

INTEGRATED SOLID WASTE
MANAGEMENT PLAN (ISWMP)

U.S. ARMY AVIATION CENTER OF
EXCELLENCE (USAACE)

FORT RUCKER, ALABAMA

Prepared for:

U.S. Army Corps of Engineers
Mobile District
Mobile, Alabama

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Appendix C DD Form 1348-1A, *Issue Release/Receipt Document*

Appendix D Waste Generation and Diversion Rates

Appendix E USAACE Form 2732, *Continued Use Absorbents Tracking Document*

Appendix F USAACE Form 2736, *Waste Shipment Record*

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ACRONYMS

AR	Army Regulation
ACSIM	Assistant Chief of Staff for Installation Management
ADEM	Alabama Department of Environmental Management
AEDA	Ammunition, Explosives, and Dangerous Articles
ALSE	Aviation Life Support Equipment
BCA	Budget Clearing Account
C&D	Construction and Demolition
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COR	Contracting Officer's Representative
CPG	Comprehensive Procurement Guidelines
CSW	Commercial Solid Waste
CWA	Clean Water Act
DA	Department of the Army
DFAS	Defense Finance and Accounting Service
DLA	Defense Logistics Agency
DLADS	Defense Logistics Agency Disposition Service
DOC	Director of Contracting
DOD	Department of Defense
DODI	Department of Defense Instruction
DOIM	Director of Information Management
DPW	Director of Public Works
DPW-ENRD	Directorate of Public Works, Environmental and Natural Resources Division
EMS	Environmental Management System
EO	Executive Order
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community-Right-to-Know Act
EPEAT	Electronic Product Environmental Assessment Tool
EQCC	Environmental Quality Control Committee
FAR	Federal Acquisition Regulation
FSRIA	Farm Security and Rural Investment Act
GOCO	Government Owned, Contractor Operated
GRMO	Garrison Resource Management Office

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GSA	General Services Administration
HMCC	Hazardous Material Control Center
HSW	Household Solid Waste
IMCOM	U.S. Army Installation Management Command
ISWMP	Integrated Solid Waste Management Plan
LEED	Leadership in Energy and Environmental Design
LRC	Logistics Readiness Command
MGSW	Mission-generated Solid Waste
MICC	Mission Installation Contracting
MOI	Memorandum of Intent
MSW	Municipal Solid Waste
NEC	Network Enterprise Center
OSJA	Office of the Staff Judge Advocate
P2	Pollution Prevention
PL	Public Law
POC	Point of Contact
POL	Petroleum, Oils, and Lubricants
PPA	Pollution Prevention Act of 1990
PX	Post Exchange
QA	Quality Assurance
QRP	Qualified Recycling Program
RCI	Residential Communities Initiative
RCRA	Resource Conservation and Recovery Act
RT	Recycling Technician
SOP	Standard Operating Procedure
SWARWeb	Solid Waste Annual Reporting Web-based System
UFGS	Unified Facilities Guide Specifications
USAACE	U.S. Army Center of Aviation Excellence
USAPHC	U.S. Army Public Health Command
USC	U.S. Code
USDA	U.S. Department of Agriculture

Army policy, as stated in Army Regulation (AR) 200-1, requires compliance with legally applicable federal, state, and local requirements, both substantive and procedural, for managing solid waste, including generation, collection, storage, and disposal. AR 420-1 requires the development of a written Integrated Solid Waste Management Plan (ISWMP). Therefore, the following applicable citations and regulatory excerpts can be considered part of Fort Rucker's solid waste policies and goals and are the regulatory drivers for Fort Rucker's ISWMP.

1.1 FEDERAL REGULATIONS

1.1.1 The Solid Waste Disposal Act of 1965, as amended

This act requires that federal facilities comply with all federal, state, interstate, and local requirements concerning the disposal and management of solid wastes. These requirements include permitting, licensing, and reporting.

1.1.2 Resource Conservation and Recovery Act (RCRA) of 1976

This is the federal law that governs the disposal of solid waste. Subtitle D of this act, as last amended in November 1984, Public Law (PL) 98-616, 42 U.S. Code (USC) 6941-6949a, establishes federal standards and requirements for state and regional authorities for solid waste disposal. The act introduced and encouraged the practices of waste minimization through source reduction, use of recovered materials (a component of green purchasing), recycling, and conversion of waste to energy. RCRA Section 6002 specifically requires the federal government to promote standards and practices for the procurement of recycled and recovered materials.

The objectives of Subtitle D are to assist in developing and encouraging methods for the disposal of solid waste, which are environmentally sound and maximize the utilization of valuable resources recoverable from solid waste. The objectives are to be achieved through federal technical and financial assistance to states and regional authorities for comprehensive planning (42 USC 6941). This act was codified in Title 40, Code of Federal Regulations (CFR) Parts 240-272. Pertinent sections are listed below:

- a. Part 241: Guidelines for Land Disposal of Solid Wastes – contains guidance applicable to solid waste land disposal facilities.

- b. Part 243: Guidelines for the Storage and Collection of Residential, Commercial, and Institutional Solid Waste - establishes requirements and recommended practices for the storage, collection and management of solid waste, and for the operation of vehicles used in the collection, transport, and handling of waste.
- c. Part 246: Source Separation for Materials Recovery Guidelines - contains recycling requirements for the recovery of paper, corrugated containers, and other consumer goods.
- d. Part 247: Comprehensive Procurement Guideline for Products Containing Recovered Materials - contains guidance regarding "buy recycled" practices that will stimulate the recovered materials market.
- e. Part 257: Criteria for Classification of Solid Waste Disposal Facilities and Practices – contains criteria for determining whether disposal facilities meet minimum standards to protect human health and the environment.
- f. Part 261: Identification and Listing of Hazardous Waste - contains the RCRA definition of a solid waste and lists the criteria for characterization as a hazardous waste.

1.1.3 Pollution Prevention Act of 1990 (PPA), Public Law 101-508, 5 November 1990

The PPA established a national policy to prevent or reduce waste generation through source reduction, reuse, recycling, and treatment. It introduced the pollution prevention hierarchy of waste management options that is the cornerstone of integrated solid waste management.

1.1.4 Federal Facilities Compliance Act, Public Law 102-386, 6 October 1992

This Act required federal facilities to comply with substantive and procedural requirements of federal, state, and local solid and hazardous waste regulations. It waived the immunity previously held by federal facilities.

1.1.5 10 U.S. Code 2577, Disposal of Recyclable Materials

This regulation contains requirements for the distribution of proceeds generated from installation recycling programs.

1.1.6 Military Construction Codification Act of 1982, Public Law 97-214

This Act was the basis for the regulation 10 U.S. Code 2577 and contains a provision allowing net proceeds generated from the sale of Qualified Recycling Program (QRP) recyclables to be used by installations for certain purposes.

