

**INDEPENDENT THIRD-PARTY QUALITY ASSESSMENT  
PROJECT PLAN**

**FOR**

**MUNITIONS RESPONSE THIRD-PARTY INDEPENDENT QUALITY ASSURANCE  
SUPPORT SERVICES, IR SITE 12 NTCRA**

**FORMER NAVAL STATION TREASURE ISLAND  
SAN FRANCISCO, CALIFORNIA**

**July 2015**

**Prepared for**



**Naval Facilities Engineering Command Southwest  
San Diego, California**

**Prepared Under**

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**Prepared by**



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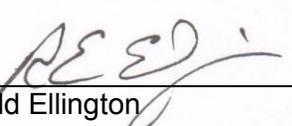
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**SAN DIEGO, CA**

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## ACRONYMS AND ABBREVIATIONS

AFB	Air Force Base
CB&I	Chicago Bridge and Iron Federal Services LLC
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CSO	(Navy) Caretaker Site Office
DDESB	Department of Defense Explosives Safety Board
EOD	Explosive Ordnance Disposal
EPA	U.S. Environmental Protection Agency
ESS	Explosives Safety Submission
IR	Installation Restoration
MDAS	material documented as safe
MEC	munitions and explosives of concern
MMEC Group	Multimedia Environmental Compliance Group
MPPEH	materials potentially presenting an explosive hazard
MRS	Munitions Response Site
NAVFAC	Naval Facilities Engineering Command Southwest
Navy	U.S. Department of the Navy
NCR	Non-Conformance Report
NOSSA	Naval Ordnance Safety and Security Activity
NTCRA	Non-Time Critical Removal Action
NSTI	Former Naval Station Treasure Island
PA	Preliminary Assessment
QA	quality assessment
QAPP	Quality Assessment Project Plan
QC	quality control
RPM	Remedial Project Manager
RSY	Radiological Screening Yard
SI	Site Inspection
SUXOS	Senior Unexploded Ordnance Supervisor
SWDA	solid waste disposal area
TI	Treasure Island

## **ACRONYMS AND ABBREVIATIONS (continued)**

UXO	unexploded ordnance
UXOQA	Unexploded Ordnance Quality Assurance
UXOQC	Unexploded Ordnance Quality Control Officer
YBI	Yerba Buena Island

# 1 INTRODUCTION

The Multimedia Environmental Compliance Group (MMEC Group), under contract with the U.S. Department of the Navy (Navy), was tasked to develop and implement this Quality Assessment Project Plan (QAPP) to provide independent third-party quality assessment (QA) oversight services during the materials potentially presenting an explosive hazard (MPPEH) actions for the Installation Restoration (IR) Site 12 Non-Time Critical Removal Action (NTCRA) at former Naval Station Treasure Island (NSTI), San Francisco, California (Figures 1 and 2). This QAPP pertains specifically to QA oversight for project operations pertaining to MPPEH and munitions and explosives of concern (MEC) as addressed in the Explosives Safety Submission (ESS) (Chicago Bridge and Iron Federal Services LLC [CB&I], 2015b).

The Navy may specify additional requirements that exceed the stringency of this QAPP, and such additional requirements will be documented and executed as described in Section 4. Procedures less stringent than those specified herein shall not be adopted without prior written authorization from the Navy and the MMEC Group Program Manager and Quality Control (QC) Manager. Appendix A contains the QA Compliance Checklist and MEC QA Inspection and Audit Log forms for use during field activities for the sites that are the subject of this QAPP. The Navy may conduct a Naval Ordnance Safety and Security Activity (NOSSA) audit at its discretion.

It is the responsibility of all personnel involved in site QA activities to understand and comply with the QA policies applicable to their work. Additionally, all third-party QA support personnel onsite will review and sign the applicable safety documentation, and will comply with the primary contractor's Accident Prevention Plan/Site-Specific Health and Safety Plan (CB&I, 2014).

This QAPP has been developed to comply with "Admin QA-01 – Creating QA Project Plans" from the *Uniform Federal Policy for Quality Assurance Project Plans Manual* (U.S. Environmental Protection Agency [EPA], 2005). It will be used to ensure that:

- (1) QA-related activities are conducted in a planned and controlled manner, as specified within the approved QAPP.
- (2) The product of QA activities conforms to the Final Work Plan for soil screening for MPPEH and MEC (CB&I, 2015a).
- (3) Appropriate documentation exists to support each activity for which the MMEC Group is responsible.

## 1.1 SITE DESCRIPTION AND BACKGROUND

Treasure Island (TI) is a 403-acre manmade island located next to a natural rock island, Yerba Buena Island (YBI), in the San Francisco Bay (Figure 1). YBI is a 147-acre natural island that has been under military control since 1898. In addition to other uses, the primary function of YBI was to provide training, administration, housing, and support services to the U.S. Pacific Fleet and other entities (Kistner et al., 1995). TI was constructed of materials dredged from the San Francisco Bay from 1936 to 1937 for the Golden Gate International Exposition of 1939 and 1940. In 1940, the Navy began leasing TI from the City and County of San Francisco and later, during World War II, gained full ownership of NSTI.

IR Site 12 is located on the northwestern portion of TI on a relatively flat 93-acre area (Figure 1).

The site consists of multiplex housing units with private backyards and common area front yards, side yards, and surrounding greenbelts. The area was originally used as a parking lot

during the Golden Gate International Exposition of 1939 and 1940. After Navy occupation of the island in 1940, the area was developed for bunker storage of munitions and other materials, vehicle and equipment storage, recreational playing fields, and disposal and burning of waste. From the early 1940s until about 1968, 21 ammunition bunkers were located in the northern half of IR Site 12 (PRC, 1995). Beginning in the 1960s, areas of IR Site 12 were incrementally developed into housing sites for Navy personnel and their dependents. Disposal units and general solid waste disposal areas (SWDAs) surrounding the bunkers were identified during foundation excavation activity for the residential housing development. Excavation trench logs identified debris described as loose rubbish such as bottles, wire rope, paper, steel drums, and incinerator ash (McCreary-Kordsky Engineers, 1965).

Based on the potential for soil and groundwater contamination from debris that was previously identified onsite and from existing debris that may not have been entirely removed during housing construction, IR Site 12 was entered in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) process in 1988 as a result of the findings of the *Final Preliminary Assessment/Site Inspection* (Dames and Moore, 1988). In 1993, NSTI was designated for closure under the Base Realignment and Closure Act of 1990. The naval station was closed on September 30, 1997. The site was subsequently leased to the Treasure Island Development Authority, which, in turn, subleased select former military housing units. Since that time, various environmental investigations have been undertaken and/or are underway at the site.

To remediate chemicals in soil associated with chemical/fuel storage and disposal or burning of waste in SWDAs on the western portion of IR Site 12, a NTCRA was initiated in May 2006 (Phase I) to address chemical impacts at the site, known as SWDA Westside. SWDA Westside is an area of approximately 4.5 acres on the western side of IR Site 12 abutting Perimeter Road (Figures 2 and 3). SWDA Westside was originally known as SWDA A/B. The SWDA contained chemical contaminants (predominantly lead) that were co-located with radiological objects containing radium-226 (deck markers, instrument gauges, metal debris, etc.) and localized radium-226 contaminated soil.

MPPEH found during the excavations at SWDA Westside have been attributed to the disposal or burning of waste. Typical debris found in the excavation was construction-related and general debris. During the periodic Phase I remediation (excavation) between 2007 and 2014, 22 pieces of MPPEH were recovered. The items appeared to have been burned and several of the items appeared to be potential training aids. Some of the items found may also have been altered for decorative purposes. The majority of the items were retained by contractor personnel before being identified as MPPEH. Upon transfer to and inspection of the items by the Explosive Ordnance Disposal (EOD) detachment on Travis Air Force Base (AFB) in January 2012 and, in March 2014, all items were identified as material documented as safe (MDAS). No MPPEH are currently stored on former NSTI. Remediation work through excavation has also been undertaken at SWDA Bayside and SWDA North Point. No MPPEH have been recovered at the Bayside and North Point SWDA locations.

According to the *Final Treasure Island/Yerba Buena Island Redevelopment Plan Adoption, Naval Station Treasure Island Reuse Plan—Public Review Draft* (Seifel Consulting, Inc., 2010) and the *Final Environmental Impact Report, Treasure Island/Yerba Buena Island Redevelopment Project* (City and County of San Francisco, 2011), IR Site 12 is proposed for reuse as residential, open space, and publicly oriented uses. Land surrounding IR Site 12 includes a public school and various commercial and industrial businesses.

## 1.2 SCOPE OF WORK

This QAPP presents the procedures and organization necessary to monitor and guide the contractor in producing an end-product that meets the requirements of Admin QA-01 (EPA, 2005 and DDESB, 2010). The Scope of Work specifies that the third-party QA oversight will include the following tasks:

- Document and verify the quality of the contractor's MEC investigation and removal activities.
- Review the contractor's written MEC-related Work Plans (including the MEC sampling and analysis plans (CB&I, 2015a), QC plans, and approved ESS (CB&I, 2015b) to ensure that the procedures and plans developed by the contractor are being followed and the objectives of the project are being met.
- Verify that the contractor's investigation and any removal activities are in accordance with requirements stated in the Work Plan (CB&I, 2015a) and the approved ESS (CB&I, 2015b).
- Support final verification that the final response action for the site was completed in accordance with the approved ESS. Verify that areas or grids are cleared with specific documentation and field verification checks.
- Ensure that all field processes are consistent and repeatable. These processes include detector usage, investigation of anomalies detected during the scanning of soil in the laydown area, field data logs, equipment checks, and QC procedures.
- Analyze and document QA findings.
- Ensure that any discrepancies or problems found through the QA program are reported promptly, and that corrective actions are documented and their implementation confirmed.

