

CHAPTER 4

RCWM Response Action Overview

4-1. Introduction. This chapter discusses the types of activities and tasks, which may be implemented during a RCWM response action and the corresponding safety and health plans and procedures that are required.

4-2. Documents and Procedures Required on Suspect RCWM Sites.

a. Overview.

(1) This section presents information on the documentation and procedures required on a suspect RCWM site. Information regarding when a district may perform work on a RCWM site is also provided.

(2) All planned response activities in an area suspected of containing RCWM will be conducted in a manner protective of both public and worker health and safety, in a manner protective of the environment. Prior to conducting any activities on a suspect RCWM site, approved safety and health plans and procedures are required to be completed IAW the 29 Feb 00 HQDA Memorandum “Approval of Safety Submissions for Non-Stockpile Chemical Warfare Materiel Response Activities.” The level of effort for these plans and procedures is dependent on site activities or tasks (i.e., the potential for encountering RCWM.) Figure 4-1 details the process for determining which safety and health plans and RCWM requirements are applicable to activities on a RCWM site.

(3) The process discussed below applies to all investigative, response, or construction activities performed at a RCWM site by a district or MSC. If the site is suspected to be impacted by RCWM, the plans and requirements discussed in sections 4-2b through 4-2f must be followed. Performing RCWM investigation and/or response at suspect RCWM projects, in support of a District’s RI/FS or EE/CA, is the responsibility of the USAESCH CW-DC. If the presence of RCWM is suspected at a project, the District must coordinate with USAESCH prior to beginning any on-site activities. IAW ER 1110-1-8153, USAESCH is the only USACE command authorized to execute RCWM response actions.