1.1.7 Executive Orders (EO)

EO 13423, Strengthening Federal Environmental, Energy, and Transportation Management, 24 January 2007. This EO requires federal agencies to increase solid waste diversion and to maintain cost-effective waste prevention and recycling programs. The implementing instruction for this order requires federal agencies to strive to meet the national 35 percent recycling goal established by the Environmental Protection Agency (EPA). EO 13423 strengthens green purchasing by requiring federal agencies to expand purchases of environmentally-sound goods and services, including biobased products. The EO requires federal agencies to follow certain guidelines when purchasing electronics and to reuse, donate, sell, or recycle 100 percent of electronic products using environmentally sound management practices. This EO revokes EO 13101, September 14, 1998; EO 13123, June 3, 1999; EO 13134, August 12, 1999; EO 13148, April 21, 2000; EO 13149, April 21, 2000.

EO 13514, Federal Leadership in Environmental, Energy and Economic Performance, 5 October 2009. EO 13514 requires Federal Agencies to reduce waste generation, divert 50 percent of nonhazardous solid waste (excluding construction and demolition (C&D)) by the fiscal year (FY) 2015, divert 50 percent of C&D waste by the end of FY2015, and increase diversion of compostable and organic material from the waste stream.

1.1.8 Other Acts

In addition to the items discussed above, other Acts of Congress also contain pollution prevention incentives, although their primary focus is not solid waste management.

The following laws each have a pollution prevention component that could potentially impact solid waste management at Fort Rucker:

- Clean Air Act (CAA);
- Clean Water Act (CWA);
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); and
- Emergency Planning and Community Right-to-Know Act (EPCRA).

1.2 DEPARTMENT OF DEFENSE (DOD) REQUIREMENTS

Undersecretary of Defense Memorandum, 1 February 2008, subject: DOD Integrated (Non-Hazardous) Solid Waste Management Policy.

This policy implements the solid waste and recycling requirements of EO 13514 by requiring all facilities to maintain waste prevention and recycling programs in the most cost-effective manner possible and setting solid waste diversion goals to be achieved by 2010 for the DOD. DOD component installations are required to implement integrated solid waste management to achieve these goals. The diversion goal for non-hazardous solid waste without construction and demolition (C&D) waste is 50 percent by 2015. The goal for C&D waste is 50 percent by 2015.

Memorandum, Assistant Deputy Under Secretary of Defense (Environment, Safety, and Environmental Health), 12 October 2004, subject: Revised Pollution Prevention and Compliance Metrics.

This memorandum requires DOD facilities to establish a cost-effective solid waste management program that reduces solid waste generation, increases diversion rates, and optimizes cost avoidance.

Memorandum, Assistant Deputy Under Secretary of Defense (Environment), 22 April 2003, subject: Qualified Recycling Program Guidance.

This memorandum supplements DoD Instruction (DoDI) 4715.4, paragraph 6.2.3.3 with guidance on QRPs. It provides direction on conducting and reconciling sales and financial records, using net proceeds from the sale of recyclables, handling costs associated with recycling programs, and considering outsourcing opportunities.

Memorandum, Office of the Under Secretary of Defense, 15 May 1998, subject: Recycling of Firing-Range Scrap Consisting of Expended Brass and Mixed Metals Gleaned from Firing-Range Clearance Through Qualified Recycling Programs.

This memorandum defines the policy for recycling ammunition, explosives, and dangerous articles (AEDA) collected from firing ranges when installations directly sell the metals. Metals must be certified as safe before being processed by QRPs, and QRP personnel must be trained to recognize and segregate AEDA.

DOD Instruction (DODI) 4715.4, Pollution Prevention, 18 June 1996.

This instruction implements policy, assigns responsibilities, and prescribes procedures for implementation of pollution prevention programs throughout. It establishes a requirement for installation QRPs, calls for affirmative (green) procurement, and authorizes direct sales of recyclables. In this DODI, the Navy has been designated the Executive Agent for ozone depleting substances. It is specifically stated that this DODI is applicable to government owned, contractor operated (GOCO) facilities and facilities supported by appropriated and non-appropriated funds.

Undersecretary of Defense Memorandum, 27 August 2004, subject: Establishment of the DOD Green Procurement Program.

This policy requires installations to implement their own Green Procurement Plan and program to provide metrics to achieve the DOD green procurement goals.

1.3 ARMY REGULATIONS AND POLICIES

AR 200-1, Environmental Protection and Enhancement, 13 December 2007.

This AR provides an overview of environmental programs and requirements. It supplements federal, state, and local laws for preserving, protecting, and restoring quality of the environment. It applies to Active Army, Army National Guard, Army Reserve, and civil works activities that are under the jurisdiction of the U.S. Army Corps of Engineers. It also applies to tenants, such as other federal agencies, contractor activities, and lessees performing activities in direct support of the Army located on real property under the Department of the Army (DA) jurisdiction. Section

10-2, Solid Waste, provides guidance for solid waste management and major program requirements.

AR 420-1, Facilities Engineering, Army Facilities Management, 12 February 2008.

This regulation covers responsibilities regarding solid and hazardous waste, collection and storage of solid and hazardous waste, thermal processing and land disposal of solid (non-hazardous) waste, and monitoring records. It calls for the implementation of integrated solid waste management, development of the ISWMP, source reduction to reduce the waste stream, implementation of a QRP, a 50 percent diversion of C&D waste from disposal, and a green waste management program.

Assistant Chief of Staff for Installation Management (ACSIM) Memorandum, 6 February 2006, subject: Sustainable Management of Waste in Military Construction, Renovation, and Demolition Activities.

This memorandum requires all military construction, renovation, and demolition projects to divert a minimum of 50 percent of C&D waste by weight from landfill disposal and requires that contract specifications will include submission of a contractor's C&D Waste Management Plan. In addition, this memorandum states that installations will achieve the silver level using the Leadership in Energy and Environmental Design (LEED) rating system.

Department of the Army Memorandum, 22 November 2006, subject: Establishment of the Army Green Procurement Program.

This policy requires all Army organizations involved with contracting/procurement actions or credit card purchases to comply with federal green procurement requirements.

Green Procurement Guide, December 2010.

The U.S. Army Public Health Command (USAPHC) prepared this guide for the Deputy Secretary of the Army (Policy and Procurement) and the Deputy Assistant Secretary of the Army (Environment, Safety, and Occupational Health). This guide provides detailed instruction on implementing a green procurement program at an Army installation.

Department of the Army Memorandum, 11 July 2008, subject: Achieving the Goals of the DOD Integrated (Non-Hazardous) Solid Waste Management Policy.

This policy requires Army organizations to implement the requirements listed in the DOD memorandum of 1 February 2008 regarding the DOD Integrated (Non-Hazardous) Solid Waste Management Policy, which is described in Section 1.2 above.

Operations Order 14-068: Integrated (Non-Hazardous) Solid Waste Management

This operations order requires IMCOM Regions and Garrisons to identify and implement programs for waste prevention/reduction, recycling and composting in the most cost effective and energy efficient manner in order to reduce pollution.