## 2 QUALITY ASSESSMENT PROJECT ORGANIZATION

The MMEC Group has selected the project QA personnel team to provide the specific technical and management capabilities and qualifications to perform QA oversight on the Navy's behalf. The project organization will ensure that all project objectives are met in a timely and cost-effective manner. [Table 1](#) provides contact information for key MMEC Group personnel.

The key QA personnel will not be replaced without the approval of the Navy. The MMEC Group QC Manager will provide the names, qualifications, duties, and responsibilities of each proposed replacement to the Navy.

**Table 1**  
**MMEC Group Quality Assessment Personnel**

Title	Personnel	Telephone	E-Mail
MMEC Group Program Manager	Jim Hogan	(858) 514-6460	jim.hogan@amecfw.com
MMEC Group Quality Control Manager	Matt Brookshire	(858) 633-2793	matthew.brookshire@amecfw.com
MMEC Group Project Manager	Curtis Moss	(858) 869-7548	curtis.moss@amecfw.com
MMEC Group Operations Manager Senior Unexploded Ordnance Supervisor (SUXOS)	Ronald Ellington	(256) 239-5248	ronald.ellington@amecfw.com
MMEC Group Quality Assurance Specialist	Robert Chapman	(575) 921-4986	robert.chapman4@amecfw.com

### 2.1 RESPONSIBILITIES AND AUTHORITY

Sections 2.1.1 through 2.1.4 briefly describe the overall project team organization, as well as specific responsibilities assumed by the MMEC Group. [Figure 4](#) illustrates how specific individuals and/or organizations will interact with each other for the duration of the project.

#### 2.1.1 MMEC Group Project Manager

The MMEC Group Project Manager is responsible for overall direction, coordination, technical consistency, and review of contract activities. The MMEC Group Project Manager reports directly to the MMEC Group Program Manager and the Naval Facilities Engineering Command Southwest (NAVFAC SW) Remedial Project Manager (RPM). The MMEC Group Project Manager has the following specific responsibilities and authority:

- Perform final internal review and approval of all project deliverables, update schedules monthly, initiate any contractual issues, and manage labor allocations.
- Approve budgets and schedules, as well as changes in budgets and schedules.

- Ensure the availability of the QA Specialist assigned to the project for the duration of the contract.
- Oversee coordination between management, the field QA Specialist, and support staff to ensure consistency of performance.
- Communicate regularly with the Navy to evaluate the progress of the program and to avoid any potential problems.
- Ensure that delegation of QC Manager duties to the MMEC Group Senior Unexploded Ordnance Supervisor (SUXOS) are accomplished (i.e., the MMEC Group SUXOS will report to and be supervised by the MMEC Group Project Manager).
- Schedule the work to ensure that the QA Specialist is onsite frequently enough to ensure QAPP compliance.
- Communicate with the Navy on daily site activities by preparing and submitting daily reports and augmenting them as necessary via e-mail and telephone communications.

### **2.1.2 MMEC Group Quality Control Manager**

The MMEC Group QC Manager performs his duties independent of cost, scheduling, and other performance constraints. The QC Manager is responsible for reviewing and updating the QAPP, as needed, and for verifying compliance with the plan. Compliance with the QAPP is verified by the QC Manager through audits performed by the QA Specialist in the field. The QC Manager has the following specific responsibilities:

- Ensure implementation and compliance with this project-specific QAPP.
- Ensure that the QA Specialist is properly trained and has adequate experience for the duties assigned.
- Define project deliverables prior to initiation or commencement of the QA fieldwork, and submit the deliverables as required by the QAPP.
- Evaluate implementation of the QAPP and its effectiveness on a regular basis.

### **2.1.3 MMEC Group Senior UXO Supervisor**

The MMEC Group SUXOS oversees the operation and logistics of the field QA program remotely by reviews of the daily QA reports and discussion with the QA Specialist, as needed. The SUXOS is responsible for the overall execution of third-party munitions QA field activities. The SUXOS works closely with the QA Specialist on QA issues and reports any QA issues directly to the MMEC Group Project Manager.

### **2.1.4 MMEC Group QA Specialist**

The overall responsibility for QA activities during fieldwork resides with the MMEC Group QA Specialist; additionally, the QA Specialist is responsible for administration and adherence to this project-specific QAPP. The QA Specialist reports directly to the Project Manager while performing QA field duties. Specific responsibilities include the following:

- Conduct audits and ensure that site surveillance activities and audits are conducted and documented in accordance with the QAPP.
- Prepare QA reports in proper format, as required by the QAPP.
- Track corrective actions to ensure that all MEC investigation activities have been performed in accordance with the contractor's Work Plan (CB&I, 2015a), with emphasis on the ESS (CB&I, 2015b).
- Document that appropriate personnel are being used during all field operations.
- Perform and document audits and observations of project activities.
- Perform oversight of unexploded ordnance quality control (UXOQC) to ensure that all deficiencies found in prior failures or concerns are addressed before beginning work in additional clearance areas.
- Verify that required equipment calibration has been performed by the contractor, and that inspection and standardization results comply with contract requirements and the project Work Plan (CBI, 2015a).
- Maintain all audit and observation documentation.
- Perform QA inspections to verify that clearances and investigations performed by the contractor have been performed in accordance with the specifications in the Work Plan (CB&I, 2015a). Inspections will be performed on a total of no less than 20 percent of all soil scanned for MPPEH and MEC.
- Communicate, as necessary, with the Navy onsite point-of-contact (e.g., ROICC and/or CSO) and the MMEC Group Project Manager on daily field operations to avoid potential problems.
- Comply with and follow the procedures outlined in the Final Accident Prevention Plan (CB&I, 2014)

### **3 QUALITY ASSESSMENT IMPLEMENTATION**

The QA management system for the project consists of the following elements: (1) field activities; (2) project inspections; (3) validation; (4) reporting; (5) corrective measure recommendations; and (6) records management. Sections 3.1 through 3.6 discuss the elements of the QA management system.

#### **3.1 QA FIELD ACTIVITIES**

The MMEC Group QA Specialist will perform inspections and surveillance of all work areas to maintain oversight of contractor field activities identified in the Work Plan (CB&I, 2015a). This oversight includes verification that qualified personnel and approved procedures and equipment are used, that specified process parameters are maintained, and that field activities are performed in accordance with the Work Plan and ESS (CB&I, 2015a and 2015b, respectively). Additionally, a walkthrough of the NOSSA audit checklist will be completed at the discretion of the Navy.

#### **3.2 QA PROJECT INSPECTIONS**

The MMEC Group will conduct internal QA checks in the field to verify and document QAPP implementation. QA project inspections will consist of (1) QA Internal Field Inspections, (2) Third-Party QA Support Field Operations, (3) Final QA Audits, (4) QA Reporting, and (5) QA Observations. Each step of the QA inspection process is discussed in the following sections.

##### **3.2.1 MEC Third-Party Party QA Internal Field Inspections**

To internally verify QAPP implementation, the MMEC Group QC Manager may perform an inspection of site activities performed by the MMEC Group QA Specialist during field activities. The QC Manager will provide appropriate technical assistance, as necessary, to the QA Specialist to perform the QA inspections for the specific contractor field activities. The inspections to be performed by the QC Manager include, but may not be limited to, the following:

- Examination of the quality of workmanship of the QA Specialist
- Compliance by MMEC Group with the QAPP

##### **3.2.2 MEC Third-Party Party QA Support Field Operations**

The inspections to be performed by the QA Specialist include the following:

- QA verification that all contractors' calibration and response checks of required equipment (e.g., magnetometers, global positioning system, etc.) have been performed and that the results comply with the Work Plan and ESS.
- Performance of checks for defective or damaged equipment (e.g., magnetometers not functioning properly).
- QA verification, inspection, and documentation of material and equipment delivered to and stored at the site.

- Performance of QA oversight of UXOQC follow-up checks and correction of all deficiencies prior to the start of additional features of work that may be affected by the deficient work.
- Observes operations to ensure that the work is being completed safely and in accordance with OSHA requirements and NOSSA standards.

### 3.2.3 Final QA Audit

After the UXOQC representative has performed inspections on the minimum 20 percent of the production unit area, the QA Specialist will conduct an inspection of no less than 20 percent of production and QC complete units. The QA Specialist will evaluate his or her inspection results to determine whether a trend of adverse quality exists (e.g., not adhering to the Work Plan, ESS, QAPP, or APP). After consulting the QC Manager, the QA Specialist may recommend an increase in the percentage (above the minimum 20 percent) of inspections performed for QA until a determination can be made that an adverse trend does or does not exist. The QA Specialist and/or QC Manager will seek concurrence from the Navy on the new number of proposed QA inspections and checks prior to implementation. An example of this procedure is found in [Appendix B](#).

