CHAPTER 11

Interim Holding Facility

11-1. Introduction. This chapter presents an overview of the regulatory requirements, organizational responsibilities, and general requirements for the IHF. The IHF is constructed onsite for the receipt and temporary storage of RCWM, pending onsite disposal or removal from the site. The PMNSCM is responsible for preparing an IHF Plan to provide information about the temporary storage of RCWM in a safe, secure, and environmentally sound manner.

11-2. IHF Regulatory Requirements. IHF operations will be in compliance with DA and other regulatory guidelines. Some of the major regulatory requirements for IHF operations include:

a. An EPA identification number will be obtained by the USACE District as the generator of RCWM per 40 CFR 264.11.

b. RCWM hazardous waste must be characterized according to 40 CFR 264.12, then labeled IAW 40 CFR 262.34. An operating record must be maintained IAW 40 CFR 264.73-264.76 and applicable local regulatory requirements.

c. Appropriate signs must be posted restricting access to the facility per 40 CFR 264.14. Agent and supplemental signs will be posted IAW DA Pam 385-61.

d. IHF inspection procedures must be IAW 40 CFR 254.15 and available on-site for inspection per 40 CFR 264.74.

e. All personnel involved in hazardous waste management must be 40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPER) trained IAW 29 CFR 1910 to ensure they can implement emergency procedures and activate the facility contingency plan as required by 40 CFR 264.50-264.56.

f. The IHF must be equipped with a secondary containment system per 40 CFR 264.75, and all wastes must be stored separately in containers that are compatible with the waste they contain per 40 CFR 264.172.

g. Storage of RCWM will be IAW AR 385-61, DA Pam 385-61, AR 385-64, DA Pam 385-64, AR 50-6, and AR 190-11.

11-3. Organizational Responsibilities. The primary organizations participating in IHF activities on FUDS include the PM District, the CW-DC, PMECW/PMNSCM, the Guardian Brigade, and USAESCH.

a. The District. The District, in close coordination with the CW-DC and PMECW, has the following responsibilities for IHF operations:

(1) Exercise site control per the IHF Plan and Work Plan during all phases of RCWM recovery operations.

(2) Select the IHF location and exercise control of RCWM after receipt from the recovery site until the RCWM is removed from the IHF and destroyed onsite or shipped offsite for treatment.

(3) Be responsible for the RCWM until it is transported offsite. The physical custody of the RCWM will be immediately transferred to the TEU.

(4) Coordinate standby decontamination, medical support, and emergency response during all phases of recovery, on-site transport, and storage.

(5) Oversee site operations conducted by TEU to manage RCWM safely.

(6) Support routine maintenance of the IHF.

(7) Inspect IHF operations to ensure compliance with directives.

(8) Provide physical security support for site operations.

(9) Conduct public involvement in coordination with PMECW.

(10) Coordinate with PMNSCM if failure of the IHF structure or major components occurs. Should repair be impractical, coordinate with PMNSCM to replace the IHF and ensure that RCWM is transferred following procedures developed for receipt and storage of RCWM.

(11) Provide communications equipment to key organizations and emergency services.

b. PMECW/PMNSCM. The responsibilities of the PMECW/PMNSCM for IHF operation include:

(1) Provide safe and environmentally acceptable transportation and disposal of RCWM.

(2) Perform a Hazard Analysis that addresses the relative risk associated with the IHF Plan.

(3) Provide a portable IHF for use at the site, if required.

c. Guardian Brigade. The TEU is a specialized unit of the Guardian Brigade that may be tasked with the following IHF responsibilities:

(1) Support the District, PMECW, and USAESCH.

(2) Recover munitions with unknown fillers at the site.

(3) When directed by USAESCH, represent the Guardian Brigade, assume physical custody of RCWM when recovered, perform assessment to determine fill contents, and package the RCWM in overpack containers.

(4) Escort RCWM during on-site transportation and operation of the IHF.

(5) Provide direct support to USAESCH/PMECW to perform monitoring. The TEU, in the absence of ECBC or equivalent organization, will monitor the IHF for chemical agents stored in the IHF prior to opening. The TEU may be tasked to train District or District-designated personnel to perform surveillance monitoring. The TEU may also be tasked to perform periodic IHF monitoring during long-term storage.

(6) Inspect the IHF periodically for signs of deterioration or other damage that could lead to release of chemical agent.

(7) Provide first response during any emergency situations that occur during recovery, overpacking, transportation, and storage operations.

(8) Train personnel in IHF operations, including proper lifting techniques and hazard communication training for all chemicals used at the site.

d. Air Monitoring Personnel. The responsibilities of the air monitoring personnel (ECBC or equivalent organization) for IHF operations include:

(1) Provide direct support to the TEU.

