

**Environmental Compliance and
Protection Standard Operating
Procedures**

Marine Corps Base, Quantico



**Prepared by:
Environmental Management System Section
Natural Resources and Environmental Affairs Branch**

AUGUST 2013

VERSION: 1.0

This Page Intentionally Left Blank

Approval

This ECPSOP meets requirements established within MCO P5090.2A, Environmental Compliance and Protection Manual, and the MCBO 5090.2D, Environmental Program Management.

Date: 7 April 2014

Col David W. Maxwell
Base Commander
Marine Corps Base, Quantico, Virginia

Distribution: A

Copy To: GF, MCBQ
NREA, MCBQ
Files

This Page Intentionally Left Blank

This Page Intentionally Left Blank

Table of Contents

Record of Changes.....	v
Table of Contents.....	vii
List of Acronyms.....	xi
<u>Chapter 1</u>	
Introduction.....	1-1
Figure 1: Environmental Program Responsibilities.....	7-7
<u>Chapter 2</u>	
Air Program.....	2-1
<u>Chapter 3</u>	
Hazardous Materials Management Program.....	3-1
<u>Chapter 4</u>	
Hazardous Waste Program.....	4-1
<u>Chapter 5</u>	
Integrated Solid Waste Management.....	5-1
<u>Chapter 6</u>	
Pesticide Management Program.....	6-1
<u>Chapter 7</u>	
Munitions Response Program (RCRA).....	7-1
<u>Chapter 8</u>	
Polychlorinated Biphenyl (PCB) Management.....	8-1
<u>Chapter 9</u>	
Radon Monitoring and Abatement.....	9-1
<u>Chapter 10</u>	
Spill Prevention and Response.....	10-1
<u>Chapter 11</u>	
Storm Water Management Program.....	11-1
<u>Chapter 12</u>	
Storage Tank Management.....	12-1
<u>Chapter 13</u>	
Waste Water Management Program.....	13-1

Chapter 14**Environmental Compliance and Conformance Evaluation Program..14-1****Chapter 15****Conservation Law Enforcement Office Program.....15-1****Chapter 16****Fish, Wildlife, and Agronomy Program.....16-1****Chapter 17****Forest Resources Management Program.....17-1****Chapter 18****Comprehensive Environmental Training and Education Program
(CETEP).....18-1****Chapter 19****Historic and Cultural Resources Program.....19-1****Chapter 20****Environmental Restoration Program.....20-1****Chapter 21****Management Coordination.....21-1****Chapter 22****Munitions Response Program (CERCLA).....22-1****Chapter 23****National Environmental Policy Act Coordination Program.....23-1****Chapter 24****Noise Monitoring and Abatement.....24-1****Chapter 25****Pollution Prevention (P2) Program.....25-1****Chapter 26****Base Energy and Water Management Program.....26-1****Chapter 27****Potable Water Management Program.....27-1****Chapter 28****Asbestos Control Program.....28-1**

Chapter 29

Lead Safety.....29-1

Chapter 30

Medical and Infectious Waste Management Program.....30-1

APPENDICES

Table A-1 ECPSOP Practice Table.....A-1

This Page Intentionally Left Blank

List of Acronyms

ACHP	Advisory Council on Historic Preservation
ACM	Asbestos Containing Material
AC/S	Assistant Chief of Staff
AICUZ	Air Installation Compatible Use Zone
AL	Action Level
APM	Asbestos Program Manager
APZ	Accident Potential Zone
ARPA	Archaeological Resources Protection Act
AST	Aboveground Storage Tank
AUL	Authorized Use List
BMP	Best Management Practice
BOSS	Base Operations Support Service
BUMEDINST	Bureau of Medicine Instruction
CAA	Clean Air Act
C&D	Construction and Demolition Debris
CE	Categorical Exclusion
CECOS	Civil Engineer Corps Officers School
CETEP	Comprehensive Environmental Training and Education Program
CFR	Code of Federal Regulations
CG/CO	Commanding General/Commanding Officer
CLE	Conservation Law Enforcement
CMC	Commandant of the Marine Corps
CMC (LF)	Commandant of the Marine Corps, Facilities and Services Division
CRM	Cultural Resources Manager
CWA	Clean Water Act
CWAA	Clean Water Act Amendments of 1987
DLA	Defense Logistics Agency
DMM	Discarded Military Munitions
DMR	Discharge Monitoring Report
DoD	Department of Defense
DoDEA	Department of Defense Education Activity
DoDI	Department of Defense Instruction
DoN	Department of the Navy
DUERS	Defense Utility and Energy Reporting System
E ² MS	Environmental and Energy Management Systems
EA	Environmental Assessment
EC	Environmental Coordinator
ECE	Environmental Compliance Evaluation
ECO	Energy Conservation Officer
ECPSOP	Environmental Compliance and Protection Standard Operating Procedure
EIRB	Environmental Impact Review Board
EIS	Environmental Impact Statement
EMS	Environmental Management System
EO	Executive Order
EOD	Explosive Ordinance Disposal
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act

ESACC	Expended Small Arms Cartridge Casings
FFA	Federal Facilities Agreement
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FMS	Facilities Maintenance Section
FONSI	Finding of No Significant Impact
FWA	Fish, Wildlife, and Agronomy
FY	Fiscal Year
GIS	Geographic Information Systems
HAZCOM	Hazard Communication
HAZMINCEN	Hazardous Material Minimization Center
HAZWOPER	Hazardous Waste Operations and Emergency Response
HM	Hazardous Material
HMMP	Hazardous Material Management Program
HMMS	Hazardous Material Management System
HQMC	Headquarters Marine Corps
HS	Hazardous Substance
HW	Hazardous Waste
HWC	Hazardous Waste Coordinator
HWMP	Hazardous Waste Management Program
IC	Incident Commander
ICRMP	Integrated Cultural Resources Management Plan
ICS	Incident Command System
IH	Industrial Hygienist
INRMP	Integrated Natural Resources Management Plan
IPM	Integrated Pest Management
IPMC	Integrated Pest Management Coordinator
IRP	Installation and Restoration Program
ISMP	Integrated Spill Management Plan
LBP	Lead-Based Paint
LCM	Lead Containing Materials
Ldn	Day-Night Average Sound Level
LPM	Lead Program Manager
LQG	Large Quantity Generator
LSP	Lead Safety Program
MARCORSYSCOM	Marine Corps Systems Command
MC	Military Constituents
MCAF	Marine Corps Air Facility
MCBO	Marine Corps Base Order
MCBQ	Marine Corps Base, Quantico
MCO	Marine Corps Order
MEC	Munitions and Explosives of Concern
MOA	Memorandum of Agreement
MOM	Measure of Merit
MRA	Munitions Response Area
MRP	Munitions Response Program
MRS	Munitions Response Site
NAGPRA	Native American Graves Protection and Repatriation Act
NAVFAC	Naval Facilities Engineering Command
NAVRAMP	Navy Radon Assessment and Mitigation Program

NAVMC	Navy Marine Corps
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Agency
NHC	Naval Health Clinic
NHPA	National Historic Preservation Act
NMMC	National Museum of the Marine Corps
NOI	Notice of Intent
NOPRS	Navy Online Pesticide Reporting System
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List
NREA	Natural Resources and Environmental Affairs
NRHP	National Register of Historic Places
ODS	Ozone Depleting Substance
OPMAN	Operations Management Division
OPNAVINST	Office of the Chief of Naval Operations Instruction
OSHA	Occupational Safety and Health Administration
P2	Pollution Prevention
P2ADS	Pollution Prevention Annual Data Summary
PA	Preliminary Assessment
PA	Programmatic Agreement
PCB	Polychlorinated Biphenyl
PCO	Property Control Office
POL	Petroleum, Oil, and Lubricants
PPE	Personal Protective Equipment
PPV	Public Private Venture
PWB	Public Works Branch
QPMT	Quantico Projects Managers Team
QRP	Qualified Recycling Program
RACM	Regulated Asbestos Containing Material
RCRA	Resource Conservation and Recovery Act of 1976
REIA	Request for Environmental Impact Analysis
ROD	Record of Decision
ROICC	Regional Officer in Charge of Construction
SAP	Satellite Accumulation Point
SARA	Superfund Amendments Reauthorization Act
SDS	Safety Data Sheets
SES	Senior Executive Service
SHPO	State Historic Preservation Officer
SI	Site Investigation
SOP	Standard Operating Procedure
SPR	Spill Prevention and Response
SOW	Scope of Work
STEP	Status Tracker for Environmental Programs
STP	Sewage Treatment Plant
SWMAP	Storm Water Management Action Plan
SWP	Small Whorled Pogonia
T&E	Threatened & Endangered
TSCA	Toxic Control Substances Act of 1976

UCS	Unified Command Structure
USACE	United States Army Corps of Engineers
USC	United States Code
USCG	United States Coast Guard
USMC	United States Marine Corps
UST	Underground Storage Tank
UXO	Unexploded Ordnance
VAC	Virginia Administrative Code
VAPCL	Virginia Air Pollution Control Law
VDEQ	Virginia Department of Environmental Quality
VPDES	Virginia Pollution Discharge Elimination System
WEBCASS	Web Compliance Assessment and Sustainment System

CHAPTER 1

Introduction1. Purpose

a. Per Marine Corps Order (MCO) 5090.2A, Marine Corps installations are required to establish an Environmental Compliance and Protection Standard Operating Procedure (ECPSOP) document to identify all applicable organizational and environmental policies, procedures, roles and responsibilities.

b. Per Marine Corps Base Order (MCBO) 5090.2D, Marine Corps Base Quantico's (MCBQ) Environmental Management System (EMS) Manual provides the framework associated with the implementation and operation of the EMS aboard MCBQ, including the development and implementation of the ECPSOP.

c. The purpose of this ECPSOP is to provide the operational controls for all environmental media at MCBQ in compliance with MCO 5090.2A; and as applicable, to provide references to Environmental Media Program Management Plans (Program Plans) or other MCBOs.

d. Specific EMS-related administrative procedures are provided in the MCBQ Management Coordination Plan (MCP), as described in Chapter 21 of this ECPSOP.

2. Policy and Objectives

a. Policy. The ECPSOP is designed to support the Base Commander's Environmental Policy in a manner that demonstrates a firm commitment to:

(1) Improving Quantico's environment in a manner that enhances Quantico's value as a premier support and training facility;

(2) Complying with all applicable environmental laws, regulations, and policies in order to sustain our capacity to train and to support our Marines, Sailors, Civilian Marines, and their families;

(3) Reducing energy and water consumption through conservation and efficiency to meet federal energy and water reduction mandates and reduce utility costs;

(4) Preventing pollution and spills, while minimizing the use of hazardous materials, reducing waste sources, and ensuring a safer and cleaner environment. If spills do occur, immediately report and clean them properly;

(5) Minimizing soil erosion, fire hazards, and other threats to our cultural and natural resources.

b. Objectives. The ECPSOP provides information concerning operational controls for MCBQ's EMS, organized by environmental media, and provides guidance for Installation programs that:

(1) Protect human health and the environment.

(2) Comply with all applicable regulations, policies, and orders.

3. Requirements and Scope

a. General Requirements

(1) United States Marine Corps (USMC) units and personnel regularly conduct activities during day-to-day operations and training that may impact human health and the environment. To govern these actions, Headquarters Marine Corps (HQMC) has issued MCO P5090.2A, Environmental Compliance and Protection Manual.

(2) Section 2226 of MCO P5090.2A states that "Installation commanders will publish an environmental compliance and protection standard operating procedures (ECPSOP) document." MCBQ, also referred to as "the Base," has prepared this document to satisfy the requirements of the ECPSOP required by MCO 5090.2A.

(3) MCBQ has developed Environment Management Programs that are structured around federal, Commonwealth of Virginia (hereafter referred to as Virginia or state), Department of Defense (DoD), and HQMC regulatory requirements. The Natural Resources and Environmental Affairs (NREA) Branch has primary responsibility and oversight for the majority of environmental programs at MCBQ; however, as noted in this ECPSOP, specific chapters call out responsible parties for each program/media area. Requirements under each program have a corresponding written plan or instruction which are maintained by program managers, reviewed annually, and updated as required.

b. Scope

(1) This document is directed towards all Marines, Sailors, families, civilians and contractors who work and/or live within the fence line of the Base.

(2) The ECPSOP is implemented under the direction of the Commander, MCBQ and carries the Commander's authority for implementing the programs described herein.

4. Overview

a. The ECPSOP is organized into several chapters, which reflect those elements required by MCO P5090.2A and the International Organization for Standardization (ISO) 14001 standard applicable to EMS programs. Chapter 1 provides an overview of the ECPSOP and Chapters 2 through 30 describe each environmental program in the following format:

- (1) Requirements.
- (2) Practices.
- (3) Definitions.
- (4) Program Overview.
- (5) Program Roles and Responsibilities.
- (6) Training Requirements.
- (7) Communications.
- (8) Practice Control.
- (9) Emergencies.
- (10) Records Control.
- (11) Sampling, Monitoring, Measuring, and Reporting Requirements.
- (12) Pertinent Documents.

b. The NREA Branch, GF Installation and Environment Division, manages the environmental compliance and conformance programs at MCBQ. NREA is composed of five sections, the functions and duties of which are described in paragraphs 5.a.(1) through 5.a.(5).

c. At MCBQ, the Safety Division manages the Lead-based Paint (LBP) and the Asbestos Programs. The Naval Health Clinic (NHC) Quantico is responsible for managing the Medical and Infectious Waste Management Program. Radon Monitoring and Abatement is a multidisciplinary effort that includes Public Works Branch (PWB), GF Installation and Environment Division, NREA Branch, NHC Quantico, Safety Division, Department of Defense Education Activity (DoDEA), and Lincoln Military Housing. Energy and water conservation as well as potable water management are managed through the PWB. All of the aforementioned programs are included in this ECPSOP.

5. Roles, Responsibilities, and Resources. The responsibility for managing and implementing the majority of MCBQ's environmental

programs falls under the NREA Branch; however, several programs are managed by the PWB, Safety Division, and NHC Quantico, as summarized in **Figure 1**, Environmental Program Responsibilities. All environmental programs aboard MCBQ shall be managed in the most effective and efficient way within approved resources, program cost, performance, and schedule.

a. NREA Branch, GF, Installation and Environment Division. This branch manages and coordinates the implementation of natural resources and environmental programs for MCBQ. The goals of the NREA Branch include: management and conservation of natural and cultural resources; protection of natural resources from environmental harm; and reduction and proper management of hazardous materials and hazardous wastes [including implementation of a pollution prevention (P2) Program]. Above all, the NREA Branch ensures compliance with, and enforcement of, federal, state, DoD, and USMC environmental laws, regulations, orders, and mandates.

(1) Administrative Section. Administrative staff is comprised of the Branch Head, the Deputy, and the administrative assistant. Branch leadership provides oversight and direction for the other NREA sections, as well as budgetary support, communication with GF and higher, and other services as needed. The Administrative Section:

(a) Develops and tracks the NREA budget for MCBQ and coordinates the budget with HQMC.

(b) Tracks all executed budget data into the Status Tracker for Environmental Programs (STEP) for use by HQMC.

(c) Provides administrative support and services to the NREA.

(2) Environmental Compliance Section. This section provides daily coordination, oversight, and management of the environmental compliance programs (e.g., Storage Tank Management Program, Hazardous Waste Program, Air Program, etc.) in accordance with MCO P5090.2A. Refer to subsequent chapters for a discussion of each environmental media program.

(3) Environmental Auditing Section. This section is responsible for implementing an annual MCBQ self-evaluation program at "every permitted site and source, every process which generates a waste or may be considered a potential source, and every command/unit and tenant" at MCBQ, in accordance with MCO 5090.2A. In cooperation with the Environmental Planning Section, the information attained by this section during the annual MCBQ self-evaluation program is incorporated into year-end conformance assessments [Internal Environmental Compliance Evaluations (ECEs)] and triennial HQMC External (Benchmark) ECEs, as discussed in greater detail in Chapters 14 and 21 of this ECPSOP.

(4) Environmental Planning Section. This section consists of the Environmental Management System (EMS) Coordinator, the Pollution Prevention/Sustainability Program, the National Environmental Policy Act (NEPA) Coordination Program, Cultural Resources Management Program, Noise Management Program, Comprehensive Environmental Training and Education Program (CETEP), and the Installation Restoration Program. Specific coordinator and program specific requirements and procedures are discussed in the corresponding, subsequent chapters.

(5) Natural Resources Section. This section is comprised of the Conservation Law Enforcement Program (CLEP), Forest Resources Management Program, and the Fish, Wildlife, and Agronomy (FWA) Program. Specific program requirements and procedures are discussed in the corresponding, subsequent chapters.

b. Safety Division. MCBQ Safety Division is responsible for implementing and oversight of the Base's Asbestos Awareness Program and LBP Prevention Program.

c. NHC Quantico. The NHC Quantico manages the Base's Medical and Infectious Waste Program.

d. PWB, GF Installation and Environment Division. PWB manages the Base's potable water infrastructure and ensures water is available to personnel for activities such as drinking, bathing, cleaning, and fire response. The PWB is also responsible for implementing energy and water conservation measures at MCBQ.

e. Host and Tenant Command Environmental Coordinators (ECs). ECs are personnel that are responsible for environmental awareness at the command level. ECs also maintain and manage environmental procedures at their respective commands. As stated in MCBQ 5090.2D, refer to the MCBQ Management Coordination Plan (MCP) for a description of EC duties and requirements.

6. Document and Record Control

a. In accordance with MCO P5090.2A, each installation and unit shall prepare and maintain desktop procedures for each environmental billet. This requirement applies, but is not limited to all of the responsible parties listed in paragraph 5. These desktop procedures shall be in place to maintain continuity of daily operations and to ensure continued environmental compliance in the event of personnel turnover. In addition to desktop procedures, MCO P5090.2A requires environmental billets to maintain turnover folders. Turnover folders must contain information specific to the billet that will ensure program continuity. Pertinent information to be included:

(1) The billet title; supervisor's title; title of any subordinate personnel.

(2) A description of the billet and a list of essential tasks and/or practices associated with the billet and required training.

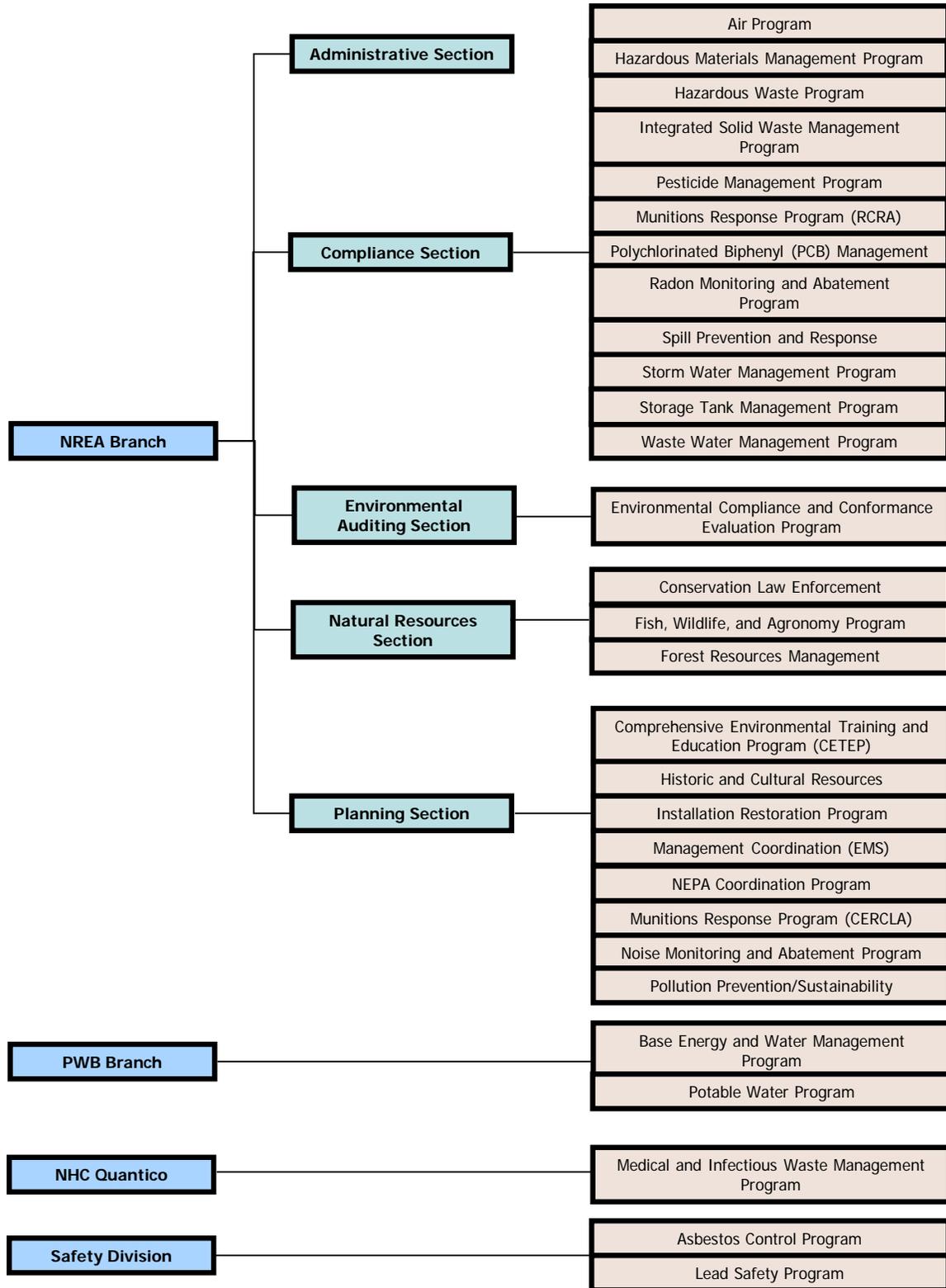
(3) List of applicable environmental laws and regulations related to the specific billet.

(4) A list of required reports, due dates, and records; a listing of required environmental compliance permits.

(5) For more information, a full listing of elements required in turnover folders are described in Appendix B-2, Section B of MCO P5090.2A.

b. Program-specific documents (e.g., program plans and permits) and record control processes are described in the subsequent chapters of this ECPSOP, as applicable.

Figure 1: Environmental Program Responsibilities



This Page Intentionally Left Blank

Chapter 2

Air Program

1. Requirements. In 1970, The Clean Air Act (CAA) was established to develop comprehensive federal and state standards for mobile and stationary emission sources. The CAA also established the National Ambient Air Quality Standards (NAAQS) for criteria pollutants, the National Emission Standards for Hazardous Air Pollutants (NESHAP), and other programs governing emission estimates and reduction plans. The most recent major amendment to the CAA was in 1990. The Virginia State Air Pollution Control Board (SAPCB) governs state requirements and implements state-delegated functions of the CAA. The federal and state standards exist to protect human health and prevent deterioration of the environment from unnecessary air pollutants. The MCBQ Air Program exists to implement the compliance and reporting requirements of the CAA and SAPCB.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this program. A summary of the specific practices associated with this program is provided in Table A-1, of Appendix A.

3. Definitions

a. Criteria pollutants. Commonly found air pollutants (ozone, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxides, and lead).

b. Mobile emission source. Emission generating source(s) that move around (e.g., cars, buses, aircraft).

c. Ozone depleting substance (ODS). Materials, when released freely, facilitate the degradation of the Earth's ozone layer.

d. Stationary emission source. Emission generating source(s) that are permanently stationed (e.g., stationary generators, boilers, engine test stands, paint booths).

4. Program Overview

a. Air emission sources on MCBQ include internal combustion units (e.g., emergency generators, fire pumps, and natural gas compressors), external combustion units (e.g., boilers, space heaters, and water heaters), other stationary sources, and mobile sources. In addition, MCBQ operates heating, ventilating, and air conditioning (HVAC) systems and motor vehicles that contain refrigerant gasses classified as ODS. Many of the emissions sources on MCBQ are regulated by the Federal New Source Performance Standards (NSPS) and the NESHAP rules.

b. All emission sources that existed prior to 2010 and are not operated by select tenant organizations (Marine Corps Community Services, DoDEA, and the Defense Commissary Agency) are regulated under a New Source Review (NSR) Permit dated 10 January 2010 (as amended 15 February 2012). In addition, MCBQ operates under a Reasonably Available Control Technology (RACT) permit dated 2 June 2000 and a Title V Permit dated 3 September 2003. Although the Title V Permit expired in 2008, the SAPCB considers the permit to remain in effect until a renewal is issued.

c. The types of primary emission sources common at MCBQ are listed below:

(1) External Combustion Units. All boilers, water heaters, and space heaters installed prior to the date of the Base's NSR Permit are subject to fuel throughput limitations and fuel quality standards. Oil-fired units may be subject to more stringent NESHAP requirements or air permit limitations. Refer to the air permits and NESHAP Subpart JJJJJJ for more information.

(2) Diesel/Natural Gas/Propane Engine Generators. All generators installed prior to the date of the Base's NSR Permit are subject to operating limitations and fuel quality standards. All engines are subject to NSPS and/or NESHAP requirements. Specific units may be subject to more stringent requirements, such as air pollution control equipment. Refer to the air permits, NSPS Subpart IIII and JJJJ, and NESHAP Subpart ZZZZ for more information.

(3) ODS. ODS are utilized for both mission critical and non-mission critical applications. ODS containing items are commonly referred to as "white goods" and include things such as refrigerators and water coolers. White goods must be turned into Defense Logistics Agency (DLA) Disposition Services for proper disposal. Purposefully venting an ODS is strictly prohibited.

(4) Motor Vehicles. Most non-tactical government vehicles must have an emissions test every two years to ensure factory installed emission control equipment is functional. Certain overweight, antique, or alternative fuel vehicles may be exempt from emissions testing requirements. Typically, emissions testing is coordinated through the Fleet Manager. Personal vehicles are also required to comply with localized Virginia air emissions testing requirements by virtue of MCBQ's location within a designated nonattainment area for certain NAAQS.

(5) Solvent Tanks. All cold cleaning machines (remote reservoir and immersion tanks) must be operated according to permit requirements (e.g., covered when not in use and appropriate/visible signage).

(6) Fuel Dispensing/Vehicle Refueling. Equipment designed to reduce the escape of gasoline vapors to the atmosphere must be installed, used, and inspected daily to ensure functionality.

5. Program Roles and Responsibilities

a. The Air Program Manager (APM) shall:

(1) Coordinate, organize, implement, and track the Base-wide effort to maintain compliance with the federal and state air pollution control regulations and associated permits.

(2) The APM acts as a liaison between MCBQ and the regulatory agencies delegated the authority to implement the CAA.

b. The Head of the Facilities Maintenance Section (FMS) and activity or tenant command EC shall:

(1) Ensure operations personnel are properly trained to perform their duties and are completing their duties. Duties controlled by the Head of FMS and EC include, among others, generator maintenance, handling or transporting ODS, and documentation and recordkeeping.

(2) Record use of ODS materials and generator run-times, in spreadsheet form, and provide monthly reports to the APM.

(3) Provide data, as required, to the APM.

c. All personnel under the authority of the Commander (active duty, civil servants, and contractors) must attend environmental awareness training commensurate to the responsibilities of their job (e.g., personnel handling ODS materials should attend training for ODS materials and must be certified if working as a technician servicing ODS-containing equipment).

6. Training Requirements

a. The APM is required to receive hazard communication (HAZCOM) training and visible emissions evaluator certification (EPA Method 9).

b. The APM shall provide informal training for data collection and reporting personnel on an as needed basis. The APM will also provide site-specific training for all certified personnel working with ODS and all personnel at the fuel dispensing/vehicle refueling facilities that employ Stage I and Stage II vapor recovery systems (i.e., the gas station and government fueling station).

c. All personnel at the Camp Barrett Heat Plant, and any personnel working with generators at Buildings 2134, 3255, 2033,

27410, 3098, 2133, 2132, 27310, and 27414 must receive formal operations and maintenance training.

7. Communications. The NREA Branch APM acts as the liaison for general correspondence between MCBQ and the regulatory agencies delegated the authority to implement the CAA. All new emission sources require the approval of the APM as part of the NEPA process. Official reports and correspondence provided to regulatory agencies require the signature and approval of the NREA Branch Head or Deputy, unless otherwise delegated. The APM uses the MCBQ EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ Management Coordination Plan for greater detail concerning communication procedures.

8. Practice Control

a. As mentioned in paragraph 2 of this chapter, practices performed at MCBQ that are associated with the Air Program are listed in Table A-1, Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, Environmental Standard Operating Procedures (ESOPs) are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The APM reviews all applicable draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. All new construction utilizes non-ODS refrigerants, as verified through APM review of construction specifications during the NEPA Process (see Chapter 23). In accordance with MCO P5090.2A (CH 1-2), MCBQ tracks: ODS system leak rates; equipment replacement; supply management; and recycling and reclamation of Class 1 and Class 2 ODSS by implementing paragraphs 5.b.(2), 10.a, and 11.c of this chapter.

c. All other operational controls are documented through MCBQ's Title V Air Permit and New Source Review Permit, and other regulatory requirements and mandates referenced in paragraph 12 of this chapter.

9. Emergencies

a. MCBO 6240.2A. A Standby Emissions Reduction Plan is attached to MCBO 6240.2A and specifies the only emergency response situation associated with the Air Program. The Standby Emissions Reduction Plan identifies specific measures to be taken to reduce air pollution emissions from particular facilities in the event that the accumulation of air pollutants reaches a level that could cause significant harm to public health. The Virginia Department of Environmental Quality, Air Regional Office (VDEQ-AIR) determines when these situations arise and notifies MCBQ in the event of an air pollution episode. Should the VDEQ-AIR declare an air pollution episode, the Director, Installation and Environment Division (GF),

initiates action to implement the emission reductions corresponding to the air pollution episode stage declared. The Commander ultimately retains the inherent authority to determine what operations are essential to the Base's mission and personnel.

b. No other practices performed at MCBQ could have potential emergency situations associated with the Air Program. Such events would be handled through other NREA Programs (e.g., Spill Prevention and Response, Storage Tank Management Program, etc.).

10. Records Control

a. Air Program Manager maintains air compliance records via Excel spreadsheet, on available NREA Branch electronic media (i.e. SharePoint and/or Share Drive). A separate ODS equipment database is also maintained by NREA Branch. This database documents all ODS containing equipment, ODS recycling/recovery equipment, and ODS gas cylinders on deck at MCBQ.

b. Personnel must maintain records of all their formal training at their work location/facility.

c. Extensive recordkeeping requirements are included in the conditions of MCBQ's permits. Refer to MCBQ's Title V permit and NSR permit for explicit recordkeeping requirements for each type of emissions source.

11. Sampling, Monitoring, Measuring and Reporting Requirements

a. Most non-tactical government vehicles must have an emissions test every two years to ensure factory installed emission control equipment is functional. Certain overweight, antique, or alternative fuel vehicles may be exempt from emissions testing requirements. Typically, emissions testing is coordinated through the Fleet Manager. An annual report is required to demonstrate the compliance status of the Base.

b. All personal vehicles must also be tested in accordance with Virginia local emissions testing requirements. The ARP is responsible for coordinating the confirmation of those tests with the vehicle registration office on MCBQ, and maintaining records of compliance.

b. The Base is classified as a major source and therefore subject to the monitoring and reporting requirements of Title V of the CAA and the associated permits.

c. ODS are monitored and reported to the APM on a continual basis. HQMC has a reporting requirement for an installation's annual usage of ODS. Personnel authorized to use ODS shall report quantities stored as well as quantities used. Personnel shall also provide

copies of any applicable authorization letters and training records to the APM.

d. Solvent cleaning tanks are required to have quarterly inspections.

12. Pertinent Documents

a. Operational Control Documents

(1) MCBO 6240.2A, Air Pollution Episode, Standby Emission Reduction Plan and Open Air Burning Policy, dated 16 July 2010.

(2) MCBQ New Source Review Permit, issued 8 January 2010 and amended 15 February 2012.

(3) MCBQ Virginia Title V Operating Permit, issued 3 September 2003.

b. Reference Documents

(1) 42 USC 85, Air Pollution Prevention and Control, (Clean Air Act of 1970 and subsequent amendments [e.g., 1990]).

(2) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 6 - Air Quality Management, dated W/CH 1-2.

(3) MCBul 5090, Policy Pertaining to ODS, 1-November-1993.

(4) OPNAVISNT 5090.1C, Environmental Readiness Program Manual, Chapter 7 - Clean Air Ashore, dated May 17, 2010.

(5) VAC 5 *et seq.*, Commonwealth Air Pollution Control Board, (Virginia Administrative Code of 1996 and subsequent amendments).

Chapter 3

Hazardous Materials Management Program

1. Requirements. It is USMC policy that commands / installations / activities shall control and manage Hazardous Materials (HM) using methods that minimize the types and quantities of HM procured, stored, distributed, and used to accomplish mission requirements. Compliance with this P2 requirement is critical to USMC efforts to reduce unnecessary risks and costs from excess or expired HM inventories; protect the environment from HM releases; enhance the safety of our military and civilian workforce; and ultimately enhance readiness. The federal laws mandating the management of HM include the Emergency Planning and Community Right-to-Know Act (EPCRA), the Hazard Communication Standard, the Superfund Amendments and Reauthorization Act (SARA), and the P2 Act. These laws require DoD installations to provide data to federal, state, and local agencies on the types and quantities of HM stored, used, and disposed of by those installations.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this program. A summary of the specific practices associated with this program is provided in Table A-1 of Appendix A.

3. Definitions

a. Authorized use list (AUL). List of approved HM necessary to support the mission requirements of the command, facility, or activity.

b. Cradle-to-grave. Full life accountability for HM and Hazardous Waste (HW), i.e., tracking from purchase to final use and disposal.

c. HM. Material that, because of its quantity, concentration, or physical or chemical characteristics, may pose a real hazard to human health or the environment.

d. Hazardous Material Management System (HMMS)/Hazardous Substance Management System (HSMS). Software developed to track HM and/or HW from pre-acquisition, receipt, labeling, and storage through usage.

4. Program Overview

a. To effectively manage HM and HW located aboard MCBQ from "cradle-to-grave," a Hazardous Materials Management Program (HMMP) has been implemented. The HMMP establishes P2 measures to eliminate/minimize environmental costs, minimize procurement of HM, and reduce the generation of pollution from operations, through the tracking HM procurement, store, use, and disposed of by MCBQ.

b. This process has recently been improved through the use of the electronic tracking system, HMMS. This system will reduce the amount of HM procured and used, reduce the amount of subsequent HW generated by up-front HM control in procurement, and minimize environmental impacts.

5. Program Roles and Responsibilities. Refer to MCBO 6280.4 for program roles and responsibilities for Commanding Generals, Commanding Officers and Division Directors, GF Division, Safety Division, ROICC, PWB, NREA Branch, Security Battalion and Fire Prevention and Protection Branch.

6. Training Requirements. The following training requirements exist for personnel who are involved in the management or handling of HM as part of their regular job duties:

- a. Hazardous Communication Training
- b. General Awareness/Familiarization Training
- c. Function-Specific Training
- d. Safety Training
- e. Emergency Response Training
- f. Security Awareness Training

g. Occupational Safety and Health Administration (OSHA) and EPA Training (Refer to the CETEP Manual for great detail)

7. Communications. The NREA Branch, HM Program Manager acts as the liaison for general correspondence between MCBQ and the regulatory agencies delegated the authority to implement EPCRA, Hazard Communication Standard, SARA, or P2. Official reports and correspondence provided to regulatory agencies require the signature and approval of the NREA Branch Head or Deputy, unless otherwise delegated. The HM Program Manager uses the MCBQ EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ Management Coordination Plan for greater detail concerning the communication procedures.

8. Practice Control

a. As mentioned in paragraph 2 of this Chapter, practices performed at MCBQ that are associated with the HM Program are listed in Table A-1, Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, Environmental Standard Operating Procedures (ESOPs) are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The HM Program Manager reviews all draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. In-depth practice controls are provided in MCBO 6280.4 and are available electronically for downloading through the MCBQ website (<http://www.quantico.usmc.mil/directives.aspx?Command=MCBQ>).

c. All other HM Program operational controls, regulatory requirements, and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. Practices performed at MCBQ that could result in potential emergency situations associated with the HM Program are managed through the Base's Integrated Spill Management Plan (ISMP) by the Spill Prevention and Response Program (refer to Chapter 10).

10. Records Control

a. All HM records are maintained electronically through HMMS/HSMS, the automated information management system for tracking hazardous substances. HMMS/HSMS is a powerful software tool used for HM tracking, and providing data for compliance reporting. The data records are maintained on a standalone server, backed up weekly.

b. Host and tenant command ECs must ensure that they or their shop and work center personnel provide a HM Usage Report to the HMMS Manager on a monthly basis.

11. Sampling, Monitoring, Measuring, and Reporting Requirements

a. As mentioned under Records Control of this chapter, ECs must ensure that a HM Usage Report is provided to the HMMS Manager on a monthly basis. To complete this report, they or their staff must perform an inventory of all HM they possess.

b. Data relating to HM usage is transmitted, as needed, to the APM, personnel preparing the Base's EPCRA report, and other Program Managers. As described above, this data is required for reporting to various regulatory agencies.

12. Pertinent Documents

a. Operational Control Documents

- (1) MCBO 6280.4, Hazardous Materials Management Program.
- (2) MCBO P5100.1C, MCBQ Safety and Occupational Health Program.
- (3) MCBO P11320.1, Fire Protection/Prevention Program.

b. Reference Documents

- (1) 14 USC 11001, *et seq.*, Emergency Planning and Community Right-to-Know Act.
- (2) 42 USC 133, *et seq.*, Pollution Prevention Act of 1990.
- (3) 29 CFR 1900.1200, Hazard Communication.
- (4) 49 CFR 173.2, Hazardous material classes and index to hazard class definitions.
- (5) EO 13423, Strengthening Federal Environmental, Energy, and Transportation Management.
- (6) Marine Corps Bulletin, Marine Corps Policy for the Reuse of Hazardous Materials.
- (7) Marine Corps Bulletin, Marine Corps Policy for Installation Hazardous Material Authorized Use Lists.
- (8) Marine Corps Bulletin, Marine Corps Policy for the Submission of Installation Material Safety Data Sheets (MSDSs) to the Hazardous Materials Information Resource System (HMIRS)
- (9) MCO 4450.12A, Storage and Handling of Hazardous Materials.
- (10) MCO P5090.2A, Environmental Protection and Compliance Manual, Chapter 15 - Pollution Prevention.
- (11) National Fire Protection Association Standards.