Army Directive 2014-02, Net Zero Installations Policy, 24 January 2014

This directive sets policy and assigns responsibilities to strive toward Net Zero at all Army installations where fiscally responsible in support of mission accomplishment. The holistic strategy is targeted to improve management of existing Federal energy, water and solid waste programs with the goal of increasing resiliency where fiscally responsible. The policy applies to all permanent Active Army, Army National Guard, and US Army Reserve installations, sites, and facilities operated and/or maintained by Federal funds. The directive requires reducing, reusing, recycling/composting and recovering solid waste streams and converting them to resource values, resulting in zero landfill disposal.

1.4 STATE REGULATIONS**Solid Waste Management**

Solid waste management is regulated by the Alabama Department of Environmental Management (ADEM), Land Division, The Solid Waste Program and is administered within the Land Division for the solid waste landfill permitting, compliance inspections and enforcement and corrective action. The Land Division also inspects illegal solid waste disposal sites and investigates complaints regarding solid waste disposal. Enforcement action is taken as necessary to assure proper disposal of all solid waste in Alabama.

The rules for ADEM's Solid Waste Program are found in Division 13 of the ADEM Administrative Code, pursuant to Ala. Code §§22-27-1 to 22-27-49. Division 13 regulations contain standards applicable to the design and operation of solid waste landfills and set forth the permitting requirements for solid waste disposal facilities. Collection and transportation of household solid waste is regulated by the Alabama Department of Public Health.

Scrap Tires

The Scrap Tire Program is administered within the ADEM, Land Division through permitting, compliance inspections and enforcement and scrap tire site remediation. The Land Division also inspects illegal scrap tire disposal sites and investigates complaints regarding scrap tire management. Enforcement action is taken as necessary to assure proper management of all scrap tires in Alabama

The rules for ADEM's Scrap Tire Program are found in Division 4 of the ADEM Administrative Code, pursuant to Ala. Code §§22-40A-1 to 22-40A-24. Division 4 regulations contain requirements applicable to the generation, transportation, storage, and processing of scrap tires. Division 4 also sets forth the requirements for registering Class I and II Receivers and permitting transporters and processors of scrap tires. Remediation of scrap tire sites is also conducted by the Land Division under the Scrap Tire Environmental Quality Act. Fort Rucker Policies

Fort Rucker Environmental Management System (EMS)

EMS provides an installation or facility with a systematic framework for managing all of its environmental responsibilities, so that these responsibilities become better integrated into overall operations. It is a tool to help installations not only stay in compliance with legal and regulatory environmental requirements, but to also continuously improve overall environmental performance. All information regarding the Fort Rucker EMS is maintained on the Sustainable Fort Rucker website.

The official Fort Rucker Environmental Policy memo has been signed by the Garrison Commander and emphasizes our continuing commitment to the environment. The EMS uses the following “formula” to make it easy to remember the Fort Rucker Environmental Policy:

$$E = pc^2$$

Environmental policy (E) is to prevent pollution (P), comply with environmental laws (C), and continually improve (C).

The scope of Fort Rucker's EMS includes all military, civilian, tenant and contractor organizations working within the installation boundaries that have the potential to impact the significant environmental aspects identified within the EMS. Military Family Housing residents, activities associated with privatized utilities, and other activities and personnel outside of the control of the installation are excluded from the EMS.

Organizational involvement in the EMS is achieved through the cross-functional team, which is called the EMS Implementation Team. This team is composed of personnel from all installation organizations through the Environmental Officer and Environmental Point of Contact (EPOC) program.

After reviewing the impacts of the various aspects of Fort Rucker's activities, products, and services, the following environmental aspects have been determined to be significant:

1. Air Emissions
2. Energy Use / Conservation
3. Hazardous Waste Generation

4. Natural Resources Alteration
5. Noise Generation
6. Pollution Prevention
7. Solid Waste Generation
8. Spills to Water / Soil

Fort Rucker Green Purchasing Plan, (Draft August 2008)

While the Green Purchasing Program is only in the beginning phases, many organizations are making an effort to meet the Army goals for green procurement compliance, and green procurement is addressed in government purchase card (GPC) cardholder training and in various other courses. Fort Rucker procurement personnel are generally aware that they must try to purchase “greener” products with recycled content, recycle materials when possible, and use non-toxic materials. Currently, purchases are made through GPC, bulk purchase orders, and contracts. The primary sources of supply are Javits-Wagner-O’Day (JWOD), UNICOR, General Services Administration (GSA), Defense Reutilization and Marketing Office (DRMO), and outside vendors. Outside vendors should only be those with blanket purchase agreements (BPA) or vendors with GSA contracts.

The Green Purchasing Plan documents Fort Rucker’s Green Purchasing Program and is designed to implement the legal requirements for Green Purchasing and raise awareness of procurement as a pollution prevention tool. The plan presents a summary of regulatory requirements, responsible organizations, and practices to implement Green Purchasing Program requirements. This plan is currently in draft form and is awaiting approval and full implementation by the affected installation organizations.

1.5 ADDITIONAL SOURCES OF INFORMATION**EPA 530-F-11-005, Municipal Solid Waste Generation, Recycling, and Disposal in the United States: 2010 Facts and Figures.**

This report contains data on solid waste generation, recovery, and disposal; materials and products that are in the waste stream; per capita generation and discard rates; aggregate data on the infrastructure for solid waste management, including estimates

of the number of curbside recycling programs, composting programs, and landfills in the US; and trends in solid waste management, including source reduction, recycling and composting, and disposal via combustion and landfilling.

Unified Facilities Guide Specification (UFGS)-017419,

Construction and Demolition Waste Management, January 2007. This specification covers the requirements for the management of nonhazardous C&D waste materials, to include details on the contents of a waste management plan, recordkeeping and reporting, and methods of waste management.

UFGS-024100, Demolition and Deconstruction, October 2006.

This specification provides requirements for demolition, deconstruction, dismantling, reconditioning, and disposal of existing building materials, equipment, and utilities as part of a new construction or renovation project.

UFGS-015720, Environmental Protection, April 2006.

This specification provides general requirements for solid waste handling, storage, and disposal. Also included are specifications for maintaining and submitting a Nonhazardous Solid Waste Diversion Report.

Unified Facilities Criteria I-900-01, Selection of Methods for the Reduction, Reuse, and Recycling of Demolition Wastes, 1 December 2002.

This publication provides guidance for the recovery and recycling of demolition waste and assists in determining the most feasible methods to reduce the quantity of C&D waste materials disposed of in landfills.

Decision-Maker's Guide to Solid Waste Management, Second Edition, EPA 530-R-95-023, August 1995.

This guide contains technical and economic information to help decision-makers meet the daily challenges of planning, managing, and operating municipal solid waste programs and facilities.

1.6 WEBSITES

U.S. EPA Office of Solid Waste—provides guidance and information on a variety of solid waste topics. <http://www.epa.gov/osw>

CalRecycle—This website maintained by the California Department of Resources Recycling and Recovery focuses on source reduction.
<http://www.calrecycle.ca.gov/ReduceWaste/>

Global Recycling Network—an electronic information exchange that specializes in the trade of recyclables reclaimed from solid waste streams, as well as the marketing of eco-friendly products. <http://grn.com/grn/home.htm>

Earth 911—an online resource that lists local recycling opportunities for a wide variety of recyclables. <http://earth911.com>

2.1 PURPOSE

This document serves four principal purposes:

1. Define and document Fort Rucker's current solid waste management program.
2. Set forth goals, targets, and objectives for improving the solid waste management.
3. Specify the strategies and responsibilities for achieving Fort Rucker's goals.
4. Meet the Army requirement to develop an ISWMP.