(2) Perform laboratory analyses of samples to determine if chemical agent is present.

(3) Provide the TEU with material handling equipment, monitoring devices, and calibration solutions, as requested.

(4) Provide sampling capability (monitoring equipment and personnel) at the IHF for first entry monitoring.

e. USAESCH. The responsibilities of USAESCH during IHF operations include:

(1) Provide direct support to the District in preparation of the site work plan and Safety Submission.

(2) Provide on-site expertise during site investigation.

(3) Conduct the IHF vulnerability assessment.

(4) Review and certify all hazmat shipments. Sign all hazardous waste manifests and associated paperwork.

11-4. Design Requirements. The IHF is a storage building provided by PMNSCM and designed to hold RCWM. The IHF design is the product of PMNSCM and meets all storage parameters necessary for the temporary storage of RCWM. The specifications for the IHF are identified within the IHF Plan, one of PMNSCM's submittals for the CSS.

11-5. IHF Siting Plan. This section contains instructions for preparing a Work Plan chapter or Appendix to address the layout, explosive safety requirements, and security measures for the IHF at RCWM projects and incorporates guidance from AR 385-61, DA Pam 385-61, AR and DA Pam 385-64, EP 75-1-3, and DOD 6055.9.

a. The Contractor shall submit an IHF Siting Plan that describes the safety and security criteria to be employed during RCWM operations.

b. The following chemical operations shall be described in the plan and sited on the Quantity-Distance (Q-D) map:

(1) Static storage of RCWM in the IHF.

(2) Assessment of RCWM.

c. MCE for the operations at the IHF.

(1) The Government will provide the D2PC calculations for the MCE. For siting purposes, always use the following parameters:

(a) Wind speed of one meter per second.

(b) Stability factor of "D."

(2) Details for explosively-configured RCWM.

(3) Details for non-explosively-configured RCWM.

(4) The Government will provide the primary fragmentation characteristics for the explosively configured RCWM.

(5) The Government will provide the calculations for engineering controls necessary to prevent primary fragments from propagating the explosives wave between Multiple Round Containers (MRC), limiting the MCE to no more than one explosively configured RCWM item in the IHF (see Table 1 below).

(6) For explosively configured RCWM, an instantaneous release of all agent within the item will be assumed if the MCE occurs.

(7) For non-explosively-configured RCWM, the release of a percentage of the agent will be assumed and will be determined dependent upon specific item being identified and will be provided to the contractor by the Government.

d. Site Map. The recommended scale for the site map is one-inch equals 400 feet. However, a larger scale may be used if available and if the map can be logistically included in the Work Plan. A smaller scale is acceptable if distances can be accurately shown. If an unscaled map is used, the map must have all pertinent distances labeled. Ensure the following items are identified on the map:

(1) Q-D arc for the 1 Percent Lethality Distance, as calculated by D2PC.

(2) Q-D arc for the Net Explosive Weight (NEW) for the IHF (usually will be the NEW of the MCE, if explosively configured).

(3) Public Withdrawal Distance. This distance is usually the NOSE Distance calculated by the D2PC.

(4) Secondary fragment distance from DOD 6055.9-STD, usually the distance specified for less than 31 pounds NEW.

e. Describe any additional engineering controls that may be necessary to ensure the public is protected in the event the necessary Q-D cannot be achieved.

(1) Use of a primary fragmentation capturing device to eliminate primary fragments from penetrating another MRC should an MCE occur within the IHF (see the Table 11.1 below). The Government will provide this design, should it be required.

(2) Use of a Vapor Containment Structure (VCS) designed to mitigate the blast overpressure should the explosively configured MCE occur within the IHF. The VCS used by the USACE has been approved for use for explosive bursters up to 0.25 pounds without modification.

(3) Use of an Engineering Control Structure (ECS) for a non-explosively-configured MCE will be required during assessment activities outside of the IHF if the Q-D for the PWD cannot be achieved or absolute exclusion cannot be maintained.

(4) Use of a chemical agent filtering system, in conjunction with the VCS, to capture the agent release should the MCE occur within the IHF.