Chapter 4

Hazardous Waste Program

1. Requirements. MCBQ is a large quantity generator (LQG) of hazardous waste (HW). Many practices that are common to MCBQ generate different types of hazardous waste streams. These waste streams are classified, managed, and disposed of per meeting one or more of four characteristics that determines if a waste is hazardous for proper disposal. The characteristics are ignitability, corrosivity, reactivity, and toxicity. Generator knowledge and laboratory analysis is used when determining these factors. The Hazardous Waste Program was developed and implemented to, but not limited to, following and implementing the "cradle to the grave" concept in tracking of hazardous wastes from the generator (e.g., producer of a hazardous waste steam) through ultimate disposal. This includes managing, tracking, and enforcing environmental compliance with all local, state, and federal environmental laws in accordance with MCO P5090.2A, Chapter 9, and Quantico's Hazardous Waste Management Plan (HWMP), which establishes procedures to achieve and maintain regulatory compliance with the RCRA, Title 40, Code of Federal Regulation (CFR), Protection of Environment; Title 49 CFR, Transportation; and Virginia Administrative Code, 9 VAC 20-60-10 et seq.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this Hazardous Waste (HW) Program. A summary of the specific practices associated with this program is provided in Table A-1 of Appendix A.

3. Definitions

a. Environmental Coordinator (EC). Personnel appointed as the command point of contact for matters involving all environmental issues or concerns to include management of HW and Universal Waste (UW) sites/operations in compliance with all federal, state, and local environmental laws.

b. Less than (<) 90-day Accumulation Site. Area designated at or near a waste-generation point where waste is stored before being shipped off-site for disposal. Full containers of HW removed from Satellite Accumulation Areas (SAAs) may be relocated here.

c. Hazardous Waste. Liquids, solids, gases, or sludge's that may pose a threat to human health and the environment.

d. Hazardous Waste Site Manager (HWSM). Personnel designated as responsible for managing hazardous waste sites (<90-day, SAA, and/or UW) at the organization level (also referred to as a practice owner through EMS).

d. Large Quantity Generator (LQG). A facility that creates 2,200 pounds (lbs) or more of HW or more than 2.2 lbs of acute HW per calendar month.

e. Acute HW. Any waste listed under 40 CFR 261.31 through 261.33(d) with a hazard code of H. These include USEPA Hazardous waste numbers: F020, F021, F022, F023, F026, and F027 and the P listed wastes (40 CFR 261.31 through 261.33).

f. Manifest. Document that captures, tracks, and records off-site shipment information and ultimate disposal of HW.

g. Satellite Accumulation Area (SAA). Area designated at or near a waste-generation point that may not accumulate more than 55 gallons of hazardous waste or one quart of acute hazardous waste.

h. Universal Waste. A category of waste that is not designated as HW, but is widely generated and must be prevented from unrestricted release into the environment (e.g., batteries, pesticides, mercury-containing equipment, and bulbs/lamps).

4. Program Overview

a. The MCBQ HWMP provides guidance to all personnel on the accumulation, storage, management, transportation, and disposal of HW(s) generated during normal daily operations and special activities (e.g., construction or renovation projects). The HW Program accomplishes its goals through an effective combination of compliance inspections, assistance visits, and training for responsible parties.

b. The Installation is categorized as a LQG and is composed of five < 90-day Storage Sites, 10 SAAs, and 13 UW Sites. NREA provides a waste pick up service to remove waste from all generating commands/units and tenant organizations for final disposal by off-site authorized transport contracted services. The three types of accumulation/storage sites have varying requirements which are described below:

(1) < 90-day storage sites require containers to be properly labeled, in good condition, compatible with waste being stored, kept closed when not in use, and have adequate isle space. The facility must have fire, spill, and eye wash working equipment to include a communication or alarm system that is available. < 90 day sites are authorized to store multiple waste streams and amounts and must be inspected weekly. Waste shall be removed/picked up from unit sites within 10 days by NREA HW/UW pickup service and transported to the NREA < 90 site, located at the HW Warehouse, which acts as a consolidated pick-up/drop-off location for removal from the Base.

(2) SAAs have the same container requirements as the < 90 day sites, but are only authorized to store waste in quantities not to exceed 55 gallons or one quart of acute HW in total. Containers are to

be labeled with the container's contents and the accumulation start date. When the container is full it must be moved to a < 90-day storage site within three days.

(3) UW Sites are set aside for the accumulation and storage of UW (e.g., batteries, lamps, pesticides, and mercury containing equipment). Waste(s) shall be stored in containers that are compatible with the waste being stored and must be structurally sound. Containers are opened only when adding or removing waste and appropriately labeled with the container's contents and accumulation start date. UW should not be stored more than 180 days.

c. Personnel who manage hazardous waste sites (e.g., < 90-day and SAAs) are not authorized to transport HW containers throughout the base. NREA HW Program employees are the only authorized personnel to pick up and transport HW from accumulation and storage areas for final delivery and disposal. If a command/unit or tenant organization has a full container of HW, they must contact NREA to schedule a HW pick-up.

d. There are specific provisions regarding the off-base transport and ultimate disposal of HW generated at MCBQ. First, waste must be characterized using an approved method (e.g., generator knowledge, sample laboratory testing, etc.). Second, the waste must be transported by a certified HW handler with a properly completed manifest form. At least three days prior to shipment, HW Program personnel shall be provided a manifest, waste profile sheet, land disposal restriction (LDR) sheet, and all other waste characterization/analysis documents for review. Only trained authorized HW Program employees may sign HW manifest to be shipped/transported off-site. Personnel responsible for coordinating off-site shipment must provide the NREA HW Program with a copy of the signed manifest from the Treatment/Storage/Disposal Facility (TSDF) within 30 days of off-site shipment. A Manifest Standard Operating Procedure (SOP) is provided in the HWMP.

e. HW sites must have appropriate spill control equipment (absorbent pads, secondary containment, dry sweep, etc.) located at or near HW accumulation points. If a spill or discharge occurs, immediately notify the MCBQ Fire Department (911) and HW Program personnel (784-4030). Sites should be equipped with a contingency plan which addresses local HW personnel and necessary immediate actions. The contingency plan should also contain a site diagram with HW location(s) and evacuation routes. The EC, HW Site Managers (HWSM), and HW Handlers (HWH) and all other personnel as necessary, shall be trained and knowledgeable in the procedures contained within the contingency plan.

5. Program Roles and Responsibilities. All program roles and responsibilities of the Commanding Officers/Supervisors of Marine Corps Commands/Units and Tenants, NREA Environmental Compliance (via the HW Program Manager), ECs, are listed in the HWMP.

6. Training Requirements. Training for personnel involved in the management of HW sites is divided into three categories: Initial Training, Refresher Training, and On-The-Job Training.

a. Initial Training

(1) RCRA HW training (24-hour) - 90-day sites.

(2) SAAs.

(3) UW Training.

(4) HW Program personnel - RCRA Training (24-hour), Department of Transportation HM Transport (Manifests) Training, and OSHA Limited Site Worker Training (24-hour).

b. Refresher Training

(1) RCRA HW Refresher (8-hour) - 90-day sites.

(2) SAA Refresher.

(3) UW Training Refresher.

(4) HW Program personnel - RCRA Training Refresher, Department of Transportation HM Transport (Manifests) Training Refresher (every 3 years), and OSHA Limited Site Worker Training Refresher (8-hour).

c. On-the-job training relating to the duties of all HW management personnel must be approved and documented by the EC Supervisor, HW Program Manager, and MCBQ CETEP Coordinator.

7. Communications. The NREA Branch, HW Program Manager acts as the liaison for general correspondence between MCBQ and the regulatory agencies as further described in the MCBQ HWMP. Official reports and correspondence provided to regulatory agencies require the signature and approval of the NREA Branch Head or Deputy, unless otherwise delegated. The HW Program Manager uses the MCBQ EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ Management Coordination Plan for greater detail concerning the communication procedures.

8. Practice Control

a. As mentioned in paragraph 2 of this Chapter, practices performed at MCBQ that are associated with the HW Program are listed in Table A-1, Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, ESOPs are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS

to mitigate the risk of impact(s). The HW Program Manager reviews all applicable draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. Thorough operational controls are provided within MCBQ's HWMP.

c. All other HW Program operational controls, regulatory requirements, and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. Practices performed at MCBQ that could result in potential emergency situations associated with the HW Program are managed through the Base's Integrated Spill Management Plan (ISMP), Core Plan, and by the Spill Prevention and Response Program (refer to Chapter 10). For further guidance, refer to the MCBQ ISMP and MCBQ HWMP.

10. Records Control. Generally, HW regulations require that records (e.g., inspection logs/checklists, spill reports, and training records) are maintained for at least three years. The HW Program also maintains records for the following items: deficiency notices (i.e., notice of violations), corrective action reports, HW inventories, waste turn-in forms, HW characterization, and HW off-site shipping manifest and disposal logs. Paper and electronic records are maintained in the Environmental Compliance Section, NREA Branch office. For additional guidance concerning MCBQ HW Program records, please refer to the MCBQ HWMP.

11. Sampling, Monitoring, Measuring, and Reporting Requirements. The HW Program is responsible for profiling unidentified waste prior to disposal. Furthermore, all HW must be quantified and reported in accordance with all federal and state regulations as specified in the MCBQ HWMP.

12. Pertinent Documents

a. Operational Control Documents

(1) MCBQ Hazardous Waste Management Plan.

(2) MCBO 5280.1B, Handling, Transfer, and Disposal of Hazardous Materials and Hazardous Waste.

(3) Standard Operating Procedure for Management of Hazardous Waste.

(4) EPA ID Number VA1170024722.

b. Reference Documents

(1) 42 USC 6901 *et seq.*, Resource Conservation and Recovery Act.

(2) 49 USC 5101 *et seq.*, Hazardous Materials Transportation Act.

(3) 40 CFR 260 *et seq.*, Hazardous Waste Management.

(4) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 9 - Hazardous Waste Management.

Chapter 5

Integrated Solid Waste Management

1. Requirements. MCBQ has implemented an Integrated Solid Waste Management Program (ISWMP) to manage solid waste disposal and reduce waste streams in accordance with the requirements established in: 40 CFR Parts 239 through 259; Virginia Administrative Code, 9 VAC 20-60-10 et seq.; MCO P5090.2A, Chapter 17, and other associated federal regulations, orders, and mandates. The ISWM Program also incorporates the Qualified Recycling Program (QRP) in accordance with: DoDI 4715.4, Pollution Prevention; Office of the Under Secretary of Defense (OUSD) Memorandum of 24 Apr 2003, Qualified Recycling Program Guidance; OUSD Memorandum of February 1, 2008, DoD Integrated (Non-Hazardous) Solid Waste Management Policy and associated federal regulations, orders, and mandates.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through the ISWMP. A summary of the specific practices associated with this program is provided in Table A-1 of Appendix A.

3. Definitions

a. Integrated Solid Waste Management (ISWM). A comprehensive approach to managing non-hazardous solid waste that encompasses waste prevention, diversion, composting, and other methods of disposal. Through ISWM, the U.S. Department of Defense (DoD) components seek to determine the most cost effective, energy-efficient, and least-polluting means to manage installation or facility solid waste streams.

b. Qualified Recycling Program (QRP). An organized recycling program that requires diversion or recovery of recyclable materials from the non-hazardous solid waste stream. QRP proceeds are distributed in accordance with 10 U.S.C. 2577, Disposal of Recyclable Materials.

c. QRP Committee. A committee established by the Commander, Marine Corps Base Quantico (MCBQ) for the purpose of prioritizing projects and activities to be funded from net recycling proceeds. The committee recommends priorities for the disbursement of revenues to the Commander.

d. Recycling. A series of activities, including collection, separation, and processing, by which products or other materials are recovered from the solid waste stream for use in the form of raw materials in the manufacture of new products other than fuel for producing heat or power by combustion.

e. Diversion (Solid Waste). An activity to remove solid waste from landfill disposal or incineration that includes: reuse, donation, recycling, and composting/mulching. Diversion activities must be in accordance with all applicable DoD, DoD Components, federal, state, and local requirements. Waste to energy recovery is not considered diversion for the solid waste diversion goal; although it is applicable to the energy reduction goals of EO 13423, Strengthening Federal Environmental, Energy, and Transportation Management.

f. Source Reduction. Effecting changes in the design, manufacturing, purchase, or use of materials or products (including packaging) in order to reduce the amount or toxicity before they are discarded.

4. Program Overview

a. Non-hazardous solid waste streams at MCBQ are grouped into one of four areas:

(1) Residential. Residential waste from housing units consisting of food packaging materials, beverage containers, boxes, plastic/aluminum wrapping materials and miscellaneous paper/plastic waste products.

(2) Administrative. Waste from office and administrative areas consisting of mixed paper, printer cartridges, beverage containers, and cardboard.

(3) Industrial. Waste from support activities such as vehicle/equipment maintenance facilities and warehouse facilities.

(4) Construction and Demolition Debris. Waste from construction, demolition, or renovation projects.

b. Waste minimization, diversion, and reduction are conducted according to the category/area described above. Specific methods are discussed below:

(1) Residential recycling is managed by Lincoln Military Housing. Solid waste from these housing facilities is collected by a contractor and disposed of in off-base landfills.

(2) Traditional recycling services for approximately 70 buildings are currently provided by a NAVFAC Washington Contract. As a result of a successful single stream recycling (SSR) pilot conducted at the MCBQ Headquarters and at the NREA Branch, SSR is being implemented at 12 buildings as part of a phased approach to Base-wide implementation of SSR.

(3) Waste streams at industrial facilities are managed using several methods. The Marine Corps Exchange and Defense Commissary

Agency (DeCA), Quantico has implemented their own cardboard and plastic recycling programs. Sewage sludge from the waste water treatment plant is transported to the King George County Landfill, and is currently being mixed with other materials for use as alternative daily cover. Expended small arms cartridge casings (ESACC) are turned in to the Property Control Office (PCO) MCB-2 Transfer Site by generating activities. The PCO deforms the ESACC and sells it directly for the QRP. Efforts are underway to begin consignment sales of ESACC with Defense Logistics Agency Disposition Services (DLADS). Refer to MCBQ's Solid Waste Management Plan for a more detailed discussion on how nonhazardous solid waste is managed.

(4) Construction and demolition debris (C&D) is typically removed from MCBQ by the contractor who creates the waste. Generators of C&D are required to submit a Construction Waste Management Report to the ISWM Program Manager.

(5) The Base's ISWMP is achieved through the implementation of the MCBQ ISWMP Plan, which provides procedures for managing all non-hazardous wastes generated at MCBQ.

5. Program Roles and Responsibilities

a. The Commander is responsible for implementing ISWM for the purpose of achieving DoD solid waste diversion goals. The DoD ISWM hierarchy of approaches and technologies for managing solid waste to maximize resource conservation and protect the environment is, from highest to lowest: source reduction, reuse, donation, recycling, composting/mulching, incineration for volume reduction with energy recovery, other forms of volume reduction, and landfilling. Since recycling is one of the waste diversion methods employed at MCBQ, the Commander must implement source separation for recycling and develop a single authorized QRP, if cost-effective. QRP management personnel shall be designated in writing. The Commander may establish a QRP Committee.

b. The ISWM Program Manager is responsible for:

(1) Managing the ISWMP in accordance with all applicable laws, regulations, requirements, and guidance. Develop ISWMP goals for MCBQ. This includes close coordination with MCBQ's EMS staff as well as applicable tenants, commands, and organizations within the fence line.

(2) Recommending performance work statements that include provisions for contractors, including construction and demolition contractors, to conform to ISWMP requirements (i.e., collect and report information required in waste diversion reports).

(3) Develop and maintain an ISWMP Plan that will act as a guidance document for how solid waste will be managed. Pertinent

information will include financial, technical, and environmental operating factors.

(4) Maintain records, submit metrics, and provide reporting data to required personnel/organizations. Acquire necessary training for individuals working in the ISWMP.

(5) Serve as an advisor to the QRP Committee.

(6) Develop an annual QRP Business Plan that outlines the operation of the QRP as part of MCBQ's ISWMP strategy. The Business Plan can also function as MCBQ's commodity feasibility study. Conduct commodity feasibility studies.

(7) Identify and document facilities that participate in the recycling program. Identify what recycling method works best for participating facilities, be it: recycling bins, collection buildings, scheduled recycling pick-ups, etc. Establish collection guidelines at different areas of MCBQ (e.g., office, industrial, retail, and housing areas) and source separation criteria.

(8) Provide awareness training to individuals participating in the QRP. Acquire necessary training for individuals working in the QRP.

(9) Oversee QRP and Recycling Center operations, management, recordkeeping, and general accountability in accordance with Section 17104(5) of MCO P5090.2A.

(10) Maintain oversight for sales of recyclable materials and ensure that excluded materials are not sold in compliance with 32 CFR 172.

c. Contracting Officer Representatives at MCBQ are responsible for inserting language into Request for Proposals and Scope of Work (SOWs) that require contractors to adhere to the requirements of MCBQ's ISWMP. This includes that Construction Waste Management Reports are submitted to the ISWMP Manager, making solid waste data required as part of the contract SOW, and requirements to meet or exceed DoD solid waste diversion goals.

d. Tenant activities and other organizations not under the direct command of MCBQ are responsible for participating in the ISWMP and the QRP and providing required data to the ISWMP Manager.

e. The DeCA, Quantico and Marine Corps Exchange are responsible for reporting ISWMP data to the ISWMP Manager for annual reporting purposes.

6. Training Requirements

a. Collection personnel are required to have awareness training on collection/handling of spent munitions (e.g., used cartridge casings) and recyclable HM (e.g., lead-acid batteries).

b. The ISWM Program Manager must have Ammunition Explosives and Dangerous Articles training to ensure incorrect materials are not inadvertently sold to vendors.

c. QRP personnel must also have a mandatory training program that describes, at a minimum, applicable regulations and laws; identification of items that can be processed through the QRP; and identification of items that cannot be processed through the QRP.

d. The ISWMP Manager is also responsible for financial accounting, records management, and the QRP. Recommended formal educational programs are: The U.S. Army Corps of Engineers online course, QRP/Ordnance and Explosives Recognition and Safety, Control Number 844, and the Air Force Institute of Technology resident course, WENV 160 QRP Management.

e. All training records must be maintained at MCBQ by the personnel who received the training. Copies shall be provided to their organization's EC.

7. Communications. The ISWMP Manager acts as the liaison for general correspondence between MCBQ and the regulatory agencies. Official reports and correspondence provided to regulatory agencies require the signature and approval of the NREA Branch Head or Deputy, unless otherwise delegated. The ISWMP Manager uses the MCBQ EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ Management Coordination and ISWMP Plans for greater detail concerning ISWMP communication procedures.

8. Practice Control

a. As mentioned in paragraph 2 of this chapter, practices performed at MCBQ that are associated with the ISWMP are listed in Table A-1, Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, ESOPs are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The ISWMP Manager reviews all applicable draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. All other ISWMP operational controls are documented through MCBQ's ISWMP Plan and other regulatory requirements and mandates referenced in paragraph 12 of this chapter.

9. Emergencies. No practices performed at MCBQ could have potential emergency situations associated with the ISWMP. Such events would be handled through other NREA Programs (e.g., Spill Prevention and Response, Storage Tank Management , etc.).

10. Records Control

a. The following records are required for MCBQ's QRP:

(1) Sales records of qualified scrap by direct sales and sales through DLADS.

(2) Expense records for operating and overhead costs.

(3) Records of incomes and expenditures.

(4) Records of cost avoidance.

(5) Records of profit distributions.

b. For MCBQ's ISWM Program, records are maintained in order to identify the amount of solid waste diverted from landfills and solid waste transported to landfills. These records may be located in multiple locations, including the P2ADS report filed by the NREA Branch, Environmental Compliance Section as well as any records related to sale/reuse of brass and items turned into DLADS.

c. Refer to the ISWMP Plan for greater detail concerning procedures to meet ISWMP record keeping requirements.

11. Sampling, Monitoring, Measuring, and Reporting Requirements

a. Non-hazardous solid waste data is entered into a U.S. Navy website. The website used at the time this ECPSOP was prepared is Environmental Portal (EPRPortal): <https://eprportal.cniv.navy.mil>.

b. The NAVFAC Engineering Service Center sends out the Solid Waste Annual Data Call with instruction contained in the EPRPortal Solid Waste Module User Guide. The ISWMP Manager is responsible for submitting MCBQ's nonhazardous solid waste data.

12. Pertinent Documents

a. Operational Control Documents. Solid Waste Management Plan, MCBQ, Virginia, December 2009.

b. Reference Documents

(1) EO 13423, Strengthening Federal Environmental, Energy, and Transportation Management, of January 24, 2007.

(2) EO 13514, Federal Leadership in Environmental, Energy, and Economic Performance, of October 5, 2009.

(3) 10 USC 2577, Disposal of Recyclable Materials, of January 7, 2011.

(4) 42 USC 13101 & 13102, Pollution Prevention Act of 1990, of November 5, 1990.

(5) 32 CFR 172, Disposition of Proceeds from DoD Sales of Surplus Personal Property, July 1, 2009.

(6) DoDI 4715.4, Pollution Prevention, June 1996.

(7) OUSD(E) Memorandum of 24 Apr 2003, Qualified Recycling Program Guidance.

(8) OUSD(I&E) Memorandum of February 1, 2008, DoD Integrated (Non-Hazardous) Solid Waste Management Policy.

(9) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 3 - Funding Environmental Compliance, May 2009.

(10) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 15 - Pollution Prevention, May 2009.

(11) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 17 - Solid Waste Management and Resource Recovery, May 2009.

This Page Intentionally Left Blank

Chapter 6

Pesticide Management Program

1. Requirements. Federal and state regulations, require proper storage and handling of pesticides per Title 40 CFR 150 -189 and 2 VAC 20-40-10 et seq., respectively. Proper procedures and certifications are also mandated for personnel conducting pest management operations. MCBQ is a large installation with improved and unimproved lands, developed building and family housing areas, and includes a golf course and other recreational facilities. Pests on MCBQ may be animal or plant in nature and can occur inside or outside of buildings. The Pest Management Program exists to ensure mission operational capability for the Installation. This includes training areas and ranges, buildings, turf, and food services and storage.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through the Integrated Pest Management (IPM) Program. A summary of the specific practices associated with this program is provided in Table A-1 of Appendix A.

3. Definitions

a. Algicides. An agent used to destroy or inhibit the growth of algae.

b. Avicides. An agent used to kill or repel birds.

c. Fungicides. An agent used to destroy or inhibit growth of fungi.

d. Herbicides. An agent used to destroy or inhibit plant growth.

e. Insecticides. An agent used to destroy insects.

f. Integrated Pest Management (IPM). A planned program, incorporating continuous monitoring, education, recordkeeping, and communication to prevent pests and disease vectors from causing unacceptable damage to operations, people, property, material, or the environment. IPM uses targeted, sustainable, (effective, economical, and environmentally sound) methods, including education, habitat modification, biological control, genetic control, cultural control, mechanical control, physical control, regulatory control, and where necessary, the judicious use of least-hazardous pesticides.

g. Larvicides. Insecticide that is specifically targeted against the larval life stage of an insect.

h. Pest. Unwanted organisms (e.g., fungi, rodents, birds) that cause adverse impacts to the mission of MCBQ and affect the health and well-being of humans and protected species.

i. Pesticide. Any substance or combinations of substances used to mitigate and control pests (i.e., unwanted plant/animal species) that are labeled for use by the EPA.

4. Program Overview. The MCBQ IPM Program is applicable to all activities and tenant commands within the boundary of MCBQ. The program governs all aspects of pest management, including application of algicides, avicides, fungicides, herbicides, insecticides and larvicides, as well as other IPM techniques that do not require the use of pesticides for control of pests. Primarily, control of pest species is accomplished through contracted services. There are some facilities that are approved to apply their own pest control substances (e.g., Medal of Honor Golf Course, NREA Branch, the Crossroads Inn, and the Commissary). For greater detail concerning the IPMP, please refer to the MCBQ IPM Plan (IPMP).

5. Program Roles and Responsibilities

a. The Commander has primary responsibility for implementing a comprehensive pest management program for the Installation. The Commander will be accountable for installation-level responsibilities and has delegated authority to the Hazardous Materials Management Program (HMMP) Manager, NREA Branch for implementing the Installation's Pest Management Plan.

b. The NREA Branch Head is responsible for:

(1) Overall management and implementation of the MCBQ Pest Management Program.

(2) Appointing a Base Integrated Pesticide Management Coordinator (IPMC); this role is currently held by the HMMP Manager, NREA Branch.

c. The IPMC acts as the single point of contact for pest management issues on MCBQ, as further specified in the MCBQ IPMP.

d. PWB is responsible for:

(1) Contract administration in order to implement the MCBQ Pest Management Program.

(2) Scheduling contracted pest management services.

(3) Providing oversight and inspection of contractor pesticide application operations.

e. Pesticide applicators must fully comply with label requirements in all phases of pesticide application, including storing, mixing, application, disposal and use of all safety precautions and personal protective equipment.

f. Contractors performing pesticide application or other operations must provide the IPMC with copies of certification(s) appropriate with the materials/methods being used.

6. Training Requirements

a. Applicable personnel described under 40 CFR 171.1 include those responsible for storage, mixing, and application of restricted-use pesticides. These personnel shall receive training in accordance with 40 CFR 171.4(a), (b), and (c), including comprehension of material labeling. Trained personnel must demonstrate their knowledge of safe pest control and pesticide application.

b. Facility Support Contract Section personnel, who will inspect contractor pesticide application operations, must complete Contract Surveillance Representative Training. There are two phases to this training: Quality Assurance Evaluator Training and Pest Control Quality Assurance Training; both are conducted periodically by NAVFAC Atlantic. It is recommended that these personnel also complete a Pest Management Correspondence Course, which may be obtained through the Navy Public Works Training Center or NAVFAC Atlantic.

c. Personnel whose primary responsibility is the application of pest management tools (i.e., pesticide applicators) must undergo comprehensive training which includes two years of on-the-job training, correspondence courses, and training in basic pest control technology. Refer to the IPMP for more information on training requirements for Certified Pesticide Applicators. Initial certification is available through courses offered by the Navy Disease Vector Ecology and Control Center two times a year; refresher training is required every three years thereafter.

7. Communications. The NREA Branch, IPMC acts as the liaison for general correspondence between MCBQ and the regulatory agencies as further described in the MCBQ IPMP. Official reports and correspondence provided to regulatory agencies require the signature and approval of the NREA Branch Head or Deputy, unless otherwise delegated. The IPMC uses the MCBQ EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ Management Coordination Plan for greater detail concerning the communication procedures.

8. Practice Control

a. As mentioned in paragraph 2 of this chapter, practices performed at MCBQ that are associated with the IPMP are listed in Table A-1, Appendix A. Of those practices, a standardized risk

ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, ESOPs are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The IPMC reviews all applicable draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. For detailed IPM procedures, refer to the MCBQ IPMP. All other IPM operational controls and other regulatory requirements and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. No practices performed at MCBQ could have potential emergency situations associated with the IPMP. Such events would be handled through other NREA Programs (e.g., Spill Prevention and Response, Storage Tank Management, etc.).

10. Records Control

a. DoD installations are required to maintain complete daily records of pesticide applications and non-chemical pest management operations using DD Form 1532-1 or the computer-generated equivalent. These records shall account for all shop operations and shall provide a historical record of pest management operations and pesticide applications for each building, structure, or outdoor site.

b. These records are maintained by the originating command and Installation IPMC. Records must be maintained permanently, but can be archived after two years.

c. Logs of specific pesticide applications must be maintained and made available to the Virginia Department of Agriculture and Consumer Services upon request.

11. Sampling, Monitoring, Measuring, and Reporting Requirements

a. Records pertaining to pest surveillance, pesticide applications and all non-chemical pest control operations are required to be reported in the electronic Navy Online Pesticide Reporting System (NOPRS). All contractors, tenant commands, and Base personnel must report pest management operations in this system.

(1) Records should be input into the system on a daily basis as soon as treatments are completed, to ensure that application information is not lost.

(2) In instances where pesticide applications are very minimal and computer access to NOPRS unavailable, the Base IPMC can input records, provided that all required application information is provided in hard copy format. Hard copy forms for reporting pesticide applications can be obtained by contacting the IPMC.

(3) For MCBQ pest management shops that have not yet been provided access to NOPRS, hard copies must be completed, maintained and submitted monthly to the IPMC, who shall provide copies to NAVFAC Atlantic.

(4) Pest management records reported in NOPRS do not need to be sent to NAVFAC Atlantic, Applied Biology, since they have access to these records.

b. The IPMC shall monitor reported applications in the NOPRS system to ensure that they are submitted correctly and timely.

c. The IPMC shall ensure that all personnel applying pesticides on MCBQ are provided access to report pest management records in the NOPRS system.

12. Pertinent Documents

a. Operational Control Documents. MCBQ Integrated Pest Management Plan.

b. Reference Documents

(1) 7 USC 136, *et seq.*, Federal Insecticide, Fungicide, and Rodenticide Act.

(2) 7 USC 2801, *et seq.*, Federal Noxious Weed Act.

(3) 15 USC 2601, *et seq.*, Toxic Substances Control Act (TSCA).

(4) 40 CFR 150-189, Federal Insecticide, Fungicide, and Rodenticide Act/Pesticide Programs.

(5) 2 VAC 20, *et seq.*, Pesticide Control Board.

(6) DoDI 4150.7, Department of Defense Pest Management Program.

(7) OPNAVINST 6250.4, Pest Management Programs.

(8) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 14 - Pesticide Pollution Prevention and Appendix F - Integrated Pest Management Plans.

This Page Intentionally Left Blank

Chapter 7

Munitions Response Program (RCRA)

1. Requirements. In 1992, the Federal Facility Compliance Act was signed into law. This law required the U.S. Environmental Protection Agency (EPA), in consultation with DoD and the States, to publish regulations that identify when conventional and chemical military munitions become hazardous waste and subject to Subtitle C of RCRA, and that provide for the safe storage and transportation of such waste. These regulations, entitled the Military Munitions Rule (MR) (62 FR 6621, February 12, 1997), that define when military munitions become waste and how these waste military munitions (WMM) will be managed, became effective at the federal level on August 12, 1997. Any WMM from an active range shall be managed in accordance with the DoD Policy to Implement the EPA's Military Munitions Rule of July 1998. Furthermore, if munitions are classified as a waste there are additional state requirements VHWMR under 9 VAC-20-60 that must also be implemented as described in the MCBQ HWMP.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this RCRA Munitions Response Program. A summary of the specific practices associated with this program is provided in Table A-1, of Appendix A.

3. Definitions

a. Discarded Military Munitions (DMM). Military munitions that have been abandoned without proper disposal or removed from storage in a military magazine or other storage area for the purpose of disposal. Does not apply to UXO or military munitions planned for future use or disposal or military munitions that have been properly disposed.

b. Military Constituents (MCs). Any material(s) originating from unexploded ordnance (UXO), DMM, or other military munitions, including explosive and non-explosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions.

c. Munitions and Explosives of Concern (MEC). Military munitions that are classified as UXO, DMM, or MCs present in high enough concentrations to pose an explosive hazard.

d. Unexploded Ordnance (UXO). Military munitions that: have been primed, fused, armed, or otherwise prepared for action; have been fired, dropped, launched, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material; and remain unexploded either by malfunction, design, or any other cause.

4. Program Overview. This program addresses DMM, MC, MEC, and/or UXO that have been classified as a hazardous waste by MCBQ Explosive Ordnance Disposal (EOD) and are associated with activities of an

active range. Any DMM, MC, MEC, and/or UXO associated with activities at closed ranges are managed by the Munitions Response Program (MRP) through the CERCLA process, as described in Chapter 22.

5. Program Roles and Responsibilities

a. MCBQ EOD is required to:

(1) Maintain an archive of munitions response activities.

(2) When dispatched EOD assumes the situation requires an immediate response unless they are advised otherwise, from an explosive safety standpoint. Upon evaluation of an explosives or munitions emergency, the EOD emergency response specialists may determine that:

(a) An immediate response is required. In this situation, the MR's immediate response exemption from RCRA applies.

(b) An immediate response is not required, but the situation poses an imminent and substantial risk to human health or the environment. In this situation the MR's immediate response exemption from RCRA may not apply. The responder should consult with the MCBQ NREA Branch.

(c) An emergency response is not required. In these situations, continued support by the EOD emergency response specialists may not be required and the item may not be a WMM. The munitions should be:

1. Evaluated further for return to the active inventory.

2. Handled through the Designated Disposition Authority (DDA) disposition process (see Chapter 6 of the DoD Policy to Implement the EPA's Military Munitions Rule), if applicable.

3. Processed through the host installation environmental office for WMM disposal, if applicable.

(3) Requirements for RCRA Compliance. EPA's objectives in clarifying the applicability of RCRA to emergency responses were to remove regulatory impediments to emergency responses and promote the safe and prompt management of emergencies that involved explosives and munitions. RCRA rules exempt emergency responses from permit requirements in two ways. The distinctions between the two are based on the emergency response specialist's determination as to the action required to control or eliminate the actual or potential threat to human health, public safety, or property. These distinctions are:

(a) Immediate Responses (Level 1):

1. DoD policy is that only EOD and Technical Escort Unit (TEU) personnel conduct Level 1 responses.

2. EPA established exemptions from RCRA generator, transporter, and permitting (to include emergency permits) requirements during the "immediate response" to an explosives or munitions emergency. This exemption allows emergency response specialists to take whatever action is necessary to control or eliminate the immediate threat. Such actions include the movement (transport) of an item to a safer location for defusing, detonation, or the performance of render-safe procedures. The EOD emergency response specialist is the only authority that can determine when a Level 1 response is terminated.

3. EPA guidance as to what constitutes an immediate response (Level 1) is limited. DoD's position is that these include responses to situations where military munitions that are not properly secured or under DoD control potentially threaten human health, the environment, or property. DoD's intent is that EOD personnel will use established procedures and good judgment to determine whether a situation requires a Level 1 response.

4. Reasonable Delays. When extenuating circumstances (e.g., adverse weather, nightfall, safety, etc.) delay actions necessary to terminate an explosives or munitions emergency, the response may be delayed until the necessary action can be completed. EOD personnel must ensure the explosives or munitions are in a safe and secure environment. If time permits or as agreed upon in a Memoranda of Understanding (MOU), the EOD will consult with the NREA Branch, which will consult with the appropriate federal, state, or local environmental agency regarding permitting requirements.

5. Once the EOD determines the Level 1 response is over, remaining WMM, if any, must be managed in compliance with RCRA regulations or an emergency permit. In these situations, EOD support may no longer be required or the EOD personnel may be performing operations outside of their emergency response mission.

6. Prior coordination with local authorities and regulators, regulator familiarization training, use of an MOU (Appendix B), and establishment of ground rules for such responses will minimize controversies arising during or after emergency responses.

(b) Imminent and Substantial Endangerment
Responses (Level 2):

1. EPA did not fully exempt from RCRA regulation those situations that do not require an "immediate response" but that pose an "imminent and substantial endangerment to human health and the environment." EOD personnel must determine whether the response action can be delayed without compromising safety or increasing the risk long enough to obtain an emergency permit. When the response action can be delayed, the EOD personnel should consult with NREA Branch, which will consult with the appropriate State and Federal regulatory authorities.

2. When EOD support is not required during a Level 2 response, qualified personnel such as quality assurance specialists (ammunition surveillance) (QASAS), weapons officers, ammunition handlers, and trained and certified DoD contractors may conduct Level 2 responses on DoD installations, or as directed.

3. In Level 2 responses, EPA or the state may issue a temporary emergency permit that allows a response that is not in compliance with normal RCRA requirements.

a. When requesting an emergency permit, the following information, as a minimum, should be provided: 1.) Type of military munitions (hazardous waste) involved, to the extent known; 2.) manner and location of proposed disposal, treatment, or storage; and 3.) the manner in which the military munitions (waste) will be transported to another site, if required.

b. Environmental agencies normally issue such permits telephonically. The regulator is responsible for providing a written emergency permit within five days. The requesting installation is required to have the written permit as part of its emergency response records. To ensure appropriate documentation, the installation should submit a written follow-up to its telephonic emergency permit request and include this request in its records.

c. Procedures for obtaining emergency permits should be included in all MOU's with the regulating authority.

d. When a response involving non-military munitions or explosives requires an emergency permit, the civilian authority requesting EOD support is responsible for requesting the permit.

(4) Provide explosives safety oversight, respond to EOD calls, review explosive mishap reports and EOD incident reports.

(5) Provide verification that final response actions were completed in accordance with approved safety documentation.

b. NREA Branch, Hazardous Waste Program Manager.

(1) Responsible for maintaining and reporting records of MCBQ EOD declaring and disposing of any DMM, MC, MEC, and/or UXO as a hazardous waste.

(2) Responsible for coordinating with VA DEQ if an Emergency Permit is required for disposal of DMM, MC, MEC, and/or UXO as a hazardous waste.

6. Training Requirements. All personnel involved in the handling of WMM receive training in all applicable aspects of RCRA regulation, the requirements of both the MR and State regulations, and all applicable DoD guidance. These training requirements are further specified in the DoD Policy to Implement the EPA's Military Munitions Rule, dated 1 July 1998.

