soil Moisture Density Tester (Soil and Asphalt) (NSN 6635-01-030-6896), the TROXLER Surface Moisture-Density Gauge, the

AN/UDM-2 RADIAC Calibrator Set (NSN 6665-00-179-9037), and the AN/UDM-6 RADIAC Calibrator Set (NSN 6665-00-767-7497). ~~this item will not be used or cannibalized if damaged.~~

(3) In those operations in which the commander has determined that the operational risk is comparable to combat, equipment may be decontaminated in the field and used if required for mission completion. ~~The only exception to this policy is the MC-1 Soil Moisture Density Tester (NSN 6635-01-030-6896), this item will not be used or cannibalized if damaged.~~ In no cases shall the following items be decontaminated if damaged: MC-1 Soil Moisture Density Tester (Soil and Asphalt) (NSN 6635-01-030-6896), the TROXLER Surface Moisture-Density Gauge, the AN/UDM-2 RADIAC Calibrator Set (NSN 6665-00-179-9037), and the AN/UDM-6 RADIAC Calibrator Set (NSN 6665-00-767-7497). Once the operational necessity is over, that equipment identified as contaminated will be handled IAW peacetime procedures.

c. Handling

(1) The unit/team/individual that is responsible for the equipment, whether friendly or foreign, at the time the damage or contamination has occurred is responsible for taking all actions consistent with this regulation and the operational commander's guidance to minimize personnel exposure and the spread of radioactive contamination.

(2) The operational commander will designate a radioactive waste/commodity processing facility, which will be operated by personnel from the Industrial Operations Command if requested by the Theater Commander. AMC may deploy the ACERT to act at theater level, assisting in the processing of RCE.

(3) Maintenance forms, warning tags, and other forms of communications will be used to ensure that all concerned are aware of the contamination status of the equipment as it moves through the logistical system. ~~All maintenance forms, warning labels, and other forms of communications will include the names of all individuals who have directly (i.e., equipment not already packaged) handled the contaminated equipment.~~

(4) In peacetime, the unit/team/individual will transport all RCE to the command designated location for receipt of radioactive material where the extent of contamination can be assessed and remediated under controlled conditions of the Corps Commander's RSO. ~~all RCE will be transported to the command designated location for receipt of radioactive material where the extent of contamination can be assessed and remediated under controlled conditions of the Corps Commander RPSO.~~

(5) In peacetime, the Corps Commander's RSO will separate RCE from that known not to be contaminated, and the separation should be maintained throughout the entire handling process.

(6) All equipment, to include captured or combat RCE, will be surveyed, retrograded, decontaminated and released IAW Technical Bulletin 9-1300-278 and DA PAM 700-xx and other relevant guidance.

(7) When immediate availability of the contaminated equipment is required by urgent operational, such as combat operations, equipment will be decontaminated to the maximum extent as far forward in theater as possible, IAW the OEG. Under all other conditions, decontamination in-theater will be performed only in accordance with guidance ~~instructions~~ from the ACERT.

~~(8) After equipment is decontaminated to the acceptable standards for the appropriate~~

~~operational situation, it may be released for unrestricted use and treated like any other piece of equipment.~~ Personal ~~Safety Protection.~~

Personnel handling contaminated equipment need to follow the personal ~~safety protection~~ measures outlined in DA PAM 700-xx.

e. Disposal.

(1) In general, the environmental impact of retrograde operations will be minimized consistent with the operational situation, troop safety considerations, and applicable regulations.

(2) Radioactive materials and waste will not be locally disposed of through burial, submersion, incineration, destruction in place, or abandonment without approval from overall operational commander. If local disposal is approved, the responsible commander must document the exact location of the disposal and the general nature of the disposed materiel.

(3) In place demilitarization in the field is not authorized unless it is the only means to ensure that the equipment will not fall into enemy hands. When this operational necessity is not in effect, demilitarization is authorized and conducted only by personnel/agencies designated by the appropriate commodity license managers.