2.2 OBJECTIVES

The objectives of the ISWMP include the following:

1. Effectively manage solid waste in a manner that protects human health and the environment;
2. Comply with applicable Federal, state, local, and Army solid waste management regulations;
3. Reduce the volume of solid waste generated to a level that meets or surpasses state, DOD, and Army waste reduction goals;
4. Reuse or recycle elements of the solid waste stream to the maximum extent possible; and
5. Ensure that all objectives and goals of the ISWMP are incorporated into the Fort Rucker Environmental Management System (EMS).

2.3 FORT RUCKER SOLID WASTE MANAGEMENT GOALS

1. Continually increase the quantity of solid waste reused and recycled.
2. Maintain compliance with pertinent solid waste regulations and the requirements of this ISWMP.
3. Meet DOD Strategic Sustainability Performance Report Goals

- 50% of Non-Hazardous Solid Waste Diverted from the Waste Stream by FY 2015, and Thereafter Through FY 2020
 - 60% of Construction and Demolition Debris Diverted from the Waste Stream by FY 2015, and Thereafter Through FY 2020
4. Implement Net Zero waste to the maximum extent practicable and fiscally possible.

2.4 FORT RUCKER ENVIRONMENTAL MANAGEMENT SYSTEM

This Plan serves as an operational control as specified in EMS-P016, *Operational Controls*. This document is a controlled document with the official version maintained on the Sustainable Fort Rucker website. All forms and work instructions referenced within this document are also controlled documents. Forms and work instructions are included in the appendices for reference only; the official versions of all EMS documents are maintained on the Sustainable Fort Rucker website and all referenced Alabama Department of Environmental Management (ADEM) forms are maintained on the ADEM website. The following tables should be used to document plan review and amendments.

2.4.1 Plan Review

The Plan is available for review on the [Sustainable Fort Rucker website](#). This ISWMP and the solid waste management program will be reviewed at least annually to meet the requirements of the EMS. The review will be documented in the following table.

Date Review Completed	Person Performing Review	Comments

2.4.2 Plan Modifications

The Solid Waste Program Manager has primary responsibility for ensuring that the ISWMP is updated when changes to the management of solid waste occur. In accordance with AR 420-1, Section 23-11.a., the plan will be updated at least every five years or when significant changes occur in the installation mission or infrastructure. Examples of conditions that would warrant reevaluations of the plan are:

- Regulatory changes;
- Changes in the types or quantities of wastes generated;
- Reductions in the waste stream due to successful minimization/recycling programs;
- Changes in the availability of regional disposal facilities; and
- New or amended contracts that affect solid waste management.

Revisions made to the Plan, including the date of the revision, the section of the plan being revised, a description of the change, and the name of the person making the change will be documented in the following table.

Date of Change	Page Numbers/Section Being Revised	Person Entering Change	Description of Change

3.1 LOCATION

Fort Rucker is located in southeast Alabama, 20 miles northwest of Dothan, Alabama. It is surrounded by the towns of Daleville on the south, Enterprise on the west, and Ozark on the east (Figure 3-1). Fort Rucker is positioned in a topographical area of southeastern Alabama that consists of moderately rolling lands with elevations ranging from 200 to 300 feet above mean sea level (MSL).

Fort Rucker spans over two Alabama counties, Dale and Coffee, and covers a total of 62,914 acres, which is composed of 61,417 acres in the main cantonment, airfields, and stagefields, and 1,497 acres of leases and easements. Numerous training facilities, airfields, stagefields and properties are associated with Fort Rucker. The airfields, heliports, and stagefields are depicted in Figure 3-2. The various fields are indicated with only the name and not the type of field when they are discussed within this document.

- Allen Stagefield
- Brown Stagefield
- Cairns AAF
- Ech Stagefield
- Goldberg Stagefield
- Hanchey AHP
- Hatch Stagefield
- Highbluff Stagefield
- Highfalls Stagefield
- Hooper Stagefield
- Hunt Stagefield
- Knox AHP
- Louisville Stagefield
- Lowe AHP
- Lucas Stagefield

- Molinelli Stagefield
- Runkle Stagefield
- Shell AHP
- Skelly Stagefield
- Stinson Stagefield
- Tabernacle Stagefield
- Tac-X Stagefield
- Toth Stagefield

In addition the facilities owned by Fort Rucker, the installation also utilizes several airfields in southern Alabama through long-term leases. These airfields include:

- Andalusia/Opp Municipal Airport
- Florala Municipal Airport
- Troy Municipal Airport

3.2 CURRENT LAND USE

There are four primary land uses at Fort Rucker:

1. The cantonment area comprising approximately 5,000 acres along the southern boundary;
2. A range and impact area comprising about 13,000 acres in the northern half of the installation;
3. Eight airfields, heliports, and stagefields totaling more than 2,000 acres throughout the reservation; and
4. Training and hunting areas covering over 37,700 acres that border the cantonment area on the north and east.

3.3 SCOPE AND APPLICABILITY

Fort Rucker's solid waste-generating population consists of residents, stationed troops, and civilian and contractor employees. The activities of these groups generate distinct types of solid waste that can be characterized by the locations at which they are generated.

- Fort Rucker's residential family housing units are part of the Residential Communities Initiative (RCI). The Military Housing Contractor has responsibility for the Fort Rucker housing area. Solid waste collected from family housing units corresponds to household solid waste (HSW) generated in civilian communities. The Military Housing Contractor manages all HSW, which is classified as residential waste.
- Solid waste generated by Fort Rucker's schools and hospital correspond to civilian institutional solid waste. Institutional solid waste is included with the non-residential waste stream at Fort Rucker.
- Solid waste generated from the demolition of Fort Rucker's numerous WWII Era buildings and the construction of new buildings corresponds to civilian construction debris.
- Approximately 14,000 civilian and contractor employees help staff various Fort Rucker facilities such as offices, stores, and warehouses. Solid waste generated by facilities employing civilians corresponds to commercial solid waste (CSW) generated in the civilian sector.
- Solid waste generated from Fort Rucker's drinking water treatment units, wastewater treatment plants, chemical and fuel storage, transfer stations, and various other operations corresponds to industrial solid waste in the civilian sector.
- Approximately 12 dining facilities including cafeterias, fast food (excluding small stands), and restaurants serve Fort Rucker's population each day and create a class of waste referred to as wet-waste.
- Training and other day-to-day mission related activities performed by the approximately 14,000 troops stationed at Fort Rucker generate a class of solid waste unique to the military. This mission-generated solid waste (MGSW) is a mix of municipal (commercial, residential, etc.) and

military-specific solid waste items. Fort Rucker manages MGSW as non-residential waste, which is broken into field trash for field activities and regular trash for cantonment area activities.