Upon completion of each unit QA inspection, the QA Specialist will complete a QA Audit form (provided in [Appendix A](#)). The QA Audit form will document the pass and fail status of the inspected production unit and the percentage of QA inspections performed. If a QA failure occurs, the QA Specialist will submit documentation of the failure to the QC Manager. Documentation of the failure will be submitted to the Navy within 24 hours, along with corrective action recommendations for resolution of the failure. Upon completion of the QA inspection of the project's total production scope, a QA Acceptance form (provided in [Appendix A](#)) will be executed by the QC Manager to verify that the QA inspection has been executed and will be submitted to the Navy.

### 3.2.4 Documentation

QA inspection documentation as prescribed by this QAPP will include:

- QA checklist and QA daily reports ([Appendix A](#))
- QA inspection and audit logs ([Appendix A](#))

The QA daily reports ([Appendix A](#)) will include the following information:

- Weather conditions
- Work performed each day, including location, description, and names of team members
- Test and/or control activities performed with results and references to the requirements of the Work Plan and ESS; UXOQC-issued deficiencies should be noted along with the corrective action
- QA oversight of the quantity of materials received at the site, with a statement as to the acceptability, storage, and reference to contract requirements
- Project safety evaluations stating areas checked and the results of checks

- Instructions given and received and conflicts (if any) with the requirements of the Work Plan and/or ESS (CB&I, 2015b)

The QA daily report will be submitted within three days to the Navy. Reports will be signed and dated by the QA Specialist and the QC Manager or SUXOS (if delegated). The QA daily report will also include copies of any inspections and audits prepared by the QA Specialist.

### 3.2.5 QA Observations

QA observations will be performed for the definable features of work. The observations will help ensure that quality controls have been properly implemented in accordance with the Work Plan (CB&I, 2015a). Elements to be monitored are presented on the QA Checklist in [Appendix A](#).

The areas that will be monitored include, but are not limited to:

- Site Management
- Safety Compliance
- Site Control
- MEC Operations
- MEC Disposal
- Documentation

### 3.3 QA VALIDATION

The QA process for verifying acceptance will consist of the QA Specialist sweeping 20 percent of the area covered in the *mag and dig* operation. The QA Specialist will use an all-metals magnetometer similar to the equipment used by the unexploded ordnance (UXO) team. The failure criteria will be as described in the ESS (CB&I, 2015b) and QA Validation Process in [Table 2](#).

If an item meeting the criteria for failure is found (a miss), the QA Specialist will notify the contractor QC Specialist, the MMEC Group QC Manager, and the Navy of the miss on the day that the miss is discovered. Together, they will determine a corrective course of action. The QA Specialist will re-evaluate the area where the item was missed to assess whether the quality objectives have been satisfied. If an item is missed or a trend of poor quality is observed, the QA Specialist, in consultation with the Navy and the QC Manager, may increase the amount of area checked. The flow chart of decisions is found in [Appendix C](#). If negative trends are shown to exist or a major safety or health issue is found a Non-conformance Report (NCR) will be completed ([Appendix A](#)).

This program will provide data to evaluate:

- Detection performance of screening and MEC personnel
- Item identification and recovery procedures

MMEC Group QA personnel and the Navy will coordinate to share any quality issues with the contractor as soon as possible.

**Table 2**  
**QA Validation Process**

Activity	Frequency	Pass/Fail Criteria	Corrective Action	Documentation	Notes
MDAS Management	Weekly QA specialist will observe the MDAS processing procedure Inspect 10 percent of the debris	Any MEC found in the Scrap Processing Area Any element not conforming to the specifications	Re-inspect failed lot	Unexploded Ordnance Quality Assurance (UXOQA) Specialist logbook Where appropriate, a non-conformance report will be issued and corrective action will be developed	All MDAS and other debris will receive two inspections before being removed from NSTI
All-Metals Locator Investigation of Soil	Weekly QA performed over the area where QC has been performed (20 percent of the area being investigated)	100 percent concurrence that screened soil layer is free of MEC/MPPEH Areas of Regional Screening Yard (RSY)pads are shown in <a href="#">Figure 5</a>	Evaluate the procedures and equipment to determine variations Repair/replace equipment or modify procedures.	UXOQA Specialist logbook noting variations, user, equipment, date, time and corrective action	None

### 3.4 QA REPORTING

The results of inspections performed by the QA Specialist will be documented using the QA Inspection and Audit Log ([Appendix A](#)). A daily QA Report will be prepared and submitted to the Navy. The daily QA Report will summarize QA activities, findings, and recommendations.

### 3.5 CORRECTIVE MEASURE RECOMMENDATIONS

Corrective measures relating to a QA inspection failure will be discussed with the Navy immediately following discovery of the QA failure. Guidance for actions taken can be found in [Appendix B](#), which shows the Acceptance Sampling Procedures in accordance with MIL-HDBK-1916 (1999)-Companion Document to MIL-STD-1916.

### 3.6 RECORDS MANAGEMENT

The QA Specialist will record all daily notes in bound field notebooks. The MMEC Group QC Manager will file the QA Daily and Weekly Reports.

## **4 QA FIELD ACTIVITY CHANGE CONTROL**

Sections 4.1 and 4.2 discuss the personnel responsibilities and technical procedures for change control during the QA process.

### **4.1 RESPONSIBILITIES**

When a change to QA procedures is identified and deemed necessary by the Navy and/or the QA Specialist, the MMEC Group Project Manager and QA Manager are responsible for initiating the appropriate field changes and documenting the changes for review and approval by the Navy.

#### **4.1.1 MMEC Group Project Manager**

The MMEC Group Project Manager has the following responsibilities:

- Evaluate the validity and acceptability of the field change with respect to contract requirements.
- Evaluate and document the effect of the field change on project costs.
- Accept, qualify, or reject the field change.
- In conjunction with the MMEC Group Program Manager, solicit and obtain approval from the Navy for any changes to the contract or costs prior to performance of any work affected by the changes.

#### **4.1.2 MMEC Group QC Manager**

The QC Manager is responsible for evaluating and approving the changes to ensure that all QA requirements are met, and that all changes to the contract are properly reviewed and approved by the responsible personnel (i.e., MMEC Group and the Navy). The QC Manager will assist the MMEC Group Project Manager in negotiation of changes to the contract scope with respect to QA.

### **4.2 PROCEDURE**

#### **4.2.1 Recognition of Necessity for Field Changes**

During the course of QA activities, the approved QAPP will be followed, unless some unforeseen contingency occurs. In this instance, the QA Specialist is required to determine the best approach toward satisfactory completion of the QA activity through the following actions:

- If warranted, stop affected QA activities until the Navy, the MMEC Group Project Manager and/or QC Manager evaluate the situation.
- Initiate QA field changes for Navy approval.

#### **4.2.2 Definition of Minor and Major Changes and Major QA Activity Impact**

The following are definitions of QA field changes and major QA activity impacts.

**Minor Change**—A Minor Change is defined as a QA field change that will not adversely affect the quality of QA operations, the rationale for the QA field procedures, or costs. Minor changes may be implemented prior to approval by the MMEC Group Project Manager and the QC Manager. Examples of minor changes are:

- Changing the sequence of the QA field activities.
- Changing any of the administrative requirements relative to a QA activity, except for those requirements mandated by federal or state regulations (e.g., chain-of-custody procedures).

**Major Change**—A Major Change is defined as a field change that will adversely affect the quality of QA field activities, cause a significant change in the cost or the scope of the activity, or cause significant delays in the schedule. Major changes will require the approval of the Navy Contracting Officer and MMEC Group Program Manager.

**Major QA Activity Impact**—A Major QA Activity Impact is defined as a change that has a major impact on QA activity cost, schedule, and/or technical performance. Some changes defined as major changes may have major QA activity impact.

The MMEC Group Project Manager will document the changes by describing the reasons for the change, recommended disposition, cost impact, impact on previous work, and type of change (Minor, Major, Major QA Activity Impact), and the documentation will be provided to the Navy for review.

### 4.2.3 Final Disposition

After completion of the review and approval by the Navy, the QA field change will be implemented by the QA Specialist, with the following action requested:

- If approved, the QA Specialist will implement the change.
- The MMEC Group Project Manager will verify that all changes to the scope of work and contract are documented and on file.
- The MMEC Group Project Manager will incorporate any approved cost adjustments into the budget.

## 5 LESSONS LEARNED

During the course of QA field activities, data or information may be discovered that could eliminate or reduce challenges and/or offer opportunities for quality and productivity improvements through value engineering. Lessons learned are annotated and archived as soon as possible to allow access by QA personnel. The lessons learned are considered to be valuable tools for updating plans and procedures for subsequent QA field activities.