2-5. Medical Surveillance

a. The chain of command has the responsibility for determining the likelihood of significant exposure from contaminated equipment to any individual. Individuals that the command determines might have received significant exposures (i.e., individuals did not follow the personal protective measures outlined in DA PAM 700-xx, or any of the recommended handling procedures as outlined in the relevant regulations and technical manuals) ~~or individuals that meet the criteria outlined below~~, will be sent to a medical treatment facility for appropriate follow-up.

b. Medical personnel will perform the appropriate medical monitoring, which may include bioassay. Guidance as to who should be monitored is contained in DA PAM 700-xx.

c. Medical ~~documentation~~~~annotation~~ of RCE exposed personnel is required.

APPENDIX A
REFERENCES

AR 11-xx, The Army Radiation Safety Program.

~~1.~~ AR 40-5, Preventive Medicine.

~~2.~~ AR 40-13, Medical Support-Nuclear/Chemical Accidents and Incidents.

AR 40-14, Control and Recording Procedures for Exposure to Ionizing Radiation and Radioactive Materials

~~3. AR 40-14, Occupational Ionizing Radiation Personnel Dosimetry.~~

~~4.~~ AR 55-355, Defense Traffic Management.

~~5. AR 385-11, Ionizing Radiation Protection.~~

~~6.~~ AR 385-40, Accident Reporting and Records.

~~7.~~ AR 700-64, Radioactive Commodities in the DoD Supply System.

~~10.~~ AR 700-xx, Management of Equipment Contaminated with Depleted Uranium or Radioactive Commodities.

~~8.~~ AR 750-1, Army Materiel Maintenance Policy and Retail Maintenance Operations.

~~9.~~ AR 750-25, The Army Test, Measurement, Diagnostic Equipment Program.

~~11.~~ DA Pamphlet 40-18, Personnel Dosimetry Guidance and Dose Recording Procedures for Personnel Occupationally Exposed to Ionizing Radiation

DA Pamphlet 700-xx, Handling Procedures for Equipment Contaminated with Depleted Uranium or Radioactive Commodities.

~~12.~~ Field Manual 3-3-1, Nuclear Contamination Avoidance.

~~13.~~ FM 3-5, Decontamination Operations.

~~14.~~ FM 8-9, NATO Handbook of the Medical Aspects of NBC Defense Operations.

~~15.~~ FM 9-43-1, Unit Maintenance Operations.

~~16.~~ FM 9-43-2, Battle Damage and Assessment.

~~17.~~ FM 9-43-2, Vehicle Recovery Operations.

~~18.~~ FM 101-5, Staff Organizations and Operations.

[Standarding Operating Procedure, Shipping Procedures for Unwanted Radioactive Materials, U.S. Army Industrial Operations Command.](#)

~~19.~~ Technical Bulletin 9-1300-278, Guidelines for Safe Response to Handling, Storage, and Transportation Accidents Involving Army Tank Munitions or Armor which Contain Depleted Uranium.

~~20.~~ TB 11-6665-227-12, Safe Handling, Storage, and Transportation of Calibrator Set, RADIAC, AN/UDM-2

[TB 43-0216, Safety and Hazard Warnings for Operation and Maintenance of TACOM Equipment](#)

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~~21.~~ [T](#) Technical Manual (TM) 3-261, Handling of Unwanted Radioactive Material.

~~22.~~ TM 55-315, Fire Fighting and Rescue Procedures in Theaters of Operations.

~~23.~~ TM 3-6665-312-12&P, Operator's and Organizational Maintenance Manual including Repair Parts and Special Tools List for M8A1 Automatic Chemical Agent Alarm.

~~24.~~ TM 3-6665-312-30&P, Intermediate Direct Support Maintenance Manual (including Repair Parts and Special Tools List) for M8A1 Automatic Chemical Agent Alarm.),

~~25.~~ TM 3-6665-331-10, Operator's Manual for the Chemical Agent Monitor.