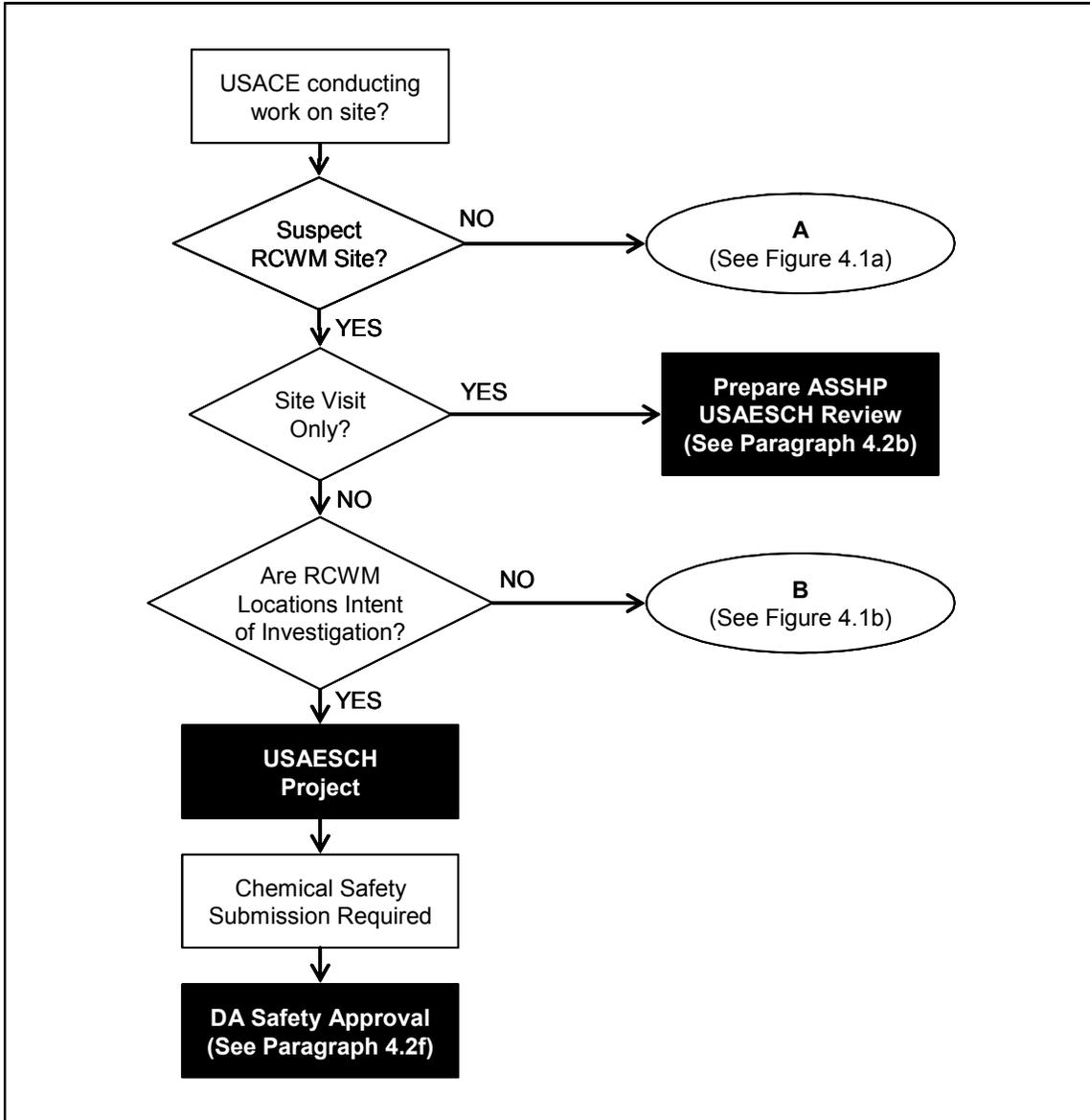


Figure 4-1. Process for Determining Which Safety and Health Plans and RCWM Requirements are Applicable to a RCWM Project.