To provide a method for capturing and documenting lessons learned, a weekly quality management meeting will be held and attended by the MMEC Group QC Manager or SUXOS (in person or by telephone) and the QA Specialist. Topics of discussion for these meetings include the following:

- Problems
- Solutions
- Alternatives
- Trends

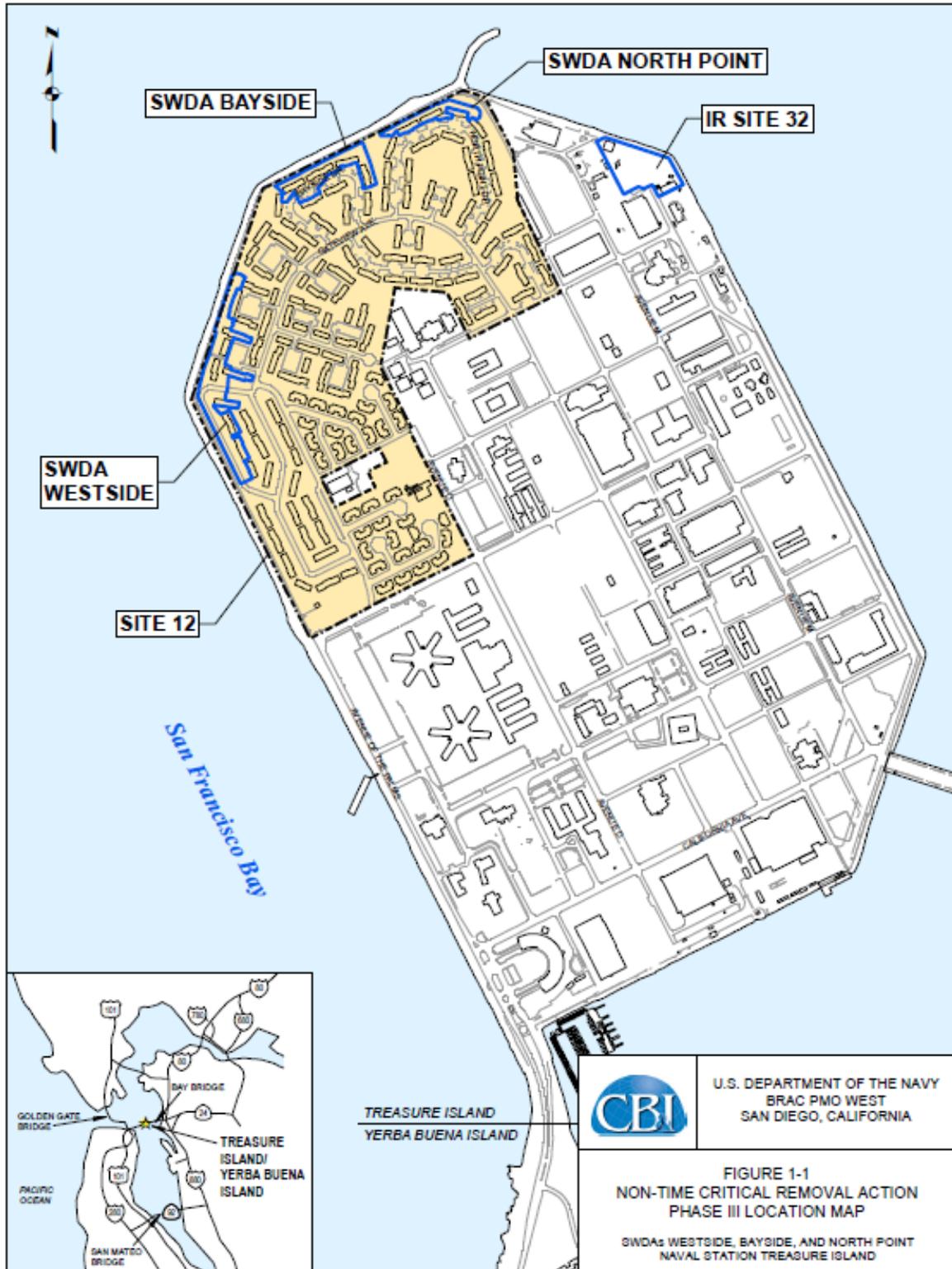
## 6 REFERENCES

- Chicago Bridge and Iron Federal Services LLC (CB&I), 2014, Final Accident Prevention Plan Non-Time Critical Removal Action for Solid Waste Disposal Areas A/B, 1207/1209, and 1231/1233—Radiological Characterization, Remediation Final Status Survey and Building Demolition, Installation Restoration Site 12, Former Naval Station Treasure Island, San Francisco, California, March.
- CB&I, 2015a, Final Work Plan Non-Time Critical Removal Action for Solid Waste Disposal Areas Westside Drive, Bayside Drive, and North Point Drive, Radiological Characterization, Remediation, and Building Demolition, Installation Restoration Site 12 (Phase III) Former Naval Station Treasure Island, San Francisco, California, July.
- CB&I, 2015b, Final Explosives Safety Submission Non-Time Critical Removal Action for Solid Waste Disposal Areas Westside Drive, Bayside Drive, and North Point Drive, Radiological Characterization, Remediation, and Building Demolition, Installation Restoration Site 12 (Phase III) Former Naval Station Treasure Island, San Francisco, California, July.
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- DDESB, 2008 (administratively reissued 2010), Department of Defense (DoD) Manual NUMBER 6055.09-M, Volume 7 - DoD Ammunition and Explosives Safety Standards: Criteria for Unexploded Ordnance, Munitions Response, Waste Military Munitions, and Material Potentially Presenting an Explosive Hazard, February.
- Kistner et al., 1995, Historical Study of Yerba Buena Island, Treasure Island and their Buildings, Mare Island Naval Shipyard, Base Realignment and Closure.
- McCreary-Kordsky Engineers, 1965, Soil and Foundation Investigations for Appropriated Fund Quarters at U. S. Naval Station, Treasure Island, San Francisco, California, January 11.
- PRC, 1995, Phase IIa Remedial Investigation, Tidal Influence Study, Summary of Results, Naval Station Treasure Island, San Francisco, California, December 1.
- Seifel Consulting, Inc., 2010, Final Treasure Island/Yerba Buena Island Redevelopment Plan Adoption, Naval Station Treasure Island Reuse Plan—Public Review Draft.
- U.S. Environmental Protection Agency [EPA]. 2005. "Admin QA-01 – Creating QA Project Plans" from the *Uniform Federal Policy for Quality Assurance Project Plans Manual*.

## FIGURES

- Figure 1 IR Site 12 Vicinity Map
- Figure 2 Overview of Westside (Phase III) Munitions Response Site (MRS) Map
- Figure 3 IR Site 12 Proposed Work Areas
- Figure 4 Radiological Screening Yard (RSY) Pads and Exclusion Zones
- Figure 5 Project Organization Chart

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Figure 1 IR Site 12 Vicinity Map

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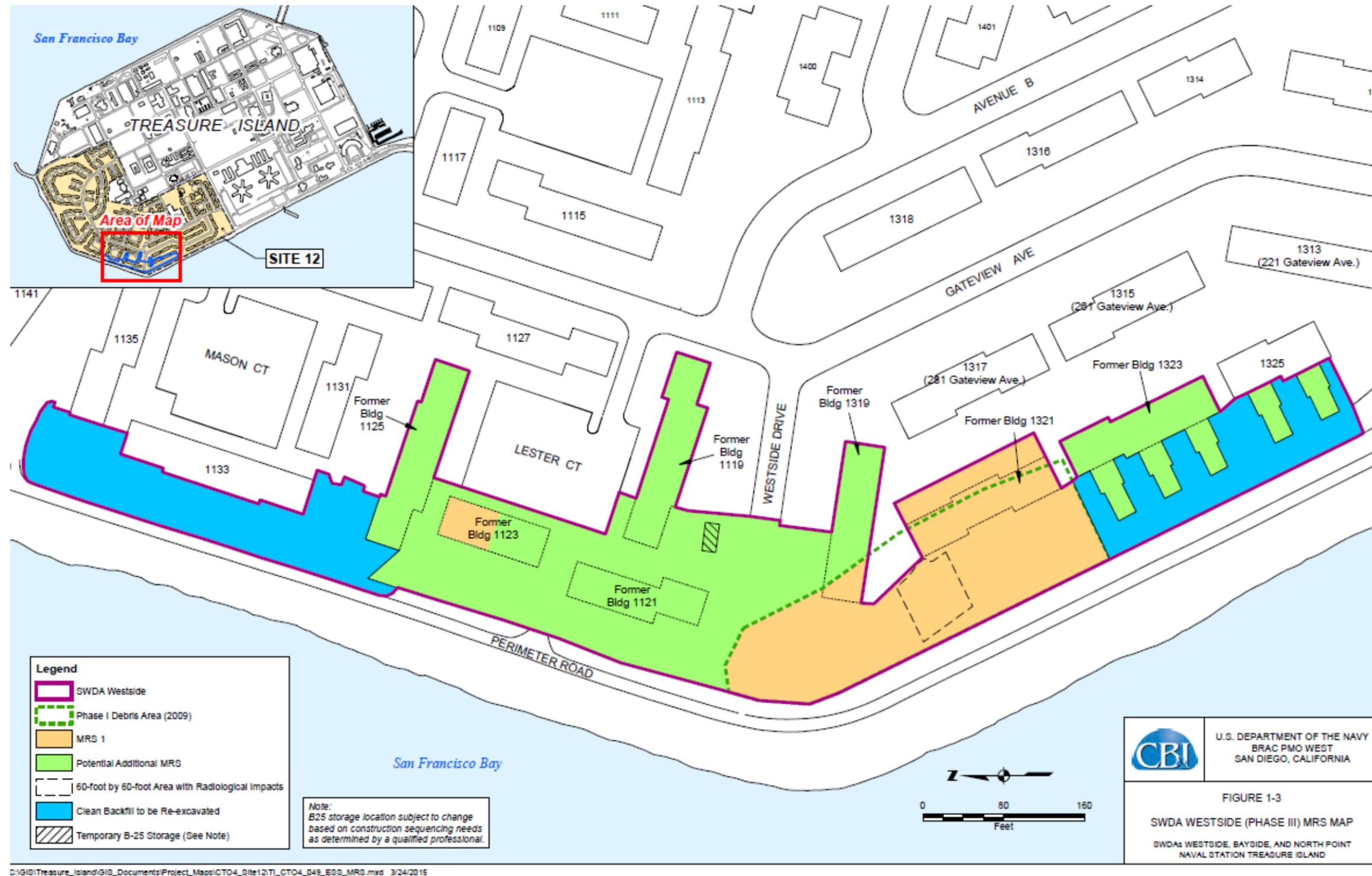