3.4 MISSION

Fort Rucker has been the home of the U.S. Army Aviation Center for Excellence (USAACE) since it was permanently activated in 1955. The primary mission is the training of helicopter pilots. Active training occurs at: Hanchey Army Heliport, Knox Army Airfield, Cairns Army Airfield, Shell Army Airfield, Lowe Army Heliport, and various stagefields around the wiregrass area. The USAACE also provides resident and nonresident aviation maintenance, logistics, and leadership training in support of the total force and foreign nations for the sustainment of joint and combined aviation operations.

3.5 POPULATION AND MASTER PLAN

Fort Rucker currently supports a military and civilian work force of 15,793 on post. This number is projected to increase only slightly in the next several years. Fort Rucker supports an additional 39,467 personnel in the surrounding area, including dependents of activity duty, retired, reserve, and civilian personnel; reserve component personnel, retirees, and DOD civilians. The DPW Master Planning division coordinates major constructions, demolitions, or alterations in land use that could affect solid waste generation with DPW-ENRD through the NEPA process prior to implementation of any changes.

4.1 GARRISON COMMANDER

1. Establish and/or maintain a functional organizational structure to plan, execute, and monitor the solid waste program.
2. Provide command emphasis on solid waste reduction, materials reuse, recycling, green purchasing, and composting.
3. Formally establish an installation QRP and designate the installation activity responsible for oversight of the program.
4. Chair the Environmental Quality Control Committee (EQCC), QRP Committee or other installation forum that addresses solid waste management and recycling issues.
5. Ensure that the proceeds from the QRP are used in accordance with Public Law 97-214, *Military Construction Codification Act*, and DOD Instruction 7310.1, *Disposition of Proceeds from DoD Sales of Surplus Personal Property*.
6. Promote participation in the installation's recycling programs and designate the installation activity responsible for oversight of the program.
7. Ensure that all the required training is approved, resourced, accomplished, and documented.

4.2 ALL DIRECTORS AND TENANT ACTIVITIES

1. Advise activities of state, federal, and Army requirements for managing and reducing solid wastes and increasing recycling.
2. Monitor directorate activities for compliance with state, federal, and Army solid waste management requirements and recommend changes in policies or procedures to improve program management when necessary.
3. Support and emphasize the practices of waste reduction, green purchasing, reuse of materials, recycling, and composting programs.
4. Ensure that all required training is approved, resourced, accomplished, and documented.

5. Participate in the EQCC, QRP Committee or other installation forum that addresses solid waste management and recycling issues.

4.3 DIRECTOR OF PUBLIC WORKS (DPW)

1. Serve as the Commander's expert representative for the management of solid wastes. Recommend changes in policies or procedures to improve program management to the Commander in coordination with the Solid Waste Program Manager.
2. Serve as the installation's proponent for the management of solid waste and the QRP.
3. Ensure that solid waste storage, collection, transportation, and disposal are conducted in accordance with state, federal, and Army regulations.
4. Program, budget, and support the resource requirements to manage the solid waste program, to comply with federal, state, and Army regulations, and to achieve state and DOD waste reduction goals. Ensure funding plans include equipment, studies, operational costs, maintenance costs, treatment, storage or disposal, waste minimization, and personnel training.
5. Participate in the EQCC or installation forum that addresses solid waste management and recycling issues.
6. Advise the Garrison Commander on the most cost-effective and efficient means of waste storage, treatment and disposal to include the citing of new waste management facilities and the need to modify existing facilities.
7. Establish, monitor and execute programs in waste management including waste minimization, resource recovery, and recycling.
8. Periodically review such factors as number and location of pick up stations, truck routes, type of equipment, scheduling, supervision and use of personnel to effectively manage solid wastes.
9. Communicate regularly with the DLADS to maintain current information on markets for excess or unserviceable materials and recyclable materials.
10. Participate in the QRP Committee.

11. Ensures that all new contracts awarded, particularly C&D contracts, include recycling clauses stipulating the diversion of recyclable materials when feasible and cost-effective to the Federal Government.
12. Ensures that C&D contracts specify that contractors will submit C&D waste management plans and waste diversion data.

4.4 GARRISON RESOURCE MANAGEMENT OFFICE (GRMO)

1. Ensure that proceeds from the recycling program are used in accordance with Public Law 97-214 and U.S. Code 2577 and according to the Commander's direction.
2. Establish and maintain a clearing account for the deposits of proceeds from the QRP and ensure that all collections are accumulated in that account.

4.5 DIRECTOR, LOGISTICS READINESS CENTER (LRC)

1. Advise procuring activities on the availability of environmentally preferred products and green purchasing requirements.
2. Implement procurement procedures to enforce the environmentally preferable products and green purchasing requirements.
3. Seek ways to reduce and/or reuse packaging and packing materials.
4. Actively support the environmental office in measuring progress to meet waste reduction goals and green purchasing requirements.
5. Communicate regularly with the DLADS to maintain current information on markets for excess or unserviceable materials and recyclable materials.

4.6 DIRECTOR, MISSION INSTALLATION CONTRACTING COMMAND (MICC)

Ensure that contracts include the appropriate specifications and clauses for source reduction and recycling, green purchasing, and C&D, as listed below:

1. Require the use of environmentally preferable products where applicable, including those containing recycled or Biobased content, using less energy, water conservation, and/or containing less or reusable packaging.
2. Stipulate in contracts that paper products contain 30 percent recycled content paper or are printed on tree-free paper, and that contractor documents be printed double-sided.
3. Include the requirement to follow Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings as specified in EO 13423, and specify that new construction achieve a LEED rating of silver or higher.
4. For building construction, renovation and deconstruction (demolition) contracts, ensure measures for the salvaging, reuse, and recovery of materials are incorporated by requiring contractors to submit a C&D Waste Management Plan prior to the start of site clearance. Contractors shall follow the C&D Waste Management Plan to reach the 50 percent reduction in C&D waste going to the landfill and provide a monthly report documenting the C&D diversion using USAACE Form 2720, *Debris Recovery Plan and Statement* (see Appendix B).

4.7 CONTRACTING OFFICER'S REPRESENTATIVES (COR)

1. Periodically review the solid waste management contracts for overall effectiveness and monitor the performance of the contractor. Evaluate such factors as number, size, and location of pickup stations, truck routes, types of equipment, scheduling, supervision, and effective use of manpower.
2. Coordinate with the QRP Manager to develop strategies for improved recycling and, if necessary, modify contracts to implement those strategies.
3. Include provisions for green purchasing and recycling in all contracts as appropriate. Example of types of contracts include: construction, deconstruction, janitorial, supply/procurement, engineering/design, and utilities.

4. Ensure that all military construction, renovation, and demolition projects include contract performance requirements for a 50 percent minimum diversion of C&D waste, by weight, from landfill disposal.
5. Ensure that all construction and demolition contracts submit a C&D Waste Management Plan and a monthly report detailing what wastes were diverted and by what method using USAACE Form 2720, *Debris Recovery Plan and Statement* (see Appendix B).