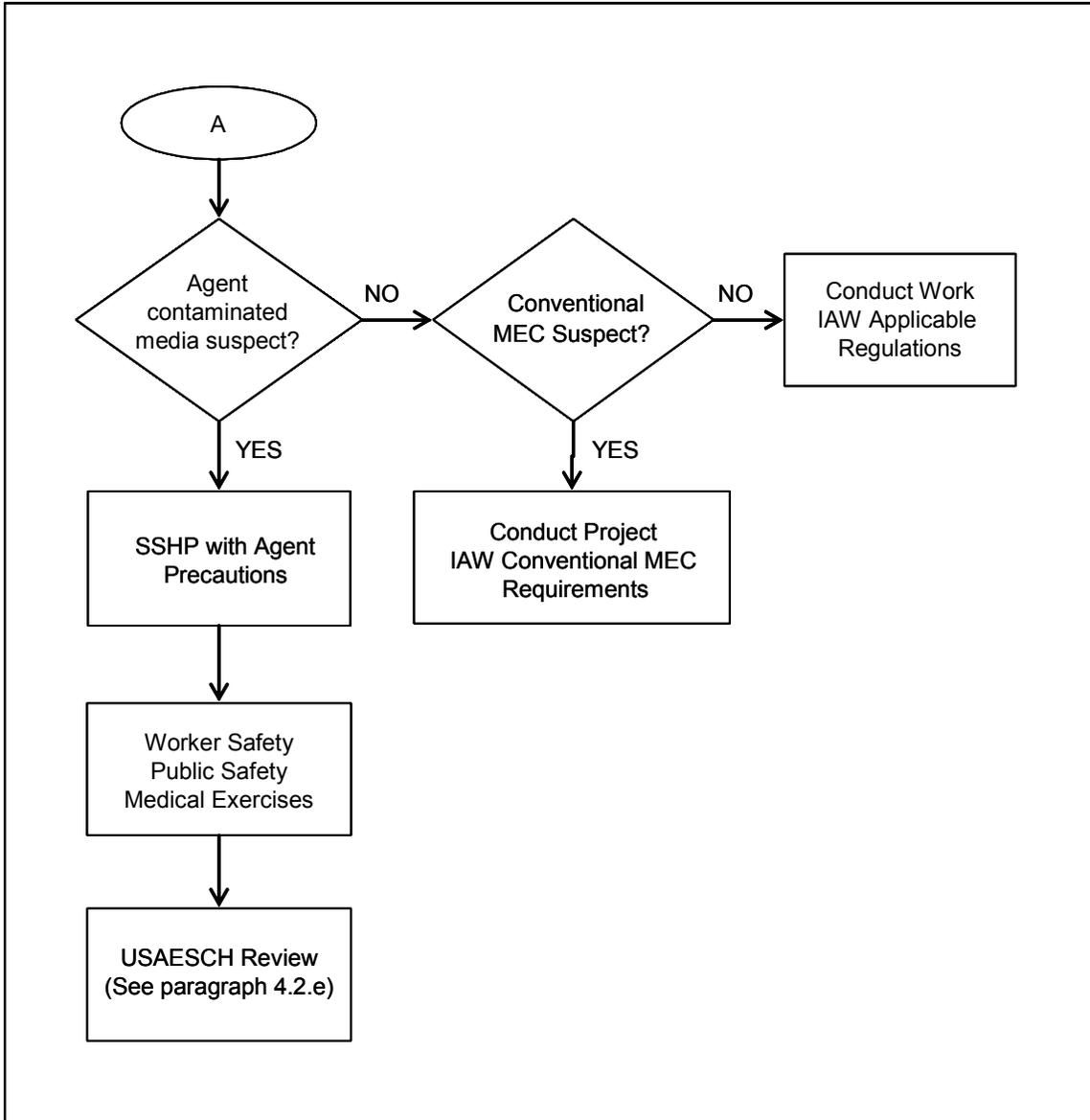


Figure 4-1a. Process for Determining Which Safety and Health Plans and RCWM Requirements are Applicable to a RCWM Project.