Figure 2 Overview of Westside (Phase III) Munitions Response Site (MRS) Map

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Figure 3 IR Site 12 Proposed Work Areas

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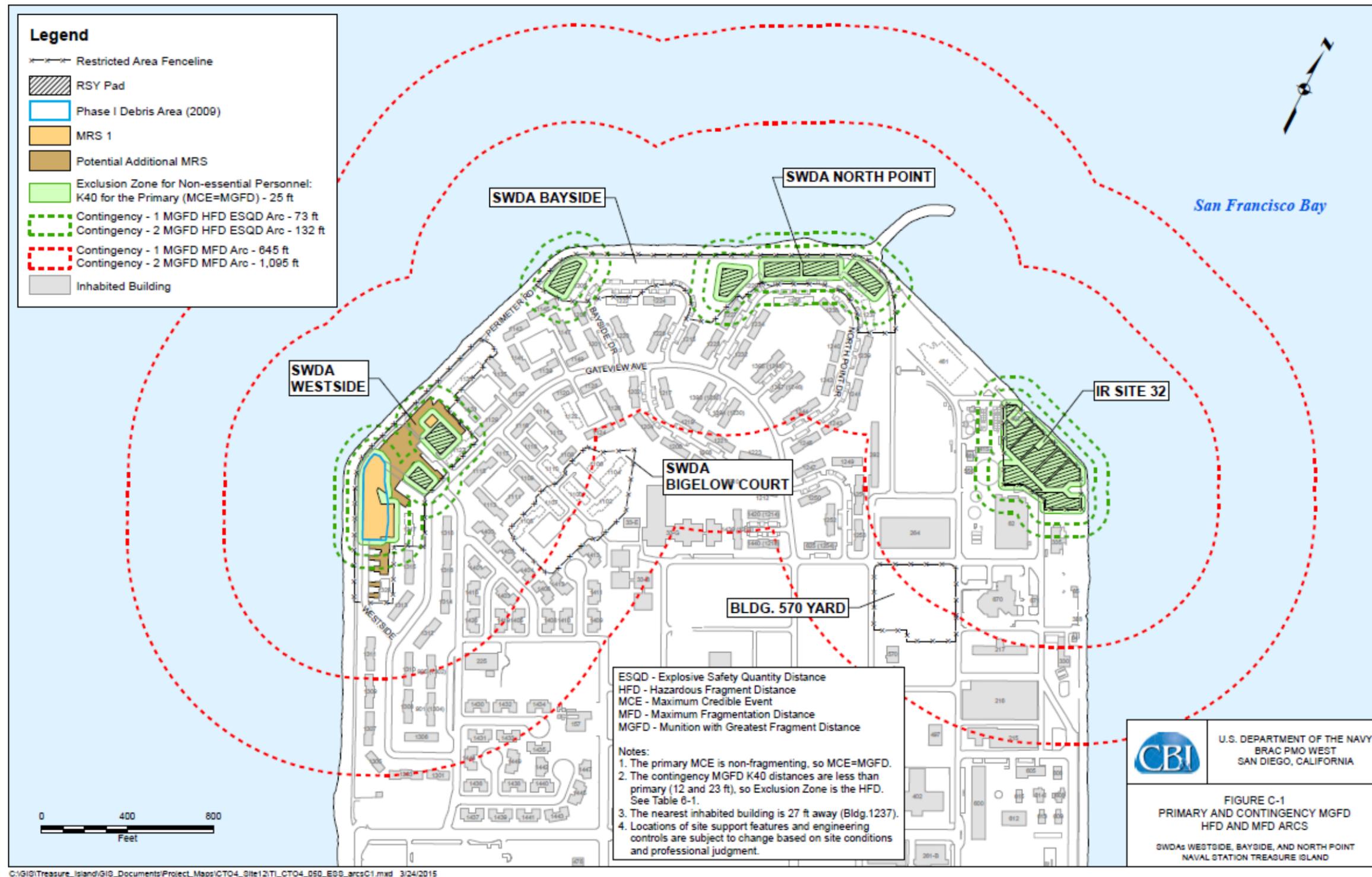
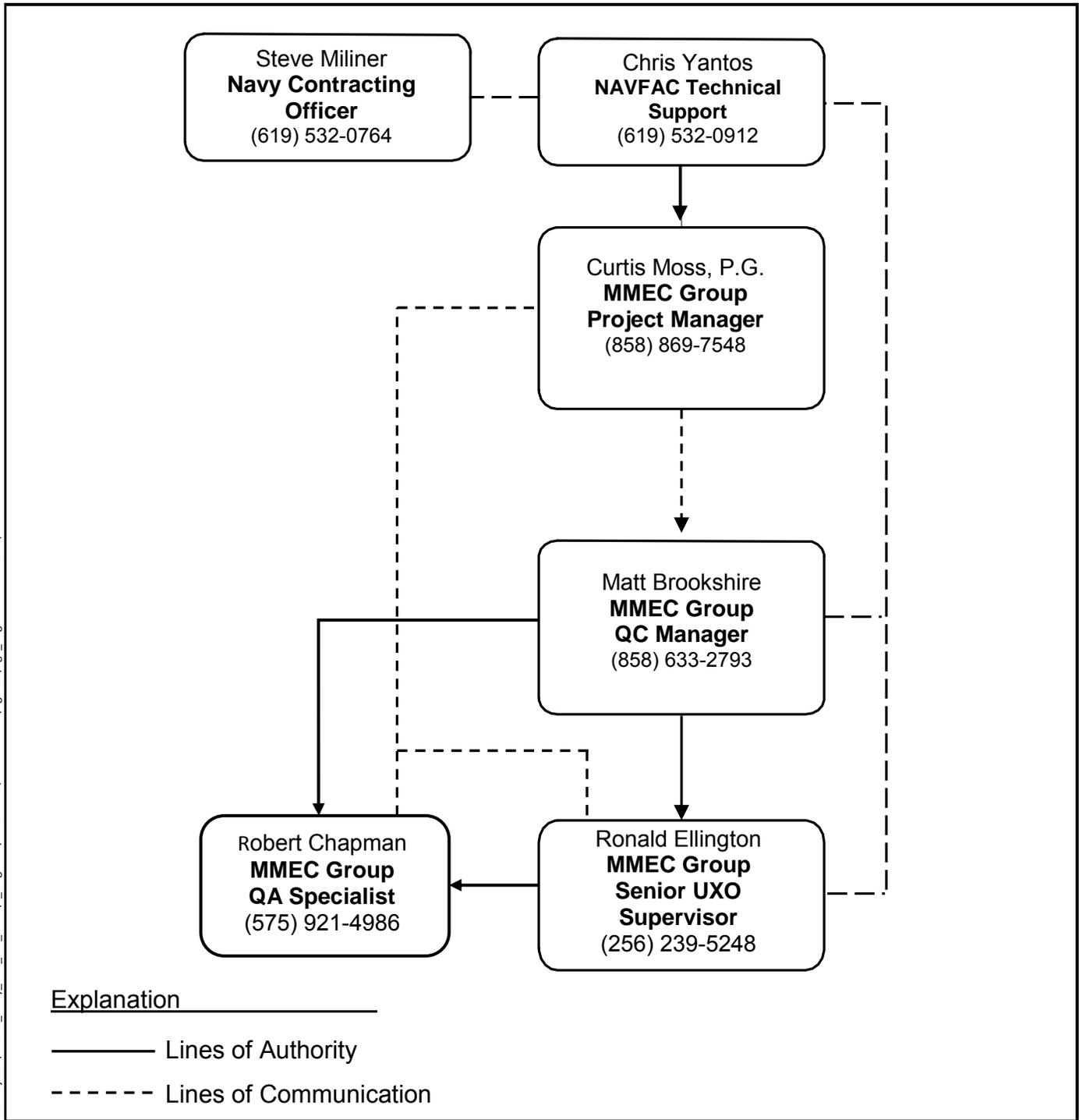


Figure 4 Radiological Screening Yard (RSY) Pads and Exclusion Zones

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**Explanation**

- Lines of Authority
- - - - - Lines of Communication

\\verg.net\active\projects\2005 Projects\25-049\_Navy\_HPS\_E-2\_RI-FS\B\_Originals\Parcel E-2 QAAPP - MPPEH\Figures\Fig4\_Orig-Chart.usd Oct 19, 10 4:02 PM

	<b>CLIENT:</b> Department of the Navy BRAC PMO West	<b>PROJECT ORGANIZATION CHART</b>			
	<b>LOCATION:</b> Naval Station Treasure Island San Francisco, California				
		<b>REVISION NO.</b> 0	<b>SHEET</b> 1	<b>OF</b> 1	<b>FIG NO.</b> 5