~~26.~~ TM 3-6665-331-23&P Unit and Direct Support Maintenance Manual (including Repair Parts and Special Tools List) for the Chemical Agent Monitor.

~~27.~~ Technical Report (TR) 94-11, U.S. Army CECOM, Tritium Commodities.

~~28.~~ TM 5-6635-386-12&P, MC-1 Unit Maintenance Manual for Tester, Density and Moisture (Soil and Asphalt), Nuclear Method (Campbell-Pacific Model MC-1).

~~29.~~ TM 11-6665-227-12, Operator's and Organizational Maintenance Manual for Calibrator Set, RADIAC, AN/UDM-2.

~~30.~~ TM 11-6665-248-10, Operator's Manual for Calibrator, RADIAC, AN/UDM-6.

~~31.~~ Foreign Science and Technology Center (FSTC) Guidebook AST-1500Z-100-93,

Radiation Protection Officer's Guidebook, Identification Guide for Radioactive Sources in Foreign Materiel.

~~32. DoDI 6055.8, Occupational Radiation Protection Program~~

~~33. Title 10, Code of Federal Regulations (CFR), Energy (NRC Regulations).~~

~~34. Title 40, CFR, Environmental Protection Agency Regulations.~~

~~35. Title 49, CFR, Transportation Regulations.~~

~~36. Allied Command Europe (ACE) Directive No. 80-63, Policy for Defensive Measures against Radiological Hazards during Peacekeeping Operations.~~

GLOSSARY

ALARA. As Low As Is Reasonably Achievable. The principle of making every reasonable effort to maintain exposures to radiation as far below the dose limits in Part 20 of Title 10 of the Code of Federal Regulations as is practical consistent with the purpose for which the licensed activity is undertaken, taking into account the state of technology, the economics of improvements in relation to the benefits to the public health and safety, and other societal, socioeconomic considerations and in relation to utilization of nuclear energy and licensed materials in the public interest. ~~The principle of reducing exposures wherever possible.~~

ACERT. Army Contaminated Equipment Retrograde Team.

AMC. Army Materiel Command.

~~BDAR. Battlefield Damage Assessment and Repair.~~

~~CONUS. Continental United States.~~

~~CTT. Common Task Training.~~

~~DA RADCON. Department of the Army Radiological Control Team.~~

DECONTAMINATION. The process by which radioactive and/or mixed waste materials are removed from materiel.

~~DS/GS. Direct Support/General Support.~~

DU. Depleted Uranium~~Depleted Uranium~~. A by-product of the uranium fuel enrichment process. As a result, this by-product or waste stream contains lower concentrations (depleted) of the U-234/U-235 radioisotopes than was contained in the original natural uranium ore.

EOD. Explosive Ordnance Disposal. EOD teams.

FOREIGN ITEMS. Materiel manufactured by other countries.

FORSCOM. U.S. Army Forces Command.

FREE RELEASE. Decontaminated materiel released for unrestricted use by the general public.

~~Health physics. The science of determining, evaluating and controlling the health effects of exposure to ionizing radiation.~~

HOST NATION. The country(s) where U.S. Forces are conducting operations.

IAW. In Accordance With.

IOC. Industrial Operations Command.

~~IHO. Industrial Hygiene Officer. The individual designated by the commander as chief advisor and responsible party for all matters related to mixed waste within an individual command.~~

LAR. Logistics Assistance Representative.

LLRW. Low-Level Radioactive Waste (Radioactive Waste). Unwanted Solid, liquid, or gaseous material that contains radionuclides regulated under the Atomic Energy Act, as amended, and falls below the threshold for activity and quantity listed in 10 CFR 62.2, and is of negligible economic value considering the cost of recovery.

MACOM. Major Army Command.

MATERIEL. Equipment, vehicles and other commodities to include supply items.