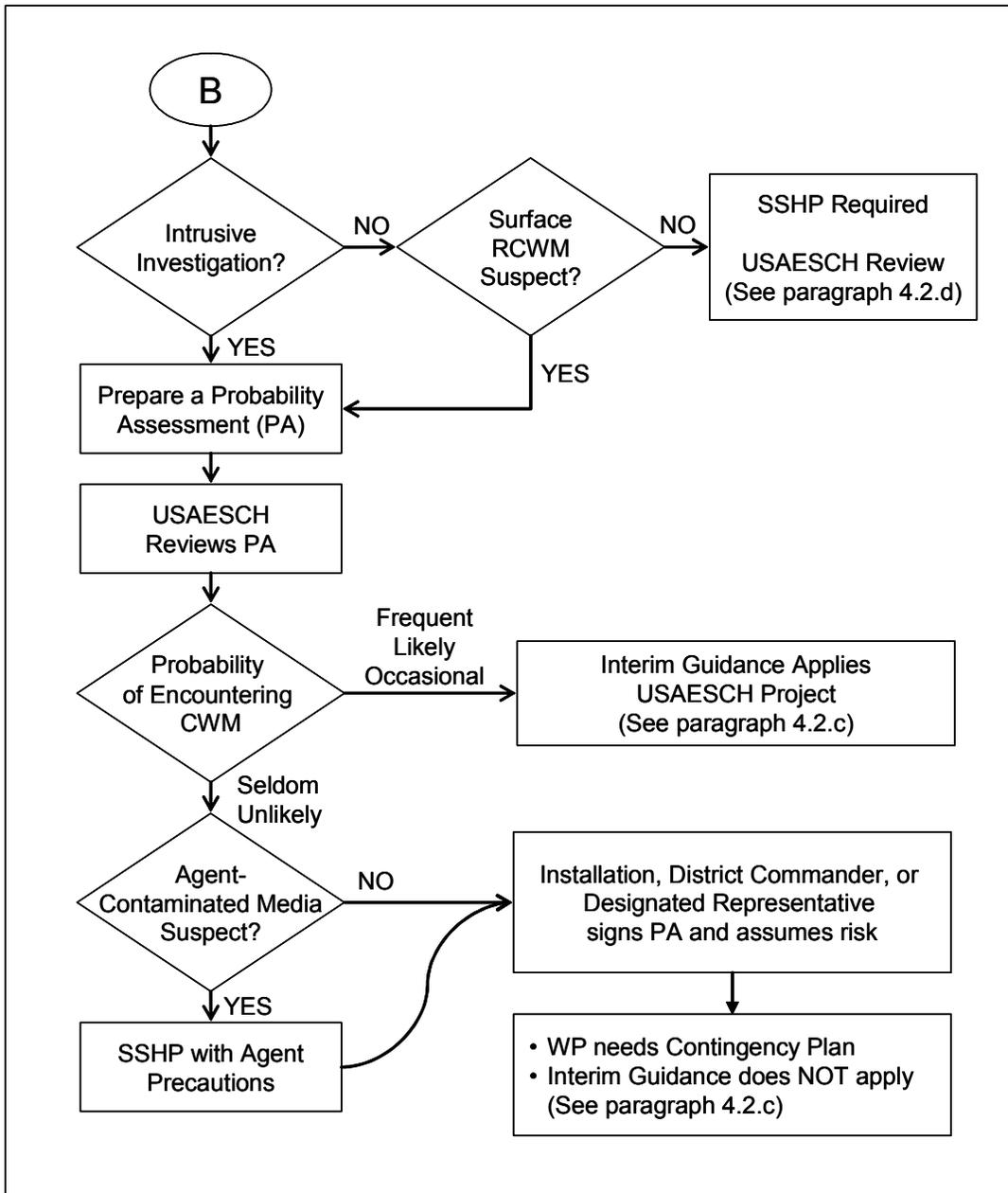


Figure 4-1b. Process for Determining Which Safety and Health Plans and RCWM Requirements are Applicable to a RCWM Project.

b. Site Visits. If site activities include only a site visit (walk through of the site) and no intrusive activities are planned, the only safety and health plan required is the Abbreviated Site Safety and Health Plan (ASSHP). This ASSHP must contain RCWM-specific information (i.e., what to do if a munition with an unknown filler is found). The format of the ASSHP can be obtained from EP 1110-1-18 and on the MM CX website [at http://www.hnd.usace.army.mil/oew/erepems.asp](http://www.hnd.usace.army.mil/oew/erepems.asp). Prior to the site visit, the ASSHP must be approved by the MM CX or designee, IAW EP 1110-1-18.

c. HTRW, Conventional MEC, or Construction Support on a Suspect RCWM Site.

(1) If the intent of the investigation on a RCWM site is not to remove the RCWM, but rather to mitigate either HTRW or conventional ordnance or to provide construction support, RCWM safety and health plans and requirements may not be required. The Interim Guidance for Biological Warfare Materiel and Non-Stockpile Chemical Warfare Materiel Response Activities discusses safety and health requirements on a RCWM site. However, it does not specifically address those situations when construction or an environmental response action other than a RCWM investigation or response action is conducted at a site that is suspect of containing RCWM. To determine whether the Interim Guidance applies to non-RCWM activities, a procedure called a probability assessment was developed and is contained in a HQDA Policy Memorandum, "Applicability of Biological Warfare Materiel and Non-Stockpile Chemical Warfare Materiel Response Activity Interim Guidance," dated 19 Mar 98. Any district or installation planning to conduct an environmental response action (i.e., investigation, removal, or construction support) on a suspect RCWM site must complete a probability assessment. The following paragraphs provide a summary of the probability assessment procedure.

(a) Determine the scope of the proposed site activities.

(b) Conduct a historical study (e.g., installation records, the PMNSCM Survey and Analysis report), USACE Topographic Engineering Center Historical Photographic Analysis, and site investigation to determine previous site usage and the potential for encountering RCWM.

(c) Determine the probability of encountering RCWM during proposed site activities based on the scope of proposed site activities, previous site usage, and the potential for encountering RCWM. The probability must be documented; documentation will include the information used to determine the probability. IAW AR 385-10, the probability of encountering RCWM will be ranked in one of five categories:

- Frequent: Occurs very often, continuously experienced.
- Likely: Occurs several times.
- Occasional: Occurs sporadically.
- Seldom: Remotely possible; could occur at some time.
- Unlikely: Can assume will not occur, but not impossible.