**Figure 5 Project Organization Chart**

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## **Appendix A**

# **QUALITY ASSESSMENT FORMS**



## 3<sup>RD</sup> PARTY MUNITIONS QA SUPPORT

### DAILY REPORT

Date \_\_\_\_\_

Prepared By \_\_\_\_\_

Weather Condition: \_\_\_\_\_ Temperature: Low: \_\_\_\_\_ High: \_\_\_\_\_

**1. OPERATIONS PERFORMED TODAY:** (Indicate location and description of activity)

- 

**Demo Operations:** *N/A*

**2. SUBCONTRACTOR ACTIVITIES:**

- 

**3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:**  
(Assure performing contractor QC is in compliance with the Work Plan)

**4. QA AUDITS AND ACTIVITIES:**

- 

**5. Work Day's Highlights:**

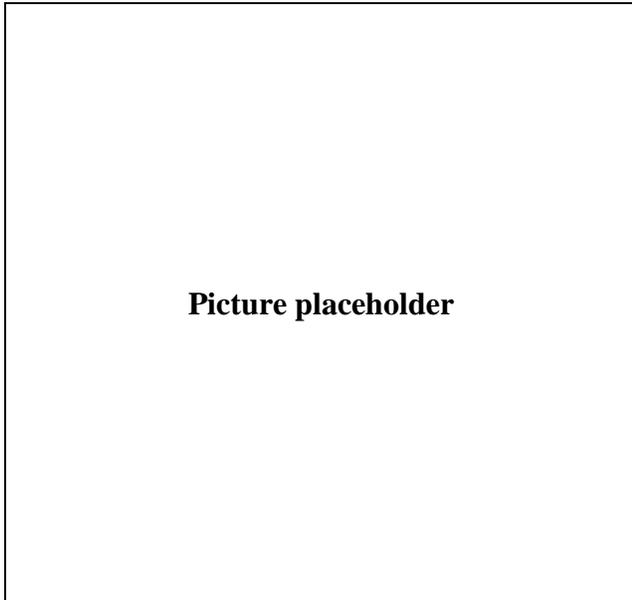
- 

**Production Units Completed Today:** See CB&I's Daily Report

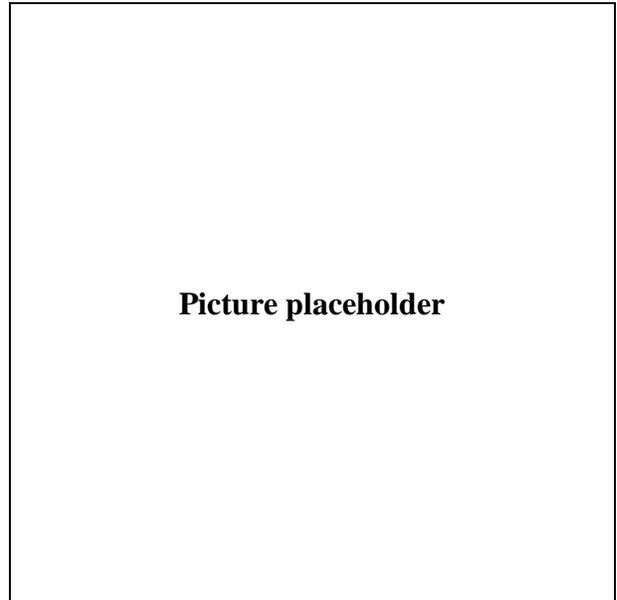
**6. WRITTEN/VERBAL INSTRUCTIONS RECEIVED:**

List any instructions given by NAVFAC RPM/ROICC/Client Personnel:

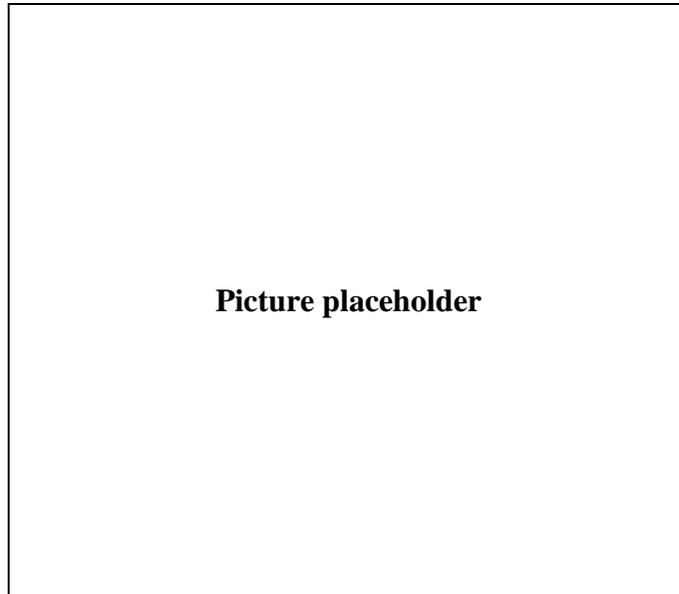
## PICTURES



**Picture Description 1**



**Picture Description 2**



**Picture Description 3**



## MMEC GROUP EQUIPMENT STATUS

<b>DESCRIPTION</b>	<b>QTY ON HAND</b>	<b>QTY IN USE</b>	<b>QTY DOWN FOR REPAIRS</b>	<b>QTY ON STANDBY</b>
a.				
b.				
c.				
d.				
e.				
f.				

---

MMEC GROUP QA Specialist



## QA COMPLIANCE/AUDIT CHECK LIST

**Date:**

1. Review Scope of Work & WP	Yes	No	N/A	COMMENTS
a. Check for Modifications/Changes & Up To Date				
b. Proper Depth of Clearance Identified				
c. Corrective Action Standards Established				
d. Proper Target Ordnance Identified/Test Sources/Test Plot Established				
e. Most Probable Munitions (MPM) Identified				
f. MSD/MFGD Established				
g. Standards for Turn-In of Recovered MPPEH and Range-Related Debris				
h. Exclusion Zone (EZ) identified in WP				
2. Documentation Requirements/Publications	Yes	No	N/A	COMMENTS
a. Notice to Proceed from Client				
b. Approval Letter for Work Plan				
c. Contractor Personnel Qualifications for All UXO Personnel verified per DDESB TP 18				
d. Certificate of Grounding, Lightning Protection (if required)				
e. Approval Letter, MSD 1/600 (if required)				
f. Explosive Safety Submission (ESS) (if required)				
g. Delivery Order & All Modifications & Change Orders				
h. Explosives Permits/License (if required)				
i. GFE Inventory/Transfer Documentation (if required)				
j. Dig Permits for Utilities (if required)				
k. Rites of Entry (ROE) (if required)				



<b>2. Documentation Requirements/Publications</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>COMMENTS</b>
l. Current MEC Sector SOPs, readily available				
m. Other Applicable Reference Publications/Materials, readily available				
<b>3. QC Files Established</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>COMMENTS</b>
a. Daily/Weekly QC Reports/Audits				
b. Approval Letter's, NTP, for contractor Operations				
c. Weekly/Monthly Reports (if provided)				
<b>4. Accident Prevention Plan (APP)/Site-Specific Safety &amp; Health Plan (SSHP)</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>COMMENTS</b>
a. Hazard Analysis & Risk Assessment for All Task & Equipment				
b. Training, General Site Workers HAZWOPER Qualified & Current 8-Hour Refresher				
c. Personnel Protective Equipment (PPE)				
d. First Aid Equipment Shall be Immediately Available				
e. Emergency Eye-washes/Showers Comply with ANSI Standards				
f. Fire Extinguishers (Specify Type, Size, and Location)				
g. Visitor Safety Briefing				
h. Emergency Notification List Posted & Available				
i. Emergency Routes/Maps Available & Issued to Each Team				
j. Work Task Identified in Activity Hazard Analysis (AHA)				
k. Current MSDS(s) On-Site.				
l. Minimum of Two Personnel On-Site 1 <sup>st</sup> Aid/CPR Trained, EM 385-1-1, Section 3, Page 19, Para 03.A.02				



4. Accident Prevention Plan (APP)/Site-Specific Safety & Health Plan (SSHP)	Yes	No	N/A	COMMENTS
m. 16-Unit 1 <sup>st</sup> Aid Kits Approved by a Licensed Physician in the Ratio of 1 for every 25 personnel or less. EM 385-1-1, Section 3, Page 19, Para 03.A.03				
n. Adequate means of reporting Accidents/Near Misses to Client.				
5. Facilities. Reference EM 385-1-1	Yes	No	N/A	COMMENTS
a. Adequate Work Space & Facilities (Restrooms, etc.)				
b. Good Housekeeping (No Fire Hazards, Tripping Hazards, etc.)				
c. Approved and Suitable Containers for Flammable, Toxic, or Explosive Materials				
d. Approved/Adequate Explosive Storage Facilities				
e. Fire/Emergency Exits Clear & Unbarred. Fire extinguisher location(s), and route of escape posted as appropriate in facility				
f. Personnel Limits Maintained				
g. Site Security Adequate				
h. Toilets IAW EM 385-1-1, Section 2, Page 14, Para 02.B				
i. Washing Facilities IAW EM 385-1-1, Section 2, Page 16, Para 02.C				
6. Equipment. Reference Approved WP/Manufacturers Operators Manual	Yes	No	N/A	COMMENTS
a. Tools Appropriate and Serviceable				
b. Personnel Protective Equipment (PPE) Present, Serviceable & Utilized				
c. Equipment Calibrated (Last Cal. Date ----- Next Cal Date ----- )				
d. Survey Equipment Inspected & Serviceable				
e. Heavy Equipment Inspected & Serviceable IAW EM 385-1-1, Section 16, to include back up alarm and equipped with 1 fire extinguisher of 5- BC.				