7. Communication

a. MCBQ EOD personnel are responsible for providing the NREA Branch, HWMP Manager all records of DMM, MC, MEC, and/or UXO that are disposed of as hazardous waste.

b. The NREA Branch, HWMP Manager is responsible for coordinating with VA DEQ if an Emergency Permit is required for disposal of DMM, MC, MEC, and/or UXO as a hazardous waste. For further information concerning communication with environmental regulatory agencies concerning this topic, refer to the MCBQ HWMP.

c. The NREA Branch, HWMP Manager uses the MCBQ EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ Management Coordination Plan for greater detail concerning the communication procedures.

8. Practice Control

a. As mentioned in paragraph 2 of this Chapter, practices performed at MCBQ that are associated with the MRP (RCRA) are listed in Table A-1, Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, ESOPs are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The NREA Branch, HWMP Manager reviews all applicable draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. For detailed Munitions Response Program (RCRA) Procedures, refer to the MCBQ HWMP and DoD Policy to Implement the EPA's Military Munitions Rule, dated 1 July 1998.

c. All other Munitions Response Program (RCRA) operational controls, regulatory requirements, and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. Emergency procedures concerning DMM, MC, MEC, and/or UXO are provided in chapter nine of the DoD Policy to Implement the EPA's Military Munitions Rule, dated 1 July 1998. For emergency procedures concerning hazardous materials or waste, refer to the MCBQ ISMP.

10. Records Control

a. Range Control Office maintains all records of operational range use and military munitions expenditures. Required information also includes any UXO clearance operations as well as coordinates of all known, or suspected, UXO areas must also be maintained.

b. EOD maintains call sheets for all emergency responses (UXO and non-UXO). These records must be maintained indefinitely.

c. The NREA Branch, HWMP Manager maintains records and manifests for all DMM, MC, MEC, and/or UXO disposed of as a hazardous waste.

11. Sampling, Monitoring, Measuring, and Reporting Requirements

a. Prior to any in-ground remediation of munitions, an Explosives Safety Submission must be provided to and authorized by Marine Corps Systems Command (MARCORSYSCOM).

b. Following completion of remediation activities, an after action report must be submitted to MARCORSYSCOM for endorsement.

12. Pertinent Documents

a. Operational Control Documents

(1) MCBQ HWMP Plan, 2013.

(2) MCBQ ISMP, 2009.

b. Reference Documents

(1) 9 VAC 20-60 *et seq.*, Virginia Hazardous Waste Management Regulations.

(2) 40 CFR 266, Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Systems - Subpart M, Military Munitions.

(3) 42 USC 6901, *et seq.*, Resource Conservation and Recovery Act.

(4) DoD Policy to Implement the EPA's Military Munitions Rule, dated 1 July 1998.

(5) Navy Environmental Restoration Program Manual.

(6) OPNAVINST 5090.1C, Navy Environmental and Natural Resources Program Manual, Chapter 29 - Munitions Response.

This Page Intentionally Left Blank

Chapter 8

Polychlorinated Biphenyl (PCB) Management

1. Requirements. PCBs are a persistent organic pollutant with known toxic properties. They are present in dielectric fluids which are used in several types of electrical and mechanical equipment. The EPA has banned the general use of PCBs unless otherwise stated in 40 CFR 761.30. Federal laws exist to prevent unwarranted exposure to PCB-containing materials and also govern disposal of such PCB-containing materials located within the Installation's boundary. These laws and regulations include: 15 USC 2601 *et seq.*, the Toxic Substances Control Act (TSCA) of 1976; 42 USC 6901 *et seq.*, RCRA; 42 USC 9601 *et seq.*, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended; and 40 CFR 761 *et seq.*, Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions. Chapter 19 - Polychlorinated Biphenyls Management, of MCO P5090.2A establishes the Marine Corps policy and responsibilities for compliance with regulatory requirements for managing PCBs. MCBQ's PCB Management Program exists to protect personnel and the environment during use, handling, storage, and disposal of PCBs and PCB-containing equipment.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this PCB Management Program. A summary of the specific practices associated with this program is provided in Table A-1, of Appendix A.

3. Definitions

a. Light Ballast. A component of a fluorescent light fixture used for starting and regulating electric current.

b. Polychlorinated biphenyl (PCB). Anthropogenic organic chemicals formerly used in a variety of industrial applications due to their low reactive nature.

c. PCB Container. Any package, can, bottle, bag, barrel, drum, tank, or other device that contains PCB's or PCB articles and whose surface(s) have been in direct contact with PCB's.

d. PCB Equipment. Any manufactured item, other than a PCB container, or a PCB article container which contains a PCB article or other PCB equipment. This includes microwave ovens, electronic equipment, and fluorescent light ballasts and fixtures.

e. PCB Transformer. Any transformer that contains 500 parts per million (ppm) or greater of PCBs.

4. Program Overview

a. The USMC has enacted a policy where "all future procurement of transformers or any other equipment containing dielectric or hydraulic fluid must be accompanied by a manufacturer's certification that the equipment contains no detectable PCBs or that equipment contains less than two (2) parts per million (ppm) at the time of shipment. Affix labels to such newly procured transformers and equipment that they are non-PCB containing equipment."

b. Reinstallation of PCB-containing items is prohibited. These items must be permanently removed from the Base and disposed according to proper guidelines.

c. Existing PCB-containing items, and any new ones discovered, must be registered with the MCBQ Fire Department and any off-base fire department(s) that may respond in the event of an emergency.

d. Items which contain PCBs must be marked or labeled in accordance with 40 CFR 761.40. This includes:

(1) A disclaimer that the labeled piece of equipment contains PCBs and requires special handling in accordance with the EPA, and

(2) The phone numbers for the United States Coast Guard (USCG) National Response Center ([800] 424.8802) and any applicable local contacts (e.g., PCB Program Manager).

e. Light ballasts manufactured up to 1979 may contain PCBs. The EPA banned production of PCB-containing light ballasts after 1979. When determining if your light ballast contains PCB materials, remember to check for the label "No PCBs." If a ballast is located that predates 1979, and is not labeled, contact the NREA Branch at (703) 784-4030. A good rule of thumb is to assume all non-labeled ballasts contain PCB's.

5. Program Roles and Responsibilities

a. The Commander is responsible for implementing a PCB Management Program. These duties have been delegated to the NREA Branch, GF Installation and Environment Division

b. The NREA Branch is responsible for ensuring there are no active PCB containers, equipment, or transformers. Active PCB containers, equipment, or transformers are accurately catalogued, tracked, and if necessary, removed. Periodically, the NREA Branch may conduct a survey for PCB-containing items. If PCB items are generated, stored, treated, or disposed, the NREA Branch must prepare and submit a report of these items to the Naval Facilities Engineering Service Center, pertinent Naval Facilities Engineering Command (NAVFAC) Field Division/Activity, and Commandant of the Marine Corps, Facilities and Services Division (CMC (LF)).

c. Installation and contractor personnel who are working aboard MCBQ should:

(1) Report unlabeled equipment to the NREA Branch that is suspected of containing PCBs.

(2) Notify emergency personnel of a suspected PCB spill.

(3) Notify the NREA Branch of any suspected PCB-containing light ballasts. Turn in PCB-containing materials at designated sites.

6. Training Requirements. General environmental awareness training (to include discharge reporting) is required for anyone who manages or interacts with PCB-containing items. Personnel who oversee the PCB Management Program must also have hazardous material and hazardous waste training (refer to Chapters 3 and 4). Personnel must also be adequately trained so that they can accurately mark inventory, and inspect PCB-containing items.

7. Communications. The NREA Branch, PCB Program Manager (also the HM Program Manager at the time this document was prepared) acts as the liaison for general correspondence between MCBQ and the regulatory agencies. Official reports and correspondence provided to regulatory agencies require the signature and approval of the NREA Branch Head or Deputy, unless otherwise delegated. The PCB Program Manager uses the MCBQ EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ Management Coordination Plan for greater detail concerning the program's communication procedures.

8. Practice Control

a. As mentioned in paragraph 2 of this chapter, practices performed at MCBQ that are associated with the PCB Program are listed in Table A-1, Appendix A. Of those practices, the EMS Coordinator, as described in Chapter 21 performs a standardized risk ranking procedure. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, ESOPs are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The PCB Program Manager reviews all Draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. All other PCB Program operational controls, regulatory requirements, and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. Practices performed at MCBQ that could result in potential emergency situations associated with the PCB Program are managed through the Base's Integrated Spill Management Plan (ISMP) by the Spill Prevention and Response Program (refer to Chapter 10).

10. Records Control

a. Any inspection, maintenance action, or repair to PCB-containing equipment (in use or storage) must be maintained for three years after the piece of equipment has been disposed of.

b. If the Installation maintains at least 45 kilograms (99.4 pounds) of PCB's; one or more PCB transformer; or 50 or more PCB capacitors, annual records (including signed manifests and disposal records) and an annual log of PCB waste disposal (completed prior to July 1 for the previous year) must be maintained. These records must be maintained for three years after the Installation has been certified PCB-free.

(1) The written document log must contain the following information:

(a) Name, address, and EPA identification number of the facility and the calendar year covered by the annual document log.

(b) Manifest number of every manifest generated by the facility during the calendar year.

(c) Total number by specific type of PCB articles, PCB article containers, PCB containers, PCB transformers, and any PCB's and PCB items in PCB containers.

(d) Total weight in kilograms of PCB's in PCB article containers and PCB transformers, total weight in kilograms of contents of PCB containers, PCB article containers, and total weight of Large High Voltage Capacitors or Large Low Voltage Capacitors PCB capacitors remaining in service at the facility at the end of the calendar year.

c. A phone log (or other form of verification) for each telephone call to confirm receipt of PCB's transported by an independent transporter.

d. Training records of all personnel involved in managing PCB-containing items must be kept on hand. These records are located in the NREA Branch office.

e. Records are maintained by the Environmental Compliance Section, NREA Branch. Paper records are stored in Compliance Section file cabinets while electronic records are stored on the NREA Branch file server.

f. MCBQ has been certified as PCB-free for over five years at the time this document was prepared. However, procedures are discussed in this chapter to ensure mitigation steps are understood should an unaccounted PCB source be discovered.

11. Sampling, Monitoring, Measuring, and Reporting Requirements

a. Immediately notify the PCB Program Manager if a leak is observed from a piece of equipment that is suspected of containing PCB-materials.

b. A One Year Exception Report must be submitted to the EPA Regional Administrator if one of the following conditions is met:

(1) The generator has not received a certificate of disposal within 13 months from the date of removal from service.

(2) The generator receives a certificate of disposal for a disposal date more than 1 year after the date of removal from service.

12. Pertinent Documents

a. Operational Control Documents. There are no additional operational control documents in place at MCBQ because MCBQ has been certified as "PCB free".

b. Reference Documents

(1) 15 USC 2601 *et seq.*, The Toxic Substances Control Act (TSCA) of 1976.

(2) 42 USC 6901 *et seq.*, The Resource Conservation and Recovery Act (RCRA) of 1976.

(3) 42 USC 9601 *et seq.*, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended.

(4) CFR 761 *et seq.*, Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions.

(5) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 19 - Polychlorinated Biphenyls Management.

This Page Intentionally Left Blank

Chapter 9

Radon Monitoring and Abatement

1. Requirements. As uranium that is situated in soil and rock decays, it releases colorless and odorless radon gas into the environment, which can migrate into buildings through cracks or holes in the foundations. Radon can be found in all types of structures (e.g., schools, homes, offices, warehouses). Exposure to high levels of radon has been linked to cancer, but fortunately, this risk is easily mitigated through radon reduction systems or incorporating radon-resistant construction methods. The requirement for radon testing and monitoring in federal government buildings was promulgated under TSCA. As part of the DoN, the USMC has implemented the Navy Radon Assessment and Mitigation Program (NAVRAMP).

2. Practices. Potential and actual environmental impacts from practices performed at MCBQ are mitigated through this Radon Monitoring and Abatement Program. A summary of the specific practices associated with this program is provided in Table A-1 of Appendix A.

3. Definitions

a. Building. Housing and non-housing structure.

b. Gap Testing. Method to account for the difference between previous inventory of tested structures and current inventory of structures.

c. Modified Structure. A building significantly altered by either changing the original number or type of windows, doors, ground slabs, walls, or otherwise making modifications in any manner to significantly change the air exchange or flow within the building.

d. NAVRAMP. United States Navy's (USN's) tool to identify, mitigate, and prevent radon build-up in DoN and USMC buildings.

e. Occupied Buildings. A building with continuous human presence for more than 4 hours per day.

f. Radon. Radon is a commonly occurring radioactive, noble gas, formed during the decay of uranium.

g. Radon Mitigation System. Techniques employed to prevent radon from entering a building or reduce radon levels inside a building.

4. Program Overview

a. MCBQ's Radon Monitoring and Abatement Program is implemented as a joint effort between the following Installation activities:

- (1) PWB, GF Installation and Environment Division;
- (2) NREA Branch, GF Installation and Environment Division;
- (3) NHC Quantico;
- (4) Safety Division;
- (5) Department of Defense Education Activity (DoDEA), and;
- (6) Lincoln Military Housing - Public Private Venture (PPV).

b. These activities work together to ensure all occupied structures aboard MCBQ have radon levels below the action level of 4 picocuries per liter of air (4 pCi/L). MCBQ activities, with the exception of Lincoln Military Housing - PPV, utilize the NAVRAMP as their guidance for radon prevention and mitigation.

c. The NAVRAMP is applicable to all occupied buildings aboard MCBQ and requires radon testing for all newly constructed buildings, as well as buildings that have undergone significant renovations and can be considered "modified structures." As previously discussed, Lincoln Military Housing - PPV is exempt from jurisdiction of the NAVRAMP; however, the Lincoln Military Housing - PPV has conducted radon testing of all housing structures and mitigated any high concentrations below the action level. Lincoln Military Housing - PPV conducts annual radon testing and provides all residents with a Radon Disclosure and a copy of the U.S. Environmental Protection Agency's (EPA's) *A Citizen's Guide to Radon*. In addition, any resident who suspects radon infiltration within their home can contact Lincoln Military Housing - PPV and request testing be conducted.

5. Program Roles and Responsibilities. There are several Installation activities that function within the Radon Monitoring and Abatement Program. Their responsibilities are described as follows:

a. The Commander is responsible for ensuring a Radon Monitoring and Abatement Program exists. The Commander has delegated operational control of the Program to several Installation activities.

b. Lincoln Military Housing - PPV.

- (1) Performs annual monitoring of all installed radon mitigation systems;
- (2) Performs radon testing, as requested, for housing tenants;
- (3) Forwards testing data to NHC Quantico, and;
- (4) Maintains testing results/records, records of methods of radon mitigation, and locations of active mitigation.

c. Safety Division Representative(s).

(1) Reviews requests for proposals and associated contracts issued for new construction or renovations to ensure correct safety language is incorporated, and;

(2) Ensures that contractors performing radon-related tasks have obtained appropriate training.

d. PWB, GF Installation and Environment Division

(1) Conducts radon testing, mitigation, and monitoring (if applicable) for all USMC-owned buildings aboard MCBQ;

(2) Ensures requirements are inserted in contract documents, for new construction or renovations, which requires builder to conduct radon testing once construction is complete;

(3) Conducts gap testing of facilities which have been constructed or undergone significant renovations since MCBQ's original radon assessment, and;

(4) Provides testing and monitoring results to NHC Quantico.

e. NHC Quantico's Industrial Hygienists

(1) Receipt of radon testing/monitoring results;

(2) Interpretation of test results (i.e., determining which structures/areas must mitigate radon concentrations), and;

(3) Forward all testing/monitoring records to the NREA Branch;

f. NREA Branch, GF Installation and Environment Division, Radon Monitoring and Abatement Program

(1) Receipt and storage, with the exception of Lincoln Military Housing - PPV, of all radon testing, mitigation, and monitoring data;

(2) Verify that radon management is accurately addressed in future NEPA documentation, and;

(3) Perform site investigations to ensure regular monitoring or mitigation are being conducted at required buildings.

6. Training Requirements

a. Contractor personnel involved with the installation of radon-resistant materials and general radon abatement are responsible for training their own personnel.

b. Other personnel should be provided with general awareness training.

7. Communications

a. The NREA Branch, Radon Monitoring and Abatement Program Manager acts as the liaison for general correspondence between MCBQ and the regulatory agencies. Official reports and correspondence provided to regulatory agencies require the signature and approval of the NREA Branch Head or Deputy, unless otherwise delegated. The Radon Program Manager uses the MCBQ EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ Management Coordination Plan for greater detail concerning the program's communication procedures.

b. Required radon testing after the completion of renovation or new construction projects is relayed to the project proponents through the NEPA process. Project proponents are required to acknowledge the requirement by countersigning the final NEPA decision document. Additionally, Requests for Proposals (RFPs) and Scopes of Work (SOWs) are reviewed for pertinent radon testing language. The NEPA mitigation program ensures that the testing is performed in accordance with OPNAVINST 5090.1B CH-1 through post-NEPA review checks.

8. Practice Control

a. As mentioned in paragraph 2 of this chapter, practices performed at MCBQ that are associated with the Radon Monitoring and Abatement Program are listed in Table A-1, Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, ESOPs are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The Radon Program Manager reviews all applicable draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. For further information concerning the NAVRAMP, refer to NAVINST 5090.1C, Environmental and Natural Resources Program Manual.

c. All other Radon Program operational controls, regulatory requirements, and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. No potential emergency situations are anticipated with this program. If radon concentrations exceed the EPA action level of 4 pCi/L, interim steps, such as ventilating the building (open windows and doors) on a regular basis, should be taken to mitigate until a radon abatement system is installed. Contact the Radon Monitoring and Abatement Program Manager at (703) 784 - 4953 or the NHC IH at (703) 784-1674 for additional guidance concerning the

frequency and period a building should be ventilated. Ventilation needs will vary based up the season, concentration of radon, and size and energy efficiency of a building.

10. Records Control

a. Lincoln Military Housing - PPV maintains records of all radon testing, monitoring, and types of mitigation employed for housing areas. They also maintain records describing methods of abatement used during construction or renovation.

b. All other radon testing, monitoring, and abatement/mitigation records are maintained with the NREA Branch. Currently, all records exist in paper files. If records are generated, they are added to the paper file. Electronic files may be used in the future to track areas/buildings where active mitigation measures are employed.

11. Sampling, Monitoring, Measuring, and Reporting Requirements. Radon sampling is required at all newly constructed occupied buildings or modified structures. Continued monitoring and testing is required in structures that have been deemed to contain high levels of radon gas. All radon testing and monitoring, outside of Lincoln Military Housing - PPV, shall be reported to NHC Quantico and the NREA Branch.

12. Pertinent Documents

a. Operational Control Documents. NAVINST 5090.1C, Environmental and Natural Resources Program Manual.

b. Reference Documents

(1) 15 USC 53, Subchapter III, Indoor Radon Abatement.

(2) 40 CFR 195, Radon Proficiency Programs.

(3) Code of Virginia 22.1-138, Minimum Standards for Public School Buildings.

(4) NAVINST 5090.1C, Environmental and Natural Resources Program Manual.

(5) MCO P5090.2A, Environmental Compliance and Protection Manual.

This Page Intentionally Left Blank

Chapter 10

Spill Prevention and Response Program

1. Requirements. Marine Corps Base, Quantico uses petroleum, oil, and lubricants (POL) as well as certain hazardous materials (HM) for operational purposes. These substances could result in the generation of hazardous waste (HW). Federal (40 CFR 112) and state (9 VAC 25-91-170, et seq.) regulations require facilities that utilize these materials to maintain and/or implement spill prevention, control, countermeasures and spill response procedures. Therefore, MCBQ must comply with emergency notification and response procedures prescribed in RCRA, CERCLA, and EPCRA.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this Spill Prevention and Response (SPR) Program. A summary of the specific practices associated with this program is provided in Table A-1, of Appendix A.

3. Definitions

a. Discharge. The accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of POLs, HM, and/or HW into or on any land or water.

b. Incident Commander (IC). The IC is responsible for directing spill response efforts until the event is over or responsibility has been transferred to a higher authority (i.e., the Base Commander).

c. Incident Command System (ICS). A standard incident management organization, with five functional areas, for management of all major incidents: command, operations, planning, logistics, and finance/administration.

d. Regional/Area Contingency Plan. A plan developed for coordinated response and clean-up of a "worst-case" discharge of hazmat(s).

e. Reportable spill. A spill greater than or equal to 25 gallons, the reportable quantity (RQ), or impacts state waters.

f. Threshold Quantity. Level of a spilled hazardous material that is federally required to be reported to the National Response Center.

g. Unified Command Structure (UCS). A large-scale ICS used when regional coordination is required.

4. Program Overview

a. MCBQ complies with the aforementioned regulations through the implementation of a comprehensive SPR Program through MCBQ's Integrated Spill Management Plan (ISMP). The MCBQ ISMP is designed in accordance with the National Response Team's Integrated Contingency Plan Guidance. The objective of this Plan is to describe response protocols to assist in providing coordinated response capability in the event of a release or spill that poses a threat to human health or the environment. The MCBQ ISMP describes the structure and mechanisms for conducting efficient, coordinated, and effective actions that minimize adverse impacts from discharges of POLs and other hazardous substances.

b. The MCBQ ISMP and SPR Program have also been developed to ensure compliance and seamless coordination with the EPA Region 3 Regional Contingency Plan and the USCG Sector Baltimore Area Contingency Plan.

c. MCBQ utilizes the ICS for typical emergency response operations. The IC manages initial emergency response and directs on-scene operations during spills. All initial emergency response and clean-up actions are performed by Facility Response Team personnel. Emergency responsibilities are assigned as part of work requirements and are outlined in the individual's position description. Personnel assigned to emergency response positions are stationed at MCBQ and are required to immediately report to the IC upon notification.

d. The Facility Response Team is primarily composed of members of the MCBQ Fire Department; however, due to manning requirements, first responders may not always comprise the Facility Response Team. Once a situation is under control, the first responders may transfer control of clean-up and recovery to properly trained personnel from MCBQ Fire Department and NREA Branch.

e. In the event of large-scale spills, the Installation may not be able to respond with the appropriate amount of personnel or materials. In situations such as this, the Base Commander assumes a position in the UCS in which he can coordinate resources with federal, regional, and state response organizations.

f. The ICS/UCS command structure is designed to be flexible, allowing MCBQ to tailor the size of this structure to meet the incident needs. Using ICS/ UCS will also enable MCBQ to participate in a seamless unified command with other government agencies when necessary.

5. Program Responsibilities. A full listing of responsibilities is provided in the MCBQ ISMP. A summary is provided as follows:

a. Any person aboard MCBQ who causes or discovers a release of POL or other hazmat has a responsibility to report the release to

proper Base authorities in accordance with Section II, Core Plan, of the MCBQ ISMP (also known as "Emergency Notification and Response Procedures"). If the material can be immediately controlled/contained without endangering human safety, shop personnel should respond with spill control materials to mitigate the release, in accordance with unit level response plans, and then follow published Emergency Notification and Response Procedures in the ISMP to seek further instruction. The ISMP, Spill Reporting Form shall be submitted to the ISMP Program Manager, NREA Branch (784-4030) within 24 hours of the spill. If the release cannot be safely controlled, shop personnel should evacuate the area and immediately contact the MCBQ Fire Department (911).

b. The Duty Fire and Emergency Services Chief is the designated IC, unless relieved by higher authority (i.e., the Base Commander), and will also act as the On-Scene Commander (OSC). The OCS is in charge of the Facility Response Team and remains on-scene until spill response actions are concluded.

c. The Commander of MCBQ is the Area IC in the event of a catastrophic spill or discharge. The Area IC will coordinate with other response agencies/organizations to control an emergency at MCBQ. The Area IC remains in the command post or emergency operations center.

d. The Facility Response Team responds to discharges of POLs, HMs, or HWs within MCBQ. The Facility Response Team also performs spill containment/control and recovery operations when needed.

e. The major responsibilities of the SPR Response Program Manager, NREA Branch include ensuring the MCBQ ISMP is updated whenever there is a major facility change and/or every five years. The SPR Program Manager also performs liaison functions with and required notifications to federal and state regulators, incidental to a release of POL, HM, or HW to the environment.

6. Training Requirements

a. Training required in support of the MCBQ SPR Program is comprehensive and varies widely depending on the material handled and response role. There is also training directed at both the facility level and individual level.

b. Individual-level training shall correspond to a person's level of involvement with POLs, HMs, and HWs. Training can include courses on general spill prevention and response, storm water pollution prevention, and on-the-job training. Responders and members of the Base Spill Response Team should have received the 40 hour Hazardous Waste Operator (HAZWOPER) course training in accordance with 29 CFR 1920.120.

c. Position-specific training may be required for some billets that have a large role in spill and emergency response. These personnel must review the MCBQ ISMP and contact their management, and the CETEP coordinator to determine what specific training is required.

7. Communications. The SPR Program Manager acts as the liaison for general correspondence between MCBQ and the regulatory agencies as further described in the MCBQ ISMP. Official reports and correspondence provided to regulatory agencies require the signature and approval of the NREA Branch Head or Deputy, unless otherwise delegated. The SPR Program Manager uses the MCBQ EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ Management Coordination Plan for greater detail concerning EMS communication procedures. Refer to the MCBQ ISMP for greater detail in communication procedures concerning the MCBQ Spill Prevention and Response Program.

8. Practice Control

a. As mentioned in paragraph 2 of this Chapter, practices performed at MCBQ that are associated with the MCBQ SPR Program are listed in Table A-1, Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, ESOPs are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The MCBQ SPR Program Manager reviews all applicable draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. For further information concerning spill prevention and response procedures, please refer to the MCBQ ISMP.

c. All other SPR Program operational controls, regulatory requirements, and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. Refer to the MCBQ ISMP for emergency response procedures for a release of POLs, HMs and/or HWs to the environment.

10. Records Control. SPR Program Manager, NREA Branch maintains files on all spills of POLs, HMs, and HWs that occur aboard MCBQ. Records are maintained in accordance with applicable federal and state regulations. Individual units must maintain a record of submitted spill reporting forms in their Environmental Management Operating File. These records must be maintained on-site for five years.

11. Sampling, Monitoring, Measuring, and Reporting Requirements. In accordance with Section II, Core Plan, of the MCBQ ISMP (also known as "Emergency Notification and Response Procedures"). If the spill can be immediately controlled/contained without endangering human safety,

shop personnel should respond with spill control materials to mitigate the release. All spills of POLs ,HMs, and HWs must be reported to the SPR Manager. A phone call is sufficient to report the discharge, but it must be followed by submitting a copy of the ISMP, Spill Reporting Form to the SRP Program Manager within 24 hours of the spill. The Spill Reporting Form is available from NREA and is provided in Section II of MCBQ ISMP. Further reporting may be required and is dependent on the severity of a spill:

a. Within 24 hours, the SPR Program Manager shall notify the VDEQ of any spill that meets or exceeds regulatory requirements for a reportable spill quantity. Within seven days following a reportable spill, the Commander or designated representative submit a written report to the VDEQ describing the circumstances, effects, notifications, response, and mitigation efforts of the incident.

b. A Post Incident Investigation/Discharge Review must be prepared following a reportable spill. Information concerning required elements can be found in the MCBQ ISMP or by contacting the SPR Program Manager, NREA Branch.

12. Pertinent Documents

a. Operational Control Documents. MCBQ ISMP.

b. Reference Documents

(1) 42 USC 9601, *et seq.*, The Comprehensive Environmental Response, Compensation, and Liability Act.

(2) 42 USC 9601, *et seq.*, The Resource Conservation and Recovery Act.

(3) 42 USC 11004-11049, The Emergency Planning and Community Right-to-Know Act.

(4) 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response.

(5) 40 CFR 112, Oil Pollution Prevention.

(6) 9 VAC 25-91-170, *et seq.*, Commonwealth of Virginia Oil Discharge Contingency Plan.

(7) DoDI 6055.06, DoD Fire and Emergency Service.

(8) National Fire Protection Agency (NFPA) Standard 471, Recommended Practices for Responding to Hazardous Materials Incidents.

(9) NFPA Standard 472, Standard for Professional Competence of Responders to Hazardous Materials Incidents.

(10) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 7 - Emergency Planning and Response.

Chapter 11

Storm Water Management Program

1. Requirements. Storm water discharges have been identified by the EPA as a significant contributor of pollutants to federal and state waterways. Various laws have been enacted to address this issue, most notably the Clean Water Act Amendments (CWAA) of 1987. The CWAA established the National Pollutant Discharge Elimination System (NPDES). The Federal Government has delegated authority for the NPDES to the VDEQ, who then issues permits based on the type of permit required. The MCBQ Comprehensive Storm Water Management Action Plan (SWMAP) identifies and addresses the installation protocol as required by federal and state storm water pollution prevention laws to ensure the health of surrounding waterways. The SWMAP includes MCBQ's Municipal Separate Storm Sewer Systems permit (Virginia Pollution Discharge Elimination System (VPDES) Permit Number VAR040069) and MCBQ's Stormwater Pollution Prevention Plan, and Industrial Stormwater permit (VPDES Permit Number VA0002151).

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this Storm Water Management Program (SWM). A summary of the specific practices associated with this program is provided in Table A-1 of Appendix A.

3. Definitions

a. "High" categorization. Location has a history of noncompliance or a location in a significant sensitive area with a medium to high amount of outdoor activity that could cause storm water pollution. Inspections are conducted quarterly by the tenant authority and NREA conducts one comprehensive inspection annually.

b. "Low" categorization. No history of noncompliance, very little outdoor activity that could cause storm water pollution, not in a sensitive area. These sites are not covered by the NPDES permit since they do not meet the formal definition of an industrial activity site.

c. "Medium" categorization. No recent history of noncompliance, not in a sensitive area, very little outdoor activity that could cause storm water pollution. Inspections are conducted quarterly by the tenant authority and NREA conducts one comprehensive inspection annually.

d. Storm water. Precipitation and run off attributed to storm events.

e. Comprehensive Storm Water Management Action Plan (SWMAP). Guidance document describing the implementation of MCBQ's Storm Water Management Program. This document replaces the Storm Water Management

Plan, the Source Water Pollution Prevention Plan, and includes Municipal Separate Storm Sewer System (MS4) requirements for program implementation and reporting.

f. Storm Water Pollution Prevention Team (SWPPT). A group composed of ECs from activities and tenant commands that assist in the implementation of the Storm Water Pollution Prevention Plan.

4. Program Overview

a. There are approximately 18 permitted stormwater outfalls located at MCBQ. These outfalls discharge water from various areas and activities, including vehicle maintenance areas, floor drains, miscellaneous industrial activities, and storm water drains. Types of materials that may discharge via storm water include petroleum oils, construction/demolition materials, paints, salts, pesticides/herbicides, and other types of chemicals. Due to the ability of pollutants to contaminate storm water, one of the purposes of the SWMAP is to ensure pollutants do not discharge from these outfalls into the various water bodies surrounding MCBQ.

b. MCBQ is governed under a VPDES Phase I Storm Water Associated with Industrial Activities Permit and a VPDES General Permit for Discharge of Storm Water from a MS4. Each of these permits governs separate portions of MCBQ and includes requirements to reduce and/or eliminate pollutants entering the storm water system.

c. Activities governed under the Storm Water Associated with Industrial Activity Permit are described in the list below. The Permit requires a management plan (i.e., MCBQ SWMAP) to be established in order to govern these activities and ensure the guidelines of the permit are followed.

- (1) Aircraft/vehicle maintenance (e.g., washing and fueling).
- (2) Outdoor storage of hazardous material(s).
- (3) Outdoor storage of hazardous/solid waste(s).
- (4) Pesticide, herbicide, and fertilizer application.
- (5) Water/wastewater treatment options.

d. Activities governed under the MS4 permit include the following list. To institute the MS4 Permit, Best Management Practices (BMPs) must be established; efforts to implement and operate the BMPs must also be documented. BMPs for each of the following categories are further described in the MCBQ SWMAP.

- (1) Personnel education and outreach.
- (2) Public participation and involvement.

- (3) Illicit discharge detection and elimination.
- (4) Construction site runoff control.
- (5) Post-construction runoff control.
- (6) Pollution prevention and good housekeeping.

5. Program Roles and Responsibilities. An in-depth description of SWM roles and responsibilities is provided in the MCBQ SWMAP. A summary is provided as follows:

a. The Base Commander is responsible for ultimate oversight and implementation of the Installation's SWMAP. The Base Commander has delegated authority for operation of the SWMAP to the Head, Environmental Compliance Section, NREA Branch.

b. The Water Programs Manager is responsible for day-to-day implementation of the Installation's SWMAP. The Water Programs Manager is the point of contact for issues involving the VDEQ. Other responsibilities include:

- (1) Coordination with the Resident Officer in Charge of Construction is necessary to ensure all on-base construction/renovation projects comply with applicable storm water management and pollution prevention regulations and policies.

- (2) Acts as Lead for the SWPPT and conducts semi-annual meetings to review/discuss pertinent storm water management issues.

- (3) Conducts annual compliance evaluations and performs follow-up visits, if needed.

- (4) Provides storm water awareness training to all required sites and updates the Installation SWMAP as needed.

c. PWB is responsible for ensuring all storm water conveyance systems operate properly and must provide repair/maintenance when such systems are inoperable.

d. Members of the SWPPT are tasked with performing the following actions at their respective facilities:

- (1) Implementing the provisions of the Installation SWMAP.

- (2) Identification of actual and potential sources of pollution.

- (3) Conducting quarterly storm water pollution prevention audits at their respective sites.

6. Training Requirements. All appropriate personnel shall receive Storm Water Pollution Prevention Training within 90 days of initial hire or assignment. Annual refresher training must also be obtained. Topics discussed in the training include: education on the components of the Installation's SWMAP and familiarity with BMPs to minimize the occurrence of spills.

7. Communications. The NREA Branch, Waters Program Manager acts as the liaison for general correspondence between MCBQ and the regulatory agencies delegated the authority to implement the CWAA and associated water regulations. Official reports and correspondence provided to regulatory agencies require the signature and approval of the NREA Branch Head or Deputy, unless otherwise delegated. The Water Programs Manager uses the MCBQ EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ Management Coordination Plan for greater detail concerning the communication procedures. Refer to the MCBQ SWMAP for greater detail concerning SWM communication procedures.

8. Practice Control

a. As mentioned in paragraph 2 of this chapter, practices performed at MCBQ that are associated with the SWM Program are listed in Table A-1, Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, Environmental Standard Operating Procedures (ESOPs) are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The Water Programs Manager reviews all applicable draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to chapter 21.

b. Refer to the MCBQ SWMAP for greater detail concerning SWM practice controls.

c. Rainwater harvesting systems are not permitted for use at MCBQ unless approved by the GF, PWB, Water Management Program through the NEPA process. Waivers, if provided, are limited to systems that will be used for irrigation purposes or in unique circumstances where controls are in place that would eliminate cross-connection concerns in MCBQ's potable water system (see Chapter 27).

d. All other SWM Program operational controls such as permits, regulatory requirements, and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. Practices performed at MCBQ that could result in potential emergency situations associated with the SWM Program are managed through the Base's Integrated Spill Management Plan (ISMP) by the Spill Prevention and Response Program (refer to Chapter 10).

10. Records Control. Specific recordkeeping provisions are documented in MCBQ's storm water permits. A synopsis of requirements is described below:

a. Quarterly visual monitoring inspection reports for permitted outfalls; these are not required to be submitted to VDEQ unless directed.

b. Quantitative sampling results for permitted outfalls; these must be submitted to VDEQ along with the Installation's Discharge Monitoring Report (DMR).

c. Annual comprehensive site evaluation; this is not required to be submitted to VDEQ unless directed.

d. Periodic area site inspections; these are not required to be submitted to VDEQ unless directed.

e. Meeting minutes recorded during the SWPPT meetings will be filed at the NREA office and maintained indefinitely.

f. Storm water training records are to be maintained by the Water Programs Manager and personnel receiving training.

11. Sampling, Monitoring, Measuring, and Reporting Requirements

a. Regular inspections for storm water compliance are conducted across the entire Installation. Inspections are a method to identify possible sources of pollution and enact a means of prevention before they pose a risk by discharging into surrounding waters bodies. Areas are ranked based on their potential for contamination or history of past contamination and inspected accordingly.

b. All industrial sites are visually inspected for storm water compliance on an annual basis. For areas categorized as "High" ranked areas, a mandatory Comprehensive Site Compliance Evaluation must be conducted. Sites categorized as "medium" shall perform quarterly internal audits.

c. Additional inspections include BMP inspections and dry weather inspections. BMP inspections ensure that SWMAP BMPs are being implemented and followed. Dry weather inspections are conducted every few years to determine potential illicit discharges.

d. Two types of monitoring are required by conditions in the Installations storm water permits. Detailed information regarding specific outfalls and monitoring conditions are contained in the Installation's SWMAP.

(1) Quantitative Monitoring. Various outfalls require monitoring in accordance with EPA's analytical laboratory test

methods. Results of monitoring are sent to VDEQ on a monthly basis with the DMR.

(2) Qualitative Monitoring. Each permitted storm water outfall must undergo at least quarterly visual inspections.

e. An annual report is submitted to VDEQ containing the Installation's progress meeting BMPs, any new BMPs planned for implementation, monitoring data, and outfall characterizations. This information is recorded and reported using a commercially available database product. Any additional reporting provisions will be described in the Installation's storm water permits.

12. Pertinent Documents

a. Operational Control Documents

(1) Marine Corps Base Order 6280.1B, Handling, Transfer, and Disposal of Hazardous Materials and Hazardous Waste.

(2) MCBQ SWMAP.

(a) MCBQ's Municipal Separate Storm Sewer Systems permit, (VPDES Permit Number VAR040069).

(b) MCBQ's Industrial Stormwater permit, VPDES Permit Number VA0002151.

(c) MCBQ's Stormwater Pollution Prevention Plan

(3) MCBQ Backflow Prevention Plan

b. Reference Documents

(1) 33 USC 1251, *et seq.*, The Clean Water Act.

(2) 33 USC 2701, *et seq.*, The Oil Pollution Act.