(d) The completed probability assessment will be provided to USAESCH for review and comment. If the probability of encountering RCWM is determined to be “seldom” or “unlikely,” either the installation, District Commander, or designated representative must sign the probability assessment and assume the risk of conducting site activities as a non-RCWM site (i.e., the Interim Guidance will not be implemented). This decision must be justified and documented in writing.

(2) If the District’s signed probability assessment determines that the probability of encountering RCWM is “seldom” or “unlikely,” the following requirements apply.

(a) The safety and health plan for the proposed site activities must include contingency plans providing for a safe and expeditious response in the event RCWM is encountered. RCWM contingency plans will have the concurrence of the MM CX and the installation and/or District safety and environmental offices, EOD and TEU, and from all Army agencies responsible for the work activities.

(b) Any time munitions with unknown fillers are encountered, all work will immediately cease. Project personnel will withdraw along cleared paths upwind from the discovery. A team consisting of a minimum of two personnel will secure the area to prevent unauthorized access. Personnel will position themselves as far upwind as possible while still maintaining security of the area.

– At FUDS projects, the UXO team will notify the local POC designated in the Work Plan. The local POC will facilitate EOD response and two personnel will secure the site until EOD’s arrival. If the local POC designated in the Work Plan is not the local law enforcement agency, the local POC will inform the local law enforcement agency of the discovery, if necessary. The EOD unit will notify the TEU and secure the area until TEU’s arrival. After notifying the local law enforcement agencies, the local POC will notify the USAESCH MM CX to inform them of the actions taken.

– On active installations, the UXO team will normally notify the Range Control Officer, Facility Engineer, Post Headquarters, or POC designated in the Work Plan. After notifying the Range Control Officer or POC, the local POC will notify the MM CX to inform them of the actions taken.

(c) If the item is confirmed to be RCWM, all investigative and/or construction work will stop. All of the elements of the Interim Guidance and other relevant RCWM Army regulations will be implemented before work will commence. The PMNSCM, the TEU Commander, the installation (or District safety and environmental offices), and USACE will coordinate on implementing the Interim Guidance.

(3) If the District's signed probability assessment determines that the probability of encountering RCWM during project activities is "frequent," "likely," or "occasional," all of the requirements in the Interim Guidance apply and USAESCH must be involved in the response action. The types of safety and health plans and procedures required are dependent on whether the site activities are classified as non-intrusive, anomaly avoidance, or intrusive, as discussed in the following sections.

d. Non-Intrusive Activities. If there is a high potential of encountering RCWM items at the surface during non-intrusive activities (e.g., geophysical mapping), a CSS is required (see paragraph f.(1) below). Otherwise, a SSHP will be developed and approved by USAESCH. The SSHP will include all of the elements of an HTRW SSHP. The SSHP will address the requirements of 29 CFR 1910.120(b)(4), 29 CFR 1926.65(b)(4), ER 385-1-92, EM 385-1-1, and ER 385-1-95. The SSHP will include information on the agents that are suspected to be on-site and hazard communication information.

e. Investigative and Assessment Activities Utilizing Anomaly Avoidance. When anomaly avoidance is used for site investigation and assessment (e.g., soil and water sampling, or the installation of monitoring wells) a SSHP, approved by the MM CX, is required. Additional precautions, as stated below, must also be met:

(1) Public Safety. A MCE must be determined. The MCE is the maximum release of chemical agent from a munition, container, or process that might realistically result from an unintended, unplanned, or accidental occurrence. Army regulations require the CSS to use the 1 Percent Lethality Distance when computing Public Safety for siting purposes. USACE will also calculate the No Significant Effects (NOSE) distance to be used in the Work Plan for the project. Intrusive activities will not be conducted when unprotected or untrained

personnel are within the NOSE distance, which is the distance at which personnel should not experience any significant effects if the MCE occurs.

(2) Additional information on anomaly avoidance activities is published in EP 75-1-2.

f. Response Activities with the Intent to Uncover, Characterize, and/or Remove Geophysical Anomalies and RCWM Burial Locations.