6. Equipment. Reference Approved WP/Manufacturers Operators Manual	Yes	No	N/A	COMMENTS
f. Competent Person identified to inspect and accept Heavy Equipment IAW EM 385-1-1, Section 16.A.01				
g. Identified Site Vehicles are equipped with First Aid Kits and a 5-BCFire Extinguisher IAW EM385-1-1, Section 18.A.02 (10)				
h. Geophysical Equipment on-Hand & Serviceable				
i. Two Separate Means of Communications, Radio(s)/Cell Phone, Land Line(s)				
7. Explosive Storage/Receipt/Transportation Requirements. Reference EP 1110-1-18	Yes	No	N/A	COMMENTS
a. Proper Storage Containers Type 2 Magazines Conforming to Standards Set forth in Section 55.206 of ATFP 5400.7,				
b. Placards will be displayed on the magazine(s) IAW w/DOD 6055.9-STD, Chapter 2 & 3 for Hazard Division stored in the magazine(s)				
c. Explosive Compatibility Groups Segregated Into Appropriate Hazards Divisions listed in Chapter 3, DOD 6055.9-STD				
d. Security Locks for the Magazines Shall Meet the Requirements Listed in Section 55.208 (a) (4), ATFP 5400.7				
e. Key control will be documented in the WP				
d. Lightning Protection System Serviceable & Tested (Test Date _____)				
e. Fire Fighting Placarding Will be Posted on the Fence IAW DOD 6055.9-STD, Chapter 8 & DA PAM 385-64, Chapter 3 for Hazard Division stored in the magazine(s)				
f. Fire Protection Consisting of Extinguishers, 10- BC or Larger Located at Magazine Area & Vegetation & Trash Cleared in & Around Magazine Area.				
g. Quantity Distance From Magazine IAW WP & Explosive Safety Submission (ESS)				
h. Accountability Records Maintained IAW 55.125, ATFP 5400.7				
i. Explosive NEW Limits Do Not Exceed Limits Stated In the WP & ESS				



<b>7. Explosive Storage/Receipt/Transportation Requirements. Reference EP 1110-1-18</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>COMMENTS</b>
j. Licenses/Permits (if required)				
k. Initial Receipt Procedures & Documentation On- Site				
l. Procedures for Transportation of Explosives IAW EM 385-1-1, Chapter 15				
m. Pre-Operational Checks of Vehicle Transporting Explosives Using Checklist				
n. Cargo Properly Segregated, Blocked, & in Approved Containers.				
o. Receipt Procedures Accounting for Each Item of Explosives/Documentation On-Site				
p. Individuals Authorized to Receive, Issue, and Transport Identified				
q. Final Disposition Procedures Documented				
r. Reconciliation, Lost/Stolen Receipt Documents/Procedures On-site				
s. Inventory Conducted Weekly @ Minimum				
<b>8. MEC Operational Plan. Reference Approved WP &amp; EP 1110-1-18</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>COMMENTS</b>
a. Contractor Following Methodology Defined in WP				
1) Daily Safety Meeting Conducted by UXOSO				
b. Detection Equipment Used				
1) Pre-Operational Checks Performed Prior to Sweep Operations				
2) Operational Condition Annotated in Log Book				
3) Team Composition				
4) Quality Control				
5) Quality Control Documentation				
c. Operational Teams Operating IAW WP				
1) UXO Supervisor conducted Physical Check Prior to Operation				



8. MEC Operational Plan. Reference Approved WP & EP 1110-1-18	Yes	No	N/A	COMMENTS
2) Pre-Operational/Safety Brief Conducted				
3) Individual Sweep Lanes Marked IAW WP				
4) Contacts Marked & Investigated Properly				
5) Results of Sweep Operation Recorded				
6) All MEC, Munitions Debris and MPPEH is examined and positively identified by at least two UXO qualified personnel.  (a) Actions taken when MEC items identified are consistent with WP/MPM.				
7) All MEC/UXO Clearly Marked				
d. QC Operations IAW WP				
e. Other Material Being Collected (as required)				
f. MPPEH Inspected/Vented/Segregated				
g. Geophysical Test Grids Appropriate and IAW SOW				
h. Project Data Base and PDAs entries are consistent with Intrusive Results				
9. Disposal Operations IAW WP and 60-1-1-31	Yes	No	N/A	COMMENTS
a. Disposal Method IAW WP				
b. Adequate Security For Disposal Operation				
c. Disposal Notification List Available				
d. All Necessary Notifications Made				
e. Movement of MEC Items, or is MEC Consolidation Feasible				
f. Protective Measures/Tamping Being Used/Appropriate for MEC Being Destroyed				
g. Disposal Procedures IAW 60A-1-1-31/WP				
h. Conducted adequate Demolition Brief				
i. Misfire Procedures Properly Performed				



<b>10. Location Survey &amp; Mapping Plan</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>COMMENTS</b>
a. Registered Land Surveyor				
b. Surveyors Received Site Specific Training				
c. UXO Escort Provided				
d. Grid Stake, Locations Swept With Geophysical Equipment Prior to Driving Stakes				
e. Survey Notes Being Recorded				
<b>11. Quality Control Plan</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>COMMENTS</b>
a. QC Operational/Checks Being Conducted IAW WP				
b. QC Grid Sweep Pattern Adequate				
c. Results of QC Checks Being Recorded				
d. Nonconformance reports issued if QC checks show discrepancies, or for QA failures				
e. Intrusive Results/Data Base/PDAs entries are checked by UXOQC				
<b>12. Vegetation Removal</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>COMMENTS</b>
a. Equipment Operated To Prevent Impact With Possible Surface MEC				
b. Cutting Does Not Present Implement Hazard				
c. UXO Personnel Monitoring Cutting Operation				
d. MEC Discovered Marked/Handled Appropriately				
e. Equipment Being Operated Safely & IAW Operators Manual				

**SIGNATURE:** \_\_\_\_\_



 <b>UXO NONCONFORMANCE AND CORRECTIVE ACTION REPORT</b>				
<b>MEC Site Identification</b>		<b>Nonconforming Process</b>		<b>Report No.</b>
MEC Site: _____		Intrusive Investigations <input type="checkbox"/>	MPPEH Management <input type="checkbox"/>	Date: _____
Grid/Area: _____		Mag and Dig Survey <input type="checkbox"/>	Other: Safety <input type="checkbox"/>	
<b>Part I (UXOQAS)</b>				
Description of Nonconforming Condition: (1)				
Apparent Quality Requirement Not Complied With: (2)				
Signature: _____ (UXOQAS)		Corrective Action Due Date: _____ Severity Level: _____		
Copy Delivered to: <input checked="" type="checkbox"/> SUXOS <input checked="" type="checkbox"/> Site Supervisor <input checked="" type="checkbox"/> SAFETY <input checked="" type="checkbox"/> MMECQCM <input checked="" type="checkbox"/> MMECSM <input checked="" type="checkbox"/> PROJECTFILES <input checked="" type="checkbox"/> ERRG Site Sup.				
Signature: _____ (Date)		Signature: _____ (Site Supervisor) (Date)		
<b>Part II OPERATIONS (Responsible Process Manager)</b>				
<b>Recommended Corrective Actions (3)</b>		Intrusive Investigations <input type="checkbox"/>	MPPEH Management <input type="checkbox"/>	Other: _____
		Mag and Dig Survey <input type="checkbox"/>	Surface Sweep <input type="checkbox"/>	
Root Cause Analysis (only for severity level 1): (4)				
Signature: _____ (SUXOS) (Date)		Signature: _____ (Date) (Site Supervisor)		
<b>Part III (Corrective Action Verification, SUXOS, PM, UXOQAS)</b>				
Corrective Action Completed: _____ (Date)		(5) Signature: _____ (SUXOS)		
Corrective Action Verified: _____ (Date)		(6) Signature: _____ (UXOQCS)		
Closeout Comments UXOQCS: (6)				
<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved                New NCR Number: _____                Signature: _____ (UXOQCS)				
<b>Note 1:</b> When all actions have been completed a copy of this form shall be attached to the Grid Final QC Report Form				

## **Appendix B**

# **NOSSA AUDIT CHECKLIST**

NOSSAINST 8020.15A

1181 **CHECKLIST FOR CONDUCTING A NOSSA AUDIT**

1182

1183 **Instructions for use:**

1184

1185 NOSSA auditors will use this checklist as a guide to evaluating  
 1186 munitions response actions.

1187

1188 **I. General information:**

1189

Audited project:	
Location(s):	
Audit date(s):	
Auditor(s):	

1190

1191 **II. Personnel contacted:**

1192

Remedial Project Manager (RPM):	
Project Manager:	
Site Manager:	
Quality Control (QC) Manager:	
Health and Safety Manager:	
Senior UXO Supervisor (SUXOS):	