(3) 4 VAC 50-30, *et seq.*, Virginia Erosion and Sediment Control Regulation.

(4) 4 VAC 50-60, *et seq.*, Virginia Stormwater Management Program Permit Regulations.

(5) 9 VAC 25-151, *et seq.*, VPDES Permit for Discharges of Storm Water Associated with Industrial Activity.

(6) 10.1 Code of Virginia 561, *et seq.*, Virginia Erosion and Sediment Control Program.

(7) 10.1 Code of Virginia 603, *et seq.*, Virginia Stormwater Management Law.

(8) 10.1 Code of Virginia 2100, *et seq.*, Chesapeake Bay Preservation Act.

(9) 62.1 Code of Virginia 44.2-44.34, Commonwealth Water Control Law.

(10) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 20 - Water Quality Management.

This Page Intentionally Left Blank

Chapter 12

Storage Tank Management

1. Requirements. MCBQ uses storage tanks for containing POLs, and other HMs. Federal and state regulations govern the storage of these substances or materials when contained in tanks that exceed applicable threshold capacities. MCBQ implements a Storage Tank Management Plan which addresses not only regulatory compliance, but also prescribes maintenance and related best management practices that eliminate or minimize the occurrence(s) of spills or releases from tanks and other types of containers. The Storage Tank Management Plan satisfies the provisions of Chapter 18, MCO P5090.2A (W/CH 1-2), which dictates compliance with federal and state underground storage tank regulations. The Plan also satisfies the provisions of federal and state regulations that govern aboveground storage tanks (ASTs) and other related containers.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this Storage Tank Management Program (STMP). A summary of the specific practices associated with this program is provided in Table A-1 of Appendix A.

3. Definitions

a. Aboveground Storage Tank (AST). A fixed container that stores, or contains, hazardous materials (including POLs) and is on or less than 10 percent of it is in the ground. Under Federal Oil Spill Prevention Regulations (40 CFR 112), an AST is regulated if it is greater than, or equal to 55 gallons in capacity. Under the state AST Regulations (9 VAC 25-91-10), an AST is regulated if it is greater than, or equal to 660 gallons in capacity. Exemptions to AST requirements described in this chapter are found in federal regulation 40 CFR 112.1(d) and Commonwealth of Virginia regulation 9 VAC 25-91-30.

b. Underground Storage Tank (UST). A fixed container that stores, or contains, hazardous materials (including POLs) and where the volume of the container is at least 10% below ground level. USTs are regulated under Federal UST Technical Standards (40 CFR 280). USTs are also regulated under Commonwealth of Virginia UST Regulations (9 VAC 25-180-10)

c. Class A Underground Storage Tank (UST) Operator. Class A operator has primary responsibility to operate and maintain the underground storage tank system. The Class A operator's responsibilities include managing resources and personnel, such as establishing work assignments, to achieve and maintain compliance with regulatory requirements.

d. Class B UST Operator. Class B operator implements applicable underground storage tank regulatory requirements and standards in the field. This individual implements day-to-day aspects of operating, maintaining, and recordkeeping for underground storage tanks at one or more facilities.

e. Class C UST Operator. Class C operator is an employee and is, generally, the first line of response to events indicating emergency conditions. This individual is responsible for responding to alarms or other indications of emergencies caused by spills or releases from underground storage tank systems. This individual notifies the Class B or Class A operator and appropriate emergency responders when necessary.

f. Petroleum, Oil, and Lubricant (POL). A common acronym that describes all types of petroleum-based liquids (e.g., gasoline, diesel fuel, jet fuel, motor oil, cooking oil, etc.). ASTs and USTs are commonly used to store POLs; other storage containers include drums and totes.

4. Program Overview

a. The STMP is an important component of the ISMP in effectively managing hazardous substances (including POLs) at MCBQ. MCBQ's STMP addresses compliance requirements and inspection frequencies of storage containers, while other NREA Branch programs manage substances stored within those containers. For example, management of used oil is conducted by the Hazardous Waste Program and management of new motor oils is conducted by the Hazardous Materials Program. Refer to Chapter 3 for a discussion of the Hazardous Materials Management Program and Chapter 4 for a discussion of the Hazardous Waste Management Program. Management of prefabricated ASTs, field-constructed ASTs, and USTs are all addressed by MCBQ's Tank Management Program. A three tier approach to storage tank management is utilized at MCBQ.

b. The first tier is tank owners/operators at the shop or organization level. These are individuals tasked with conducting regular recurring inspections (i.e., daily, weekly, and/or monthly) as well as notifying the MCBQ STMP Manager, their organization's EC, and FMS of any tank deficiencies, recommended repairs, or necessary corrective actions. Examples of shop or organizational tanks include, but are not limited to: waste oil tanks at vehicle maintenance shops, fuel tanks at the Marine Corps Exchange, and chemical storage tanks at the Sewage Treatment Plant.

c. The second tier is the EC. They may act as tank owners/operators in the event that a designated owner/operator is out or unable to fulfill their duties. If this is the case, ECs must receive requisite tank training as described in Paragraph 4. The primary responsibility of the EC is to act as a liaison between the

MCBQ STMP Manager and organizational tank owners/operators. ECs ensure their organization is implementing NREA guidance to meet regulatory requirements and help report deficiencies and work requests in a timely manner.

d. The third tier is the MCBQ STMP Manager, who ensures overall compliance with federal and state regulations, Navy and Marine Corps policies and order. The MCBQ Storage Tank Program Manager is also the point of contact for all storage tank related matters aboard the Installation. The Storage Tank Manager coordinates design, installation, maintenance, closure, and replacement of storage tank systems with organizations who own or operate tanks aboard MCBQ. On a routine basis, the Storage Tank Program Manager performs unannounced inspections or site visits to organizational users to ensure tank requirements are satisfied and records are maintained.

e. The fourth tier, G-4 Logistics Division and GF Installation and Environment Division, have certain tank maintenance requirements as further specified in the STMP Plan.

5. Program Roles and Responsibilities

a. The MCBQ STMP Manager is responsible for:

(1) Maintaining an accurate inventory of ASTs and USTs. Registration of tanks with Virginia's Department of Environmental Quality.

(2) Reviewing storage tank installation or construction drawings for engineering adequacy and regulatory compliance.

(3) Coordination of applicable testing requirements for regulated storage tank systems.

(4) Oversight and management of corrective actions resulting from compliance assessments of storage tank systems.

(5) Oversight on AST or UST tank installations to ensure compliance with the regulations and conformance with adopted industry standards.

b. The Hazardous Materials Program is responsible for management of hazardous materials containers that are less than 55 gallons in capacity. The Hazardous Materials Program also manages the acquisition of new drums of hazardous material (including drums). Refer to Chapter 3, Hazardous Materials Management Program, for more information.

c. The Hazardous Waste Program is responsible for management and disposal of hazardous wastes stored in ASTs. The Hazardous Waste Program also performs inspection of storage containers at Satellite

Accumulation Areas throughout MCBQ. Refer to Chapter 4 Hazardous Waste Management Program, for more information.

d. ECs liaison between tank owners/operators and the MCBQ Tank Program Manager. ECs may act as tank owners/operators on an as needed basis. ECs distribute, and help implement, policies and directives from the NREA. They are also responsible for ensuring personnel within their organization attend necessary training described in Paragraph 6.

e. Tank owners/operators are responsible for:

(1) Performing regular, recurring inspections of AST and UST systems in accordance with federal, state, and Marine Corps requirements. Refer to Paragraph 11 for more information on inspection frequencies.

(2) Managing the upkeep of AST and UST systems; requesting maintenance support and submitting work orders if tank systems are in need.

6. Training Requirements

a. ECs are required to attend an AST or UST training seminar as appropriate per the type of storage tank(s) located within their organization. Tank owners/operators are also required to attend this class in order to understand the inspection and recordkeeping requirements for their storage tank. ECs will coordinate tank owner/operator attendance with the MCBQ Storage Tank Manager.

b. ECs and tank owners/operators must attend annual Oil Spill Handling and Discharge Prevention Briefings in accordance with 40 CFR 112 (Oil Spill Prevention) and MCBQ's Integrated Spill Management Plan. The MCBQ CETEP Coordinator provides these classes on a monthly basis. ECs will coordinate tank owner/operator attendance with the MCBQ CETEP Coordinator.

c. In accordance with the Energy Policy Act of 2005, operators of UST systems are required to attend UST Operator Training and be trained to either Class A, Class B, or Class C level. Each UST system must have a Class A, Class B, and Class C operator designated. Refer to Paragraph 3 for definitions of each operator class.

d. ECs will brief the tank owners/operators within their command on applicable ESOPs (e.g., ESOP #11 - Fuel Storage-Aboveground Storage Tanks). Tank owners/operators will sign and date the ESOP signifying they have been trained.

7. Communications. The STMP Manager acts as the liaison for general correspondence between MCBQ and the regulatory agencies as further described in the MCBQ STMP Plan. Official reports and correspondence provided to regulatory agencies require the signature and approval of

the NREA Branch Head or Deputy, unless otherwise delegated. The STMP Manager uses the MCBQ EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ Management Coordination Plan for greater detail concerning EMS communication procedures. Refer to the MCBQ STMP Plan for greater detail in communication procedures concerning the MCBQ STMP.

8. Practice Control

a. As mentioned in Paragraph 2 of this chapter, practices performed at MCBQ that are associated with the MCBQ STMP are listed in Table A-1, Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, ESOPs are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The MCBQ STMP Manager reviews all applicable draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. For further information concerning spill prevention and response procedures, please refer to the MCBQ STMP Plan.

c. All other STMP operational controls such as permits, regulatory requirements, and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. Refer to the Spill Prevention, Control and Countermeasure Plan (SPCC) section of the MCBQ ISMP (described in Chapter 10) for emergency response procedures for a release of fuels, POL(s), HM and HW to the environment.

10. Records Control

a. The MCBQ STMP Manager maintains records of all AST and UST training courses provided to MCBQ personnel. Certificates are also distributed to personnel who complete AST and UST storage tank training. Records of Oil Spill Handling and Discharge Prevention Briefings are maintained by the MCBQ CETEP Coordinator; copies are provided to the organization EC as well as tank owner/operators. Records of ESOP briefings are maintained by the EC. Copies of all AST/UST training certificates and Oil Spill Handling and Discharge Prevention Briefings must be maintained in the organization's EC Turnover Folder. ECs must also maintain records of completed ESOP training in their turnover folder. Records must be maintained as long as personnel are on-site and performing their job duties.

b. For ASTs, regular inspections (i.e., daily, weekly, monthly, or annual) will be maintained by the tank owner/operator. Records of any repairs or upgrades to the AST system will also be maintained by the owning organization and the organization completing the repair

(e.g., FMS). These records will be kept for no shorter than five years and will be available to the NREA upon request.

c. For USTs, inspection, maintenance and performance records will be maintained for leak detection and corrosion protection systems (i.e., cathodic protection). Records will be maintained for all repairs or upgrades to the UST system. In accordance with 9 VAC 25-580-40, Permitting and Inspection Requirements for all UST systems, inspections of repairs, upgrades, and/or closure will be conducted as well. These records will be maintained by the tank owner/operator. Records of UST closure must be maintained by the MCBQ Tank Program Manager. All records will be kept for no shorter than three years.

11. Sampling, Monitoring, Measuring, and Reporting Requirements

a. Inspections. ASTs and USTs are required to undergo regular inspections in order to prevent leaks and ensure equipment functions properly. The type of inspection varies with the type and size of tanks, but could include daily, weekly, and monthly inspections and also formal internal and external inspections as dictated by industry standards (e.g., Steel Tank Institute). The MCBQ contains a full listing of storage tanks, as well as the required inspection frequency. Refer to Annex 8, Section 8.9.1 of the MCBQ ISMP for additional information.

b. Tank Registration

(1) Unless specifically exempted under 9 VAC 25-91-30, MCBQ is required to register all ASTs that are 660 gallons (1,320 liters) or larger with VDEQ. Information that is provided to VDEQ includes: owner information, facility information, tank information, and owner certification of information.

(2) Under 9 VAC 25-580-70, MCBQ is required to submit UST registration packets for regulated USTs that are brought into operational use. Information on the ownership, tank status, tank/piping systems, substance(s) stored, installation certifications (if required), and financial responsibility documentation must be provided to VDEQ. Tank operators must coordinate with the MCBQ STMP Manager to ensure correct UST registration is accomplished. Notification of UST closure must be conducted within 30 days prior to initiation of closure work.

c. Spills of regulated hazardous materials, either from ASTs or USTs, must be promptly reported to the VDEQ. The STMP Manager will handle reporting of all spills. Refer to Chapter 10, Spill Prevention and Response for more information relating to control and mitigation of spilled hazardous materials.

12. Pertinent Documents

a. Operational Control Documents

(1) MCBO 5090.7, Oil and Hazardous Substances Spill Contingency Plan, 09 October 1998.

(2) MCBQ Integrated Spill Management Plan.

(3) STMP Plan.

b. Reference Documents

(1) 40 CFR 112, Oil Pollution Prevention.

(2) 40 CFR 280, Technical and Corrective Action Requirements for Owner and Operators of USTs.

(3) 40 CFR 281, Approval of Commonwealth Underground Storage Tank Programs.

(4) 40 CFR 282, Approved Underground Storage Tank Programs.

(5) 9 VAC 25-91-10 *et seq.*, Facility and Aboveground Storage Tank Regulation.

(6) 9 VAC 25-580-10 *et seq.*, Underground Storage Tank; Technical Standards and Corrective Action Requirements.

(7) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 18 - Underground Storage Tanks.

This Page Intentionally Left Blank

Chapter 13

Waste Water Management Program

1. Requirements. The Clean Water Act (CWA) was enacted to control pollutant discharges from various sources (e.g., industrial, agricultural, construction, etc.) into federal and state waters. As required by MCO P5090.2A, MCBQ must comply with all provisions of the CWA and ensure that no discharge is released outside of compliance standards. The Waste Water Management Program (WWMP) exists to satisfy the requirements of the CWA and ensure MCBQ maintains compliance with applicable regulations.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this program. A summary of the specific practices associated with this program is provided in Table A-1 of Appendix A.

3. Definitions

a. Discharge. Addition of any pollutant or combination of pollutants to waters of the United States from any point source.

b. Outfall. A discharge point for waste water or storm water runoff into a body of water.

c. Permit. Authorization, license, or equivalent control document issued by the EPA or VDEQ allowing discharge(s) into federal or state waters.

d. Sewage Treatment Plant (STP). Industrial facility designed to remove contaminants from waste water generated in buildings and shops within MCBQ.

4. Program Overview

a. MCBQ is divided into four geographic areas and one septic area of wastewater coverage: three are maintained by MCBQ and two by contracts for offsite wastewater treatment. The four geographical waste water areas are:

(1) Mainside. Waste water originating from the Mainside Zone is directed to an STP with advanced waste water treatment capabilities and a treatment capacity of 2.2 million gallons per day (MGD). The STP is permitted to discharge to two outfalls (VA0028363 and VAN010043). To move waste water from their point of origin to the STP, MCBQ utilizes 32 active sewer pumping stations. Operations for the Mainside waste water zone are maintained by PWB, Facilities Maintenance Section (FMS).

(2) Camp Upshur. Waste water originating from facilities located at Camp Upshur is directed to an STP with a treatment capacity of 40,000 gallons per day (GPD). The Camp Upshur STP is permitted to discharge to one outfall (VA0028371). There are three pump stations located at Camp Upshur to move waste water from their point of origin to the STP. Operations for the Camp Upshur waste water zone are maintained by PWB/FMS.

(3) West Side. There is one 750,000 GPD pump station located in the West Side zone that directs waste water to Stafford County via a pretreatment permit (STFRD-003). Stafford County operates and maintains the pump station. There are an additional 12 pump stations to move waste water from the point of origin to the pump station. Operations of the pump stations are maintained by PWB/FMS. PWB/Facilities Management coordinates any necessary permitting.

(4) The National Museum of the Marine Corps (NMMC). Waste water originating from the NMMC Campus is directed offsite via gravity flow to the Prince William County zone. All operation and maintenance is handled by the NMMC Base Operations Support Service (BOSS) contractor while PWB, Facilities Support Contracting Section provides oversight of the BOSS contractor.

(5) The remaining areas of MCBQ not covered by waste water treatment systems are equipped with septic tanks. A large portion of West Side used to be on septic systems until they were provided with access to STPs. There are 11 septic tanks in areas such as Explosive Ordnance Disposal (EOD), Ammunition Supply Point, the Lunga Recreational Facility, and the Buffalo Test Area. All septic system operations are maintained by PWB/FMS.

5. Program Roles and Responsibilities

a. The Commander is ultimately responsible for all waste water issues as they relate to MCBQ. The Commander has delegated operational authority to the Assistant Chief of Staff (AC/S), GF Installation and Environment Division. In turn, the AC/S, GF has delegated day-to-day oversight of waste water issues to the following: PWB, Facilities Management (planning and engineering design), PWB/FMS (day-to-day operations), and the NREA Branch, Environmental Compliance Section.

b. The NREA Branch, Environmental Compliance Section is responsible for:

(1) Ensuring all required permits (federal, state, and local) are obtained.

(2) Creating and implementing a Base Order to address the specific requirements of MCO P5090.2A, as they apply to MCBQ.

(3) Institute management practices and procedures to proactively limit pollutant discharge into waters surrounding MCBQ.

(4) Liaison with federal, state, and local regulatory personnel when needed.

c. PWB, Facility Management is responsible for managing any waste water related projects within MCBQ's fenceline.

d. PWB/FMS is responsible for:

(1) Monitoring effluent levels to ensure they are in compliance with permit requirements.

(2) Ensuring treatment plant personnel have current training, as applicable.

6. Training Requirements

a. In accordance with 9 VAC 25-31-200D and 9 VAC 25-32-190, owners of facilities with wastewater treatment plants are required to "employ or contract the services of at least one licensed operator appropriate for the permitted facility". The level of licensing is based upon the volume of water treated; MCBQ Mainside STP is categorized as a Class 2, Advanced Waste Treatment and MCBQ Camp Upshur is categorized as a Class 3, Biological Waste Treatment. Personnel categorized as operators must have licenses approved and issued by the state. Initial training requirements to become a licensed operator are available in 18 VAC 160-20-90, qualifications for licensure of waterworks operators and wastewater works operators. Renewal of licenses must be done every two years, as required by 18 VAC 160-20, Part III - Renewal. In addition, continuing education credits are required for each operator class. The amounts of continuing education credits are outlined below:

(1) Class 1, 2, and 3 wastewater works operators shall obtain a minimum of 20 contact hours.

(2) Class 4 wastewater works operators shall obtain a minimum of contact 16 hours.

(3) Class 5 wastewater works operators shall obtain a minimum of eight contact hours.

(4) Class 6 wastewater works operators shall obtain a minimum of four contact hours.

b. In addition to state licensing requirements, operators at the wastewater works must receive Hazardous Waste Operations and Emergency Response (HAZWOPER) training in accordance with 29 CFR 1910.120. Operators must also have specialized confined space entry training that conforms to 29 CFR 1910.146. In terms of environmental training,

operators must receive education on topics such as storage tank management, storm water pollution prevention, Hazardous Waste (HW) / Hazardous Material (HM) security and storage, and any other applicable topics as described in MCO P5090.2A. Specific information can be obtained from MCBQ's Comprehensive Environmental Training and Education Program (CETEP) Coordinator.

7. Communications. All questions or concerns regarding the WWMP should be directed to the Water Program Manager, who can be reached at (703) 432-0528. The Water Program Manager uses MCBQ's EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ MCP for greater detail concerning the communication procedures.

8. Practice Control

a. As mentioned in Paragraph 2 of this Chapter, practices related to the WWMP are listed in Table A-1, of Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, Environmental Standard Operating Procedures (ESOPs) are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The Water Program Manager reviews all draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. Reclaimed water systems are not permitted for use at MCBQ unless approved by the GF,PWB, Water Management Program through the NEPA process. Waivers, if provided, are limited to unique circumstances where controls are in place that would eliminate cross-connection concerns in the potable water system (see Chapter 27).

c. All other operational controls are documented through MCBQ's Mainside STP Permit (VA0028363), Camp Upshur STP Permit (VA0028371), Permit for Bluing Operations (STFRD-002), Mainside STP Nutrient Permit (VAN010043-MS), Chesapeake Bay Quarterly Report, and other regulatory requirements and mandates referenced in paragraph 12 of this chapter.

9. Emergencies. For emergencies related to the WWMP that require immediate assistance, dial 911. Refer to the MCBQ ISMP for emergency response procedures for a release of fuels, POL(s), HMs and HWs to the environment. Emergency procedures for sewage backups, line breaks and/or leaks are as follows. For further information, refer to Commander's Policy Letter 3-12, Sewage Spill Response, Reporting, and Management.

a. Notify the Facilities Maintenance Section (FMS) Help Desk at 703-784-2072. The FMS Help Desk will notify the FMS Shop 61 and the Mainside Sewage Treatment Plant (MSTP). If the FMS Help desk is unavailable, contact the MSTP directly at 703-784-2147. Either

potential points of contact will: notify the NREA Branch; notify FMS Shop 61; make the determination to call someone in after business hours, if needed; and make the repairs to the sewage line.

b. Subsequent to notifications, Shop 61 will control the repairs and will isolate the source to stop the discharge.

c. After the backup, break, or leak has been isolated, repairs will take place. The most critical issue with any line break or leak is to limit the amount of waste water being discharged.

d. The affected area will be cleaned and disinfected once repairs have been completed. Subsequently, a final check of the system will be performed prior to it being placed back into service.

e. The NREA Branch is responsible for notifying all applicable regulatory agencies for reporting purposes. During weekends and after hours, the MSTP staff are responsible for directly reporting the spill to the Virginia Department of Emergency Management at 1-800-468-8892 within 24 hours of its occurrence. The MSTP staff is responsible for notifying the NREA Branch the morning of the next business day.

10. Records Management

a. The NREA Branch, Environmental Compliance Section and PWB/FMS maintain records for discharge monitoring conducted at MCBQ. These records must be maintained for a minimum of three years, unless otherwise described in applicable permits or guidance documents. Records for permit violations must also be maintained by the NREA Branch, Environmental Compliance Section as well as corresponding documentation of corrective actions.

b. Records must also be maintained to document meter readings, tests, equipment, chemical use, correspondence, and any odor problems.

11. Sampling, Monitoring, Measuring, and Reporting Requirements. Sampling, monitoring, and reporting requirements are described in the permits for each STP. Reporting criteria (e.g., analytical sampling) must be submitted to the VDEQ in accordance with permit requirements. The Water Program Manager and FMS maintain a listing of all sampling and submittal requirements.

12. Pertinent Documents

a. Operational Control Documents

(1) MCBQ's Mainside STP Permit (VA0028363).

(2) Camp Upshur STP Permit (VA0028371).

(3) Permit for Bluing Operations (STFRD-002).

(4) Mainside STP Nutrient Permit (VAN010043-MS).

(5) Chesapeake Bay Quarterly Report.

(6) MCBQ Backflow Prevention Plan

(7) Commander's Policy Letter 3-12, Sewage Spill Response, Reporting, and management

b. Reference Documents

(1) 33 USC 1251, *et seq.*, The Clean Water Act (CWA).

(2) 42 USC 300(f), *et seq.*, The Safe Drinking Water Act (SDWA).

(3) 9 VAC 25, *et seq.*, The State Water Control Board.

(4) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 20 - Water Quality Management.

Chapter 14

**Environmental Compliance and Conformance
Evaluation Program**

1. Requirements. The USMC established the Environmental Compliance Evaluation (ECE) Program per MCO P5090.2A to evaluate environmental compliance at USMC installations, including command and tenant activities. Each USMC installation is required to participate in the ECE program, including a three year compliance assessment sponsored and conducted by HQMC (i.e., the Benchmark ECE) and an annual self-audit. Plans of Action and Milestones (POA&Ms) are required to be submitted to the CMC (LF) following each three year ECE in order to respond to findings identified. All POA&Ms shall be maintained and tracked in HQMC-sponsored software. The Commandant of the Marine Corps (CMC) letter dated 3 Mar 04, states that each active base shall implement an EMS covering all Base DoD tenant organizations and commands that have activities and functions potentially impacting the environment. Beginning in 2005, HQMC's ECE also included an EMS conformity audit that each USMC installation is subject to. To meet the requirements established in MCO 5090.2A and MCBO 5090.2D, an Internal Audit Plan (IAP) shall be implemented to ensure that "every permitted site and source, every process which generates a waste or may be considered a potential source, and every command/unit and tenant" at MCBQ are assessed annually.

2. Practices. All potential and actual environmental impacts from practices performed at MCBQ are mitigated through this program. All Base practices are associated with this program as illustrated in Table A-1, of Appendix A.

3. Definitions

a. Compliance Evaluation. Identification, characterization, and documentation of compliance deficiencies related to either practices or environmental programs conducted by environmental management office personnel or other environmental professionals designated by the installation. This includes oversight of any inspections that have been performed by practice owners.

b. ECE Program. HQMC-sponsored compliance and conformance assessment program that consists of both a triennial, HQMC-sponsored assessment, and a continuous self-audit program. The program provides the Commander with an assessment of MCBQ's environmental compliance and conformance status.

c. EMS conformity audit. Evaluation of MCBQ's EMS against federal, DoD, USMC, and installation-level requirements.

d. **Inspection.** On-site examination of practices and related environmental control measures by or on behalf of the practice owners to determine whether environmental compliance requirements are being satisfied. This includes documentation and reporting of deficiencies as arranged with the installations environmental management office and any sampling, analysis, or other monitoring activities that the practice owners perform in order to maintain compliance.

e. **POA&Ms.** Documented follow-up procedure that outlines objectives, dates, and targets to address findings stemming from self-audit assessments or Benchmark ECE's.

f. **Practice.** Any activity conducted by an installation or its tenants in performing their mission that has an actual or potential impact on the installation's assets. This includes both business and management practices.

g. **Practice Owner.** The person, unit, or organization that operates, conducts, controls, or is otherwise responsible for a practice.

h. **Self-audit program.** An internal plan for the Commander to assess compliance and conformance within their fenceline, including all tenant commands and activities. The self-audit program will use HQMC-sponsored software as a tool to track compliance and conformance with MCBQ's EMS. POA&M's generated from self-audits are for installation/tenant use.

i. For a complete list of definitions pertaining to the Environmental Compliance and Conformance Evaluation Program (ECCEP), refer to MCO P5090.2A, Chapter 4, the MCBQ MCP, and the MCBQ IAP.

4. **Program Overview.** The ECCEP provides the Commander and HQMC a tool to achieve, monitor, and continually improve MCBQ's compliance with environmental requirements and conformance to the MCBQ EMS. Audits are based on a regular inspection schedule and focus, as specified in MCBQ IAP. The audits shall be based on the identified environmental processes, business practices, environmental aspects, environmental assets, and the associated impacts.

5. **Program Roles and Responsibilities.** Refer to the MCBQ IAP for a complete description of ECCEP responsibilities. Refer to the MCBQ MCP for a description of responsibilities concerning how all environmental audits and inspections are tracked through the MCBQ EMS.

6. Training Requirements

a. Lead Auditors must receive USMC EMS Lead Auditor training, or other equivalent training that is approved by HQMC (e.g., DON, EMS Lead Auditor training).

b. All personnel aboard MCBQ must be trained on environmental policy and procedure via their respective commands.

c. Environmental Coordinators, via the assistance of applicable Environmental Media Managers, will ensure all practice owners are trained for their assigned responsibilities.

d. For more specific training requirements, refer to the MCBQ IAP and MCBQ MCP.

7. Communications. The MCBQ ECCEP uses MCBQ's EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ IAP for greater detail concerning how audits and audit results are communicated; likewise, refer to the MCBQ MCP for greater detail concerning EMS communication procedures.

8. Practice Control

a. The ECCEP is used to audit all Practices performed at MCBQ, as specified in the MCBQ IAP.

b. MCBQ's EMS is used to track progress at addressing audit findings through Plans of Action and Milestones (POA&M).

c. For a complete discussion of practice controls, refer to the MCBQ IAP and MCBQ MCP.

d. All other operational controls and other regulatory requirements and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. The ECCEP is used to audit emergency response procedures as specified in the MCBQ IAP. Emergency preparedness and response information may be related to environmental compliance, Base operations, or ESOPs. For a more in-depth discussion of emergency preparedness and response as it relates to the MCBQ EMS, refer to the MCBQ MCP.

10. Records Control. Refer to the MCBQ IAP and MCP for information concerning ECCEP records control.

11. Sampling, Monitoring, Measuring and Reporting Requirements. All internal and external environmental audit requirements and schedules are provided in detail through the MCBQ IAP.

12. Pertinent Documents

a. Operational Control Documents

(1) MCBQ IAP.

(2) MCBQ MCP.

b. Reference Documents

(1) MCO P5090.2A, Environmental Compliance and Protection Manual, W/CH 2, Chapter 4, Environmental Compliance Evaluations.

(2) Marine Corps EMS Policy of 3 Mar 04.

(3) MCBQ IAP.

(4) MCBQ MCP.

Chapter 15

Conservation Law Enforcement Office Program

1. Requirements. The Conservation Law Enforcement Program (CLEP) ensures the enforcement of nine federal conservation laws set forth in the 2003 Memorandum of Agreement (MOA) between the USMC and the U.S. Fish and Wildlife Service (USFWS): Airborne Hunting Act; Archeological Resources Protection Act of 1979; Bald and Golden Eagle Protection Act; Endangered Species Act of 1973; Lacey Act and Lacey Act Amendments of 1981; Marine Mammal Protection Act; Migratory Bird Hunting and Conservation Stamp Act; Migratory Bird Treaty Act; National Wildlife Refuge System Improvement Act. In order to comply with MCO P5090.2A and NAVMC DIR 5090.4A, the MCBQ Conservation Law Enforcement Office (CLEO) shall carry out and enforce laws aimed at protecting natural and cultural resources aboard MCBQ (listed above). Protecting MCBQ natural and cultural resources sustains the use of MCBQ lands and USMC mission readiness.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this program. A summary of the specific practices associated with this program is provided in Table A-1, of Appendix A.

3. Definitions. Refer to NAVMC DIR 5090.4A, Chapter 6, Use of Force and Pursuit Procedures, Paragraph 1602, for terms and definitions used in the practical application of the use of force.

4. Program Overview. Conservation law enforcement (CLE) officers will perform law enforcement activities to enforce natural and cultural resource laws, including but not limited to the following: investigating fish and wildlife crimes; patrolling; surveillance; interviewing witnesses; interrogating suspects; searching for physical evidence and clues; seizing wildlife or archaeological contraband, equipment, and vehicles; searching and serving warrants; making arrests; and testifying in federal courts and when authorized, state courts, for violations of any of the nine federal conservation laws set forth in the 2003 USMC and USFWS MOA.

5. Program Roles and Responsibilities

a. The Commander has primary responsibility for enforcing natural resources law aboard the Base. The Commander shall be accountable for base-level responsibilities and has delegated authority to the MCBQ natural resources program manager for coordinating and/or managing the MCBQ CLEO program.

b. CLE officers are responsible for:

(1) Ensuring the protection and preservation of human life, personal property, and natural and cultural resources found on lands and facilities aboard MCBQ.

(2) Investigating and arresting anyone suspected of violating the nine federal laws listed in the 2003 USMC and USFWS MOA.

(3) Enforcing state laws on lands acquired or reserved by the Federal Government when the act is not covered by federal statute, per 18 U.S.C. 13, Assimilative Crimes Act.

(4) Assisting the Provost Marshal's Office (PMO) in times of need with manpower support in remote areas and perimeters aboard MCBQ.

c. Per a cooperative agreement between the USMC and the USFWS, the CLEO is allowed to provide law enforcement support to agencies and lands outside of MCBQ's fenceline. For a complete listing of these agencies and lands, refer to Chapter 9, Facilities and Services, of the MCBQ Integrated Natural Resources Management Plan.

d. CLE maintains liaison with the United States Attorney's Office and reports all case information to the Regional Fish and Wildlife Service Office.

6. Training Requirements. CLE officers must be trained in, but not limited to, the following:

a. Natural resources, Marine resources, and Endangered Species Act training.

b. 40-hour Law Enforcement In-service training.

c. Cultural and Historic Resource Law training.

d. Training for supervisors.

e. Environmental compliance enforcement training.

f. Training Officer Functions, Responsibilities, and training.

g. Firearms training.

(1) Sidearms

(2) Shotguns

(3) Rifles

(4) Firearms transition training

h. For additional CLEO training requirements, refer to NAVMC DIR 5090.4A, Chapter 3, Training Requirements, Firearms, Requalification, and Equipment.

7. Communications. All questions or concerns regarding the CLEO should be directed to the CLEO Section, which can be reached at (703) 432-6793/6794/6795. The CLEO Section uses MCBQ's EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ MCP for greater detail concerning the communication procedures.

8. Practice Control

a. As mentioned in paragraph 2 of this Chapter, practices performed at MCBQ that are associated with the CLEO Program are listed in Table A-1, of Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, Environmental Standard Operating Procedures (ESOPs) are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The CLEO reviews all draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. Refer to the MCBQ Integrated Natural Resources Management Plan (INRMP) for additional information concerning MCBQ's CLEO Program. All other CLEO Program operational controls such as regulatory requirements and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies

a. In the event of an emergency, contact the Provost Marshal's Office (PMO) Desk Sergeant at (703)784-2251/2252/2253. If the emergency event is related to a fire, medical care or terrorism, contact Quantico Fire and Emergency Services (QF&ES) at (703)784-2652.

b. In the event that a hunter is lost or injured, the CLEO follows the procedures outlined in MCO 3570.1B.

c. In the event of anyone lost or injured on water within or flowing from MCBQ's fenceline (e.g., the Potomac River, Chopawamsic Creek, etc.), the CLEO works in conjunction with QF&ES.

10. Records Control. The chief CLE officer at MCBQ shall maintain all firearms records referred to in this chapter and referenced in NAVMC DIR 5090.4A.

a. Training records shall indicate pass/fail and/or numerical scores. These records shall be maintained for five years, per reference (b), SSIC, 12410.14. The records shall indicate the date of

firing, time of day, weather conditions, course of fire, number of rounds, ammunition type, weapon used, and range location. Training records shall identify the certified firearms instructor under whose supervision the firing occurred and note any specialized instructions given to individual shooters.

b. Records of annual ammunition allotment for the USMC Conservation Law Enforcement Program (CLEP) shall be maintained by the delegated MCBQ CLEO.

c. The chief CLE officer shall maintain records of annual firearm inspections and repairs.

d. All records shall be maintained in a designated turnover folder.

11. Sampling, Monitoring, Measuring and Reporting Requirements

a. Conservation law enforcement officers shall complete a Standardized Incident Complaint statement which will be forwarded to the MCBQ PMO for inclusion into the Consolidated Law Enforcement Operations Center.

b. MCBQ shall provide fiscal year conservation law enforcement reports to CMC (LFL) by the end of each October.

c. The Chief CLEO or the designated Chief Firearms Instructor for each installation is responsible for reporting expended rounds and qualification sheets to the MCBQ CLEO.

12. Pertinent Documents

a. Operational Control Documents. MCBQ INRMP, Chapter 9, Facilities and Services.

b. Reference Documents

(1) 18 U.S.C. 13, Assimilative Crimes Act.

(2) Other federal environmental laws and regulations cited in Appendix A of MCO P5090.2A (e.g., Archeological Resources Protection Act of 1979, Bald and Golden Eagle Protection Act, etc.).

(3) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 11 - Natural Resources Management, Section 2: Marine Corps Policy, May 2009.

(4) MCO 3570.1B, Range Safety.

(5) NAVMC DIR 5090.4A, Guide to Conservation Law Enforcement Program, of February 13, 2007.

Chapter 16

Fish, Wildlife, and Agronomy Program

1. Requirements. The Endangered Species Act, the Sikes Act (Conservation Programs on Military Installations), and the Sikes Act Amendments of 1998, require responsible land management through proper planning and conservation initiatives. The Fish and Wildlife Conservation Act of 1980 promotes state programs for the purposes of conserving, restoring, or otherwise benefiting nongame fish and wildlife, its habitats, or its uses. The Virginia Department of Game and Inland Fisheries manage and set regulations for inland fisheries and wildlife within the state. Per MCO P5090.2A, Chapter 11, each USMC installation shall, to the extent practicable and consistent with military mission requirements, conserve and promote conservation of nongame fish, wildlife, and their habitats.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this program. A summary of the specific practices associated with this program is provided in Table A-1, of Appendix A.

3. Definitions

a. Conservation. Planned management, use, and the protection of natural resources to provide sustained use and continued benefit for present and future generations, as well as the prevention of exploitation, destruction, waste, and/or neglect.

b. Endangered species. Species which are in danger of extinction throughout all or a significant portion of its range.

c. Forest Management. An integrated program for managing forest resources to ensure that the health, vigor, and diversity of forest ecosystems are maintained, while providing for a diverse, quality military training environment and the production of a sustained yield of commercial timber products.

d. MCBQ Integrated Natural Resources Management Plan (INRMP). Plan that describes what fish, wildlife, and agronomy-related resources are located aboard MCBQ and how they are managed.

e. Threatened species. Species which are likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

4. Program Overview

a. Manage fish, wildlife, soil, water and vegetation resources through cooperative conservation programs and practices that will support the military mission and sustain quality natural habitats and

diversified biological communities; and promote the morale and welfare of military personnel and the public by providing for hunting, fishing, wildlife viewing and other wildlife related recreation in keeping with appropriate safety provisions.

b. Management objectives include:

(1) Inventory and monitor the status of fish, wildlife, threatened and endangered species to gather data beneficial to sustaining native biological communities.

(2) Establish procedures to define the extent of public participation in fish and wildlife recreational and educational programs and manage the operations of such programs.

(3) Identify the need for and means to accomplish control of invasive plant and animal species.