4.8 CHIEF, ENVIRONMENTAL AND NATURAL RESOURCES DIVISION

1. Identify a person to be the Solid Waste Program Manager and to be responsible for managing the overall solid waste program.
2. Identify a person to be the Qualified Recycling Program Manager.
3. Ensure sufficient funding levels to comply with regulatory requirements and support waste reduction initiatives.
4. Ensures that the ISWMP is updated every 5 years at a minimum or as necessary to reflect current solid waste handling and disposal practices.

4.9 SOLID WASTE PROGRAM MANAGER

1. Periodically review and monitor compliance with all applicable state, federal, and Army requirements for solid waste management and recycling.
2. Ensure compliance at tenant activities and sub-installations.
3. Determine the most cost-effective and efficient means of source reduction, recycling, and waste storage, collection, treatment, and/or disposal.
4. Recommend changes in policies or procedures to improve program management when necessary.
5. Advise all waste-generating activities of state, federal, and Army requirements for managing solid wastes, including requirements for permitting, reporting, and recordkeeping.

6. Oversee all aspects of the solid waste program including source reduction, resource recovery, and recycling.
7. Maintain liaison and coordinate as necessary with county and state solid waste regulators.
8. Maintain liaison with and request support from the IMCOM on solid waste related issues.
9. Report solid waste management activities to the IMCOM using the Solid Waste Annual Reporting Web-based system (SWARWeb).
10. Review contracts related to solid waste management for environmental compliance.
11. Provide guidelines on source reduction strategies, yard waste management, pollution prevention, and recycling to installation personnel.
12. Report to the EQCC or other installation forums on a regular basis on issues related to solid waste management and recycling.
13. Identify and monitor responsibilities of all providers of solid waste management services, whether contractors or in-house personnel. Ensure that formal procedures are followed during performance assessment. Enforce, through the COR, compliance with contract specifications.

4.10 QUALIFIED RECYCLING PROGRAM (QRP) MANAGER

1. Oversee daily operation of the recycling facility and all recycling operations.
2. Hire and supervise personnel to accomplish recycling duties.
3. Ensure proper training of facility personnel. Training may include Ammunition, Explosives, and Dangerous Articles (AEDA) certification if the installation operates a QRP that handles firing range scrap.
4. Request, justify, and procure equipment necessary to perform recycling operations.
5. Develop and manage contracts in support of the program.

6. Develop, implement, and update EMS Work Instructions for operation of the program.
7. In coordination with Garrison Resource Management Office personnel, establish and oversee a recyclable materials accounting procedure to track the materials processed/sold and a financial accounting system for the receipts and disbursements of funds.
8. Address customer complaints regarding the recycling program.
9. Monitor participation in the program and implement corrective measures when participation is poor.
10. Implement an aggressive promotional and educational campaign for the recycling program.
11. Maintain a list of recycling Points of Contact (POCs) in each activity or building and coordinate the program's activities and changes through them.
12. Assist the solid waste manager in reporting recycling activities to the IMCOM using the SWARWeb system.
13. Report on the status of the recycling program to the EQCC or installation forum that addresses solid waste management and recycling issues.

4.11 INSTALLATION SAFETY MANAGER

Ensure compliance with state, Federal, Army, and other safety standards, guidelines, and training requirements related to solid waste management and recycling.

4.12 ENVIRONMENTAL QUALITY CONTROL COMMITTEE (EQCC)

Include solid waste management issues on the meeting agendas. These meetings will provide a forum for planning, identifying needs and objectives, and coordination among various installation elements. Participation should include the Installation Commander and/or Garrison Commander; QRP program manager; DPW; Environmental and Natural Resources Division, DLADS, DFMWR, MICC, LRC/Supply, Safety Office, Public Affairs, and Staff Judge Advocate.

4.13 QUALIFIED RECYCLING PROGRAM (QRP) COMMITTEE

1. Meet every three months to review solid waste and recycling management issues.
2. Review expenditures of recycling proceeds for previously approved projects and vote on and authorize new projects that will use recycling proceeds for new activities.
3. Members shall include the Garrison Commander, principal staff officers, and commanders of assigned tenants and organizations. Membership by agencies or activities is voluntary.
4. The QRP Charter is currently being drafted and will contain a list of all organizations that are suggested to be part of the QRP committee.

**4.14 DEFENSE LOGISTICS AGENCY DISPOSITION SERVICE
(DLADS)**

1. Accept qualified recyclable materials from the QRP, and reimburse installations the designated proceeds from the sale of recyclables in accordance with current DLA policy and DLA financial management regulations.
2. Accept materials excluded from QRP for recycling or other disposal, deposit the recycling proceeds, if any, to the U.S. Treasury, and report material sales data to the QRP within the required reporting time frame.
3. Serve as the local representative of the DLA.
4. Assist the QRP program manager by providing technical advice, performing market research, and selling recyclable commodities, when requested.
5. Advise generating activities on the required turn-in procedures, including packaging, labeling, and transporting of materials to facilitate sales/recycling.
6. Assume accountability for materials properly turned in for disposal, resale, or recycling.
7. Periodically conduct sales, and/or make the DOD bidders list available to activities conducting direct sales of recyclables.

8. Maintain records concerning types and quantities of materials turned in, and proceeds for various resale/recycling activities.

4.15 DEFENSE FINANCE AND ACCOUNTING SERVICE (DFAS)

Process financial documents and vouchers forwarded from the DLADS or DOD Components. The proceeds are deposited into the installation QRP account as directed in accordance with 10 U.S.C. 2577. DFAS also tracks DD Form 1348-1A, *Issue Release/Receipt Document*, (see Appendix C) and ensures timely and accurate financial recording of sales of recyclables.

4.16 ALL INSTALLATION ORGANIZATIONS, UNITS, AND TENANT ACTIVITIES

1. Reduce the amount of solid waste generated through procurement of products with less or reusable packaging, buying only the amounts needed, investigating new recycling/ reuse opportunities, and altering operations to reduce wastes (e.g., using double-sided copies).
2. Support recycling by procuring items with recycled materials content.
3. Ensure safe and effective solid waste management through the proper storage of solid wastes and recyclables.
4. Support the recycling program by identifying, collecting, separating, and removing contaminants from all potential recyclable materials.
5. Designate a recycling coordinator to organize the recycling efforts, coordinate with the recycling program manager, and participate in the installation forum that addresses solid waste management and recycling issues.
6. Coordinate with the installation environmental office on all matters involving solid waste management, green purchasing, recycling, or pollution prevention.

4.17 ENVIRONMENTAL OFFICERS

1. Ensure no prohibited items are placed in the trash containers at assigned facilities. Check daily for improper disposal of prohibited items in all waste containers.

2. Emphasize waste reduction, recycling, and green purchasing within each organization. Ensure recyclables are segregated prior to placing trash in dumpsters to ensure maximum recycling potential.
3. Act as the organization recycling coordinator to organize recycling efforts and coordinate with the environmental office regarding solid waste management, recycling, green purchasing, and pollution prevention.