1193

1194 **III. Documents and processes reviewed:**

1195

Documents		Processes	
Explosives Safety Submission	Explosives safety practices	Intrusive operations	
Work Plan	Worker qualifications	Soil sampling	
Health and Safety Plan	Site health and safety practices	Munitions treatment/ disposal operations	
Quality Control Plan	Quality Assurance and Quality Control programs	Management and disposition of MPPEH	
Standard Operating Procedures	Geophysical investigation, data management, and target reacquisition	Land use controls	

1196

NOSSAINST 8020.15A

1197 **IV. Audit checklist:**  
 1198

	Audit Questions	Response			Comments
		Y	N	N/A	
<b>A. General</b>					
1	Has a MGFID been identified? What is it?				
2	Has the current, determined, or reasonably anticipated future land use been selected? What is it?				
Additional questions or comments:					
<b>B. Training and Occupational Safety and Health</b>					
1	Do the project files contain current summaries of the training and qualifications of project personnel?				
2	Do all UXO technicians meet the DDESB TP 18 standards for their respective level?				
3	Do the digital geophysical measurement (DGM) instrument operators have specialized training or experience in the operation of the instruments?				(V5)
4	Have all site workers received the 40-hr basic HAZWOPER and 8-hr annual refresher training?				
5	Do all analog detector operators undergo annual hearing tests?				
6	Is personal protective equipment (PPE) required to ensure the health and safety of project personnel?				
7	Is each project team member outfitted with appropriate PPE?				
8	Are project personnel adequately trained for their safety during the performance of the project?				
9	Is the project free of conditions that present a clear danger to the health and safety of project personnel for which adequate equipment or controls have not been put in place?				
Additional questions or comments:					

NOSSAINST 8020.15A

Audit Questions	Response			Comments	
	Y	N	N/A		
<b>C. Quality System Documentation</b>					
1	Have all detection systems (geophysical instruments, geophysicist technicians, geophysicists, and UXO technicians) been certified on a GPO, test grid, or test plot?				
2	Is there an approved Quality Assurance Project Plan (QAPP) for the overall project?				
3	Are the project quality objectives being implemented in accordance with the QAPP? If not, explain.				
4	Do any deviations from the QAPP affect quality?				
5	Is there an implementing QC Management Plan? Have all personnel reviewed it?				
6	Are approved SOPs used in the project? Have all personnel reviewed them?				
7	Has the performance of each critical detection or navigational instrument measurements been assessed and documented during the project?				
8	Are there established procedures for responding to Corrective Action Requests (CARs)? If yes, briefly describe them.				
9	Are CAR procedures consistent with the QAPP?				
10	Have satisfactory responses been provided to all CARs?				
11	Has QC pass-fail criteria been established for each critical process? What are they?				
12	Is a process established for the QC manager to certify units of production? Briefly explain it.				
13	Are units of production that fail certification reworked and re-QC'd?				
Additional questions or comments:					
<b>D. Geophysical Instruments</b>					
1	Are geophysical instruments used for MEC detection and reacquisition? Identify the types.				

NOSSAINST 8020.15A

Audit Questions		Response			Comments
		Y	N	N/A	
2	Is a data acquisition process in place to record instrument data?				
3	Does the data recording system have a provision for documenting changes in operating parameters? If not, are changes in operating parameters documented in some other manner (e.g., field notes)?				
4	Is there a preventive maintenance (PM) schedule for all instruments?				
5	Are PM and repair logs being kept for the instruments? Were logs audited?				
6	Based on the above findings, do all instruments appear to be in good working order?				
7	Are the manufacturers' operating manuals readily available to the instrument operators?				
8	Is the frequency of calibration and the acceptance criteria specified? Describe how it is documented.				
9	Were instrument functional checks being performed? Describe how they are documented.				
10	Are representative MEC items seeded in the calibration test grid or geophysical prove-out (GPO) area?				
11	Is the test grid or GPO properly maintained? What steps were taken to prevent over-familiarization?				
12	Is instrument interference present? How are the data corrected for this?				
Additional questions or comments:					
<b>E. Anomaly Excavation and Removal</b>					
1	For those locations where there were excavations—but where no anomaly was found—was an appropriate notation/classification made, justified, and recorded (e.g., no-find, hot-rock, no-dig, greater than 4 ft deep, etc.)?				
2	Were these excavations subjected to QC inspection? If so, what was inspection criteria?				

NOSSAINST 8020.15A

Audit Questions	Response			Comments
	Y	N	N/A	
Additional questions or comments:				
<b>F. Explosives Safety</b>				
1	Are teams observing approved team separation distances?			
2	Are all explosives operations and magazines appropriately sited? Note any waivers/deviations.			
3	Have periodic electrical and grounding checks been done on all magazines?			
4	Are all vehicles transporting explosives inspected and properly equipped?			
5	Are all vehicle operators transporting explosives properly licensed?			
6	Are equipment operators and UXO observers protected behind an appropriate thickness of Plexiglas or Lexan?			(V5)
7	Is all ordnance handling equipment (OHE) used to handle, transport, lift, and position MEC inspected, weight tested, and marked?			
8	Have all radios and other electromagnetic radiation emitting devices been evaluated and certified under the Navy's Hazards of Electromagnetic Radiation to Ordnance (HERO) program? If not, was an exemption approved?			
9	Is all scrap metal removed from the site properly inspected, certified, verified, and demilitarized?			
Additional questions or comments:				

NOSSAINST 8020.15A

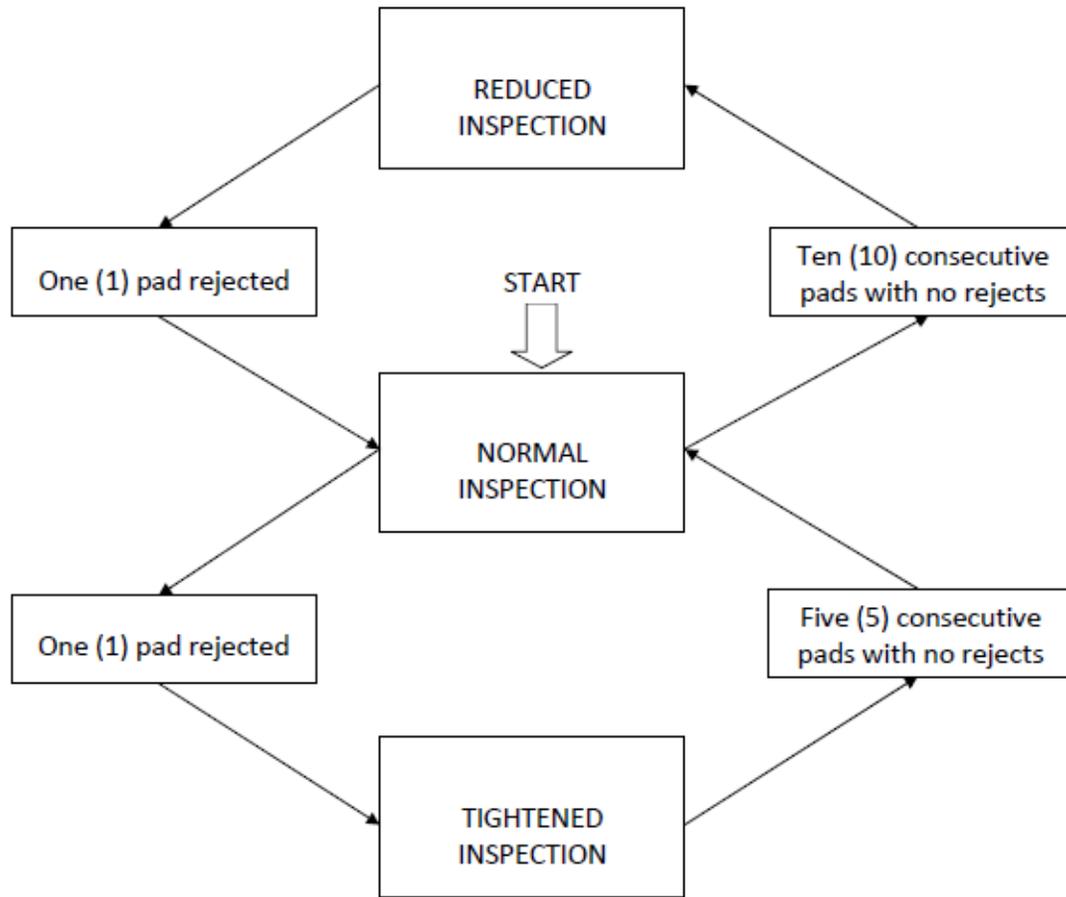
Audit Questions	Response			Comments
	Y	N	N/A	
<b>G. Environmental Considerations</b>				
1	Is all recovered MEC being managed under applicable Federal/ State environmental laws?			
2	Although storage and treatment permits are not required under CERCLA, are the substantive requirements of RCRA being met?			
3	Are environmental actions defined in the Environmental Protection Plan being properly executed?			
Additional questions or comments:				

1199

Draft (v5)

**Appendix C**  
**ACCEPTANCE SAMPLING PROCEDURES**  
**WORK INSTRUCTION FOR IMPLEMENTING ACCEPTANCE SAMPLING**

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Reference: Adapted from MIL-HDBK-1916 (1999) – Companion Document to MIL-STD-1916, Figure 4.

FIGURE 1  
SWITCHING RULES FOR CHANGING LEVELS OF INSPECTION

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