(4) Apply agronomic practices to support military training, multiple-use land management, erosion control, and habitat improvement projects on semi-improved training lands and forest wildlife openings.

(5) Enhance terrestrial and aquatic habitat through interdisciplinary actions to:

(a) Implement the Navy "no-net loss" wetlands policy.

(b) Use prescribed burning to enhance native grassland habitats.

(c) Install habitat structures.

5. Program Roles and Responsibilities

a. The Commander must ensure that the natural resources aboard MCBQ remain healthy and available for future generations. This is accomplished through the MCBQ Fish, Wildlife, and Agronomy (FWA) Program. Responsibility for implementing the FWA Program is assigned to the Head, NREA Branch, GF Installation and Environment Division.

b. Day-to-day operations of the FWA Program are managed by the FWA; Forestry; and, CLE Sections. The heads of each section must:

(1) Ensure natural resource programs are maintained in compliance with all applicable laws and regulations.

(2) Implement programs that properly maintain and/or enhance fish, wildlife, and agronomy-related resources for military training and recreational use.

(3) Review proposed actions that may affect fish, wildlife, and agronomy-related resources.

(4) Prepare and regularly update an INRMP that supports the Base's mission.

(5) Consult with USFWS, Virginia Department of Game and Inland Fisheries, EPA, Chesapeake Bay Program, and other organizations as required, when working with sensitive fish, wildlife, and agronomy-related resources.

(6) Maintain training records and ensure all records for their personnel are forwarded to the appropriate office for recordkeeping.

c. In addition to direct line management, all personnel who live and work aboard MCBQ must take responsibility for the conservation and protection of MCBQ fish, wildlife, and agronomy-related resources. This means that no inappropriate actions, abuse, or misuse of land should occur at any time. If personnel notice a situation where fish, wildlife, and agronomy-related resources are being inappropriately used or illegally harvested, they have a duty to report it to the Head, NREA Branch, assigned Conservation Law Enforcement Officers, or other assigned NREA Branch staff members. Personnel also have a duty to follow appropriate land-use conditions set forth in the MCBQ INRMP.

6. Training Requirements

a. Personnel who are involved in fish, wildlife, and agronomy management activities must be trained in several types of media areas. A general list of training requirements is included below:

(1) HAZCOM, hazardous materials storage; solid waste management, and RCRA training (solid landfill).

(2) Chainsaw and heavy equipment operation, machine guarding, lockout-tagout, and portable generator operations/maintenance.

(3) Urban wildlife management, timber management, fish and wildlife management, agriculture training.

(4) Excavation/grading, pesticide, wild land fire management and prescribed burning.

(5) Chemical immobilization of animals.

(6) Spill and emergency management training.

(7) Tire replacement training, boating operations, and various workshop-related activities.

(8) For additional training requirements, refer to the MCBQ INRMP.

7. Communications. All questions or concerns regarding the MCBQ FWA Program should be directed to the FWA Section, NREA, which can be reached at (703) 784-5383/5810. The FWA Program uses MCBQ's EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ MCP for greater detail concerning the communication procedures.

8. Practice Control

a. As mentioned in paragraph 2 of this Chapter, practices performed at MCBQ that are associated with the FWA Program are listed in Table A-1, of Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, Environmental Standard Operating Procedures (ESOPs) are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The Head, FWA Section, reviews all draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. Refer to the MCBQ Integrated Natural Resources Management Plan (INRMP) for additional information concerning MCBQ's FWA Program. All other FWA Program operational controls, such as regulatory requirements and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies

a. In the case of an emergency such as a forest fire, dial 911 and report your location. The 911 dispatcher will direct your call to the nearest MCBQ Fire Station.

b. For instances of poaching, the Conservation Law Enforcement Office and the FWA Section can be reached at (703) 784-5383/5810.

10. Records Control

a. The NREA Branch maintains and updates MCBQ's INRMP. The MCBQ INRMP specifies procedures for collecting and monitoring data related to fish, wildlife, and agronomy-related resource management. Several types of databases and record-keeping documents exist to help personnel account for population levels of different types of flora and fauna (including T&E species). Hunting records are also maintained to document harvest counts of deer, waterfowl and other hunting species. Various other recordkeeping requirements exist and are described in detail in MCBQ's INRMP.

b. The FWA Program maintains a GIS database pertaining to environmental data found at MCBQ. Categories within the GIS include soil classification, wetland areas, vegetation types, forest cover types, and T&E species occurrence.

11. Sampling, Monitoring, Measuring, and Reporting Requirements

a. The FWA Program has multiple federal and state sampling, monitoring, and reporting requirements to fulfill. Refer for the MCBQ INRMP for a description of these requirements.

b. Formal updates to the MCBQ INRMP are required every five years.

12. Pertinent Documents

a. Operational Control Documents.

(1) MCBO P11015.2A, Fish and Wildlife Management Procedural Manual.

(2) MCBQ INRMP.

b. Reference Documents

(1) Federal environmental laws and regulations cited in Appendix A of MCO P5090.2A (e.g., Endangered Species Act, National Environmental Policy Act, the Sikes Act, etc.).

(2) 4 VAC 15 *et seq.*, Department of Game and Inland Fisheries.

(3) OPNAVINST 5090.1C, Navy Environmental and Natural Resources Program Manual.

(4) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 11 - Natural Resources Management.

This Page Intentionally Left Blank

Chapter 17

Forest Resources Management Program

1. Requirements. The Endangered Species Act, the Sikes Act (Conservation Programs on Military Installations), and the Sikes Act Amendments of 1998, require responsible land management through proper planning and conservation initiatives. Per MCO P5090.2A, Chapter 11, each USMC installation containing forests or lands with the potential to grow and produce forest products will ensure the improvement and sustainable yield of forest resources consistent with local ecosystem conditions and the military mission.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this program. A summary of the specific practices associated with this program is provided in Table A-1, of Appendix A.

3. Definitions

a. Conservation. Planned management, use, and the protection of natural resources to provide sustained use and continued benefit for present and future generations, as well as the prevention of exploitation, destruction, waste, and/or neglect.

b. Endangered species. Species which are in danger of extinction throughout all or a significant portion of its range.

c. Forest Management. An integrated program for managing forest resources to ensure that the health, vigor, and diversity of forest ecosystems are maintained, while providing for a diverse, quality military training environment and the production of a sustained yield of commercial timber products.

d. MCBQ Integrated Natural Resources Management Plan (INRMP). Plan that describes what forest resources are located aboard MCBQ and how they are managed.

e. Threatened species. Species which are likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

4. Program Overview

a. Proper management of forest resources is required by law, enhances the natural environment, provides realistic military training opportunities, and supports outdoor recreational opportunities. Forest resources include, but are not limited to, all flora and fauna occurring on the base. The MCBQ INRMP is used as a guide to manage forest resources.

b. The MCBQ INRMP is implemented by the NREA Branch, GF Installation and Environment Division and provides detailed guidance on appropriate maintenance, restoration, and protection of natural resources and how to provide quality recreational opportunities and training environments for Base personnel, dependents, and civilian users.

c. Threatened and Endangered (T&E) species found at MCBQ include the Small Whorled Pogonia (threatened), Harperella (endangered), and the Dwarf Wedge Mussel (endangered). All sites proposed for potential land disturbance are surveyed for T&E species presence. Any actions that may affect federal or state-designated T&E species require review and coordination with the U.S. Fish and Wildlife Service (USFWS) and appropriate Virginia agencies. The NREA Branch also consults with other agencies/programs for guidance on issues such as wetland protection and riparian area management.

d. The Base's INRMP outlines all program operations and is publically available at the NREA Website.

5. Program Roles and Responsibilities

a. The Commander must ensure a Forest Resources Management Program is implemented and enforced aboard the Base. Responsibility for implementing the Forest Resources Management Program is assigned to the Head, NREA Branch, GF Installation and Environment Division.

b. Day-to-day operations of the Forest Resources Management Program are managed by the FWA; Forestry Program; and, CLEP. The program managers must:

(1) Ensure natural resource programs are maintained in compliance with all applicable laws and regulations.

(2) Implement programs that properly maintain and/or enhance forest resources for military training and recreational use.

(3) Review proposed actions that may affect the environment.

(4) Prepare and regularly update an INRMP that supports the Base's mission.

(5) Consult with USFWS, Virginia Department of Game and Inland Fisheries, EPA, Chesapeake Bay Program, and other organizations as required, when working with sensitive forest resources.

(6) Maintain training records and ensure all records for their personnel are forwarded to the appropriate office for recordkeeping.

c. In addition to direct line management, all personnel who live and work aboard MCBQ must take responsibility for the conservation and protection of MCBQ forest resources. This means that no inappropriate

actions, abuse, or misuse of land should occur at any time. If personnel notice a situation where natural resources are being inappropriately used or illegally harvested, they have a duty to report it to the Head, NREA Branch, assigned Conservation Law Enforcement Officers, or other assigned NREA Branch staff members. Personnel also have a duty to follow appropriate land-use conditions set forth in the MCBQ INRMP.

6. Training Requirements

a. Personnel who are involved in forest management activities must be trained in several types of media areas. A general list of training requirements is included below:

(1) Hazard communication (HAZCOM), hazardous materials storage; solid waste management, and RCRA training (solid landfill).

(2) Chainsaw and heavy equipment operation, machine guarding, lockout-tagout, and portable generator operations/maintenance.

(3) Urban wildlife management, timber management, fish and wildlife management, agriculture training.

(4) Excavation/grading, pesticide, wild land fire management and prescribed burning.

(5) Chemical immobilization of animals.

(6) Spill and emergency management training.

(7) Tire replacement training, boating operations, and various workshop-related activities.

(8) For additional training requirements, refer to the MCBQ INRMP.

7. Communications. All questions or concerns regarding the MCBQ Forest Resources Management Program should be directed to the Forestry Section, NREA, who can be reached at (703) 784-5383/5810. The Forest Resources Management Program uses MCBQ's EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ MCP for greater detail concerning the communication procedures.

8. Practice Control

a. As mentioned in paragraph 2 of this Chapter, practices performed at MCBQ that are associated with the Forestry Resources Management Program are listed in Table A-1, of Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, Environmental Standard Operating

Procedures (ESOPs) are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The Forestry Program Manager, reviews all draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. For a complete discussion of Forestry Program practice controls, refer to the MCBQ INRMP.

c. All other operational controls and other regulatory requirements and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies

a. In the case of an emergency such as a forest fire, dial 911 and report your location. The 911 dispatcher will direct your call to the nearest MCBQ Fire Station.

b. For instances of poaching, the Conservation Law Enforcement Office and the Forestry Section can be reached at (703) 784-5383/5810.

10. Records Control

a. The NREA Branch maintains and updates MCBQ's INRMP. The MCBQ INRMP specifies procedures for collecting and monitoring data related to forest resource management. Several types of databases and record-keeping documents exist to help personnel account for population levels of different types of flora and fauna (including T&E species). Hunting records are also maintained to document harvest counts of deer, waterfowl and other hunting species. Various other recordkeeping requirements exist and are described in detail in MCBQ's INRMP.

b. The Forestry Section maintains a GIS database pertaining to environmental data found at MCBQ. Categories within the GIS include soil classification, wetland areas, vegetation types, forest cover types, and T&E species occurrence.

11. Sampling, Monitoring, Measuring, and Reporting Requirements

a. The Forestry Section has multiple federal and state sampling, monitoring, and reporting requirements to fulfill. Refer for the MCBQ INRMP for a description of these requirements.

b. Formal updates to the MCBQ INRMP are required every five years.

12. Pertinent Documents

a. Operational Control Documents.

- (1) MCBO 11015.1A, Woodland Tree and Shrub Removal.
- (2) MCBO P11015.2A, Fish and Wildlife Management Procedural Manual.
- (3) MCBQ INRMP.

b. Reference Documents

(1) Federal environmental laws and regulations cited in Appendix A of MCO P5090.2A (e.g., Endangered Species Act, National Environmental Policy Act, the Sikes Act, etc.).

(2) OPNAVINST 5090.1C, Navy Environmental and Natural Resources Program Manual.

(3) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 11 - Natural Resources Management.

This Page Intentionally Left Blank

Chapter 18

Comprehensive Environmental Training and Education Program (CETEP)

1. Requirements. Several federal laws require on-duty personnel working with or around regulated materials and/or in regulated working areas to obtain appropriate environmental training to minimize or eliminate risks to human and environmental health. The MCO P5090.2A has standardized USMC environmental training by requiring all personnel to be trained to perform their jobs and maintain combat readiness in a manner supportive of USMC environmental goals. Additionally, the MCO P5090.2A identifies specific environmental training requirements and responsibilities.

2. Practices. All potential and actual environmental impacts from practices performed at MCBQ are mitigated or reduced through this program. A summary of all Base practices is provided in Table A-1, of Appendix A.

3. Definitions

a. Explicitly Required Training and Education. Training specifically required by laws, regulations, or USMC direction.

b. Implicitly Required Training and Education. Training not required by law, regulation, or USMC direction.

4. Program Overview

a. The goal of the MCBQ CETEP is to enable workers to perform their assigned duties in a lawfully compliant and competent manner that minimizes risk to human health and the environment. The MCBQ CETEP Manual should be read and understood by all personnel aboard the Base who work in, or are responsible for, environmental compliance, hazardous material or waste management, or unit environmental training.

b. The MCBQ CETEP promotes long-term viability of the military mission at MCBQ through training in environmental stewardship.

c. The Commanding General/Commanding Officer (CG/CO) and Senior Executive Service (SES) Education Component ensures senior Marine Corps civilian and military leadership understand their environmental program responsibilities.

(1) Environmental compliance responsibilities shall be part of the in-briefing each CG/CO receives upon assuming command on an installation. These responsibilities include an awareness of and access to environmental compliance publications, such as this ECPSOP, ESOPs, the CETEP Manual, installation environmental orders and

policies for ensuring operations comply with environmental requirements and achieve stated EMS objectives.

(2) Commanders of each unit visiting an installation shall be informed of their environmental responsibilities before conducting unit operations (e.g., training) on the installation. These responsibilities shall be included in any written agreements between the unit and installation and should be included in range regulations.

d. Environmental training requirements are defined by federal, state, local laws and regulations, as well as DoD guidance and base instructions. There are two basic levels of training promulgated under MCO P5090.2A:

(1) General Environmental Awareness Training is designed to ensure all USMC personnel become aware of USMC environmental policies and programs to ensure regulatory compliance, natural resource conservation, and pollution prevention.

(2) Job-Specific Required and Necessary Training and Education supports the USMC's goal of total compliance with all applicable environmental laws and requirements. There are two categories of Job-Specific Required and Necessary Training and Education:

(a) Explicitly Required Training and Education applies to personnel based on the nature of their work or existing conditions at their work site. Examples of such training are courses for the Hazardous Waste Handler(s), Emergency Responder(s), and UST Manager(s).

(b) Implicitly Required Training and Education can reasonably be inferred from work assignments, job functions, or required certifications and licenses. Examples of such training are ESOPs, NEPA planning, EPCRA reporting, and endangered species conservation.

5. Program Roles and Responsibilities

a. The Commander, through the NREA Branch, is responsible for developing and overseeing CETEP aboard MCBQ, including providing environmental training and education to MCBQ personnel and tenant commands. The Commander must also appoint the CETEP Coordinator to his/her position in writing.

b. The Director, Safety Division is responsible for managing the Hazard Communication program and respirator training.

c. MCBQ activity commanders and tenant organizations are responsible for ensuring subordinates are sufficiently trained for their environmental duties in accordance with MCO P5090.2A. Commanders and tenant organizations shall also:

(1) Appoint an Environmental Coordinator (EC) to manage compliance in accordance with this ECPSOP; ensure that the appointed EC attends bimonthly EC meetings.

(2) Through the EC, ensure subordinate training and education records in accordance with this ECPSOP.

(3) Maintain environmental training and education records in accordance with this ECPSOP.

(4) Assign personnel for environmental training in accordance with this ECPSOP and all applicable references.

d. The MCBQ CETEP Coordinator is responsible for performing the following actions:

(1) Determine the training requirements of base (military and civilians) and tenant personnel aboard MCBQ; prepare and present applicable training sessions.

(2) Conduct training(s) in accordance with federal, state, and local requirements.

(3) Maintain accurate records of completed CETEP training classes, including class rosters and completion certificates.

(4) Maintain the Base Environmental Training Calendar.

(5) Update the MCBQ CETEP Plan as needed.

6. Training Requirements. The CETEP Coordinator, as well as any designated USMC Environmental Instructor(s), must meet specific training requirements. These requirements are described in paragraph 5203 of MCO P5090.2A, and to a lesser extent in the MCBQ CETEP Manual.

7. Communications. All questions or concerns regarding the MCBQ CETEP should be directed to the MCBQ CETEP Coordinator, who can be reached at (703) 432-0533. The MCBQ CETEP Coordinator uses MCBQ's EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ MCP for greater detail concerning the communication procedures.

8. Practice Control

a. As mentioned in paragraph 2 of this Chapter, practices mitigated by the MCBQ CETEP are listed in Table A-1, of Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, Environmental Standard Operating Procedures (ESOPs) are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The CETEP

Coordinator reviews all draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. Refer to the MCBQ CETEP Plan for additional information concerning MCBQ's CETEP. All other CETEP operational controls, such as regulatory requirements and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. There are no emergency situations associated with the MCBQ CETEP. The MCBQ CETEP provides training to personnel aboard MCBQ in order to reduce or eliminate the potential of an emergency situation. If environmental training is required for practices that could lead to emergency situations, or there is uncertainty whether environmental training is required, contact the MCBQ CETEP Coordinator at (703) 432-0533.

10. Records Control

a. Paper records are maintained by the MCBQ CETEP Coordinator for all personnel who have enrolled in, and completed, training courses and seminars.

b. The MCBQ CETEP Coordinator also publishes an electronic calendar of training classes available to personnel at MCBQ. This calendar lists mandatory and voluntary training along with the dates of availability.

c. Units must maintain complete and accurate records to document all environmental instruction. Training records must be retained for three years after personnel last worked at the site, and training logs must be retained for three years following the training session. In order to meet inspection standards, individual training records must, at a minimum, contain the following information:

(1) Job Title

(2) Job Description, to include duties and requisite skills, education, or other qualifications.

(3) Description of the introductory and continuing training that shall be given to each position.

(4) Records demonstrating completed training.

11. Sampling, Monitoring, Measuring, and Reporting Requirements.

There are no requirements under this section which are applicable to the Base's CETEP.

12. Pertinent Documents

a. Operational Control Documents. MCBQ CETEP Manual.

b. Reference Documents

a. Federal environmental laws and regulations cited in Appendix A of MCO P5090.2A (e.g., The Clean Water Act, Clean Air Act, National Historic Preservation Act, etc.).

b. Department of Defense Instruction (DoDI) 4715.10, Environmental Education, Training and Career Development.

c. MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 5 - Environmental Training and Education.

This Page Intentionally Left Blank

Chapter 19

Historic and Cultural Resources Program

1. Requirements. MCBQ has been inhabited for thousands of years before European exploration in the 1600's. The nearby town of Dumfries was an important tobacco port prior to the Revolutionary War. Quantico was the site of important batteries and large encampments during the Civil War, and became a modern military installation during World War I. Reflecting this long and varied history, there are numerous and diverse historic properties on MCBQ, a term referring to both buildings and archaeological sites eligible for inclusion in the National Register of Historic Places (NRHP). The NHPA, the Archaeological Resources Protection Act (ARPA), and the Native American Graves Protection and Repatriation Act (NAGPRA) are laws enacted to preserve historic resources. Executive Order (EO) 11593 also requires federal agencies to identify historic properties eligible for the National Register of Historic Places (NRHP) in order to preserve such assets for future generations, and EO 13287 which reemphasizes that EO, adding the directive to interpret historic resources to the public. Per MCO P5090.2A, Chapter 8, each USMC installation shall comply with all applicable federal historic, cultural, and archaeological legal requirements.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this program. A summary of the specific practices associated with this program is provided in Table A-1, of Appendix A.

3. Definitions

a. Adverse effects. A harmful impact from development, construction, renovation, or other activity that is not considered desirable.

b. Archaeological Resource. According to 32 CFR 229, any "material remains of past human life or activities which are of archaeological interest, as determined under uniform regulations."

c. Geographic Information Systems (GIS). Computer-generated mapping that allows researchers to plot and analyze site distributions against environmental and other background data derived from remote sensing, digitized maps, and other sources.

d. Programmatic Agreement (PA). A written agreement among a federal agency, the Advisory Council on Historic Preservation (ACHP), and others, usually including the State Historic Preservation Officer (SHPO), that adjusts the NHPA Section 106 process set forth at 36 CFR 800 to accommodate an agency's program, usually by stipulating how an entire program or class of undertakings that are repetitive in nature

or similar in effect will be carried out in order to avoid or mitigate adverse effects.

4. Program Overview

a. MCBQ's historic and cultural resources are managed through the NEPA Coordination Section. The intention of the program is to provide guidance for the responsible management of all historic properties and cultural assets within MCBQ's fenceline.

b. Archaeological surveys have covered about 20% of MCBQ. More than 425 archaeological sites have been identified. Of these, three have been listed on the NRHP, 22 have been determined eligible, and another 150 require further study. Archaeological sites include Native American settlement and use sites dating from around 7,000 Before Common Era to 1650 Common Era and historic period sites dating from the late 1600's through the early 20th century. (These figures are current as of January 2011.)

c. Architectural surveys were begun in the mid 1990's and identified an initial group of 239 properties related to the development of the modern Marine Corps at Quantico; subsequently, these structures were listed on the NRHP as the Quantico Marine Corps Base Historic District in 2001. Base redevelopment projects have led to the demolition of all but 116 of these buildings, with further demolitions planned; however, new properties are likely to be added to the district as it is reevaluated in 2011.

d. Sponsors of proposed undertakings at MCBQ fill out a Request for Environmental Impact Analysis (REIA) form describing the project and then file it with the NEPA Coordination Section. The MCBQ Cultural Resources Manager (CRM) reviews the undertaking to determine whether it could cause effects to historic properties and if the effects would be adverse. Adverse effects to historic properties might result from projects which cause ground disturbance from excavation or grading, modification of historic structures, or construction within the viewshed of the historic district. Any undertaking with the potential to cause effects to historic properties must be reviewed by the SHPO and their staff. Under a PA, expected to be in place by the middle of 2011, the CRM would be delegated much of this responsibility, and would consult with SHPO only where there are adverse effects to NRHP listed or eligible properties.

e. If adverse effects to historic properties cannot be avoided, mitigation must be negotiated with the SHPO and other stakeholders. This is accomplished via a Memorandum of Agreement (MOA) in which the NHPA Section 106 consultation process has been documented and mitigation measures have been agreed upon. Mitigation measures may include large scale excavation on affected portions of archaeological sites, or in the case of buildings, documentation and other offsetting actions such as public education or the adaptation of other historic buildings to new uses to assure their retention. For NEPA compliance,

adverse effects to NRHP eligible properties necessitate an Environmental Assessment.

5. Program Roles and Responsibilities

a. The Commander is responsible for ensuring the following actions are conducted:

(1) Issuing Marine Corps Base Orders (MCBOs), implementing the Installation Cultural Resources Management Plan (ICRMP), and prohibiting the use of unauthorized metal detectors.

(2) Signing PA's, MOA's, and ARPA permits.

(3) Conducting government-to-government relations with federally recognized Indian tribes which have expressed interest in cultural resources at MCBQ.

b. GF Installation and Environment Division, NREA Branch, CRM is responsible for:

(1) Every five years, update the ICRMP and circulate to stakeholders as needed.

(2) Completing and implementing the PA.

(3) Reviewing actions and undertakings by all NREA sections for effects on cultural resources.

(4) Developing scope(s) of work for surveys in areas of ground disturbance that identify and evaluate archaeological resources in Areas of Potential Effect.

(5) Submitting reports to the SHPO on evaluations and surveys for architecture and archaeology.

(6) Updating the Installation predictive model for archaeological resources as new data is collected.

(7) Developing survey priorities for unsurveyed areas of MCBQ and perform evaluation of identified sites.

(8) Identify and prioritize sites vulnerable to erosion. Inspect these sites on a regular basis and take measures in accordance with Section 106 to halt erosion.

(9) Identify sites where there is a potential for vandalism and inspect these sites on a regular basis.

(10) Training Conservation Law Enforcement and other security personnel in archaeological resources protection law.

(11) Developing outreach material for incoming personnel, hunters, and recreationists on archaeological resources protection law.

(12) Review MCBQ tenant leases for potential effects to cultural resources.

c. GF Installation and Environment Division, PWB and the Navy Resident/Regional Officer in Charge of Construction (ROICC) are responsible for:

(1) Reviewing the Base Master Plan and Base Exterior Architecture Plan for consistency with historic preservation objectives indicated by the ICRMP.

(2) Submitting project plans to NREA for review and coordinate with NREA to avoid adverse effects to historic properties.

(3) Include funding in construction/demolition projects to mitigate adverse effects to historic properties.

d. Range Management Branch, Plans, Policy, and Training Branch are responsible for the following actions:

(1) Submitting general training plans to NREA for review of potential effects on archaeological sites.

(2) Submitting plans for new patterns of training to NREA for review.

e. Tenant Activities must ensure the following steps are always conducted:

(1) Submitting master plans to NREA for review.

(2) Submitting project plans and new training patterns to NREA for review.

(3) Submit maintenance plans when the tenant activity controls historic properties.

f. If unexpected archaeological resources are encountered during construction/demolition activities, the activity must cease and the CRM will be contacted. The CRM will evaluate the resource and determine if it is significant enough to warrant mitigation and/or consultation with the SHPO.

6. Training Requirements

a. The CRM must have education and experience meeting professional requirements as stated in 36 CFR 61. In addition, the CRM coordinates training opportunities, including scheduling

workshops in the application of appropriate historic preservation topics, for personnel undertaking repair and maintenance work involving historic buildings. The training shall occur annually, contingent on receipt of funds for this purpose. Training opportunities may include courses in association with the SHPO.

b. Associated NEPA staff, as well as planners in PWB, should have, at a minimum, an introductory course on the NHPA Section 106 review process and be well acquainted with MCBQ's ICRMP.

7. Communications. All questions or concerns regarding the Historic and Cultural Resources Program should be directed to the NEPA Coordination Section, NREA, which can be reached at (703) 784-4030. The Historic and Cultural Resources Program uses MCBQ's EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ MCP for greater detail concerning the communication procedures.

8. Practice Control

a. As mentioned in paragraph 2 of this Chapter, practices performed at MCBQ that are associated with the Historic and Cultural Resources Program are listed in Table A-1, of Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, Environmental Standard Operating Procedures (ESOPs) are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The CRM reviews all draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. All other operational controls and other regulatory requirements and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. There are no emergency situations associated with the Historic and Cultural Resources Program.

10. Records Management

a. A GIS database is maintained by the NREA Branch. Historic and cultural resources (i.e., archaeological sites) present at MCBQ are available in the GIS database.

b. Artifacts collected during archaeological surveys are permanently stored at the Regional Archaeological Curation Facility at Fort Lee, Virginia; field notes and associated documents are also stored there. During study and review of documents, temporary curation of documents and artifacts is at the CRM's laboratory and

office. Items may also be temporarily stored at contractor laboratories and offices.

c. Other types of historic documents and resources are maintained by the Department of the Navy (DoN) at the Washington Navy Yard. Engineering and architectural diagrams that exist for historic buildings may be located with the Engineering Section of PWB. Lastly, the Marine Corps Air-Ground Museum and Marine Corps University Library Archives maintains old photos and records of MCBQ.

d. The CRM maintains an indexed collection of all cultural resource surveys and studies, both archaeological and architectural, which have been conducted aboard MCBQ. GIS feature classes exist and are maintained for archaeological site boundaries, archaeological survey areas, cemeteries, and historic districts. Information tables on archaeological site evaluation status, brief descriptions including function and cultural affiliation, and report references are kept which can be joined to the archaeological site attribute tables. Similar information is maintained for buildings over 50 years old.

e. Archaeological site information may be restricted per ARPA to distributions which will serve to further the preservation of the resources. Decisions involving historic properties should be made with information provided by the CRM, and known to be current.

11. Sampling, Monitoring, Measuring, and Reporting Requirements

a. As required by Section 110 of the NHPA, a comprehensive inventory of historic and cultural resources is maintained and updated on a continual basis.

b. An architectural inventory was conducted to review all built facilities within the boundary of MCBQ and evaluated them for listing on the NRHP. This survey has been updated as additional facilities cross the 50-year threshold and become potentially eligible for NRHP listing. An initial survey was conducted 1993-1995, an update survey in 2006-2007, and additional surveys in 2009 and 2011.

c. Archaeological surveys can be categorized by the level of intensity and stage in the evaluation process. Reconnaissance (or Phase IA) surveys may only identify features and artifacts visible on the surface, with limited subsurface testing at known or suspected archaeological deposits. Phase I (or Phase IB) surveys employ systematic subsurface testing, basic historical research, and detailed mapping of sites. Phase I surveys are employed for compliance in Section 106 undertakings where no previous survey has been carried out for Section 110 compliance, and serve to demonstrate the presence or absence of archaeological resources. Phase II excavations are conducted at sites identified in Phase I which are recommended as potentially eligible for the NRHP. All levels of an archaeological survey may be conducted in the context of Section 106 or Section 110

compliance. Sites shall be monitored for adverse effects from natural processes such as erosion, impacts from training, or looting.

d. In addition to surveys and inventories described above, NEPA documentation is prepared for all major federal activities, as required. A description of records for NEPA documentation and historic/archaeological surveys is the preceding section, Records Management.

12. Pertinent Documents

a. Operational Control Documents. MCBQ ICRMP.

b. Reference Documents

(1) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 8 - Cultural Resources Management.

(2) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 12 - National Environmental Policy Act (NEPA).

This Page Intentionally Left Blank

Chapter 20

Installation Restoration Program

1. Requirements. The Installation Restoration Program (IRP) is mandated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986 and the 1984 Hazardous and Solid Waste Amendments (HWSA) to the Resource Conservation and Recovery Act (RCRA) of 1976. Regulations such as CERCLA, SARA, and RCRA have been established to protect human health and the environment from exposure to HW and hazardous substances. MCBQ accomplishes compliance with these regulations by implementing a comprehensive IRP. The IRP is a component of the overall Environmental Restoration Program, which also includes the Munitions Response Program (MRP). The MRP addresses former ranges that have been closed by DoD. This program is addressed in Chapter 22.

2. Practices. There are no active practices mitigated by this program. The IRP mitigates potential and/or actual environmental impacts from practices conducted in the past. A summary of the specific practices associated with this program is provided in Table A-1, of Appendix A.

3. Definitions

a. Areas of Concern (AOC). Areas where releases or unsafe storage/disposal of HWS or other pollutants may have taken place. These areas are generally investigated to determine if they require remedial action.

b. Facility Assessment. A survey conducted under the supervision of the EPA to determine potential solid waste management sites. A RCRA Facility Assessment is conducted for active sites whereas a CERCLA Facility Assessment is conducted for historic sites that may or may not have been abandoned.

c. Federal Facilities Agreement (FFA). A legal agreement between the EPA and DoN/USMC that establishes roles and responsibilities for IR at MCBQ (as well as other DoN/USMC installations).

d. Initial Assessment Study. A preliminary study to identify and assess sites that may pose a threat to human health and the environment. Typically, sites identified have hazardous materials/residues as a result of past activities. The first "initial assessment study" conducted at MCBQ was in 1984 and identified 17 potentially contaminated sites.

e. National Priority List (NPL). A list of sites where known releases of HWS, pollutants or other contaminants have occurred throughout the United States and its territories. The NPL is intended

primarily to guide the EPA in determining which sites warrant further investigation.

f. Navy Environmental Restoration Program Manual. A formal document that describes guidance for Navy and USMC installations to follow in implementing their Installation Restoration and Munitions Response programs.

g. Quantico Project Managers Team (QPMT) IR Partnering Team. A group composed of representatives from the Regional Environmental Command (i.e., NAVFAC Washington), MCBQ, and regulatory agencies. The QPMT IR Partnering Team acts as a mechanism for exchanging information about IR activities at MCBQ.

h. U.S. EPA's Environmental Photographic Interpretation Center. A repository of satellite imagery and aerial photography that was used to identify historical areas that may have been associated with HW storage or disposal activities.

4. Program Overview

a. The purpose of the IRP is to reduce, in a cost-effective manner, the risk to human health and the environment of hazardous substance contamination from past DoD activities.

b. Under the FFA, Marine Corps Combat Development Command (MCCDC), and thereby MCBQ, was listed on the NPL in 1994. The DoN, EPA, and VDEQ, along with MCBQ, have conducted formal partnering since the mid-1990s. Partnering represents a shared approach to IR where all parties benefit from working closely together. Funding for IR sites at MCBQ is provided through the Environmental Restoration, Navy Program.

c. There are several phases to the CERCLA IR process:

(1) Preliminary Assessment/Site Inspection. Investigation of site conditions. If a release of hazardous substance(s) occurred and requires immediate or short-term response actions, these are addressed under the Emergency Response program of Superfund, NPL Site Listing Process (list of the most serious sites identified for possible long-term cleanup).

(2) Remedial Investigation/Feasibility Study. Determines the nature and extent of contamination. Assesses the treatability of site contamination and evaluates the potential performance and cost of treatment technologies.

(3) Proposed Remedial Action Plan. A document which summarizes a Feasibility Study that is presented to the surrounding community. Describes the remedial alternatives that were considered for cleanup and identifies the proposed remedial alternative, as well as the rationale for its selection.

(4) Records of Decision. Explains which cleanup alternatives shall be used at a site(s). When remedies exceed \$25 million, they are reviewed by the National Remedy Review Board.

(5) Remedial Design/Remedial Action. Preparation and implementation of plans and specifications for applying site remedies. The bulk of the cleanup usually occurs during this phase. All new fund-financed remedies are reviewed by the National Priorities Panel.

(6) Construction Completion. Identifies completion of physical cleanup construction, although this does not necessarily indicate whether final cleanup levels have been achieved. This is where the remedial design is fully implemented.

(7) Post Construction Completion. Ensures that Superfund response actions provide for the long-term protection of human health and the environment. Included here are Long-Term Response Actions, Operation and Maintenance, Institutional Controls, Five-Year Reviews of the remedial alternative, Remedy Optimization.

(8) National Priorities List Deletion. Removes a site from the NPL once all response actions are complete and all cleanup goals have been achieved.

(9) Site Reuse/Redevelopment. Information on how the Superfund program is working with communities and other partners to return HW sites to safe and productive use without adversely affecting the remedy.

d. The identification of sites is typically conducted through the QPMT IR Partnering Team or through completion of a CERCLA/RCRA study (e.g., Initial Assessment Study, Facility Assessment, or the U.S. EPA Environmental Photographic Interpretation Center). IR sites can also be designated by the QPMT. Once identified, IR sites are classified based on the unit type and function. Typically, units receive a one to three letter code similar to the following examples: AOC- (Area of Concern), BA- (Battery accumulation area), TP- (Sewage treatment plants), etc.

e. There are a total of 228 IR sites were originally identified at MCBQ. IR sites are typically older, closed parcels of land that were used for waste disposal, ranges, or other areas that may have contained HW. Of the 228 IR sites, 209 have been closed with no action. 10 sites have been deferred to other programs. Restoration activities are on-going for the remaining nine sites.

f. MCBQ has instituted a Community Relation Plan (CRP) in accordance with MCO P5090.2A and the Navy Environmental Restoration Program Manual. The CRP and public participation are intended to draw the community into the CERCLA process. These actions are conducted to ensure surrounding communities are aware of remediation activities

occurring around them. It also serves as a forum for the public to discuss suggested remediation actions and help determine the best course of action. Records of public events, outreach materials, and final decisional documents are available to the public in the Administrative Record.

5. Program Roles and Responsibilities

a. The Base Commander is responsible for implementing a functional IRP that shall address and mitigate any NPL sites located within MCBQ's fenceline. Operational authority of the IRP has been delegated to the IR Program Manager; however, the Base Commander provides the final approval for MCBQ.

b. The IR Program Manager is responsible for:

(1) Providing oversight of MCBQ's IRP; provide planning and management to identify, remediate, and close-out identified IR sites.

(2) Perform as a technical expert to MCBQ personnel in regards to IR questions and concerns.

(3) Coordinate remedial and investigative action with federal and state regulators, as applicable. Participate in partnership meetings and serve as a member of the QPTM.

(4) Maintain documentation related to site investigations, remedial actions, and closures.

(5) Coordinate public notifications and facilitate public meetings through the QPTM Partnering Team.

c. Partnering Teams: Partnering is a process that brings key players together to work as a team to achieve mutually beneficial goals. The relationship is based on trust, dedication to common goals, and an understanding of each team member's individual expectations and values. The common goal is to protect human health and the environment while reducing cleanup cost and time. Partnering principles are used by the VDEQ, EPA Region III, the Navy, the Marine Corps, and their consultants to investigate and cleanup former disposal sites. The Navy, Marine Corps, EPA Region III and VDEQ coordinate cleanups at Virginia installations through three different tiers (levels) of partnering teams. At each tier, participants contribute expertise and resources to achieve common goals and provide installations with tools to effectively address cleanup. Operational Control is fully described in the MCBQ Partnering Deliverable.

(1) Tier I teams include individuals representing the installation's environmental office; the Navy (or Marine Corps), State and EPA project managers; contractor staff; and technical specialists. By meeting regularly to develop strategies, evaluate studies, and

decide and execute required remedies they improve the quality and consistency of actions taken at the installation.

(2) Tier II teams are made up of program managers that mirror Tier I representatives. Their primary role is to support Tier I teams by resolving issues raised by Tier I, discussing new guidance & policy, providing clarification and guidance, and addressing technical concerns. Policy conflicts that can't be resolved at the Tier II level are elevated to Tier III.

