

**Military Munitions Response Program
 Preliminary Assessment/Site Investigation
 Fact Sheet**

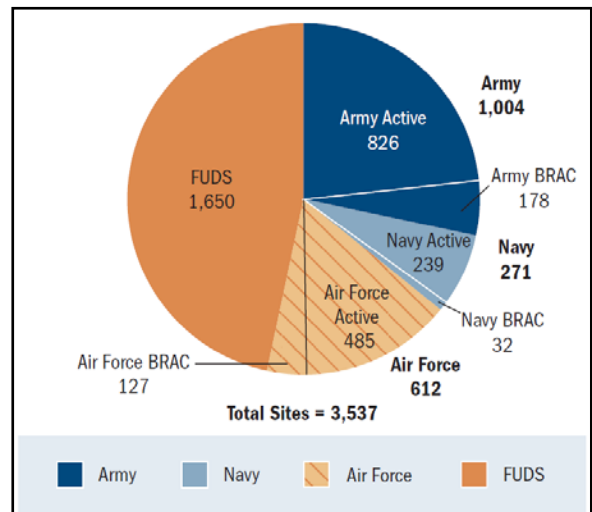
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BACKGROUND

The Defense Environmental Restoration Program established the Military Munitions Response Program (MMRP) in September 2001 to identify and respond to environmental and explosive safety hazards posed by Munitions and Explosives of Concern (MEC) and Munitions Constituents (MC) at closed, transferred or transferring ranges. Over 3,500 sites on more than 15 million acres are on the MMRP inventory nationwide. Figure 1 shows the breakdown of sites by Department of Defense (DoD) service component.

The Munitions Response Site Prioritization Protocol (MRSPP) was published in the Federal Register on October 5, 2005 [32 CFR § 179]. The MRSPP is designed to assign a relative priority for response activities based on the overall site conditions at each location, taking into consideration various factors related to safety and environmental hazards. The MRSPP designates sites as:

- **Munitions Response Area (MRA):** Any area on a defense site that is known or suspected to contain unexploded ordnance (UXO), discarded military munitions (DMM), or MC.
- **Munitions Response Site (MRS):** A discrete location within an MRA that is **known** to require a munition response.



**Figure 1:
 Number of MRSs by DOD Service Component**

The MRSPP contains regulations that provide a significant opportunity for community and regulatory involvement in the prioritization process. Understanding the site's history, results of any investigations and very early involvement in the scoring process are critical to regulatory and community acceptance of the site's prioritization. Future actions, if any, are perhaps many years away at most MMRP sites.

DOD MMRP PROGRESS AND PERFORMANCE GOALS

The MMRP required DoD to complete Preliminary Assessments (PAs) for all MRSs at active installations (96% complete) and Formerly Used Defense Sites (FUDS) properties (99% complete) by the end of FY 2007. The program requires DoD to complete Site Inspections (SIs) for all MRSs at active installations (29% complete) and FUDS properties (37% complete) by the end of FY 2010. In addition, the MMRP requires that DoD achieve Remedy in Place/Response Complete for the first four rounds of the Base Realignment and Closure program (63% complete) by the end of FY 2009.

SERVICE SPECIFIC PA/SI CONSIDERATIONS

Each DoD component service has developed different methods for implementing the MMRP program, and it is important for the State regulator to become familiar with the guidance each service has produced for conducting these investigations. These methods are described below:

- Air Force: The Air Force is conducting Comprehensive Site Evaluations (CSE) at their installations to investigate known MMRP sites and to determine if additional MMRP eligible sites are present on the installations. The Air Force CSE Phase I is equivalent to the PA and the CSE Phase II is equivalent to the SI.
- Army: The Army conducted a preliminary effort to identify “Other Than Operational Ranges.” Active ranges are not eligible for the MMRP. Once these areas were identified, a Historical Records Review (HRR) was conducted which completed the PA requirements. SIs have been conducted consistent with other services.
- U.S. Army Corps of Engineers (USACE) (FUDS Program): Prior to the inception of the MMRP, the USACE completed an Archival Search Report (ASR) (synonymous to a HRR) for FUDS that contained an eligible Ordnance and Explosive Waste (OEW) project. USACE augmented these reports to meet the PA requirement. SIs are being conducted consistent with other services. It should be noted that only FUDS projects with a previously identified OEW project were considered for the MMRP.¹
- Navy: The Navy conducted a similar effort to that conducted by the Army. It started with a range/site inventory effort followed by PA/SI efforts.

PRELIMINARY ASSESSMENT

Typically the MMRP PA consists of a HRR, interviews with persons familiar with site activities, and a site visit. The procedures for conducting a HRR are outlined in Interstate Technology & Regulatory Council’s (ITRC’s) *Technical Regulation Guidelines, Munitions Response Historical Records Review*. During a HRR, historical records repositories are visited, and records collections are searched to identify records that are pertinent to the use, storage, and disposal of munitions at a site. Historical aerial photography should also be acquired and reviewed. This process should be documented in the HRR to include repositories contacted (including individual points of contact), record groups and/or boxes searched, and a list of documents identified that are pertinent to the project. This documentation is critical for evaluating the adequacy of HRR activities especially on projects where little or no information has been identified.

In addition, persons familiar with the current and historic use of the site are interviewed to determine if they have knowledge relevant to the investigation. A site visit is conducted to determine if evidence of munitions use is present on the surface of the site. These activities are summarized in the PA report. Sites can be screened out at this point based on a weight of evidence approach.