METT-TC. Mission, Enemy, Terrain, Troops, Time and Civilian Considerations.

MIXED WASTE. Hazardous waste as defined by the U.S. Environmental Protection Agency in combination with LLRW.

NRC. Nuclear Regulatory Commission.

OEG. Operational Exposure Guidance. Instruction from the Commander as to the

allowable radiation exposures for soldiers in a certain operation or situation, with respect to radiation dose levels and/or radioactive contamination. The OEG will be determined in consultation with the Command Surgeon.

~~OOTW. Operations Other Than War.~~

QASAS. Quality Assurance Specialist Ammunition Surveillance.

RADCON. Department of the Army Radiological Control Team.

RADIAC. Radiation Detection, Indication And Computation.

RADIATION SAFETY. For the purposes of this regulation, a scientific discipline whose objective is the protection of people and the environment from unnecessary exposure to radiation. Radiation safety is concerned with understanding, evaluating, and controlling the risks from radiation exposure relative to the benefits derived. Same as “health physics” and “radiation protection.”

RADIOACTIVE COMMODITIES. Commodities that contain radioactive materials.

RCE. Radiologically Contaminated Equipment. U.S. or foreign Modified Table(s) of Organization and Equipment (MTOE), Common Table(s) of Allowances (CTA), Table(s) Distribution Allowance (TDA), or Prescribed Load List (PLL) items that were contaminated by depleted uranium or radioactive commodities as a result of combat action, maintenance activities or accidents.

RETROGRADE. A maneuver to the rear or away from the enemy.

~~RISK ASSESSMENT. The first two steps of the risk management process. The formal or informal process used to determine the total impact of a single or several risks present on a given population for the purpose of determining appropriate actions of preserving personnel health and safety. Assessment of risk must consider the resulting effects on environmental damage. There are Health Risk Assessments and Safety Risk Assessments.(FM 101-5)~~

RISK DECISION. The decision to accept or not accept the risk(s) associated with an action made by the individual responsible for performing that action.

RISK MANAGEMENT. The process of weighing identifying and controlling hazards to protect the force.

RISK MANAGEMENT PROCESS. The process of identifying and controlling hazards to protect the force. It includes five steps that represent a logical thought process from which users develop tools, techniques and procedures for applying risk management in their areas of responsibility. It is a closed-loop process applicable to any situation and environment. Its five steps are:

a. Identify hazards: Identify hazards to the force. Consider all aspects of the current and future situations, environment and known historical problem areas.

b. Assess hazards: Assess hazards to determine risks. Assess the impact of each hazard in terms of potential loss and cost.

c. Develop controls and make risk decisions: Develop control measures that eliminate the hazard or reduce its risk. As control measures are developed, reevaluate risks until all risks are reduced to a level where benefits outweigh potential costs.

d. Implement controls: Put controls in place that reduce the risk.

e. Supervise and evaluate: Enforce standards and controls. Evaluate the effectiveness of the controls and adjust/update as necessary.

RISK MANAGEMENT INTEGRATION. The method of firmly fixing the risk management process as a principle for individuals and organizations.

~~RSO/RPPO/RPSO/RCO.~~ Radiation Safety Officer/Radiation Protection Officer/~~Radiation Protection Staff Officer~~/Radiation Control Officer. -The individual designated by the commander as chief advisor and responsible party for all matters related to radioactive materials within an individual command.

~~SITREP. Situation Report.~~

~~SOP. Standing Operating Procedures.~~

~~TMDE. Test, Measurement, and Diagnostic Equipment Activity.~~

TRANSPORTATION STANDARDS. U.S. Department of Transportation requirements established under Title 49 of the Code of Federal Regulations.

UNRESTRICTED USE. Same as Free Release.

UNWANTED RADIOACTIVE MATERIAL. Radioactive materials that have been damaged or have reached the end of their useful life and have been determined to no longer serve the purpose for which they were intended.