(3) Tier III consists of senior level managers responsible for key environmental policy, programming and budgeting decisions. These managers work together to resolve potential differences in organizational policies and goals that might hinder the progress of Tier I and II. Tier III also assists in making sure resources are available for Tier I and II and are able to share ideas and resources across Virginia.

6. Training Requirements

a. Any Base personnel who conduct operations in, or frequently make visits to, IR sites must be trained in accordance with applicable OSHA Regulations (29 CFR 1910.120). Personnel can be trained to the:

(1) General Site Worker level. Personnel involved in hazardous substance removal or other activities in which they may be potentially exposed to hazardous substances or health hazards.

(2) Occasional Site Worker level. Personnel on-site to complete a specific task and are unlikely to be exposed over permissible exposure limits and published exposure limits.

(3) Permissible Exposure Worker level. Personnel who work in areas that are fully characterized, indicating exposures are under permissible exposure limits. Also, there are published exposure limits where respirators are not necessary, and the characterization indicates that there are no health hazards or the possibility of an emergency developing.

b. The use of contractors to accomplish site remediation is a common occurrence. The IR Program Manager shall ensure the Scope of Work (SOW) for all contractors requires that any personnel brought to work on an on-site IR area shall be trained to the required level as applicable by activity. They may be required to provide training certificates if requested by the NREA Branch or other MCBQ staff.

7. Communications. All questions or concerns regarding the MCBQ IR Program should be directed to the IR Program Manager, who can be reached at (703) 432-0521. The IR Program Manager uses MCBQ's EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ MCP for greater detail concerning the communication procedures.

8. Practice Control

a. As mentioned in Paragraph 2 of this Chapter, practices related to the IRP are listed in Table A-1, of Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, Environmental Standard Operating Procedures (ESOPs) are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The IR Program Manager reviews all draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. For further information concerning the IRP, please refer to the Environmental Restoration Program Site Management Plan for (MCBQ).

c. All other operational controls and other regulatory requirements and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. Practices performed at MCBQ that could result in potential emergency situations associated with the IR Program are managed through the Base's Integrated Spill Management Plan (ISMP) by the Spill Prevention and Response Program (refer to Chapter 10).

10. Records Management

a. MCBQ maintains an Administrative Record of all CERCLA actions conducted aboard MCBQ. The IR Program Manager maintains the Administrative Record and ensures new decision documents, regulatory correspondence, or similar items are added as required.

b. Records of hazardous material/waste spills at MCBQ are kept by the NREA Branch, Environmental Compliance Section. Items that are recorded include: spill location, identifying characteristics (e.g., weather, wind, storage conditions), and the material spilled. Regulatory guidance pertaining to spills are also maintained for the required time period(s) in accordance with the MCBQ ISMP and HWMP (See Chapters 4 and 10).

c. An inventory of known IR sites within MCBQ's fenceline is maintained in the DoN's Normalization of Data (NORM) database. The Regional Engineering Command (i.e., NAVFAC Washington) maintains this database for MCBQ.

11. Sampling, Monitoring, Measuring, and Reporting Requirements. The DoD annually reports to the U.S. Congress information on its environmental restoration programs. Preparation of this report occurs

during the first and second quarters of each fiscal year. The type of information submitted to the U.S. Congress includes items such as:

a. Success stories that highlight significant environmental restoration activities, which reduce risk to human health and the environment.

b. The number of environmental restoration sites, per state, listed on the NPL.

c. A summary of environmental restoration actions at each NPL-listed installation.

12. Pertinent Documents

a. Operational Control Documents.

(1) Environmental Restoration Program Site Management Plan for MCBQ, updated annually before the beginning of each Fiscal Year (October).

(2) MCB Quantico Partnering Deliverable, revised as needed.

b. Reference Documents

(1) Federal Facilities Agreement, dated December 8, 1998.

(2) 42 USC 4321, *et seq.*, National Environmental Policy Act.

(3) 42 USC 9601, *et seq.*, Comprehensive Environmental Response, Compensation, and Liability Act, Resource Conservation and Recovery Act, and subsequent amendments.

(4) 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response.

(5) Department of Navy Environmental Restoration Program Manual.

(6) EO 12088, Federal Compliance with Pollution Control Standards, October 13, 1978.

(7) EO 12580, Superfund Implementation, January 23, 1987.

(8) MCO P5090.2A, Environmental and Compliance Protection Manual, Chapter 10 - Installation Restoration Program.

This Page Intentionally Left Blank

Chapter 21

Management Coordination

1. Requirements. EO 13148 "Greening the Government Through Leadership in Environmental Management" and EO 13423 "Strengthening Federal Environment, Energy, and Transportation Management" require an Environmental Management System (EMS) to be implemented at all applicable federal facilities. The Commandant of the Marine Corps (CMC) letter dated 3 Mar 04, states that each active base shall implement an EMS covering all base DoD tenant organizations and commands that have activities and functions potentially impacting the environment. Consistent with both EOs and subsequent related Department of Defense (DoD) and USMC EMS policies, the Marine Corps EMS provides a systematic approach to integrating environmental considerations into mission decisions and operations, while continuing to improve upon environmental compliance.

2. Practices. All potential and actual environmental impacts from practices performed at MCBQ are mitigated through EMS. A summary of all Base practices is provided in Table A-1, of Appendix A.

3. Definitions

a. Aspect. Characteristic associated with a practice that can cause (under normal, abnormal, or emergency operating conditions) an impact (positive or negative) on the human environment or other protected resources.

b. Environmental Standard Operating Procedure (ESOP). An established method that describes steps to be followed for a given practice in order to prevent or mitigate negative environmental impacts associated with the practice.

c. Impact. Effect of a practice's aspect on the human environment or other protected resources.

d. Practice, Aspect, Impact (PAI) Inventory. Survey of all applicable/active HQMC-listed practices, aspects, impacts, and associated location and practice owner information within a designated fenceline.

e. Practice. Unit process, activity, or operation that supports the MCBQ mission and has the potential to impact human health, the environment, or other protected resources.

f. Risk scoring. The act of assigning risk ratings to aspects associated with a given practice and location

g. Risk to mission. Any practice that may affect the environment that would hinder or stop the mission of MCBQ.

h. Significant practice. A high risk practice, either identified by a practice's risk score or identified by the E²MS Core Team.

i. For a complete list of definitions pertaining to the Management Coordination Program, refer to the MCBQ Management Coordination Plan (MCP).

4. Program Overview

a. The USMC EMS shall be implemented at MCBQ through the Base's EMS Manual per MCBO 5090.2D, including this ECPSOP and MCP.

b. All organizations (e.g., commands, tenants, units) are included in the Base's MCP with the exception of the Federal Bureau of Investigation (FBI), Drug Enforcement Agency (DEA), and Lincoln Military Housing - PPV.

c. The USMC EMS is a framework of several interrelated components that together emphasize a process of continual improvement:

- (1) Policy
- (2) Planning
- (3) Implementation
- (4) Checking and Corrective/Preventive Action
- (5) Management Review

d. For a complete description of each EMS component, refer to the MCBQ EMS Manual within MCBO 5090.2D, ECPSOP, and MCBQ MCP.

5. Program Roles and Responsibilities

a. The Commander shall ensure that the Base implements an EMS that includes all organizations and commands that have activities and functions potentially impacting the environment. The Commander has delegated authority to the MCBQ EMS Coordinator for coordinating and/or managing the MCBQ EMS.

b. The Environmental Management System and Energy (E²MS) Core Team shall:

(1) Meet and discuss the Commander's environmental intentions and initiatives; ensure they are adequately acted upon and enforced.

(2) Identify environmental procedures necessary to conduct day-to-day operations that are not covered elsewhere in the MCBQ MCP.

(3) As required, review adequacy of MCBQ MCP procedures. Direct updates and provide concurrence when needed.

c. The E²MS Implementation Team shall:

(1) Act as a cross-functional team to provide a "hand's on" approach to implementing the Commander's environmental intentions and initiatives.

(2) Provide a level of EMS and media-specific review to ensure policies, procedures, and action plans are technically sound.

(3) Monitor the Base's environmental resources.

d. The EMS Coordinator shall:

(1) Maintain a list of required EMS procedures; as required, develop and/or update EMS procedures with the assistance of the E²MS Implementation Team.

(2) Maintain an accurate PAI Inventory; perform risk prioritization; designate significant practices; and conduct updates on a regular basis.

(3) Ensure availability of current EMS procedures and related documents to appropriate MCBQ personnel.

e. EC / practice owners. For a complete list of roles and responsibilities, refer to the MCBQ MCP.

6. Training Requirements. For a complete list of EMS training requirements, refer to the MCBQ MCP.

7. Communications. All questions or concerns pertaining to the MCBQ Management Coordination Program should be directed to the MCBQ EMS Coordinator, who can be reached at (703) 432-0525. The MCBQ Management Coordination Program uses MCBQ's EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ MCP for greater detail concerning the communication procedures.

8. Practice Control

a. MCBQ's practice list shall be updated on a periodic basis by EC's in coordination with the Environmental Planning Section to reflect subtractions, additions, or modifications. MCBQ's practice list may also be updated as a result of PAI Inventories conducted aboard the Base.

b. Significant Practice Control

(1) The E²MS Core Team meets biannually and identifies significant practices from MCBQ's current PAI Inventory that require ESOPs. These are known as "significant practices."

(2) Once significant practices have been identified, the E²MS Implementation Team shall: provide input on ESOP content; review ESOPs prior to dissemination; review existing ESOPs when modifications to processes or operating procedures are identified; assess and schedule ESOPs for development and/or revision.

(3) For a complete discussion on significant practice controls, refer to the MCBQ MCP.

(4) All other operational controls and other regulatory requirements and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. Emergency preparedness and response information may be related to environmental compliance, Base operations, or ESOPs. For a more in-depth discussion of emergency preparedness and response as it relates to the MCBQ EMS, refer to Chapter 14 of the MCBQ MCP.

10. Records Control. Refer to the MCBQ MCP for information on records control.

11. Sampling, Monitoring, Measuring and Reporting Requirements

a. The E²MS Core Team and Environmental Planning Section requisition the appropriate resources (financial, personnel, and technical) to track progress of the Base's EMS.

b. Monitoring and measurement efforts are designed to ensure that environmental performance is consistent with the Base's EMS Policy and they encourage continual improvement by highlighting successes and revealing areas that may need improvement.

c. Environmental performance may concern either environmental compliance or EMS operation and conformance. The level of environmental performance may be judged by an environmental performance indicator (EPI), through an environmental compliance self-audit, and/or through other methods as appropriate.

d. For more information about sampling, monitoring, measuring and reporting requirements in relation to MCBQ's EMS, refer to the MCBQ MCP.

12. Pertinent Documents

a. Operational Control Documents.

- (1) MCBQ 5090.2D and attached MCBQ EMS Manual
- (2) MCBQ MCP.

b. Reference Documents

(1) EO 13148, Greening the Government Through Leadership in Environmental Management, of April 21, 2000.

(2) EO 13423, Strengthening Federal Environmental, Energy, and Transportation Management, of January 24, 2007.

(3) DoDI 4715.17, Environmental Management Systems, April 15, 2009.

(4) USMC EMS Conformance Guide, December 2004.

(5) USMC Short Guide to EMS, 2000.

(6) MCO P5090.2A, Environmental Compliance and Protection Manual, W/CH 2.

(7) USMC Environmental Management System (EMS) Policy of 3 Mar 04.

This Page Intentionally Left Blank

Chapter 22

Munitions Response Program (CERCLA)

1. Requirements. The National Defense Authorization Act (NDAA) of 2000 requires the DoD to establish a program addressing military munitions as part of the Defense Environmental Restoration Program. MCBQ's Munitions Response Program (MRP) of closed ranges is performed by the IRP through the CERCLA process, providing a means of complying with the NDAA. MCBQ's MRP also provides guidelines for the identification, classification, and removal of unexploded ordnance (UXO) from within MCBQ's fenceline. The MRP does not address chemical warfare material or munitions from active ranges which is managed through the RCRA Process (see Chapter 7).

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this program. A summary of the specific practices associated with this program is provided in Table A-1, of Appendix A.

3. Definitions

a. Discarded Military Munitions (DMM). Military munitions that have been abandoned without proper disposal or removed from storage in a military magazine or other storage area for the purpose of disposal. Does not apply to UXO or military munitions planned for future use or disposal or military munitions that have been properly disposed.

b. Military Constituents (MCs). Any material(s) originating from unexploded ordnance (UXO), DMM, or other military munitions, including explosive and non-explosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions.

c. Munitions and Explosives of Concern (MEC). Military munitions that are classified as UXO, DMM, or MCs present in high enough concentrations to pose an explosive hazard.

d. Unexploded Ordnance (UXO). Military munitions that: have been primed, fused, armed, or otherwise prepared for action; have been fired, dropped, launched, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material; and remain unexploded either by malfunction, design, or any other cause.

4. Program Overview

a. The DoN and USMC originally undertook an effort to investigate sites that might have required a munitions response. The investigation covered areas other than operational ranges, meaning "closed" ranges and ranges that were in the process of transferring from "active" to "closed". This inventory was shared between NAVFAC

Washington, MCBQ, the EPA, and VDEQ as well as with public stakeholders.

b. The MRP does not address the removal of chemical warfare material (CWM) discovered at MCBQ. Discoverers of CWM must contact the MCBQ Fire Department who is responsible for notifying Marine Corps Systems Command (MARCORSYSCOM) and relaying the appropriate information and subsequently notifying the NREA Branch IRP Manager.

c. Response actions begin with the discovery of some type of DMM, MC, MEC, and/or UXO.

(1) Once reported, the MCBQ Remediation Program Manager coordinates a Preliminary Assessment (PA) or Site Investigation (SI) of the Area of Concern. Coordination between the Remediation Program Manager and Explosive Ordinance Disposal (EOD) unit may also take place. The results of a PA/SI dictate the appropriate level of response (e.g., emergency) and level of remediation (e.g., removal) for the discovered munitions. Once a PA has been conducted, the Munitions Response Site (MRS) Prioritization Protocol will be implemented to determine the risks associated with each Munitions Response Site. The Remediation Program Manager must submit an Explosives Safety Submission, for approval, to MARCORSYSCOM prior to any intrusive on-site work.

(2) Once a method of remediation is implemented, it will continue until a Response Complete designation has been attained (i.e., when all required actions have been taken). Once a Response Complete designation has been obtained, the Remediation Program Manager must submit an After Action Report to MARCORSYSCOM for review and endorsement. There are different scenarios that may preclude a MRS from ever achieving Site Closeout. These could include technology limits or when MCs left on-site do not preclude unrestricted use or unlimited exposure. If the Remediation Program Manager can prove that the best available technology was used to detect and remove MCs, and strong evidence exists that no remaining risks exist, the Remediation Program Manager may initiate communication with federal and state regulators that no further action is required at a Munitions Response Site.

d. Currently, there are 37 sites listed in MCBQ's MRP, 16 of which have remedial activities occurring. A site can be added at any time depending on discovery and consultation with the QPMT (i.e., NAVFAC Washington, MCBQ, EPA, and VDEQ). Also, because a site is listed in MCBQ's MRP does not mean that response activities must occur. For example, if a munitions response area (MRA)/ MRS is located in an "active" training area, it is not eligible for response activities. Training occurs throughout MCBQ and there were, or are, operational ranges located on both Mainside and Westside (i.e., Guadalcanal area). Some of these former ranges have been converted into other uses, such as administrative areas, commercial areas, and housing areas.

(1) There are two MRAs located on Mainside (MRA 1 and MRA 2) and multiple MRSs located within each MRA. Any active training areas, indoor ranges, and munitions storage areas are not considered to be eligible for inclusion in the MRAs. Inactive ranges within the boundaries of MRA 1 and MRA 2 were considered and are included. Examples of sites that were not originally identified, but later added to the MRP, include: The Clubs at Quantico MRS, The Chopawamsic Skeet Range 1 & 2 MRSs, and the Marine Corps Exchange MRS. These sites were added due to discovered munitions (e.g., mortars) and historical evidence (e.g., aerial photographs).

(2) Most of the ranges on MCBQ's Westside are considered to be "active" ranges, and therefore exempt from MRP requirements. However, there are four MRAs containing MRSs that have been identified. These MRSs are located near Camp Barrett, Camp Upshur, the FBI Academy, and Lunga Recreation Area. SIs and accompanying reports or work plans are currently ongoing to remediate these areas.

5. Program Roles and Responsibilities

a. The Commander is responsible for implementing a functional MRP that will address and mitigate any DMM, MC, MEC, and/or UXO located within MCBQ. Operational authority of the MRP has been delegated to the Remediation Program Manager; however, the Base Commander must provide final authorization on all decisional documents for active MRP sites.

b. The Remediation Program Manager is responsible for:

(1) Performing notification to the chain-of-command, to regulatory agencies, and local stakeholders if MECs or MCs are discovered in a previously unknown location.

(2) Compliance with all regulatory requirements that encompass the entire munitions response procedure (e.g., safety and health assessments, remedial investigation requirements, natural resources assessments, etc.).

(3) Adequately reviewing all MRP plans and documents; forward comments to the appropriate action agency/organization.

(4) Prepare and implement a public participation program for MRP sites; participate in partnership meetings with regulatory agencies and NAVFAC Washington.

(5) Consider MRP site conditions and land-use restrictions when reviewing land-use planning documentation, development, or operations.

(6) Additional responsibilities are elaborated in Chapter 19 of OPNAVINST 5090.1C.

c. MCBQ EOD unit is required to:

(1) Maintain an archive of munitions response activities.

(2) Review and approve Explosives Safety Submissions prepared by the Installation Remediation Program Manager; additionally, review After Action Reports prepared by the Remediation Program Manager.

(3) Provide explosives safety oversight, respond to EOD calls, review explosive mishap reports and EOD incident reports.

(4) Provide verification that final response actions were completed in accordance with approved safety documentation.

d. QPMT IR Partnering Team. Manages Munitions Response Sites in a manner consistent with IRP Sites (see Chapter 20).

6. Training Requirements. Generally staff and personnel involved in UXO operations should be trained on any applicable federal and state regulations, DoD, and USMC policy. Also, staff must be trained in technical areas which enable them to perform their job. Specific positions (e.g., Remediation Program Manager) require individualized training programs. Information on pertinent training can be found in OPNAVINST 5090.1C, Chapter 19 as well as the Department of the Navy Environmental Restoration Program Manual, Chapter 17.

7. Communications. All questions or concerns regarding the MCBQ MRP should be directed to the Remediation Program Manager, NREA Branch, who can be reached at (703) 432-0521. The MRP uses MCBQ's EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ MCP for greater detail concerning the communication procedures.

8. Practice Control

a. As mentioned in paragraph 2 of this Chapter, practices performed at MCBQ that are associated with the MRP are listed in Table A-1, of Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, Environmental Standard Operating Procedures (ESOPs) are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The Remediation Program Manager reviews all draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. All other operational controls and other regulatory requirements and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. Although the MRP applies to inactive aspects (e.g., DMM, MCs, etc.), emergency risks are still posed by some UXOs. In the case of an emergency, dial 911 and report your location. The 911 dispatcher will direct your call to the nearest MCBQ Fire Station, as needed.

10. Records Control. All records must be maintained in accordance with OPNAVINST 5090.1C and the Navy Environmental Restoration Program Manual.

11. Sampling, Monitoring, Measuring, and Reporting Requirements

a. Prior to any in-ground remediation of munitions, an Explosives Safety Submission must be provided to and authorized by MARCORSSYSCOM.

b. Following completion of remediation activities, an after action report must be submitted to MARCORSSYSCOM for endorsement.

12. Pertinent Documents

a. Operational Control Documents

(1) Environmental Restoration Program Site Management Plan for MCBQ, updated annually before the beginning of each Fiscal Year (October).

(2) MCB Quantico Partnering Deliverable, revised as needed.

b. Reference Documents

(1) Federal Facilities Agreement, dated December 8, 1998.

(2) 42 USC 4321, *et seq.*, National Environmental Policy Act.

(3) 42 USC 9601, *et seq.*, Comprehensive Environmental Response, Compensation, and Liability Act, Resource Conservation and Recovery Act, and subsequent amendments.

(4) 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response.

(5) Department of Navy Environmental Restoration Program Manual.

(6) EO 12088, Federal Compliance with Pollution Control Standards, October 13, 1978.

(7) EO 12580, Superfund Implementation, January 23, 1987.

(8) MCO P5090.2A, Environmental and Compliance Protection Manual, Chapter 10 - Installation Restoration Program.

Chapter 23

National Environmental Policy Act Coordination Program

1. Requirements. The National Environmental Policy Act (NEPA) of 1969 was signed into law as a response to decades of environmental disregard by federal organizations and activities. Essentially a decision-making process, NEPA requires all federal entities, or projects funded or licensed by federal entities, to consider environmental impacts early in the programmatic schedule. Reasonable alternatives to the proposed action, along with the "No Action Alternative," must be explored to determine if related actions with less environmental impacts exists. NEPA also requires citizen involvement through such avenues as scoping meetings and public comment submission. By utilizing these steps, NEPA assists agency decision makers with protecting the environment, and, when possible, selecting actions which have reduced environmental impact.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this program. A summary of the specific practices associated with this program is provided in Table A-1, of Appendix A.

3. Definitions

a. Action Proponent. An office or program initiating a project requiring NEPA consideration.

b. Alternative(s). A reasonable option to the proposed action that may accomplish the same objective(s).

c. Categorical Exclusion (CE). Actions which do not pose significant environmental impacts (individually or collectively) and/or are common actions which have been adopted by published organizational procedures.

d. Environmental Assessment (EA). A brief environmental document written to provide evidence that a proposed action will not cause a significant environmental impact or justifies the preparation of an Environmental Impact Statement (EIS).

e. Environmental Impacts. Positive or negative effects attributed to the proposed action(s) and/or alternatives.

f. EIS. A detailed environmental document explicitly written to describe environmental impacts to all media areas (including unavoidable adverse impacts) from a proposed action and list of alternatives.

g. No Action Alternative. Condition which would exist if the proposed action were not implemented (i.e., current conditions persist to the future).

h. Proposed Action. Preferred alternative advocated by the Action Proponent.

4. Program Overview

a. At MCBQ, the NEPA process and tracking of associated documentation is managed by the NEPA Coordination Section, in accordance with MCO P5090.2A, MCBO 5090.1B and MCBO 5090.2B.

b. The Action Proponent completes Section I of the Request for Environmental Impact Analysis (REIA) form (available on the NREA Branch website). It is imperative that the proposed action is described in sufficient detail; additional space is available on page 2, "Additional Info/Remarks." The REIA form is submitted to the NEPA Coordination Section when completed.

c. The REIA form is forwarded to appropriate NREA staff for review of potential environmental impacts (Section II, lines 10-19).

d. If a CE applies, and no adverse impacts are found, then Section II, line 20 is filled in by the NEPA Coordination Section, indicating a CE is appropriate and the required signatures are to be obtained. If CE is conditional (e.g., additional information or actions are required from the Action Proponent), a CE Memorandum is completed, with special conditions or considerations annotated, and goes before the Environmental Impact Review Board (EIRB). After a CE Memorandum is approved, a Decision Memorandum is completed and signed by the Director, GF. Completed REIA forms or CE Memoranda (with Decision Memo attached) are returned to action proponent. The action proponent must countersign Decision Memos and return to the NEPA Coordination Section within 10 days of receipt.

e. If no CE applies and/or NREA staff determines possible adverse environmental effects are likely, Section II, line 22 is checked and further analysis is conducted. The NEPA Coordination Section shall contact the action proponent and inform them of the possible adverse effects and further analysis may be required. This additional analysis typically takes the form of an EA, or possibly an EIS. The action proponent is responsible for consulting and coordinating with NREA staff to determine what actions and/or documents are required (whether they can be accomplished in-house or contracted) and is responsible for funding surveys or other contract actions as necessary. Generally the NEPA process requires active public participation (e.g., public comment periods, scoping meetings, etc.); however, portions may be limited if the proposed action is sensitive in nature. Action proponents should be cognizant of the fact that coordination with other agencies often is required (e.g., U.S. Army Corps of Engineers, State Historic Preservation Office, or VDEQ, etc.)

and an additional sixty to ninety days (or more) could be required to complete the NEPA process.

f. A Notice of Intent (NOI) must be published in the Federal Register to provide thirty days of public scoping prior to drafting an EIS. All EAs and EISs go before the EIRB for review and approval by the Commander, or the Commander's designated representative. A Finding of No Significant Impact (FONSI) shall be signed by the Commander if an EA demonstrates environmental impacts can be avoided or mitigated. FONSI must undergo thirty days of public comment/review, including notices in local newspapers, before they can be finalized. A Record of Decision (ROD) is completed for EISs after EIRB approval. RODs must be published in the Federal Register and shall be subject to a ninety-day public comment/review period.

5. Program Roles and Responsibilities

a. The Commander has overall responsibility for ensuring that compliance with NEPA is met at the Base. The Commander chairs the EIRB and has signature authority for FONSI.

b. The EIRB is a multidisciplinary panel, designated by the Commander, to review all NEPA documentation for legal and procedural compliance. The EIRB is composed of legal guidance, the heads of facilities, environment, operations, the comptroller, public affairs, community planning, and other departments as appropriate. The EIRB also performs the following actions:

(1) Assisting the action sponsor(s) in determining the level of documentation required by the action.

(2) Ensuring all NEPA documentation has undergone appropriate review.

(3) Reviewing EAs and providing guidance to the Commander on how they should proceed (e.g., FONSI, EIS, or no action).

(4) Reviewing and preparing NOIs, Draft EISs, and Final EISs.

(5) Providing NOIs to the Commander for signature.

(6) For more information on the EIRB, refer to MCBO 5090.1B.

c. The NEPA Coordination Section oversees the REIA analysis and NEPA documentation process. Other responsibilities include:

(1) Routing REIA forms through necessary base staff elements and, when necessary, completing CEs.

(2) When possible and feasible, conduct analysis and complete documentation for EAs (typically EAs are contracted out).

(3) Prepares information for EIRB review of various REIAs and takes minutes for EIRB meetings. Completed documentation is scanned and sent electronically back to the action proponent.

d. Action proponents are those personnel or organizations who act as points-of-contact for proposed actions. Their main role in the NEPA process is to provide information and funding, as needed, to Base environmental staff so they can prepare documentation that is commensurate with the proposed action. They may be required to prepare EAs or EISs to support the proposed action.

6. Training Requirements. NEPA Coordination Section personnel have a basic requirement for training in NEPA (the law and its requirements), and additional training in other environmental laws and regulations as time and budget permit. General awareness training for PWB personnel, and others, is provided on an as-requested basis.

7. Communications. All communications concerning NEPA should be directed to the NEPA Coordination Section, NREA Branch, who can be reached at (703) 784-5383/5810. The NEPA Coordination Section uses MCBQ's EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ Management Coordination Plan for greater detail concerning the communication procedures.

8. Practice Control

a. As mentioned in paragraph 2 of this Chapter, practices performed at MCBQ that are associated with the NEPA Coordination Program are listed in Table A-1, of Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, Environmental Standard Operating Procedures (ESOPs) are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The NEPA Program Manager reviews all draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. All other operational controls and other regulatory requirements and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. There are no emergency situations directly associated with the NEPA Coordination Program. The NEPA Coordination Program is administrative and facilitates the NEPA process aboard MCBQ. Where emergency circumstances (e.g., natural disaster) outside MCBQ control make it necessary to take an action with significant environmental impact without observing NEPA review procedures; the Action Proponents must contact the NEPA Program Manager to consult and make alternative arrangements as appropriate. Alternative

arrangements are limited to those aspects of a proposal that must proceed on an emergency basis. Remaining action(s) to be taken is subject to normal NEPA review. The failure to plan properly does not establish an emergency.

10. Records Control. Records and all decision documents (e.g., EAs, FONSI's, EISs, RODs, etc.) shall be kept for at least ten years, and in general are retained indefinitely.

11. Sampling, Monitoring, Measuring and Reporting Requirements. Installations must provide copies of all FONSI's and minutes from EIRB meetings to HQMC. Action proponents are responsible for meeting all requirements regarding sampling, monitoring, measuring and reporting to ensure all environmental compliance requirements determined in the NEPA process are met. The Council on Environmental Quality and P5090.2A, Chapter 12 requires monitoring of mitigation measures set forth in EAs and EISs. Mitigation monitoring reports are to be submitted to HQMC, I&L, LFL-1.

12. Pertinent Documents

a. Operational Control Documents

(1) MCBO 5090.1B, Environmental Impact Review Board.

(2) MCBO 5090.2D, Environmental Compliance and Protection.

b. Reference Documents

(1) 42 USC 4321, *et seq.*, The National Environmental Policy Act of 1969.

(2) Other federal environmental laws and regulations cited in Appendix A of MCO P5090.2A (e.g., The Clean Water Act, Clean Air Act, National Historic Preservation Act, etc.).

(3) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 12 "The National Environmental Policy Act."

This Page Intentionally Left Blank

Chapter 24

Noise Monitoring and Abatement

1. Requirements. The Noise Pollution and Abatement Act of 1972 requires all federal agencies to incorporate noise management into their actions. Chapter 13 of MCO P5090.2A, Noise Management, establishes USMC responsibilities for complying with legal requirements for reducing environmental noise. MCBQ's Noise Monitoring and Abatement Program satisfy these requirements as well as integrate USMC mission requirements into an effective noise management program.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this program. A summary of the specific practices associated with this program is provided in Table A-1, of Appendix A.

3. Definitions

a. Accident Potential Zone (APZ). Imaginary services and zones that aid in the elimination of objects that may present a hazard to aircraft flight patterns.

b. Air Installation Compatible Use Zone (AICUZ) Program. Planning initiative to identify and address incompatible development in areas that may receive heightened sound levels from military air installations.

c. Day-Night Average Sound Level (Ldn). The average noise level over a 24-hour period.

d. Environmental Noise. The intensity, duration, and character of sounds from all sources.

e. Low-Noise Emission Product. Any product that emits noise in amounts significantly below the levels specified in noise emission standards applicable to that type of product under the Noise Control Act at the time of procurement.

f. Range Compatible Use Zones (RCUZ). Noise and safety hazards generated from training activities conducted on ranges.

4. Program Overview

a. Due to the nature of military bases, environmental noise originate from a variety of sources. Generally, noise at MCBQ falls into one of three categories: noise from ranges, noise due to transportation or mechanical operation (e.g., motor vehicles or aircraft), and short-duration, high-intensity training events (e.g., artillery or explosions).

b. In order to accommodate reduced noise contours over populated areas within and surrounding MCBQ, the Base has adopted several noise abatement techniques. With the exception of take-offs or final approaches, aircraft must maintain strict distance and height restrictions over areas such as Mainside - west of the Marine Corps Air Facility (MCAF), Chopawamsic Creek, and protected Bald Eagle nesting areas along the Potomac River.

c. While AICUZs define areas where certain noise levels are allowed and not allowed, the Base has also implemented a set of APZs. These also work to keep aircraft operations isolated from populated areas of the Base and reduce the amount of noise that non-MCAF personnel are exposed to.

d. In addition to AICUZs and APZs, which address noise associated with aircraft and helicopter operations, the Base also issues "Noise Advisories" when operations will be conducted that may impact noise levels in and around MCBQ. These advisories encompass planned detonations, troop exercises, and/or explosives training. Noise advisories are released by The Public Affairs Office, are posted to the MCBQ Website, and are thereby accessible to the general public.

5. Program Roles and Responsibilities

a. The Base Commander must implement a standard or Base Order implementing the requirements of MCO P5090.2A, Chapter 13 - Noise Management. The Base Commander must also:

(1) Implement procedures for limiting off-base noise consistent with local noise standards.

(2) Coordinate with the Safety Division to limit noise exposure.

b. The Public Affairs Office is responsible for fielding noise complaints from off-base and on-base individuals. Information that should be provided / collected include: a description of the event, how long the individual has lived at the residence, and if there was any damage.

c. The Planning Section is responsible for reviewing all REIAs for potential to impact noise exposure zones, APZs, or other noise-related infrastructure. If impacts are expected, the NEPA Coordination Section shall direct the project/action owner to conduct noise monitoring, abatement, or a combination of both.

d. A project or action owner is responsible for completing a REIA form found in MCBO 5090.1B, Environmental Impact Review Board, and providing it to the NEPA Coordination Section, NREA Branch. If an action is found to impact noise exposure zones, APZs, or other noise-related infrastructure, the NEPA Coordination Section may require the

project/action owner to conduct noise monitoring and/or noise modeling. If required, this must be undertaken concurrent to the NEPA process. All required monitoring/abatement shall be conducted by the project/action owner.

6. Training Requirements. Personnel who conduct noise monitoring shall be adequately trained to operate the equipment they use and also to retrieve the data stored within it. Training shall be consistent with industry standards. Data interpretation shall be conducted by personnel who have experience comparing noise levels at military installations and associating them with any potential environmental impacts.

7. Communications. All communications regarding the Noise Monitoring and Abatement Program should be directed to the NEPA Coordination Section, NREA Branch, who can be reached at (703) 784-5383/5810. The NEPA Coordination Section uses the MCBQ EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ MCP for greater detail concerning the communication procedures.

8. Practice Control

a. As mentioned in paragraph 2 of this Chapter, practices performed at MCBQ that are associated with the Noise Monitoring and Abatement Program are listed in Table A-1, of Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, Environmental Standard Operating Procedures (ESOPs) are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The NEPA Program Manager reviews all draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. For further information concerning noise control, refer to MCBO 3570.1, the MCBQ AICUZ Update, RCUZ Study, and MCBQ Encroachment Control Plan.

c. All other operational controls and other regulatory requirements and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. No practices performed at MCBQ have potential emergency situations associated with the Noise Monitoring and Abatement Program.

10. Records Control

a. The NEPA Coordination Section maintains electronic and paper records of all REIAs.

b. GIS data pertaining to noise management (e.g., ranges, impact areas, AICUZs) is maintained by the NEPA Coordination Section. Any updates to noise monitoring/abatement data shall be provided to the NEPA Coordination Section so that they can maintain a current database of noise parameters within MCBQ.

11. Sampling, Monitoring, Measuring, and Reporting Requirements

a. In 2009, a study was conducted to determine facilities that fall within the airfield's AICUZ Ldn. This study is updated as necessary to account for changes to MCBQ's mission and/or facility infrastructure.

b. If a change of operations (e.g., flight tracks, new aircraft, etc.) is anticipated, periodic monitoring may be conducted to determine if the AICUZ are still adequate. This monitoring would be conducted subsequent to any NEPA documentation required to address changes to operations.

12. Pertinent Documents

a. Operational Control Documents

- (1) MCBO 5090.1B, Environmental Impact Review Board.
- (2) MCBQ AICUZ Study Update Marine Corps Air Facility Quantico, Virginia.
- (3) MCBQ RCUZ Study.
- (4) MCBQ Encroachment Control Plan.
- (5) MCBO 3570.1

b. Reference Documents

- (1) EO 12088, Federal Compliance with Pollution Control Standards.
- (2) 42 USC 4901, *et seq.*, The Noise Control Act.
- (3) OPNAVIST 5090.1C, Navy Environmental and Natural Resources Program Manual, Chapter 20 - Noise Prevention Ashore.
- (4) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 13 - Noise Management.

Chapter 25

Pollution Prevention (P2) Program

1. Requirements. EO 13423 requires all federal agencies to incorporate Pollution Prevention (P2) at its facilities and in its compliance funding policies to achieve energy security and environmental performance goals such as reducing dependence on hazardous materials, especially if a non-hazardous alternative exists. Per MCO P5090.2A, Chapter 15, MCBQ shall comply with P2 and Toxic Release Inventory (TRI) reporting requirements under the EPCRA and the Pollution Prevention Act. Additionally, EO 13514 requires improvements in environmental, energy, and economic performance by establishing strategies for sustainability.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this program. A summary of the specific practices associated with this program is provided in Table A-1, of Appendix A.

3. Definitions

a. Virtual Hazardous Material Minimization Center (HAZMINCEN). Implementation of a system for tracking storage, acquisition, and usage information for hazardous materials. Differs from an actual HAZMINCEN in that there is not a centralized location to turn in HM containers and receive new stocks of HM.

b. Waste Minimization. The practice of reducing the amount of waste produced (hazardous and non-hazardous) by an installation. Methods to decrease waste production comprise the three "r's" concept: re-use, reduce amounts used, and recycle.

4. Program Overview

a. MCBQ's P2 Plan complies with federal laws and conforms with EOs that require source reduction and other P2 measures.

b. P2 operates according to four tenets: Environmental Compliance, Source Reduction, Waste Minimization, and Outreach. These tenets are described below:

(1) Environmental Compliance. Incorporate P2 concepts, procedures, and technologies into all environmental compliance programs. This effort maintains compliance with environmental regulations, conserves operating funds, and enhances readiness by reducing or eliminating the need for environmental controls.

(2) Source Reduction. The substitution of HMs with environmentally friendly products and less hazardous alternatives

enhances employee safety, decreases the amount of HW produced, and conserves operating funds.

(3) Waste Minimization. MCBQ seeks innovative and cost-effective procedures and technologies to reduce the quantity and cost of hazardous and non-hazardous waste generation and disposal.

(4) Outreach. Communication of MCBQ's P2 policy, P2 program goals, opportunities, and successes ensures support of the P2 program and a willingness to participate by base personnel and senior officials.

c. MCBQ has implemented the following P2 initiatives:

(1) Hazardous Material Management System (HMMS). Establishment of a virtual HAZMINCEN to track consumption and storage information of HMs has been implemented throughout MCBQ. The HMMS is instrumental in the reduction of unnecessary and old HMs and ensures that shops only keep the HMs they need on hand.

(2) Water and Energy Conservation. Conservation actions include the deactivation of the Central Heat Plant, retrofitting of light fixtures with motion sensors, and installation/retrofitting of low flow toilets and showers. Refer to Chapter 26, Base Energy and Water Management Program for additional information on MCBQ water and energy conservation initiatives.

(3) Sulfur Dioxide Emissions Reduction. MCBQ accomplishes this goal by purchasing diesel fuel with reduced sulfur content.