SITE INSPECTION

The MMRP SI typically consists of environmental sampling for MC, limited geophysical surveys, and visual reconnaissance of the site to evaluate the explosive, chemical and human health hazards associated with a site. While geophysical surveys are often conducted, intrusive investigation of anomalies identified is not. SI reports include the completed MRSPP score sheets and include recommendations for future action at the site, discussed below.

¹ The term OEW is no longer used under the MMRP.

RECOMMENDATIONS FOR FURTHER ACTIONS

The evidence collected in the PA/SI process, which includes historical information, results of MC sampling geophysical surveys, and visual reconnaissance results, are typically evaluated to determine if the weight of evidence is adequate to make one of the determinations listed below. The SI report will include one of the following recommendations for each MRS:

- No DoD Action Indicated (NDAI) (FUDS only) is selected when site information does not indicate that additional investigation/remediation is required by the DoD. In the event that the evidence is not adequate to determine a NDAI determination, forwarding the site to Remedial Investigation/Feasibility Study (RI/FS) is required.
- No Further Action (NFA) is selected when site information does not indicate that additional investigation/remediation is required by any party.
- Time Critical Removal Action (TCRA) or Non-Time Critical Removal Action (NTCRA) is selected when site information indicates a substantial risk to human health or safety that requires immediate response (TCRA) or the response cannot wait to follow the normal Comprehensive Environmental Response, Compensation and Liability Act process.
- RI/FS is selected when site information indicates that additional investigation/remedial action is required but site conditions do not warrant immediate response.

ISSUES WITH PA/SI PROCESS

In large part the adequacy of the PA is dependent on the adequacy of the archival research conducted for the site. There are numerous repositories located around the country and each typically stores a specific type of record. At the National Archives and Records Administration, records are further divided into Record Groups reflecting the government department or agency from which they originated. To complicate matters further, many of the records at some repositories are not cataloged for easy review. In some cases boxes of records must be searched manually to identify pertinent information. Therefore, it takes qualified and experienced individuals to identify the appropriate repositories to visit and to conduct research at these facilities.

With regard to the SI process, the evidence collected is not adequate to make a NDAI or NFA determination in many cases. This is due to several reasons:

- The process is supposed to be applied consistently by the USACE offices and each component; however this has not been the case. Either no geophysical survey is conducted, or if one is performed, there is no intrusive investigation of geophysical anomalies. For example, the Navy will use intrusive investigation and the USACE uses only geophysics. As a result of this data gap, it is impossible to determine if sub-surface anomalies are non-munitions metal scrap or munitions related.
- There appears to be an over-reliance on limited sampling data to make decisions on whether further characterization for MC is warranted. During the munitions SI, a predetermined number of samples (sometimes as low as one sample per MRA) are collected. Though the sampling locations are biased to areas of impact, the sample locations sometimes have to be offset from subsurface anomalies to ensure the safety of the sample collection team. If MC is not detected during this limited sampling, then the SI report may recommend that further MC sampling is not necessary, even at sites where additional characterization for MEC is recommended.

- Visual reconnaissance only covers a small percentage of the site. For example, at one project the visual reconnaissance only covered 0.036% of the site. This is not a representative survey of the site.
- Typically, sampling is limited to surface soil to a depth of 2 inches. If the MRS is a landfill or burial pit, the military characteristically places a two foot cover of clean fill over the area and thus clean soil is being sampled. If the area is subject to wave action, there are erosion and deposition issues with regard to surface soil sampling. Subsurface soil and groundwater also need to be considered in the investigation, and in some instances air quality issues will also need to be addressed.
- Since the military is only conducting a SI and not determining the nature and extent of contamination, it seems inappropriate to utilize the results of a risk assessment to make a determination of NDAI for a site.

COORDINATION

The Service Components vary in the type and level of coordination they have with State regulators. MRSPP requires coordination with State regulatory agencies, local governments, and the public. For the Army, Army National Guard, and FUDS projects, State regulators are usually invited to participate in the Technical Project Planning (TPP) process. However, the Air Force will not provide funding for State involvement or review of CSE Phase I documents. The Air Force will only provide funding for State involvement in their MMRP program when they determine that further investigation is warranted. This may impact the ability of States to have input into NFA decisions at Air Force sites.

It is very important to become involved in the project early in the process to ensure that regulator/stakeholder concerns are addressed. The timeframe and schedule for the project is generally established at the first TPP meeting and it is critical for State regulators to attend in order to ensure adequate document and comment review times in the project schedule. In preparation for the TPP meeting all pertinent site documents should be reviewed, including HRR, ASR, ASR supplements, and other reports. During the TPP meeting, schedules and deadlines should be determined including periods for regulatory and other stakeholder comment.

REFERENCES

Air Force Center for Engineering and the Environment Range Division

<http://www.afcee.af.mil/resources/ranges/index.asp>

Defense Environmental Programs Annual Report to Congress, 2007

<https://www.denix.osd.mil/portal/page/portal/denix/environment/ARC/FY2007>

<http://deparc.xservices.com/do/mmrp>

Defense Technical Information Center

<http://www.dtic.mil/>

DOD Explosives Safety Board Publications

<http://www.ddesb.pentagon.mil/documents.html>

U.S. Navy Munitions Response Web Portal

<http://www.ert2.org/t2mrportal/>

Naval Ordnance Safety & Security Activity

<http://www.nossa.navsea.navy.mil/>

Publications of the HQ, USACE

<http://www.usace.army.mil/publications/>