4.18 SOLID WASTE CONTRACTORS

1. Furnish and maintain containers as necessary to collect solid wastes (refuse) at specified locations. Label containers according to contract requirements and provide containers that are leak-proof with tight-fitting lids.
2. Ensure that provided containers for storing waste are rigid; large enough to hold the generated waste; durable; rust resistant, washable, and nonabsorbent; watertight; vermin proof; easily cleaned; secured with close fitting fly-tight lids or covers; and easily handled .
3. Keep loads covered during handling and transport of refuse and recyclables. Take measures to prevent spillage, leakage, or blowing of paper.
4. Immediately clean up any materials spilled during pickup operations or transport, according to contract requirements.
5. Immediately notify the COR, who will notify the installation environmental office, of any unauthorized wastes discarded in refuse dumpsters or recycling containers. Unauthorized wastes include, but are not limited to: potentially hazardous wastes, including unused paints, thinners, solvents, or caustics; petroleum, oils and lubricants (POL); radioactive materials; regulated medical wastes; explosive materials or ordnance; and aerosol cans.
6. Replace lids on dumpsters and containers after collection.
7. Comply with all other requirements listed in the contract specifications, including reporting and quality assurance (QA) requirements.

4.19 CONSTRUCTION CONTRACTORS

1. Submit a copy of a C&D Waste Management Plan and the completed pre-demo or construction section of USAACE Form 2720, *Debris Recovery Plan and Statement*, (see Appendix B) to the project COR prior to site clearance.
2. Meet the Army's 60 percent C&D waste diversion requirement for all construction, renovation, and demolition projects at Fort Rucker. Ensure recyclables are segregated from waste prior to transport to landfill.
3. Submit a copy of the completed post-demo or construction section of USAACE Form 2720, *Debris Recovery Plan and Statement*, (see Appendix B) to the project COR upon completion of the project.

Solid waste, as defined in RCRA, is any garbage, refuse, sludge, or other discarded material resulting from industrial, commercial, institutional, and residential activity. Discarded materials include those that are disposed, abandoned, recycled, or are inherently waste-like. Hazardous wastes are solid wastes that meet specific RCRA criteria involving hazardous characteristics or the presence of listed constituents. Hazardous and universal wastes are not included in this plan; the Hazardous Waste Management Plan has detailed requirements for management of these wastes.

5.1 OFFICE AND OTHER FACILITY WASTES

Offices and facilities on Fort Rucker are serviced by janitorial contracts. Janitorial staff and Fort Rucker employees consolidate solid waste in dumpsters located throughout Fort Rucker. The Fort Rucker DPW Contract Management Division has contracted a solid waste contractor for the placement and collection of solid waste from the dumpsters and transport of the waste to the Coffee County Landfill. Monthly reports of the quantity of solid waste sent to the landfill are submitted by the contractor to DPW. Appendix D provides the totals of solid waste sent to the landfill each of the past five years by Fort Rucker non-residential activities.

An estimated 2,891 tons of solid waste were disposed from offices and other facilities on Fort Rucker during FY07 (see Appendix D). An estimated 183 tons of recyclables, comprised primarily of paper, used oil and batteries, were collected from non-residential facilities during FY07 based on data provided through recycling initiatives by the Environmental Office and the Hazardous Material Control Center (HMCC). This allowed Fort Rucker to have a seven percent diversion rate for FY07. In FY13 Fort Rucker was able to increase diversion to 706.47 tons of recyclable items, allowing Fort Rucker to have a 27.7 percent diversion rate for non-residential facilities. Diverted recyclable materials consisted of paper, cardboard, used oil, all types of batteries, electronics, wood and pallets, scrap metal, steel, aluminum, copper, expended brass, plastics, glass, toner cartridges, petroleum contaminated soil, and absorbent continued use items. Appendix D provides a summary by waste type that has been diverted from the landfill each year since 2009.

5.2 SPECIAL WASTES

Commercial and industrial activities on Fort Rucker result in the generation of certain non-hazardous solid waste that cannot be disposed of as general refuse. These wastes are turned in by the generator to DLADS for recycling or disposal by a

contractor. These wastes include, but are not limited to: tires, used oil, absorbent with petroleum products, adhesives, grease, latex paint, and scrap metal. Fort Rucker may be able to reduce the disposal of these types of wastes through working with the HMCC and LRC on green purchasing measures.

5.3 CONSTRUCTION AND DEMOLITION (C&D) WASTES/RECYCLABLES

C&D projects of buildings, parking lots, roads, and sidewalks on Fort Rucker provide opportunities for the recycling of building materials. Currently, Fort Rucker C&D contracts do not require the recycling of materials. The demolition of WWII-era and other buildings on Fort Rucker provides opportunities for recycling of building materials. C&D wastes have high recycling potential, including items such as aggregates, metals, wood, asphalt, concrete, and cardboard. Materials with possible recycling potential include glass, plastics, asphalt, concrete, metal, carpeting, and gypsum wallboard and lumber.

According to an EPA study conducted in 2003, C&D debris accounts for an estimated 35 to 40 percent of the municipal solid waste stream. Disposing of debris in landfills is both economically and environmentally costly. Landfilling debris unnecessarily wastes both natural resources and valuable landfill space. Alternatives to conventional demolition and landfilling wastes have proven to reduce solid waste volume, avoiding costs for landfill tipping fees, and even providing a source of revenue from the sale or reuse of building materials. Furthermore, EO 13423 requires that beginning in FY08 all C&D contracts must include the cost for separation and recycling when the contract is bid and awarded. Completed copies of USAACE Form 2720, *Debris Recovery Plan and Statement*, (Appendix B) should be submitted to the Solid Waste Manager so that accurate solid waste diversion and recycling quantities can be tracked and reported to IMCOM via SWARWeb. The DOD Strategic Sustainability Performance requires diversion of 60 percent of C&D Debris FY2015, and thereafter through FY2020. Appendix D provides historical data of the amount of industrial solid waste, C&D waste and documents recycling initiatives. Fort Rucker has adopted the goal of 60 percent diversion of C&D materials from the landfill and during FY13 Fort Rucker documented a diversion of 77.7 percent of C&D waste.

5.4 ASBESTOS

DPW performs some asbestos removal. The amount of asbestos generated each year varies greatly depending partly on the nature and extent of the building demolition projects and partly on other asbestos-generating activities. Some asbestos removal is also performed by contractors. All asbestos removed under contract is the responsibility of the contractor and it is not stored on Fort Rucker or transported by Fort Rucker personnel.

5.5 RESIDENTIAL WASTES/RECYCLABLES

Residential wastes are collected from the curbside by a contractor. The contractor also collects recyclables from the curbside. The contractor follows a prescribed schedule for collection of general refuse, bulky wastes, and recyclables. Maintenance and cleanliness of all collection vehicles is the responsibility of the contractor. The contractor is required to comply with all transportation, safety, health and environmental regulations as stipulated in the contract.

Waste generation reports from the housing area indicate that approximately 1,634 tons of residential wastes went to the Coffee County Landfill in 2007 and 130 tons of recycled materials were collected. Since family housing at Fort Rucker has been privatized waste and recyclables will not be reported in the SWARWeb reports or used to determine solid waste diversion rates for the installation.