(4) Training. Personnel throughout MCBQ must attend training classes in which P2 topics such as green procurement and recycling are covered.

(5) Green Procurement. Creation of an MCBQ Green Procurement Plan encourages the purchase of recycled materials as well as energy efficient products. The green procurement initiative also emphasizes procurement of environmentally-friendly materials for day-to-day supplies.

d. MCBQ is meeting the sustainability requirements of EO 13514 through the development and implementation of a Base Sustainability Plan.

5. Program Roles and Responsibilities

a. The Commander is responsible for implementing a P2 Program and P2 Plan in accordance with the Marine Corps Pollution Planning Guide. Day-to-day operation of the P2 Program has been delegated to GF Installation and Environment Division, NREA Branch.

b. The NREA Branch is responsible for:

(1) Reviewing the P2 Plan on an annual basis, reissuing updated versions of the P2 Plan, and providing copies of updated P2 Plans to CMC (LF).

(2) Identifying P2 options, determine their feasibility, and ensure their implementation.

(3) Reviewing past P2 options that were deemed technically or economically unacceptable and determine if they can be implemented.

(4) Coordinating P2 opportunities with Activities and Tenant Commands throughout MCBQ.

(5) Providing training to MCBQ personnel on P2 topics.

c. Activity and Tenant Command ECs are responsible for ensuring P2 options are implemented at their facilities/shops. This shall include direct communication with the NREA Branch personnel on implementation strategies, operating procedures, and reporting requirements.

d. The EMS Coordinator and Energy Program Manager are responsible for developing and tracking the implementation of the MCBQ Sustainability Plan.

6. Training Requirements. There are no specific training requirements for the P2 Program; however, NREA Program Managers, as well as Base personnel, are encouraged to attend general P2 training, Storm Water P2 training, Air P2 Training, and/or Green Procurement training. The Naval Civil Engineer Corps Officers School offers web based Pollution Prevention Awareness training and Green Purchasing Training. MCBQ personnel who enroll in the monthly Hazardous Materials/Waste Awareness training will also be exposed to P2 ideas, strategies, and information.

7. Communications. All questions or concerns regarding the P2 Program and sustainable strategies should be directed to the EMS Coordinator, who can be reached at (703) 432-0525. The EMS Coordinator uses MCBQ's EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ MCP for greater detail concerning the communication procedures.

8. Practice Control. As mentioned in paragraph 2 of this Chapter, practices performed at MCBQ that are associated with the P2 Program are listed in Table A-1, of Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, Environmental Standard Operating Procedures (ESOPs) are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The EMS

Coordinator and HM Program Manager reviews all draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21. For further information of P2, refer to the MCBQ P2 Plan. Likewise, refer to the MCBQ Sustainability Plan for information concerning Base Sustainability Strategies. All other operational controls and other regulatory requirements and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. There are no emergency situations associated with the P2 Program or sustainability strategies.

10. Records Control. Data and records pertaining to information required for the P2 Annual Data Summary (P2ADS) are maintained by the NREA Branch. Types of data typically reported in the P2ADS include types of waste streams, quantities of waste streams, and types of waste sent off-site for recycling and disposal. Records pertaining to EPCRA reporting (i.e., TRIs) are maintained by the NREA Branch and the MCBQ Range Complex. Sustainability strategy implementation records are maintained in accordance with the MCBQ Sustainability Plan.

11. Sampling, Monitoring, Measuring, and Reporting Requirements

a. The P2ADS must be completed on an annual basis and submitted to HQMC.

b. Every three years, the P2 Plan must be updated and reissued. Copies of the updated P2 Plan must be provided to CMC (LFL) in accordance with MCO P5090.2A.

c. Sustainability metrics are described in the MCBQ Sustainability Plan

12. Pertinent Documents

a. Operational Control Documents

(1) MCBQ P2 Plan, 2008.

(2) MCBQ Sustainability Plan

b. Reference Documents

(1) Federal environmental laws, EOs, and regulations cited in Chapter 15 of MCO P5090.2A (e.g., Pollution Prevention Act of 1990, CERCLA of 1980, as Amended, etc.).

(2) EO 13148, Greening the Government Through Leadership in Environmental Management.

(3) EO 13423, Strengthening Federal Environmental, Energy, and Transportation Management.

(4) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 15 - Pollution Prevention.

This Page Intentionally Left Blank

Chapter 26

Base Energy and Water Management Program

1. Requirements. Multiple federal laws and regulations have been passed with the intent of reducing the nation's dependence on non-renewable resources and foreign oil, increasing environmental protection, and promoting sustainable practices. MCBQ's Energy and Water Management Program is designed to meet these federal energy and water mandates while also aiming to increase operational effectiveness, promote utility self-reliance and security, reduce the cost of purchased utilities, and ensure continuity of operational capability in the event of utility disruption (e.g., natural disasters, failure of old infrastructure, or terrorist acts).

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this program. A summary of the specific practices associated with this program is provided in Table A-1, of Appendix A.

3. Definitions

a. B-A-S-E Plan. MCBQ's plan for creating a sustainable base that is committed to conserving energy and water resources.

b. Energy Conservation Officer (ECO). ECO's are Base personnel responsible for energy and water conservation matters at designated facility(s).

c. Environmental Management System and Energy (E²MS) Core Team. MCBQ's executive management team responsible for setting Base policy for environmental and energy goals. The E²MS Core Team is also responsible for setting MCBQ's environmental and energy objectives and providing guidance to meet them. The E²MS Core Team is composed of the Commander, the Base Chief of Staff, the Assistant Chiefs of Staff/Directors of Base divisions, and heads of large tenant organizations.

4. Program Overview. The MCBQ Energy and Water Management Program was implemented to reduce utility consumption aboard MCBQ and meet federal-mandates energy and water reduction goals. This effort is a means of improving self-sufficiency and reducing commercial utility costs, ensuring operational security with no loss of mission readiness. The Energy and Water Management Program attains these goals by implementing federal and DoD sustainability guidelines and implementing the B-A-S-E Plan.

5. Program Roles and Responsibilities

a. The Commander serves as the E²MS Core Team Chair. In the Base Commander's absence, the Chief of Staff may serve as the E²MS Core Team Chair.

b. The E²MS Core Team shall meet on a biannual basis to address energy and water conservation issues at MCBQ. Additionally, the E²MS Core Team shall:

(1) Inform activities and tenant commands about energy and water conservation policies and programs. The E²MS Core Team shall also ensure these policies are being adhered to.

(2) Provide feedback to Base personnel about the energy and water management program.

(3) Designate ECOs for each facility within the activity or tenant command to act as the single point-of-contact for energy or water conservation issues.

(4) Ensure active program participation from ECOs.

c. The Base Energy Manager is responsible for implementing MCBQ's Energy and Water Management Program and B-A-S-E Plan. The four pillars of the B-A-S-E Plan include:

(1) **Benchmark Building Performance.**

(2) **Activities and Tenant Command Commitment.**

(3) **Sustainable Facilities.**

(4) **Energy Awareness Campaign.**

(5) For a complete description of each pillar of the B-A-S-E Plan, refer to MCBQ 4100.1B, Enclosure (2).

d. ECOs are responsible for assisting the Base Energy Manager in monitoring energy and water consumption throughout MCBQ facilities. ECOs act as the local "eyes and ears" for the Base Energy Manager. For a complete list of ECO responsibilities, refer to MCBQ 4100.1B, Enclosure (4).

e. Responsibilities also are delegated to several MCBQ activities and tenant commands. Refer to MCBQ 4100.1B for a full description of responsibilities assigned to Base personnel.

6. Training Requirements

a. The Base Energy Manager is responsible for seeking, applying for, and receiving training to maintain proficiency in energy issues such as policy, regulations, codes, building energy efficient models, life cycle costing, innovative technology, and energy efficiency / conservation strategies. Applicable training includes, but is not limited to:

(1) Association of Energy Engineers Certified Energy Manager course.

(2) Life Cycle Cost Analysis course.

(3) Measurement and Verification course.

(4) Conferences, symposiums, and workshops as available.

b. The Base Energy Manager shall provide annual training to all appointed ECOs. This training shall cover information necessary for ECOs to conduct their assigned duties. Information such as adherence to energy and water conservation goals, common conservation practices, and familiarity with the Building Energy Monitor's Guide shall be covered.

c. ECOs shall also receive sustainable facilities training so they are capable of identifying sustainable improvements to their buildings..

7. Communications. For questions or concerns regarding the Energy and Water Management Program, contact MCBQ's Energy Program Manager at (703) 432-2590. The Base Energy Manager uses MCBQ's EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ MCP for greater detail concerning the communication procedures. For a complete list of communication guidelines related to the Base Energy and Water Management Program, refer to MCBO 4100.1B.

8. Practice Control

a. As mentioned in paragraph 2 of this Chapter, practices performed at MCBQ that are associated with the Base Energy and Water Management Program are listed in Table A-1, of Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, Environmental Standard Operating Procedures (ESOPs) are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The Energy Program Manager reviews all draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. Refer to MCBO 4100.1B for a full description of the MCBQ Energy Program. All other operational controls and other regulatory requirements and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies

a. For natural gas leaks, refer to the following steps:

(1) If you smell the "rotten eggs" odor of natural gas inside, leave immediately.

(2) From a safe location, call 911 and Columbia Gas of Virginia at 800-544-5606.

(3) If you detect or smell natural gas, do not use matches, electric switches or any kinds of appliances or motorized tools.

b. Refer to ESOP #11, Fuel Storage - Aboveground Storage Tanks and ESOP #12, Fuel Storage - Underground Storage Tanks for response procedures related to leaks from petroleum storage containers.

10. Records Control. Records are maintained by PWB for: ECO Appointment Letters, utility reports, and E²MS Core Team Meeting Minutes. Records for these items are kept indefinitely.

11. Sampling, Monitoring, Measuring, and Reporting Requirements. The Base Energy manager submits Defense Utility and Energy Reporting System data on a quarterly basis to Naval Facilities Engineering Support Center.

12. Pertinent Documents

a. Operational Control Documents

(1) MCBO 4100.1B, Energy and Water Management Program, April 11, 2011.

(2) MCBQ Sustainability Plan

b. Reference Documents. Federal, DoD, and USMC environmental laws and regulations cited in Enclosure (8) of MCBO 4100.1B (e.g., Energy Policy Act of 2005, Energy Independence and Security Policy Act of 2007, etc.).

Chapter 27

Potable Water Management Program

1. Requirements. Under the Federal Safe Drinking Water Act (SDWA) of 1974 and subsequent 1986 Amendments, legal limits are set on the levels of certain contaminants in potable water. The VDEQ enforces SDWA standards. As required by MCO P5090.2A, Chapter 16, MCBQ must preserve potable water to support future USMC training and quality of life needs.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this program. A summary of the specific practices associated with this program is provided in Table A-1, of Appendix A.

3. Definitions

a. Acute violation. A violation of drinking water standards that may result in an immediate risk to human health.

b. Coliform Bacteria (BAC-T). A common type of bacteria that is used to gauge the sanitary quality of foods and water.

c. Non-acute violation. A violation of drinking water standards that is not an immediate risk to human health (i.e., acute violation), but still warrants public notice.

d. Potable water. Water with high enough quality that it is fit for human consumption.

4. Program Overview

a. The potable water system at MCBQ consists of three separate permitted systems. Each of these systems provides water used for personal consumption, irrigation, fire-fighting, maintenance, and other as-needed Base activities.

(1) The Mainside system is composed primarily of water from the Breckenridge Reservoir and is distributed via the Mainside Water Treatment Plant (WTP) to various storage points and distribution areas. Gray Reservoir serves as a backup to the Breckenridge Reservoir. The Supervisory Control and Data Acquisition (SCADA) system monitors water filter capacity, chlorine levels, fluorine levels, pH, flow, and turbidity in real time at the Mainside WTP. Average daily water use is approximately one million gallons per day (gpd).

(2) The Camp Upshur system is dependent on ground water wells for potable water. There is treatment, storage, and distribution

infrastructure located at Camp Upshur as well. Average daily water use is sixteen thousand gpd.

(3) The Camp Barrett system is dependent on water from Stafford County. Stafford County's primary water source is Smith Lake (also located on MCBQ). There is an agreement between MCBQ and Stafford County for MCBQ to supply Smith Lake with an equal amount of water to what is provided by Stafford County to Camp Barrett. That resupply is provided by MCBQ's backup water source, Lunga Reservoir, located upstream. There is also storage and distribution infrastructure located at Camp Barrett. Decontamination and water treatment is handled by Stafford County before water is piped on-base. Average daily water use is 350,000 gpd.

b. The USMC Range Environmental Vulnerability Assessment (REVA) is used to identify whether there is a release or substantial threat of a release of munition constituents from operational range or range complex areas to off-range areas. This is accomplished through an assessment of operational range areas and periodic five-year review assessments including fate and transport modeling, where applicable. Modeling results that exceed a trigger value may warrant further site-specific sampling to further evaluate the potential of munition constituents release and support the installation in assessing the potential for degradation of groundwater and/or surface water quality. Refer to the latest REVA, referenced in Paragraph 12, for further information.

c. MCBQ's Backflow Prevention Plan is used to prevent the backflow of pollution or contamination into the waterworks from a consumer's water supply system by installing an appropriate backflow prevention device or by backflow prevention by separation at the service connection. Refer to the MCBQ Backflow Prevention Plan, reference in paragraph 12, for further information.

5. Program Roles and Responsibilities

a. PWB/FMS is responsible for conducting monthly BAC-T and chlorine residual sampling for the three Base potable drinking water systems.

(1) In addition to conducting monthly sampling, the Utilities Section of PWB is responsible for performing regular maintenance on all potable water infrastructure. This includes ensuring the functionality of all potable water storage tanks/towers and water distribution infrastructure.

(2) If there is a problem with the storage/transport infrastructure, PWB/FMS is responsible for repairing the system or obtaining the means to do so.

6. Training Requirements

a. In accordance with 9 VAC 25-31-200D and 9 VAC 25-32-190, owners of facilities with potable water treatment plants are required to "employ or contract the services of at least one licensed operator appropriate for the permitted facility." The level of licensing is based upon the volume of water treated; MCBQ Mainside WTP is categorized as a Class 2, MCBQ Camp Upshur and Camp Barrett are categorized as Class 4. Personnel categorized as "Operators" must have licenses approved and issued by the Commonwealth of Virginia. Initial training requirements to become a licensed operator are described in 18 VAC 160-20-90. Operator licenses must be renewed every two years, as required by 18 VAC 160-20, Part III. In addition continuing education credits are required for each operator class. The amounts of continuing education credits for renewal of licenses are outlined below:

(1) Class 1, 2, and 3 operators must obtain a minimum of 20 hours.

(2) Class 4 operators must obtain a minimum of 16 hours.

(3) Class 5 waterworks operators must obtain a minimum of eight hours.

(4) Class 6 waterworks operators must obtain a minimum of four hours.

b. In addition to state licensing requirements, operators at the waterworks must receive HAZWOPER training in accordance with 29 CFR 1910.120. Operators must also have specialized confined space entry training that conforms to 29 CFR 1910.146. In terms of MCBQ specific environmental training, operators must receive education on topics such as storage tank management, storm water pollution prevention, HW / HM security and storage, and any other applicable topics as described in MCO P5090.2A. Specific information can be obtained from MCBQ's CETEP Coordinator.

7. Communications

a. MCBQ must provide public notifications as follows:

(1) Non-acute violations. Provide notice by publication in a daily newspaper in the area served as soon as possible, but within 14 days after a violation. Notification must be provided by mail or hand delivered within 45 days of violation or failure.

(2) Acute violations. Provide notice by radio or television as soon as possible, but no later than 72 hours after a violation.

b. All communications concerning the Potable Water Program should be directed to PWB, who can be reached at (703) 784-5444. PWB uses the MCBQ EMS to communicate program requirements internally to MCBQ

host and tenant staff. Refer to the MCBQ Management Coordination Plan for greater detail concerning the communication procedures.

8. Practice Control

a. As mentioned in paragraph 2 of this Chapter, practices performed at MCBQ that are associated with the Potable Water Program are listed in Table A-1, of Appendix A. Of those practices, a standardized risk ranking procedure is performed by the EMS Coordinator, as described in Chapter 21. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, Environmental Standard Operating Procedures (ESOPs) are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). PWB reviews all draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. The primary operational controls for the Potable Water Management Program are the Mainside WTP Permit (6153675); Camp Upshur WTP Permit (6153063); Camp Barrett Distribution System Permit(6153060); and the Annual General Water Withdrawal Report provided to the VDEQ.

c. Non-potable systems (e.g., rainwater harvesting and reclaimed water systems) are not permitted for use at MCBQ unless approved by the GF,PWB, Water Management Program through the NEPA process. Waivers, if provided, are limited to unique circumstances where controls are in place that would eliminate backflow concerns in the potable water system. Additional non-potable water system controls include:

(1) Non-potable systems are classified as a "high hazard" under the Waterworks regulations. Cross connection prevention for is required. [Reference paragraph 12.b.(9 and 10)].

(2) Any existing non-potable water systems requiring a potable water backup will be separated from the potable water supply by an air gap device. Reduced pressure zone device(s) will not be accepted as adequate protection by MCBQ [Reference paragraph 12.b.(11)].

(3) All non-potable systems will comply with plumbing code (purple pipe) requirements for the entire run of the non-potable system [Reference paragraph 12.b.(8 and 11)].

(4) All non-potable systems with use inside the building envelope will have water treatment to meet minimum water quality standards including but not limited to: limiting fecal coliform to a number less than 2 of a most probable number (MPN) per 100 ml, Legionella, and pH levels between 6.5 and 7.9 [Reference paragraph 12.b.(10)]. Roofing material compatibility may also be evaluated with

acid rain which may increase leaching of metal and other materials into a non-potable water system.

(5) All non-potable systems and fixtures require signage at each delivery point stating source water is non-potable. [Reference paragraph 12.b.(8, 10, 11 and 12)].

(6) All non-potable water systems with potable water connections will have a maintenance agreement executed by the building owner and the utility (4 VAC 50-60-124) [Reference paragraph 12.b.(10)].

(7) All systems will be metered and report usage monthly to commodity managers for utility tracking and reporting [Reference paragraph 12.b.(13)].

d. Additional controls include the REVA and MCBQ's Backflow Prevention Plan. All other operational controls, permits, and other regulatory requirements and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies

a. Emergency procedures for potable water line breaks and/or leaks are as follows:

(1) Notify the Mainside WTP at (703) 784-2698, who will then notify Shop 61 (Utilities Shop with FMS) at (703) 784-1497. If the Mainside WTP cannot be reached, instead contact the Trouble Desk at (703) 784-2072. Either potential points of contact will: notify the NREA Branch; make the determination to call someone in after business hours, if needed; and make the repairs to the water line.

(2) Subsequent to notifications, Shop 61 will control the repairs. Shop 61 will isolate the water break to stop the discharge.

(3) After the break or leak has been isolated, repairs will take place. The most critical issue with any line break or leak is to limit the amount of water being discharged.

(4) The affected area will be cleaned and disinfected once repairs have been completed. Subsequently, a final check for leaks of the system will be performed prior to it being placed back into service.

(5) The NREA Branch is responsible for notifying all applicable regulatory agencies for reporting purposes.

b. For all other emergency situations pertaining to potable water aboard MCBQ, contact:

(1) Water Treatment Plant at (703) 784-2698.

(2) MCBQ Help desk at (703) 784-2072.

10. Records Control. The following records are maintained by the Utilities Section, PWB:

- a. Bacteriological analysis records for no less than five years.
- b. Chemical analysis records for no less than ten years.
- c. Records of actions taken to correct National Primary Drinking Water Regulation violations for no less than three years after the last action taken in respect to the violation involved.
- d. Records of sanitary survey reports, summaries, or related correspondence for no less than ten years after the survey was completed.
- e. Records concerning a variance or exemption granted by the Virginia Department of Health, Office of Drinking Water, to the system for no less than five years following expiration of the variance or exemption.

11. Sampling, Monitoring, Measuring, and Reporting Requirements

- a. All elevated tank levels are monitored remotely using the SCADA system, as are flow rates and pressure levels at each of the pump stations. The SCADA system also monitors chlorine residuals in the Camp Upshur wellheads.
- b. Monthly sampling is conducted for BAC-T and chlorine residuals from 15 pre-set monitoring stations throughout the Mainside distribution system, six stations at Camp Barrett, and one station at Camp Upshur. The chlorine residuals are analyzed on-site at the WTP and BAC-T samples are shipped to an offsite laboratory. Should an event occur that requires a water quality sample be collected and analyzed (i.e., water main break or positive BAC-T reading), the area of concern must be determined and isolated. Samples must be collected from upstream and downstream locations, and the affected area is required to be super-chlorinated.
- c. Additional sampling and reporting requirements (as well as reporting timeframes) are described in subparts C and D, respectively, of the National Primary Drinking Water Standards (NPDWS).

12. Pertinent Documents

- a. Operational Control Documents
 - (1) MCBQ Backflow Prevention Plan
 - (2) Range Environmental Vulnerability Assessment

(3) WTP Operations and Maintenance Manuals

b. Reference Documents.

(1) 42 USC 300f, *et seq.*, The Safe Drinking Water Act (SDWA) and subsequent amendments (e.g., 1986).

(2) Public Law 102-486, The Energy Policy Act (EPACT) of 1992.

(3) 40 CFR 141, National Primary Drinking Water Standards.

(4) 9 VAC 25, *et seq.*, State Water Control Board.

(5) 12 VAC 5-590, Waterworks Regulations.

(6) 18 VAC 160-20, Board for Waterworks and Wastewater Works Operators.

(7) MCO P5090.2A, Environmental Protection and Compliance Manual, Chapter 16 - Drinking Water Systems and Water Conservation.

(8) 2012 International Plumbing Code

(9) 9VAC25-740-10 *et seq.* - DEQ water reclamation and reuse regulation

(10) Virginia DCR Stormwater Design Specification No. 6, Rainwater Harvesting

(11) Virginia Rainwater Harvesting Manual, Cabell Brand Center, 2009

(12) Virginia Rainwater Harvesting & use Guidelines, VDH, 2011

(13) EO 13123 Greening the Government Through Efficient Energy Management

This Page Intentionally Left Blank

Chapter 28

Asbestos Control Program

1. Requirements. Three major federal asbestos regulations have been established to protect and limit personal exposure to asbestos. These regulations include OSHA's Construction Standards (29 CFR 1926.1101); National Emissions Standards for Asbestos (40 CFR 61, Subpart M); Worker Protection Rule, Asbestos School Hazard Emergency Response Act of 1986, and the Asbestos School Hazard Abatement Reauthorization Act of 1990 (40 CFR 763). Additional state standards apply to all asbestos containing materials (ACM) generated by asbestos mills, manufacturing, fabricating, and spraying operations, and Regulated Asbestos Containing Material (RACM) generated in the course of demolition and renovation of installations, structures, buildings, or other waste-generating activities. The USMC has also established requirements for asbestos mitigation and in accordance with MCBO P5100.1C, the MCBQ Asbestos Control Program (ACP) was established to provide procedures and requirements that will reduce or eliminate personal and environmental exposure to ACM. This program applies to all personnel aboard MCBQ that are, or have the potential to be, exposed to ACM.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this program. A summary of the specific practices associated with this program is provided in Table A-1, of Appendix A.

3. Definitions

a. Asbestos. A naturally-occurring mineral that has been used in many types of industrial, mechanical, and construction applications. It is known to be resistant to fire, heat, many chemicals and also does not conduct electricity.

b. ACM. Products and materials that may have been manufactured which contains more than 1%, by weight, of asbestos.

c. Friable asbestos. Type of asbestos that can easily be reduced to smaller fragments and fibers. Easily inhaled into the body.

d. RACM. Material that meets one of the following four conditions:

(1) Friable asbestos material.

(2) Category I non-friable ACM that has become friable.

(3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.

(4) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

4. Program Overview

a. Exposure to certain types of asbestos, ACM, or RACM is known to cause severe health problems such as cancer, mesothelioma, and asbestosis in humans. To protect against this, federal, state, and DoD regulations have been established to protect worker's health and govern the removal and disposal of ACM/RACM.

b. MCBQ's Safety Division has instituted the ACP to comply with all applicable requirements, promote worker and general asbestos awareness, and mitigate hazards posed by unprotected contact to ACM and RACM.

5. Program Roles and Responsibilities

a. Safety Division, through authority directed by the Base Commander, shall create and maintain an ACP. The Asbestos Program Manager has the following duties delegated to him/her by the Director, Safety Division:

(1) Manage the ACP on behalf of the Commander.

(2) Obtain appropriate, job-specific training; provide general asbestos awareness training to Base personnel who do not have direct asbestos contact; maintain training records.

(3) Be aware of ongoing Base asbestos surveys and abatement.

(4) Provide support to PWB when reviewing contracts and work plans for asbestos surveys and abatement projects (e.g., ensure appropriate contractor health and safety plans, ensure correct procedures are in place, ensure correct tools/materials, etc.).

b. The Public Works Officer is responsible for:

(1) Ensuring all scheduled renovation and demolition projects for MCBQ include a provision for ACM sampling, as appropriate.

(2) Issuing requests to private companies for proposals/contracts to perform ACM sampling and abatement (if needed); forward responses and contract information to the Asbestos Program Manager for review/input; prohibit project kick-off until the Asbestos Program Manager submits their concurrence.

(3) Providing copies of personnel training to the Asbestos Program Manager.

(4) Working with the Asbestos Program Manager in the event of asbestos-related issues, provide copies of surveys/reports to Asbestos Program Manager on a quarterly basis.

c. The Superintendent of Base Schools is responsible for ensuring asbestos inspections are conducted on a regular basis and Asbestos Management Plans are implemented and updated every three years . These requirements apply for each school at MCBQ. The Superintendent must also ensure all staff receives appropriate awareness training.

d. Unit commanders must ensure all work under their responsibility is conducted in accordance with this ECPSOP as well as Chapter 18 of MCBO P5100.1C. If questions or issues arise, unit commanders or their environmental delegates are responsible for directing them to Safety Division.

e. All Base personnel shall report suspicion of asbestos or ACM to Safety Division. Base personnel shall also assume all suspicious building materials contain asbestos until they are either (1) removed from the construction/renovation site, or (2) surveyed and deemed as non-ACM.

f. For a complete listing of ACP personnel as well as their responsibilities, refer to Chapter 18 of MCBO P5100.1C.

6. Training Requirements. No Base personnel conduct active asbestos identification, removal, or abatement and therefore training requirements are fairly minor. Personnel who work in areas where asbestos may be present must receive two hours of annual awareness training. The Asbestos Program Manager must receive additional job-specific training such as a five-day asbestos abatement class and a three-day asbestos inspector class. Additional requirements are outlined in Chapter 18 of MCBO P5100.1C. Contractor personnel employed to conduct asbestos identification and abatement must comply with all applicable federal and state requirements as they relate to working with ACM, as well as MCBO P5100.1C and this ECPSOP.

7. Communications. For a complete listing of communication procedures, refer to Chapter 18 of MCBO P5100.1C. Safety Division uses the MCBQ EMS to communicate ACP requirements internally to MCBQ host and tenant staff. Refer to the MCBQ Management Coordination Plan for greater detail concerning the communication procedures.

8. Practice Control

a. Practices performed at MCBQ that are associated with the ACP are listed in Table A-1, of Appendix A. Of those practices, the EMS Coordinator, as described in Chapter 21 performs a standardized risk ranking procedure. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, ESOPs are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The Safety Division

Deputy reviews all draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. Any construction, renovation, and demolition of real property at MCBQ must undergo an asbestos survey to determine what hazards exist (if any). PWB contacts private companies with a request to submit proposal(s) to survey and remediate potential asbestos sites. The Asbestos Program Manager receives notification of asbestos abatement projects and reviews contracts between PWB and private companies. All survey, removal, and licensed contractors conduct abatement work. Waste material is properly contained and transported to an offsite facility for disposal. Once work commences, PWB is responsible for managing project efforts. PWB also receives and maintains copies of completed asbestos surveys.

c. All other operational controls and other regulatory requirements and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies

a. Minimal Exposures. In the event of minimal exposures to asbestos, contact The Safety Division at (703) 784-2866 to report the incident. The Safety Division will evaluate the incident and recommend medical evaluation, as necessary.

b. If personnel exposed to asbestos experience unusual health-related symptom(s), contact the Safety Division at (703) 784-2866 to report the symptom(s) immediately. If outside of normal business hours, dial 911 for immediate assistance.

10. Records Control

a. Survey results and records are managed using two methods. The Asbestos Program Manager and PWB both have access to a database containing the results of the Base's asbestos survey, conducted in 2001. The database includes information such as the building surveyed, sample type, results of sample analysis, a picture of the sample location, and a diagram depicting the sample location within the building.

b. Since 2001, PWB has maintained the results of all asbestos surveys conducted at MCBQ. These files are managed separately from the Asbestos Survey Database and are available from PWB as needed. PWB is responsible for providing all results of asbestos-related activities to the Asbestos Program Manager.

11. Sampling, Monitoring, Measuring and Reporting Requirements. There are no requirements under this section which are applicable to the Base's ACP.

12. Pertinent Documents

a. Operational Control Documents

(1) MCBO P5100.1C, Marine Corps Base Quantico Safety and Occupational Health Program, Chapter 18 - Asbestos Control Program.

(2) MCBQ school-specific Asbestos Management Plans.

b. Reference Documents

(1) 15 U.S.C. 2601, Subchapter I, Control of Toxic Substances, and Subchapter II, Asbestos Hazard Emergency Response.

(2) 29 CFR 1910.1001, Asbestos.

(3) 40 CFR 61, Subpart M, National Emissions Standards for Asbestos.

(4) 40 CFR 763, Asbestos.

(5) 9 VAC 20-81-620, Asbestos-Containing Waste Materials.

(6) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapters 6, 7, 9, 12, 15, and 17.

This Page Intentionally Left Blank

Chapter 29

Lead Safety

1. Requirements. The Occupational Safety and Health Act was established to ensure worker and workplace safety. Subsequent federal (29 CFR 1926.62), state (16 VAC 25-35-10, *et seq.*), and DoD (Navy Marine Corps Directive [NAVMCDIR] 5100.8) regulations have been established to implement worker protection against occupational lead exposure. In compliance with these regulations, the MCBQ Lead Safety Program (LSP) was established to provide procedures and requirements that will reduce potential and actual lead exposures for all individuals aboard MCBQ to levels as low as reasonably achievable. It is the intent of MCBQ's LSP to comply with all applicable regulations, locate and remediate lead-based risks from structures and materials, and minimize exposure from lead containing materials (LCM).

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this program. A summary of the specific practices associated with this program is provided in Table A-1, of Appendix A.

3. Definitions

a. Action level. A concentration designated in 29 CFR 1910 for a specific substance, calculated as an eight (8)-hour time-weighted average (TWA), which initiates certain required activities such as exposure monitoring and medical surveillance.

b. Lead. A soft metal used in a variety of materials. If consumed or absorbed into the body, high concentrations of lead have been proven to negatively affect the nervous and reproductive systems as well as the kidneys.

c. LCM. Materials that have been manufactured with lead as a material component (e.g., paints).

d. Lead Workers. Personnel who may have the potential for exposure above the Occupational Safety and Health Administration (OSHA) action levels.

e. Personal Protection Equipment (PPE). Clothing or other gear that is designed and worn to protect the body from injury or harmful conditions.

4. Program Overview

a. Exposure to LCM may present a heightened probability of health-hazard risks. For a complete list of operations aboard MCBQ, which may expose individuals to lead, refer to MCBQ P5100.1C, Chapter 16. At-risk personnel may include:

- (1) Construction workers.
- (2) Personnel conducting weapons maintenance.
- (3) Personnel receiving specialized training (e.g., breaching).

b. MCBQ's Safety Division manages the Base's LSP to reduce harmful impacts from inadvertent lead exposure. Engineering and management controls for limiting exposure to LCMs are contained in paragraph 6 of this ECPSOP chapter and Chapter 16 of MCBO P5100.1C.

c. When a facility or real property is scheduled to be demolished or undergo a renovation, a survey for LCM is conducted concurrent to an asbestos survey. The process for conducting an LCM survey is the same as it is for conducting an asbestos survey; that is, PWB contacts private companies for proposal submittals to perform a survey and remediation work, as needed. The Lead Program Manager (LPM) reviews and approves all contracts for compliance with applicable regulations and LSP requirements. Contractors perform all remediation work with oversight conducted by PWB.

5. Program Roles and Responsibilities

a. Director, Safety Division must:

(1) Appoint an individual responsible to act as Installation LPM.

b. The Commanding Officer, Naval Health Clinic (NHC) Quantico is responsible for performing or delegating the following actions:

(1) Appoint an Industrial Hygienist (IH) to provide assistance and technical support to Safety Division's LPM.

(2) Conduct a Lead Medical Surveillance Program.

(3) Conduct pediatric examinations in accordance with the Bureau of Medicine and Surgery Navy Pediatric Lead Exposure Prevention Program.

c. PWB is responsible for appointing personnel to work with Safety Division's LPM in order to ensure the following is conducted:

(1) Notify the Safety Division LPM of all proposed lead survey and abatement work scheduled to occur aboard MCBQ; allow the LPM to review/comment on proposed work.

(2) Provide survey results to LPM and other necessary personnel.

(3) Ensure lead-containing waste is disposed in accordance with all applicable regulations.

d. The LPM must:

(1) Obtain correct training in accordance with NAVMCDIR 5100.8; provide correct training to Base personnel, as required by applicable regulations.

(2) Communicate with PWB and the NHC Quantico IH to evaluate LCM risks.

(3) Communicate and interact with the IH to implement and manage PPE surveys and training.

(4) Review LCM contracts and work plans for surveys and abatement actions; notify IH when personnel must work inside LCM controlled zones.

e. The NHC Quantico's IH has the following responsibilities:

(1) Provide support and technical assistance to Safety Division's LPM as needed (e.g., monitoring data, training assistance, etc.).

(2) Evaluate lead-based risks and conduct monitoring, as needed.

(3) Determine required PPE for lead-based activities; recommend control boundaries to limit lead exposure.

(4) Notify personnel (verbally and written) who have been overexposed to LCM and notify LPM of facilities where LCM concentrations may require abatement.

f. Shop/unit supervisors are responsible for ensuring the day-to-day safety of their personnel. Actions, which fall under their purview, include:

(1) Notify the LPM prior to commencement of airborne-lead generating operations.

(2) Ensure personnel are properly trained and have obtained appropriate refreshers, as needed (including appropriate medical surveillance).

(3) Provide appropriate PPE to shop personnel and ensure exposure, above the OSHA action levels, is reported to the LPM.

(4) Establish standard operating procedures (SOPs); consult the Safety Division LSP and NHC Quantico IH for SOP concurrence;

maintain copies of all applicable SOPs and required regulatory documentation (e.g., SDS, references and info sheets).

g. All personnel who conduct airborne-lead producing activities must:

(1) Comply with established procedures (including use of proper PPE and respiratory protection).

(2) All personnel have a responsibility to notify their supervisors of any unsafe working conditions they observe.

h. Refer to MCBO P5100.1C, Chapter 16 for a comprehensive listing of personnel with responsibilities under MCBQ's LSP.

6. Training Requirements

a. All lead workers must receive training in accordance with 40 CFR 745. This training must be completed prior to any potential exposure to lead, lead dust, or lead fumes. Annual refresher training must be completed and include topics specified in MCBO P5100.1C.

b. No personnel aboard MCBQ conduct LCM removal or abatement at construction/renovation sites. Civilian contractors conduct this type of work and it is the responsibility of their company to ensure the correct training is acquired.

7. Communications. For questions or concerns regarding the LSP, contact Safety Division's main office at (703) 784-2866. Also, refer to MCBO P5100.1C, Chapter 16, for specific communication procedures. Safety Division also uses MCBQ's EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ Management Coordination Plan for detail concerning the communication procedures.

8. Practice Control

a. As mentioned in paragraph 2 of this Chapter, practices performed at MCBQ that are associated with the LSP are listed in Table A-1, of Appendix A. Of those practices, the EMS Coordinator, as described in Chapter 21 performs a standardized risk ranking procedure. If the practice is determined to be "significant" based upon potential impacts or actual impacts to the environment, Environmental Standard Operating Procedures (ESOPs) are prepared and provided to MCBQ host and tenant staff through MCBQ's EMS to mitigate the risk of impact(s). The Deputy, Safety Division reviews all draft ESOPs and revisions to ensure the technical content is correct and current. For further information concerning EMS, refer to Chapter 21.

b. General Controls. Minimizing risk of exposure to LCM can be accomplished using the following simple measures:

(1) Wear appropriate PPE, including respiratory protection when needed, when working in close proximity to known LCM.

(2) Maintaining a clean workspace that is devoid of free-lead particles and dust.

(3) Refrain from consuming or storing food products near known LCMs; wash hands after work with known LCMs.

(4) Post clear and concise signs warning of lead exposure in areas where work with LCMs is conducted.

c. For a complete list of general controls and requirements for specific operations, refer to MCBO P5100.1C, Chapter 16. All other operational controls and other regulatory requirements and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies

a. Minimal Exposures. In the event of minimal exposures to lead, contact Safety Division at (703) 784-2866 to report the incident. Safety Division will evaluate the incident and recommend medical evaluation, as necessary.

b. If personnel exposed to lead experience unusual health-related symptom(s), contact Safety Division at (703) 784-2866 to report the symptom(s). If outside of normal business hours, dial 911 for immediate assistance.

10. Records Control. All survey results are received and maintained by PWB. They are available from PWB as needed. PWB is responsible for providing copies of all results from lead-remediation activities to the LPM.

11. Sampling, Monitoring, Measuring and Reporting Requirements. There are no requirements under this section, which are applicable to the Base's LSP.

12. Pertinent Documents

a. Operational Control Documents. MCBO P5100.1C, Marine Corps Base, Quantico Safety and Occupational Health Program, Chapter 16, Lead Safety.

b. Reference Documents

(1) 29 CFR 1910, Occupational Health and Safety Standards.