11-6. Physical Security Plan.

a. The contractor will submit a Physical Security Plan. The Physical Security Plan will describe the security criteria to be employed during RCWM operations, to include the storage of RCWM within the IHF. The general content of the Physical Security Plan is as described below:

Table 11.1
Penetration of Fragments from Explosively Configured Agent-Filled Munitions

Chemical Round	**Thickness of Mild Steel Required to Prevent Perforation (inch)**	**Thickness of Mild Steel Required to Prevent Perforation After Perforation of MRC (inch)**
4 lb Incendiary AN-M50X-A1	0.10	0.00
VB Rifle Grenade Mark I	0.21	0.08
M15 WP Grenade	0.09	0.00
115 mm M55 Rocket (Chemical)	0.22	0.09
6 lb Incendiary Bomb	0.35	0.22
75 mm MkII	0.31	0.18
75 mm M1/M8 (Chemical)	0.11	0.00
4 in Stokes (Chemical)	0.11	0.00
105 mm M60	0.25	0.12
105 mm M360	0.46	0.33
4.2 in M2/M2A1 (Chemical)	0.10	0.00
4.7 in (Chemical)	0.21	0.08
155 mm Mk 2	0.59	0.46
155 mm M122 (Chemical)	0.66	0.53
8 in M426 (Chemical)	0.85	0.72
8 in Livens (Chemical)	0.11	0.00

NOTE: Penetration is based upon design fragment weight and velocity calculated IAW HNC-ED-CS-S-98-1 and penetration of mild steel using the THOR equations.

(1) Project mission.

(2) Purpose of the Physical Security Plan.

(3) Objective of the security.

(4) Threat analysis.

(5) Vulnerabilities.

(6) Priorities.

(7) Limited and exclusion areas.

(8) Equipment and devices to detect or delay intrusion.

(9) Security lighting.

(10) Communication systems.

(11) Locks and keys.

(12) Measures to control personnel, vehicles, and material.

(13) Personnel identification system.

(14) Vehicle control.

b. A detailed outline for the Physical Security Plan is included in Appendix G including an example of instructions for the security force.

c. Before the Physical Security Plan can be developed a Vulnerability Assessment (VA) must be conducted. The assessment will determine the vulnerability to sabotage, theft, loss, seizure, unauthorized access, and use or diversion of chemical agents from both external and internal threats. The assessment will ensure that the security measures documented in the Physical Security Plan are adequate for the identified vulnerabilities. The key elements, annotated outline, and description of the phases are provided below.

(1) VA Key Elements.

(a) The VA will be accomplished by a team to include the following personnel:

- PM or his designated representative for FUDS projects.
- FBI or Military Intelligence office for specific project region.
- Members of site security forces.
- Local law enforcement personnel.
- Safety and Health representatives.
- Other personnel as designated by the PM.

(b) The VA team will be briefed on the purpose and scope of the VA.

(c) Briefings will be provided on the storage facility being assessed.

(d) Physical Security Plan and SOPS will be reviewed.

(e) The VA team will identify and target specific areas/items of security interest within the IHF, and will identify potential adversary acts for each target.

(f) The VA team will tour the IHF site to become familiar with site configuration, terrain, storage structures, security systems and forces, and technical operations. During the tour, the team will identify specific vulnerabilities from internal and external threats to include:

- Observing day and night operations.
- Interview of personnel as appropriate.
- Demonstration of equipment and procedures.
- Note how security systems are utilized, to include forces and backup forces.
- Table-top one or more scenarios to evaluate responses.
- Based on results of scenarios, the team will identify the necessary corrective actions.

- Conclusions and recommendations will be developed and documented by the team. Established vulnerabilities will have specific recommendations for actions to eliminate or reduce the vulnerabilities.
    - Conclusions will express results that logically flow from the team.
    - Recommendations will support conclusions.

(2) Vulnerability Assessment Outline.

(a) Introduction

- Purpose.
- Scope.
- Site Description.
- Site Mission.
- Security Interests.

(b) Identification and Description of Potential Threats.

- Target Identification.
- Identified Vulnerabilities.
- Scenarios Developed.
- Conclusions and Recommendations.
- Team Leader Signature.
- MACOM Decisions on Conclusions and Recommendations.

(3) Vulnerability Assessment Phases.

(a) In Phase I, the VA Team will:

- Assess the IHF Siting Plan.
- Converse with local law enforcement to discuss the Physical Security Plan (PSP) for the site.
- Converse with regional FBI or Military Intelligence personnel to discuss the threat situation for the site.
- Review the PSP and other SOPs applicable to physical security for the site.
- Review the IHF Plan.

(2) In Phase II, the VA team will perform a site visit to the IHF. If the location for the IHF is questionable, this phase may be performed first.

(3) In Phase III, a tabletop exercise will be conducted independently or in conjunction with the site operations tabletop exercise. Scenarios that incorporate physical security into the total picture will be executed during the tabletop exercise.

11-7. Industrial Chemicals. Safety and storage considerations concerning intact containers, other than ordnance configurations, which contain commercial chemicals such as chlorine, hydrogen cyanide, potassium cyanide, carbonyl chloride, cyanogen chloride, chloropicrin, etc. will conform to the requirements and guidance in AR 385-10 and practices which are generally acceptable for industrial operations.