(1) Chemical Safety Submission.

(a) When anomaly avoidance is not used for site investigation or response activities or the suspect item cannot be detected (e.g., surface removal of RCWM or excavation when the intent is to uncover, characterize and remove geophysical anomalies), a CSS is required. The CSS serves as the specifications for conducting RCWM work activities at the project. It details the scope of the response action, the planned RCWM work activities, the potential site hazards and the methods of controlling the hazards.

(b) Risk Assessment. Activity at a RCWM project will require the determination of risk to the public and to site workers. Risks to human health and the environment resulting from RCWM can be divided into explosive safety risks and risks associated with the release of chemical agent. Both of these risks need to be evaluated in order to determine the effectiveness of risk management decisions concerning RCWM. A site-specific MCE shall be developed by USAESCH or the implementing agency to form a basis to generate hazard zones: hazard zones shall be computed using the MCE and Army-approved atmospheric dispersion modeling. Quantitative risk assessment codes shall be developed to assess response hazards (e.g., dispersion of agent-contaminated soil, explosive hazards). Public risk information and controls shall be addressed in safety planning documents.

(c) The USAESCH CW-DC is the only USACE office that is authorized to perform this work. The CSS is normally prepared by USAESCH with input from other agencies and approved by the office of the Director of Army Safety. The CSS is built on the Work Plan and supplemental plans, so those plans must be complete before the CSS can be completed. The overall length of the plan shall not exceed 50 single-sided pages.

(d) Chapter 7 presents a detailed discussion on the contents of the CSS and approval procedures for the document.

(2) Additional precautions must also be met when performing intrusive activities on a RCWM site. IAW Army guidance, intrusive activities will not be conducted unless:

(a) Calculation of the munition with the greatest fragmentation distance (MGFD) and the requisite minimum separation distance (MSD) has been calculated for the project (as necessary).

(b) A risk analysis shows that the benefits justify the costs.

(c) The Army has the capability to handle the retrieved RCWM.

(d) The NOSE distance has been calculated and the general public is protected.

(e) A tabletop exercise and pre-operational survey have been successfully completed.

(f) Medical support arrangements have been made.

(g) The CSS has been approved.

(h) The Public Access Exclusion Distance (PAED) has been calculated.

4-3. Types of Response Actions.

a. General

(1) The purpose of a RCWM response action is to reduce, in a timely, cost-effective manner, the risk to human health, safety and the environment resulting from past DOD activities. The response action includes all activities involved in the remediation or removal of RCWM and chemical agent contaminated media from the environment to include preliminary work (e.g., the Remedial Preliminary Assessment and Remedial Site Inspection) and the disposal of removed materiel. Response actions also include, though are not limited to, the use of security fencing or other measures to prevent, minimize, or mitigate damage to the public health or welfare or to the environment.

(2) The types of response actions available are:

(a) Remedial action.

(b) Time Critical Removal Action (TCRA).

(c) Non-Time Critical Removal Action (NTCRA).

(d) Emergency removal action.

b. Selection of Response Action Type.

(1) The selection of the appropriate type of RCWM response action is based on an evaluation of the following site-specific features:

- (a) The nature of the RCWM hazard.
- (b) The urgency/threat of release or potential release of RCWM.
- (c) The timeframe required for initiating a response action.

(2) Following the evaluation of the above features, the suitable type of response action is selected. The Army has given execution authority to USACE for remedial actions, TCRAs and NTCRAs at FUDS. ER 200-3-1 discusses the circumstances under which each type of response action is implemented. USACE does not execute emergency removal actions with regard to RCWM. Such actions are performed by authorized DA response agencies such as EOD or TEU personnel.

(3) This EP discusses the requirements for conducting a RCWM response action IAW the CERCLA/NCP process. This EP will focus on the requirements for executing a response action that are unique to RCWM projects and that are not already addressed in ER 200-3-1 and EP 1110-1-18. A reference to ER 200-3-1 is provided for those instances in which the requirements are generic to FUDS and a reference to EP 1110-1-18 is provided where the requirements for RCWM and MEC are identical.