(2) 29 CFR 1926.62, Lead.

(3) 40 CFR 745, Lead-Based Paint Poisoning Prevention in Certain Residential Structures.

(4) 16 VAC 25-35-10 *et seq.*, Regulation Concerning Certified Lead Contractors Notification, Lead Project Permits and Permit Fees.

(5) MCO P5090.2A, Environmental Compliance and Protection Manual, Chapter 16, Drinking Water Systems and Water Conservation.

(6) NAVMC Directive 5100.8, Marine Corps Occupational Safety and Health Program Manual.

Chapter 30

Medical and Infectious Waste Management Program

1. Requirements. The Medical and Infectious Waste Management Program (MIWMP) exists to satisfy federal and state requirements on the safe handling and disposal of wastes associated with hospital, health clinic, and veterinary operations. Types of medical waste covered under this section include pathological, biological, and infectious wastes. It is the intent of the DON, MCBQ, and Naval Health Clinic (NHC) Quantico to perform these operations in a safe and environmentally sound manner.

2. Practices. Several potential and actual environmental impacts from practices performed at MCBQ are mitigated through this program. A summary of the specific practices associated with this program is provided in Table A-1, of Appendix A.

3. Definitions

a. Infectious Waste. Waste material that may contain pathogens capable of causing human sickness.

b. Medical Waste. Waste that is produced from health care (e.g., doctors, dentists, etc.) and/or veterinary facilities. Examples of medical waste are sharps and blood soaked material (e.g. gauzes and pads), soiled clothing are not regulated medical waste. Dental waste can include hazardous waste (amalgam) as a blood soaked material (medical waste).

4. Program Overview

a. MCBQ is equipped with several different medical clinics, a dental operation, and a small veterinary practice that performs immunizations. These types of organizations commonly produce medical and infectious waste.

b. Personnel must follow specific requirements in order to safely manage, store, and dispose of wastes that can potentially cause medical harm or infection. Refer to Section 8 of this chapter, Practice Control, for specific requirements on the safe management, storage, and disposal of wastes.

5. Program Roles and Responsibilities

a. Responsibility for the implementation of the MIWMP is assigned to the Commanding Officer, NHC Quantico. Day-to-day responsibility for the program has been delegated to the Operations Manager, Operations Management Division (OPMAN). The Head, Industrial Hygiene (IH) Division, provide oversight.

b. As the program manager, the Operations Manager is responsible for ensuring the following actions are conducted:

(1) Managing operations of the program, including responding to questions from shops generating medical waste.

(2) Maintaining logs and ensuring staff members are trained on handling, collecting and packaging regulated medical waste for disposal.

(3) Designating an individual who is responsible for maintaining the Regulated Medical Waste Log and tracking/printing final disposal receipts.

(4) Be present (or designate a responsible individual) during contractor pickup of regulated medical waste.

(5) Review contractual documents and oversee organization of regulated medical waste removal/disposal.

c. Waste handlers at facilities that generate regulated medical waste are responsible for:

(1) Inspecting waste-holding containers on a regular basis.

(2) Ensuring containers are not more than 3/4 full. Once containers are 3/4 full, they will be removed and placed in the Medical Waste Storage Room to await weekly pickup.

(3) Correctly package and label regulated medical waste for pickup.

d. Regulated medical waste removal/disposal contractors are responsible for providing appropriate training to their staff. Training should be compliant with applicable federal and state regulations. The removal/disposal contractor shall also provide waste labels to OPMAN for distribution to generating shops.

6. Training Requirements

a. Individuals responsible for handling medical and infectious waste must be identified by each command aboard MCBQ. These personnel shall be trained by OPMAN in the correct procedures of packaging medical and infectious waste as well as preparing it for off-site shipment.

b. Staff members shall receive training specific to their assignment during the orientation to their workspaces at the time of initial assignment. All staff members shall receive refresher training during required annual training.

c. Contractors who transport medical and infectious waste and perform off-site disposal are responsible for ensuring their personnel are adequately trained to federal and state requirements.

d. At a minimum, all personnel handling medical and infectious waste shall receive the following training:

- (1) Initial blood-borne pathogen and refresher training.
- (2) Hazard Communication training.
- (3) General Environmental Awareness Training.

7. Communications. The Head, IH Division uses the MCBQ EMS to communicate program requirements internally to MCBQ host and tenant staff. Refer to the MCBQ Management Coordination Plan for detail concerning the communication procedures.

8. Practice Control

a. Wastes are collected from clinic treatment areas and transferred to a secure room to await pickup. Wastes must be correctly packaged (i.e., double-bagged, placed in a Biohazard box, taped shut and labeled with biohazard and contractor information stickers) before a contractor will pick them up. Additional details relating to the packaging of waste is described in the NHC Quantico Regulated Medical Waste Disposal SOP for Operating Management Division. In addition to the Regulated Medical Waste Disposal SOP, the Dental Clinic has created its own SOPs for Biohazard disposal. These SOPs are directed at regulated dental wastes, HW contaminated with bio-hazardous material, linens soiled with bio-hazardous materials, and reusable privacy curtains.

b. Due to the fact that refrigeration for medical waste does not exist at NHC Quantico, medical and infectious waste can only be held on-site for seven days. To comply with federal and state regulations, a contractor makes weekly visits to each facility, removes waste, and disposes it off-site. Only appropriately, trained and qualified personnel may be present during handoff from generating organizations to the disposal contractor.

c. For a complete list of practice controls for medical and infectious waste, refer to BUMEDINST 6280.1B, NHCI 6220.4G Bloodborne Pathogen Control Plan, 6240.1B Sanitary Regulations, Infection Control Manual. All other operational controls, permits, and other regulatory requirements and mandates are referenced in paragraph 12 of this chapter.

9. Emergencies. As outlined in 9 VAC 20-120.280, containment and cleanup procedures for regulated medical waste per state law are as follows: .

a. Take appropriate precautions to ensure personnel do not come into contact with any contaminants by wearing appropriate personal protective equipment.

b. Repackage spilled waste in accordance with the packaging requirements in 9 VAC 20-120-210.

c. Transport any regulated medical waste by a transporter registered in accordance with the provisions of 9 VAC 20-120-480, registration of transporters.

d. Clean and disinfect any areas having been contacted by regulated medical wastes. Materials used to decontaminate the area shall be disinfectants effective against mycobacteria.

e. Take necessary steps to replenish containment and cleanup kit.

10. Records Control

a. OPMAN is the sole organization responsible for maintaining records of regulated medical waste shipment and final disposal.

(1) Per federal regulations, shipping paperwork/manifests must be maintained for two years after the waste carrier accepted the regulated medical waste. The facility system for tracking shall include date, type of waste, amount (weight, volume, or number of containers) and disposition.

b. Yellow copies of shipping manifests are left with OPMAN, who maintain them in the Regulated Waste Log. On a weekly basis OPMAN checks the disposal contractor's website for copies of the original manifest, indicating the waste has been disposed. The yellow and printed white manifest copies are placed together and filed in the Regulated Medical Waste Log and OPMAN Regulated Medical Waste Archives.

c. The removal/disposal contractor also maintains an online manifest archive where records of all past disposal activities are located.

11. Sampling, Monitoring, Measuring, and Reporting Requirements. The Waste Management Division shall designate personnel to perform environmental and medical audits. The Waste Management Division shall ensure that deficiencies noted during the inspections are corrected immediately. Actions taken to correct each deficiency shall be recorded on the inspection sheet.

12. Pertinent Documents

a. Operational Control Documents

(1) Naval Health Clinic Quantico Instruction 6220.4G, Blood Borne Pathogens Exposure Control and Regulated Medical Waste Plan.

(2) 6240.1B Sanitary Regulations, Infection Control Manual.

(3) NHC Quantico Regulated Medical Waste Disposal Standard Operating Procedure (SOP) for Operating Management Division.

b. Reference Documents

(1) 42 USC 300f, *et seq.*, The Safe Drinking Water Act (SDWA) and subsequent amendments (e.g., 1986).

(2) 29 CFR 1910.1030, Bloodborne Pathogens.

(3) 49 CFR 173.197 Regulated Medical Waste.

(4) 9 VAC 20-120-10 *et seq.*, Regulated Medical Waste Management Regulations.

(5) Bureau of Medicine Instruction 6280.1B, Management of Infectious Waste.

This Page Intentionally Left Blank

Appendix A

This Page Intentionally Left Blank

**Table A-1
ECPSOP Practice Table by Environmental Program Manager**

MCBQ Practices	Environmental Program Manager																											
	Note: This table depicts points of contact to liason with regulators/external auditors per US Team Guide, Program Media. Refer to the most current MCBQ PAI Inventory for a list of Practice Owners (operation/implementation managers) by Activity/Command/Unit.																											
	Natural Resources and Environmental Affairs(NREA)																				PWB		NHC	Safety Division				
Air Program	HM Program	HW Program	ISWM Program	Pesticide Management Program	Munitions Response (RCRA)	PCB Management	Radon Program	Spill Prevention & Response	SWMP	STMP	WWMP	EC&C Evaluation Program	CLEO	FWA Program	FRM	CETEP	H&C	IRP	EMS	Munitions Response (CERCLA)	NEPA	Noise	P2	Energy	Potable Water	Medical & Infectious Waste	Asbestos	Lead
Aboveground storage tank (Fuel storage)	X	X	X					X		X	X					X	X		X		X							
Acid cleaning		X	X					X								X			X		X							
Aircraft Parking	X							X		X						X			X		X	X						
Aircraft takeoff and Landing	X															X			X		X	X						
Backflow prevention											X					X	X		X		X			X				
Battery Recharging																X			X		X			X				
Battery replacement			X													X			X		X							X
Billeting (Housing/barracks)				X							X					X			X		X			X	X		X	X
Bluing/Parkerizing		X	X								X					X			X		X							
Boat, ramp, dock cleaning		X									X					X			X		X							

H&C - Historic and Cultural Resources; HM - Hazardous Materials; HW - Hazardous Material; ISWM - Integrated Solid Waste Management; RCRA - Resource Conservation and Recovery Act; P2 - Pollution Prevention; PCB - Polychlorinated Biphenyl; SWMP - Storm Water Management Program; STMP - Storage Tank Management Program; WWMP - Waste Water Management Program; EC&C - Environmental Compliance and Conformance; CLEO - Conservation Law Enforcement Office; FWA - Fish, Wildlife, and Agronomy; FRM - Forest Resources Management; CETEP - Comprehensive Environmental Training and Education Program; IRP - Installation and Restoration Program; EMS - Environmental Management System; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; NEPA - National Environmental Policy Act

MCBQ Practices	Environmental Program Manager																											
	Note: This table depicts points of contact to liason with regulators/external auditors per US Team Guide, Program Media. Refer to the most current MCBQ PAI Inventory for a list of Practice Owners (operation/implementation managers) by Activity/Command/Unit.																											
	Natural Resources and Environmental Affairs(NREA)																				PWB		NHC	Safety Division				
Air Program	HM Program	HW Program	ISWM Program	Pesticide Management Program	Munitions Response (RCRA)	PCB Management	Radon Program	Spill Prevention & Response	SWMP	STMP	WWMP	EC&C Evaluation Program	CLEO	FWA Program	FRM	CETEP	H&C	IRP	EMS	Munitions Response (CERCLA)	NEPA	Noise	P2	Energy	Potable Water	Medical & Infectious Waste	Asbestos	Lead
Boiler operation	X										X					X			X		X			X				
Building maintenance/repair (Asbestos)		X	X	X												X	X		X		X						X	
Building maintenance/repair (Lead-based paint)		X	X													X	X		X		X							X
Building maintenance/repair (Radon)		X	X				X									X			X		X							
Bulk Fuel Tank	X	X	X					X		X	X					X			X		X							
Chlorination		X	X								X					X			X		X				X			
Cooling tower O&M											X					X			X		X							
Degreasing (Aerosol)	X	X	X					X								X			X		X							
Degreasing (Aqueous)		X	X								X					X			X		X							
Degreasing (Solvent)	X	X	X					X								X			X		X							
Dining Hall/Restaurant Operation				X							X					X			X		X			X	X			

H&C - Historic and Cultural Resources; HM - Hazardous Materials; HW - Hazardous Material; ISWM - Integrated Solid Waste Management; RCRA - Resource Conservation and Recovery Act; P2 - Pollution Prevention; PCB - Polychlorinated Biphenyl; SWMP - Storm Water Management Program; STMP - Storage Tank Management Program; WWMP - Waste Water Management Program; EC&C - Environmental Compliance and Conformance; CLEO - Conservation Law Enforcement Office; FWA - Fish, Wildlife, and Agronomy; FRM - Forest Resources Management; CETEP - Comprehensive Environmental Training and Education Program; IRP - Installation and Restoration Program; EMS - Environmental Management System; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; NEPA - National Environmental Policy Act

MCBQ Practices	Environmental Program Manager																												
	Note: This table depicts points of contact to liason with regulators/external auditors per US Team Guide, Program Media. Refer to the most current MCBQ PAI Inventory for a list of Practice Owners (operation/implementation managers) by Activity/Command/Unit.																												
	Natural Resources and Environmental Affairs(NREA)																			PWB		NHC	Safety Division						
Air Program	HM Program	HW Program	ISWM Program	Pesticide Management Program	Munitions Response (RCRA)	PCB Management	Radon Program	Spill Prevention & Response	SWMP	STMP	WWMP	EC&C Evaluation Program	CLEO	FWA Program	FRM	CETEP	H&C	IRP	EMS	Munitions Response (CERCLA)	NEPA	Noise	P2	Energy	Potable Water	Medical & Infectious Waste	Asbestos	Lead	
Energy Use (Data Center)																X			X		X			X					
Energy Use (Hanger)																X			X		X			X					
Energy Use (Industrial)																X			X		X			X					
Energy Use (Office/Education)																X			X		X			X					
Energy Use (Residential)																X			X		X			X					
Energy Use (Retail/Food services)																X			X		X			X					
Energy Use (Service/Health Care)																X			X		X			X					
Energy Use (Warehouse/Storage)																X			X		X			X					
Engine O&M (Emergency generators)	X							X								X			X		X			X					

H&C - Historic and Cultural Resources; HM - Hazardous Materials; HW - Hazardous Material; ISWM - Integrated Solid Waste Management; RCRA - Resource Conservation and Recovery Act; P2 - Pollution Prevention; PCB - Polychlorinated Biphenyl; SWMP - Storm Water Management Program; STMP - Storage Tank Management Program; WWMP - Waste Water Management Program; EC&C - Environmental Compliance and Conformance; CLEO - Conservation Law Enforcement Office; FWA - Fish, Wildlife, and Agronomy; FRM - Forest Resources Management; CETEP - Comprehensive Environmental Training and Education Program; IRP - Installation and Restoration Program; EMS - Environmental Management System; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; NEPA - National Environmental Policy Act

MCBQ Practices	Environmental Program Manager																											
	Note: This table depicts points of contact to liason with regulators/external auditors per US Team Guide, Program Media. Refer to the most current MCBQ PAI Inventory for a list of Practice Owners (operation/implementation managers) by Activity/Command/Unit.																											
	Natural Resources and Environmental Affairs(NREA)																				PWB		NHC	Safety Division				
Air Program	HM Program	HW Program	ISWM Program	Pesticide Management Program	Munitions Response (RCRA)	PCB Management	Radon Program	Spill Prevention & Response	SWMP	STMP	WWMP	EC&C Evaluation Program	CLEO	FWA Program	FRM	CETEP	H&C	IRP	EMS	Munitions Response (CERCLA)	NEPA	Noise	P2	Energy	Potable Water	Medical & Infectious Waste	Asbestos	Lead
Engine O&M (Portable engine/generator)	X							X								X			X		X			X				
Engine testing (Jet engine test cell)	X							X								X			X		X							
Equipment disposal				X												X			X		X							X
Equipment O&M (Aircraft equipment)		X	X					X								X			X		X							
Equipment O&M (Electronics equipment)				X			X									X			X		X							
Equipment O&M (Lubrication)		X	X				X									X			X		X							
Fertilization (Lawn)		X	X								X					X	X		X		X							
Flare and Smoke Usage																X			X		X							
Freon/Halon System O&M	X	X	X								X					X			X		X							
Fuel analysis (Aviation fuel)		X	X													X			X		X							

H&C - Historic and Cultural Resources; HM - Hazardous Materials; HW - Hazardous Material; ISWM - Integrated Solid Waste Management; RCRA - Resource Conservation and Recovery Act; P2 - Pollution Prevention; PCB - Polychlorinated Biphenyl; SWMP - Storm Water Management Program; STMP - Storage Tank Management Program; WWMP - Waste Water Management Program; EC&C - Environmental Compliance and Conformance; CLEO - Conservation Law Enforcement Office; FWA - Fish, Wildlife, and Agronomy; FRM - Forest Resources Management; CETEP - Comprehensive Environmental Training and Education Program; IRP - Installation and Restoration Program; EMS - Environmental Management System; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; NEPA - National Environmental Policy Act

MCBQ Practices	Environmental Program Manager																											
	Note: This table depicts points of contact to liason with regulators/external auditors per US Team Guide, Program Media. Refer to the most current MCBQ PAI Inventory for a list of Practice Owners (operation/implementation managers) by Activity/Command/Unit.																											
	Natural Resources and Environmental Affairs(NREA)																			PWB		NHC	Safety Division					
Air Program	HM Program	HW Program	ISWM Program	Pesticide Management Program	Munitions Response (RCRA)	PCB Management	Radon Program	Spill Prevention & Response	SWMP	STMP	WWMP	EC&C Evaluation Program	CLEO	FWA Program	FRM	CETEP	H&C	IRP	EMS	Munitions Response (CERCLA)	NEPA	Noise	P2	Energy	Potable Water	Medical & Infectious Waste	Asbestos	Lead
Fuel drain		X	X					X								X			X		X							
Fuel Storage - Containers		X	X					X			X					X	X		X		X							
Fuel transfer (Tank truck)	X	X	X					X								X			X		X							
Fuel transport (Tank truck)		X	X					X								X			X		X							
Fueling (Aircraft/helicopter)		X	X					X								X			X		X							
Fueling (Boat)		X	X					X								X			X		X							
Fueling (Vehicle)		X	X					X			X					X			X		X							
Grease Traps											X					X			X		X				X			
Grinding		X	X								X					X			X		X			X			X	X
HCP Operation		X														X			X		X							
HM storage		X						X		X	X					X			X		X					X		
HW satellite accumulation area			X					X		X						X	X		X		X					X		
HW storage, < 90-day site			X					X		X						X			X		X					X		
HW transportation			X					X								X			X		X							

H&C - Historic and Cultural Resources; HM - Hazardous Materials; HW - Hazardous Material; ISWM - Integrated Solid Waste Management; RCRA - Resource Conservation and Recovery Act; P2 - Pollution Prevention; PCB - Polychlorinated Biphenyl; SWMP - Storm Water Management Program; STMP - Storage Tank Management Program; WWMP - Waste Water Management Program; EC&C - Environmental Compliance and Conformance; CLEO - Conservation Law Enforcement Office; FWA - Fish, Wildlife, and Agronomy; FRM - Forest Resources Management; CETEP - Comprehensive Environmental Training and Education Program; IRP - Installation and Restoration Program; EMS - Environmental Management System; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; NEPA - National Environmental Policy Act

MCBQ Practices	Environmental Program Manager																												
	Note: This table depicts points of contact to liason with regulators/external auditors per US Team Guide, Program Media. Refer to the most current MCBQ PAI Inventory for a list of Practice Owners (operation/implementation managers) by Activity/Command/Unit.																												
	Natural Resources and Environmental Affairs(NREA)																				PWB		NHC	Safety Division					
Air Program	HM Program	HW Program	ISWM Program	Pesticide Management Program	Munitions Response (RCRA)	PCB Management	Radon Program	Spill Prevention & Response	SWMP	STMP	WWMP	EC&C Evaluation Program	CLEO	FWA Program	FRM	CETEP	H&C	IRP	EMS	Munitions Response (CERCLA)	NEPA	Noise	P2	Energy	Potable Water	Medical & Infectious Waste	Asbestos	Lead	
Infantry Training														X		X	X		X		X								
Janitorial services		X	X	X							X					X			X		X							X	
Laboratory		X	X					X								X			X		X			X	X				
Landscaping											X			X		X			X		X								
Laundry (Industrial)											X					X			X		X			X					
Laundry (Non-Industrial/Domestic)											X					X			X		X			X					
Live Fire Range Operations				X		X					X					X			X		X	X							X
Livestock operations	X													X		X			X		X								
Materiel storage/handling (Compressed gas)	X	X	X					X		X						X			X		X					X			
Materiel storage/handling (Salt)											X					X			X		X								
Medical/dental operations		X	X					X			X					X			X		X			X		X			

H&C - Historic and Cultural Resources; HM - Hazardous Materials; HW - Hazardous Material; ISWM - Integrated Solid Waste Management; RCRA - Resource Conservation and Recovery Act; P2 - Pollution Prevention; PCB - Polychlorinated Biphenyl; SWMP - Storm Water Management Program; STMP - Storage Tank Management Program; WWMP - Waste Water Management Program; EC&C - Environmental Compliance and Conformance; CLEO - Conservation Law Enforcement Office; FWA - Fish, Wildlife, and Agronomy; FRM - Forest Resources Management; CETEP - Comprehensive Environmental Training and Education Program; IRP - Installation and Restoration Program; EMS - Environmental Management System; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; NEPA - National Environmental Policy Act

MCBQ Practices	Environmental Program Manager																											
	Note: This table depicts points of contact to liason with regulators/external auditors per US Team Guide, Program Media. Refer to the most current MCBQ PAI Inventory for a list of Practice Owners (operation/implementation managers) by Activity/Command/Unit.																											
	Natural Resources and Environmental Affairs(NREA)																				PWB		NHC	Safety Division				
Air Program	HM Program	HW Program	ISWM Program	Pesticide Management Program	Munitions Response (RCRA)	PCB Management	Radon Program	Spill Prevention & Response	SWMP	STMP	WWMP	EC&C Evaluation Program	CLEO	FWA Program	FRM	CETEP	H&C	IRP	EMS	Munitions Response (CERCLA)	NEPA	Noise	P2	Energy	Potable Water	Medical & Infectious Waste	Asbestos	Lead
Non-destructive inspection								X								X			X		X							
Oil-water separator								X			X					X			X		X				X			
Open burning/open detonation		X	X								X			X		X	X		X		X							
Paint booth (Dry filter)	X	X	X	X				X								X			X		X			X				
Paint gun cleaning	X	X	X					X								X			X		X							
Paint removal (Chemical stripping)	X	X	X					X								X			X		X							X
Paint removal (Dry abrasive blasting)	X		X	X												X			X		X							X
Painting (Aerosol)	X		X													X			X		X							
Painting (Brush)	X		X					X								X			X		X							
Painting (Paint gun)	X		X					X								X			X		X			X				

H&C - Historic and Cultural Resources; HM - Hazardous Materials; HW - Hazardous Material; ISWM - Integrated Solid Waste Management; RCRA - Resource Conservation and Recovery Act; P2 - Pollution Prevention; PCB - Polychlorinated Biphenyl; SWMP - Storm Water Management Program; STMP - Storage Tank Management Program; WWMP - Waste Water Management Program; EC&C - Environmental Compliance and Conformance; CLEO - Conservation Law Enforcement Office; FWA - Fish, Wildlife, and Agronomy; FRM - Forest Resources Management; CETEP - Comprehensive Environmental Training and Education Program; IRP - Installation and Restoration Program; EMS - Environmental Management System; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; NEPA - National Environmental Policy Act

MCBQ Practices	Environmental Program Manager																											
	Note: This table depicts points of contact to liason with regulators/external auditors per US Team Guide, Program Media. Refer to the most current MCBQ PAI Inventory for a list of Practice Owners (operation/implementation managers) by Activity/Command/Unit.																											
	Natural Resources and Environmental Affairs(NREA)																			PWB		NHC	Safety Division					
Air Program	HM Program	HW Program	ISWM Program	Pesticide Management Program	Munitions Response (RCRA)	PCB Management	Radon Program	Spill Prevention & Response	SWMP	STMP	WWMP	EC&C Evaluation Program	CLEO	FWA Program	FRM	CETEP	H&C	IRP	EMS	Munitions Response (CERCLA)	NEPA	Noise	P2	Energy	Potable Water	Medical & Infectious Waste	Asbestos	Lead
Parts replacement (Brakes)	X		X													X			X		X						X	
Parts replacement (Capacitor)			X													X			X		X							
Parts replacement (Tires)			X													X			X		X							
Parts replacement (Transformer)						X		X								X			X		X							
Parts replacement (Vehicle/equipment)			X			X										X			X		X						X	
Pesticide/herbicide application	X	X						X						X		X			X		X							
Photographic developing			X					X			X					X			X		X							
Polishing	X	X	X	X												X			X		X							X
Pumping station/force main			X					X			X					X			X		X				X			

H&C - Historic and Cultural Resources; HM - Hazardous Materials; HW - Hazardous Material; ISWM - Integrated Solid Waste Management; RCRA - Resource Conservation and Recovery Act; P2 - Pollution Prevention; PCB - Polychlorinated Biphenyl; SWMP - Storm Water Management Program; STMP - Storage Tank Management Program; WWMP - Waste Water Management Program; EC&C - Environmental Compliance and Conformance; CLEO - Conservation Law Enforcement Office; FWA - Fish, Wildlife, and Agronomy; FRM - Forest Resources Management; CETEP - Comprehensive Environmental Training and Education Program; IRP - Installation and Restoration Program; EMS - Environmental Management System; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; NEPA - National Environmental Policy Act

MCBQ Practices	Environmental Program Manager																											
	Note: This table depicts points of contact to liason with regulators/external auditors per US Team Guide, Program Media. Refer to the most current MCBQ PAI Inventory for a list of Practice Owners (operation/implementation managers) by Activity/Command/Unit.																											
	Natural Resources and Environmental Affairs(NREA)																			PWB		NHC	Safety Division					
Air Program	HM Program	HW Program	ISWM Program	Pesticide Management Program	Munitions Response (RCRA)	PCB Management	Radon Program	Spill Prevention & Response	SWMP	STMP	WWMP	EC&C Evaluation Program	CLEO	FWA Program	FRM	CETEP	H&C	IRP	EMS	Munitions Response (CERCLA)	NEPA	Noise	P2	Energy	Potable Water	Medical & Infectious Waste	Asbestos	Lead
Radioactive Material Storage		X	X					X								X			X		X							
Range Residue Clearance			X													X			X		X							
Recreational Facilities Operations	X															X			X		X			X				
Refrigerant replacement	X	X	X					X								X			X		X							
Retail Operations											X					X			X		X			X	X			
Row crop agriculture											X			X		X			X		X							
Runoff sedimentation basins	X	X									X			X		X			X		X							
School operation (Military school)				X							X					X			X		X			X				
School operation (Public school)											X					X			X		X			X				
Sediment traps											X			X		X			X		X							

H&C - Historic and Cultural Resources; HM - Hazardous Materials; HW - Hazardous Material; ISWM - Integrated Solid Waste Management; RCRA - Resource Conservation and Recovery Act; P2 - Pollution Prevention; PCB - Polychlorinated Biphenyl; SWMP - Storm Water Management Program; STMP - Storage Tank Management Program; WWMP - Waste Water Management Program; EC&C - Environmental Compliance and Conformance; CLEO - Conservation Law Enforcement Office; FWA - Fish, Wildlife, and Agronomy; FRM - Forest Resources Management; CETEP - Comprehensive Environmental Training and Education Program; IRP - Installation and Restoration Program; EMS - Environmental Management System; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; NEPA - National Environmental Policy Act

MCBQ Practices	Environmental Program Manager																											
	Note: This table depicts points of contact to liason with regulators/external auditors per US Team Guide, Program Media. Refer to the most current MCBQ PAI Inventory for a list of Practice Owners (operation/implementation managers) by Activity/Command/Unit.																											
	Natural Resources and Environmental Affairs(NREA)																				PWB		NHC	Safety Division				
Air Program	HM Program	HW Program	ISWM Program	Pesticide Management Program	Munitions Response (RCRA)	PCB Management	Radon Program	Spill Prevention & Response	SWMP	STMP	WWMP	EC&C Evaluation Program	CLEO	FWA Program	FRM	CETEP	H&C	IRP	EMS	Munitions Response (CERCLA)	NEPA	Noise	P2	Energy	Potable Water	Medical & Infectious Waste	Asbestos	Lead
Sewers	X									X	X					X	X		X		X			X				
Sidewalk and road deicing		X									X					X			X		X							
Small Arms Range Operations	X		X													X			X		X	X						X
Soil excavation/grading	X									X	X			X		X			X		X							
Soldering		X														X			X		X							X
Solid waste collection/transportation	X	X		X						X						X	X		X		X						X	X
Solid Waste Landfill	X	X								X	X					X	X		X		X						X	X
Solid waste recycling collection/transportation (Local collection)		X		X												X			X		X						X	X
Solid waste recycling facility (Scrap Processing)		X														X			X		X						X	X

H&C - Historic and Cultural Resources; HM - Hazardous Materials; HW - Hazardous Material; ISWM - Integrated Solid Waste Management; RCRA - Resource Conservation and Recovery Act; P2 - Pollution Prevention; PCB - Polychlorinated Biphenyl; SWMP - Storm Water Management Program; STMP - Storage Tank Management Program; WWMP - Waste Water Management Program; EC&C - Environmental Compliance and Conformance; CLEO - Conservation Law Enforcement Office; FWA - Fish, Wildlife, and Agronomy; FRM - Forest Resources Management; CETEP - Comprehensive Environmental Training and Education Program; IRP - Installation and Restoration Program; EMS - Environmental Management System; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; NEPA - National Environmental Policy Act

MCBQ Practices	Environmental Program Manager																											
	Note: This table depicts points of contact to liason with regulators/external auditors per US Team Guide, Program Media. Refer to the most current MCBQ PAI Inventory for a list of Practice Owners (operation/implementation managers) by Activity/Command/Unit.																											
	Natural Resources and Environmental Affairs(NREA)																				PWB		NHC	Safety Division				
Air Program	HM Program	HW Program	ISWM Program	Pesticide Management Program	Munitions Response (RCRA)	PCB Management	Radon Program	Spill Prevention & Response	SWMP	STMP	WWMP	EC&C Evaluation Program	CLEO	FWA Program	FRM	CETEP	H&C	IRP	EMS	Munitions Response (CERCLA)	NEPA	Noise	P2	Energy	Potable Water	Medical & Infectious Waste	Asbestos	Lead
Space heater operation	X															X			X		X							
Stump/brush removal	X									X	X			X		X			X		X							
Timber harvesting	X									X	X			X		X	X		X		X							
Underground storage tank (Fuel storage)	X	X						X								X	X		X		X							
Universal waste collection/storage		X	X						X							X			X		X							
Urban wildlife management														X		X	X		X		X							
Used oil/antifreeze storage		X	X					X								X			X		X							
UXO/EOD Operations	X					X										X			X		X	X						
Vehicle operations (Off-road operations)	X	X						X		X	X			X		X			X		X	X						

H&C - Historic and Cultural Resources; HM - Hazardous Materials; HW - Hazardous Material; ISWM - Integrated Solid Waste Management; RCRA - Resource Conservation and Recovery Act; P2 - Pollution Prevention; PCB - Polychlorinated Biphenyl; SWMP - Storm Water Management Program; STMP - Storage Tank Management Program; WWMP - Waste Water Management Program; EC&C - Environmental Compliance and Conformance; CLEO - Conservation Law Enforcement Office; FWA - Fish, Wildlife, and Agronomy; FRM - Forest Resources Management; CETEP - Comprehensive Environmental Training and Education Program; IRP - Installation and Restoration Program; EMS - Environmental Management System; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; NEPA - National Environmental Policy Act

MCBQ Practices	Environmental Program Manager																											
	Note: This table depicts points of contact to liason with regulators/external auditors per US Team Guide, Program Media. Refer to the most current MCBQ PAI Inventory for a list of Practice Owners (operation/implementation managers) by Activity/Command/Unit.																											
	Natural Resources and Environmental Affairs(NREA)																				PWB		NHC	Safety Division				
Air Program	HM Program	HW Program	ISWM Program	Pesticide Management Program	Munitions Response (RCRA)	PCB Management	Radon Program	Spill Prevention & Response	SWMP	STMP	WWMP	EC&C Evaluation Program	CLEO	FWA Program	FRM	CETEP	H&C	IRP	EMS	Munitions Response (CERCLA)	NEPA	Noise	P2	Energy	Potable Water	Medical & Infectious Waste	Asbestos	Lead
Vehicle operations (Tactical vehicle)	X	X						X		X						X			X		X							
Vehicle Parking								X			X					X			X		X							
Vehicle Smog Inspection	X															X			X		X							
Vehicle/equipment fluid change		X	X					X								X			X		X							
Vehicle/equipment fluid change (Coolant)		X	X					X								X			X		X							
Vehicle/equipment fluid change (Oil)		X	X			X		X								X			X		X							
Warehouse operation				X												X			X		X			X			X	
Wash rack (aircraft)		X		X				X			X					X			X		X			X				
Wash rack (Vehicle)		X						X			X					X			X		X			X				

H&C - Historic and Cultural Resources; HM - Hazardous Materials; HW - Hazardous Material; ISWM - Integrated Solid Waste Management; RCRA - Resource Conservation and Recovery Act; P2 - Pollution Prevention; PCB - Polychlorinated Biphenyl; SWMP - Storm Water Management Program; STMP - Storage Tank Management Program; WWMP - Waste Water Management Program; EC&C - Environmental Compliance and Conformance; CLEO - Conservation Law Enforcement Office; FWA - Fish, Wildlife, and Agronomy; FRM - Forest Resources Management; CETEP - Comprehensive Environmental Training and Education Program; IRP - Installation and Restoration Program; EMS - Environmental Management System; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; NEPA - National Environmental Policy Act

MCBQ Practices	Environmental Program Manager																											
	Note: This table depicts points of contact to liason with regulators/external auditors per US Team Guide, Program Media. Refer to the most current MCBQ PAI Inventory for a list of Practice Owners (operation/implementation managers) by Activity/Command/Unit.																											
	Natural Resources and Environmental Affairs(NREA)																				PWB		NHC	Safety Division				
Air Program	HM Program	HW Program	ISWM Program	Pesticide Management Program	Munitions Response (RCRA)	PCB Management	Radon Program	Spill Prevention & Response	SWMP	STMP	WWMP	EC&C Evaluation Program	CLEO	FWA Program	FRM	CETEP	H&C	IRP	EMS	Munitions Response (CERCLA)	NEPA	Noise	P2	Energy	Potable Water	Medical & Infectious Waste	Asbestos	Lead
Wastewater effluent discharge (POTW)	X		X					X	X		X					X			X		X				X			
Wastewater effluent discharge (Stream discharge)	X								X		X					X			X		X				X			
Wastewater sludge disposal				X							X					X			X		X				X			
Wastewater Sludge Treatment		X	X					X			X					X			X		X			X				
Wastewater treatment	X	X	X					X			X					X			X		X			X				
Wastewater treatment (physical/chemical treatment)		X	X					X			X					X			X		X			X				
Wastewater treatment (Primary settling)			X					X			X					X			X		X			X				

H&C - Historic and Cultural Resources; HM - Hazardous Materials; HW - Hazardous Material; ISWM - Integrated Solid Waste Management; RCRA - Resource Conservation and Recovery Act; P2 - Pollution Prevention; PCB - Polychlorinated Biphenyl; SWMP - Storm Water Management Program; STMP - Storage Tank Management Program; WWMP - Waste Water Management Program; EC&C - Environmental Compliance and Conformance; CLEO - Conservation Law Enforcement Office; FWA - Fish, Wildlife, and Agronomy; FRM - Forest Resources Management; CETEP - Comprehensive Environmental Training and Education Program; IRP - Installation and Restoration Program; EMS - Environmental Management System; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; NEPA - National Environmental Policy Act

MCBQ Practices	Environmental Program Manager																											
	Note: This table depicts points of contact to liason with regulators/external auditors per US Team Guide, Program Media. Refer to the most current MCBQ PAI Inventory for a list of Practice Owners (operation/implementation managers) by Activity/Command/Unit.																											
	Natural Resources and Environmental Affairs(NREA)																			PWB		NHC	Safety Division					
Air Program	HM Program	HW Program	ISWM Program	Pesticide Management Program	Munitions Response (RCRA)	PCB Management	Radon Program	Spill Prevention & Response	SWMP	STMP	WWMP	EC&C Evaluation Program	CLEO	FWA Program	FRM	CETEP	H&C	IRP	EMS	Munitions Response (CERCLA)	NEPA	Noise	P2	Energy	Potable Water	Medical & Infectious Waste	Asbestos	Lead
Water chiller O&M	X	X									X					X			X		X							
Water distribution (Potable water)											X					X			X		X				X			
Water treatment (non-potable water)											X					X			X		X			X	X			
Water treatment (Potable water)		X									X					X			X		X			X	X			
Weapons cleaning		X	X	X				X								X			X		X							
Welding	X															X			X		X			X				X
Woodworking	X	X		X												x			X		X			X				

H&C - Historic and Cultural Resources; HM - Hazardous Materials; HW - Hazardous Material; ISWM - Integrated Solid Waste Management; RCRA - Resource Conservation and Recovery Act; P2 - Pollution Prevention; PCB - Polychlorinated Biphenyl; SWMP - Storm Water Management Program; STMP - Storage Tank Management Program; WWMP - Waste Water Management Program; EC&C - Environmental Compliance and Conformance; CLEO - Conservation Law Enforcement Office; FWA - Fish, Wildlife, and Agronomy; FRM - Forest Resources Management; CETEP - Comprehensive Environmental Training and Education Program; IRP - Installation and Restoration Program; EMS - Environmental Management System; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; NEPA - National Environmental Policy Act