In the PPA, EPA designated source reduction as the highest priority for effectively managing the solid waste stream. Benefits are derived from reducing solid waste in the form of natural resource conservation, reduction in treatment/disposal costs, and removal of risks and liabilities associated with disposal. Source reduction differs from recycling in that it focuses on reducing the waste stream at the source, to include procurement policies (environmentally preferable purchasing) and the way products are used (and reused). Source reduction, according to the EPA definition, also includes the reuse of materials with little or no processing involved. Planning and implementing source reduction measures play a vital role in meeting waste reduction goals.

6.1 GREEN PROCUREMENT

6.1.1 Overview

Green procurement is the purchase of environmentally beneficial products and services in accordance with one or more of the established federal procurement preference programs. Federal agencies are required to establish a Green Procurement Program (GPP) to meet the requirements of the EPA Buy Recycled program and the U.S. Department of Agriculture (USDA) BioPreferred program. The GPP includes the following categories:

- Recovered materials
- Environmentally preferable products
- Energy and water efficient
- Biobased
- Alternative fuels and fuel efficiency
- Non-ozone depleting substances
- US EPA Priority chemicals

All installation activities involved in purchasing, including government credit card holders, should be made aware of and expected to follow the green purchasing program. Purchasers can use references such as the General Services Administration (GSA) Environmental Products Guide and the Defense Logistics Agency (DLA) Catalog of Environmental Products to help make purchasing decisions.

Green procurement has many environmental benefits, including creating markets for recycled and biobased materials, conserving resources, saving energy, saving landfill space, and reducing pollution. The types and amounts of wastes generated on an installation are a direct result of the products purchased and used. Making better choices of products, such as those with reduced packaging or lower toxicity, impact the rates of generation, disposal methods, and cost of disposal. Although many green procurement practices do not actually reduce amounts of waste generated, green procurement is considered a key component of integrated solid waste management. Buying products with recycled content completes the circle, stimulating the market for recycled materials, conserving natural resources, and saving energy otherwise used to make products from virgin materials.

6.1.2 Mandates

DOD issued its original green procurement policy in 2004 and issued an updated strategy document in December 2008. This policy reaffirmed a goal of 100 percent compliance with federal laws and Executive Orders requiring the procurement of green products and services. The policy was accompanied by a strategy document that outlines steps for meeting those requirements and contains metrics for measuring progress. The Army also published a green procurement policy in November 2006 formalizing the Army commitment to green procurement compliance. The revised *Army Installation Green Procurement Program Implementation Guide*, published in December 2010, provides detailed instruction on implementing a green procurement program at Army installations.

The primary regulatory drivers are RCRA Section 6002, Federal Acquisition Regulation (FAR) Part 23 (48 CFR), Executive Order 13423, and the 2002 Farm Security and Rural Investment Act (FSRIA). The Comprehensive Procurement Guidelines (CPG) (40 CFR 247) contains a list of products designated by the EPA that contain recovered material. Title IX of the FSRIA requires federal agencies to show preference for biobased products as part of their green procurement programs. The USDA designates items that must contain biobased content. EPA- and USDA-designated product lists are available at <http://www.epa.gov/cpg/>.

6.1.3 Fort Rucker Green Purchasing Program

The Fort Rucker Green Purchasing Policy is to consider green products and services as the first choice in all procurements and that all Fort Rucker personnel will purchase

and use environmentally preferred products and services in every possible situation. Program goals and general program requirements are outlined in the Draft Fort Rucker Green Purchasing Plan.

Implementation of this program will help with overall source reduction efforts and help improve recycling markets. Elements of the program that will help with source reduction include:

- Procuring materials with less packaging
- Purchasing materials that are recyclable
- Purchasing items that are reusable
- Procuring products made with recovered material

6.2 POLLUTION PREVENTION (P2)

The PPA established Pollution Prevention (P2) as a national objective in reducing wastes at the source. P2 is achieved by reducing the toxicity and/or the quantity of the waste generated, through such tools as material substitution, use of raw materials, procurement policies, or process changes. Most of the P2 measures taken will effectively reduce the generation of solid waste. In some cases, however, reducing the use of hazardous constituents in a process results in the creation of more non-hazardous solid waste, which is an acceptable trade-off.

The Fort Rucker policy is to prevent pollution from all sources to the extent practicable through implementation of source reduction, reuse, and recycling initiatives for all environmental media areas. The installation maintains a P2 Plan in accordance with Army requirements that specifies the particular initiatives currently being implemented and planned for the future at Fort Rucker.

6.3 MANAGEMENT PRACTICES

Everyday management practices can be implemented to decrease the amount of solid waste generated. Each organization should take steps to implement their own policies for reducing waste generation. The following are examples of some initiatives that could be implemented to reduce waste generation:

- Eliminating stockpiling of materials (order only what will be used);

- Using e-mail in place of written memos whenever possible;
- Saving e-mail messages to files rather than printing out;
- Sending mail in reusable "shotgun" envelopes;
- Reusing file folders (put stick-on labels over previous folder labels);
- Using routing slips in place of multiple copies;
- Using old documents for scratch paper;
- Using word processing features to condense pages, using less paper;
- Using "print view" features to reduce printing mistakes and paper waste;
- Turning in toner cartridges to the recycling center (bldg. 9322);
- Making double-sided copies;
- Providing proper maintenance for copiers and printers;
- Returning or reusing pallets and wooden shipping crates;
- Providing award incentives for innovative ideas or exceptional achievements in waste reduction, recycling, or green purchasing;
- Saving binders for reuse; and
- Using reusable materials rather than disposable materials (i.e., coffee mugs instead of Styrofoam® cups).

Material reuse is defined as using materials again without changing their form either for their original intended purpose or for another related purpose. Fort Rucker encourages reuse at all functional levels and at all organizations on the installation. Implementation of reuse initiatives will help meet solid waste program goals for reducing disposal. Fort Rucker attempts to identify all areas where reuse measures can be implemented prior to turning items in for recycling and/or disposal. This section describes some of the reuse initiatives currently in place.

7.1.1 Free Issue Hazardous Materials

Excess hazardous materials can be turned in to the HMCC for addition to the free issue inventory. Any type of hazardous material is accepted into the inventory as long as it has remaining shelf-life and could be utilized by another installation organization. Organizations that have a requirement for hazardous materials, especially smaller quantities, are encouraged to check the inventory prior to making a purchase. This initiative reduces the amount of waste disposed as well as decreasing the quantity of materials purchased, eventually saving additional disposal costs.

7.1.2 Battery Management Program

Fort Rucker generates a large quantity of batteries from military-specific applications such as radios, vehicles (both military and civilian), flashlights, computers and cell phones. Batteries that are required in Aviation Life Support Equipment (ALSE) (radios, headlights, flashlights) as new batteries are placed in each item every time the items are issued. The batteries that are removed from the ALSE equipment are made available to aircraft maintenance personnel for use in music radios, work flashlights, clocks and other items. This ensures re-use of batteries that may have only been used one time.

Once the batteries are used and no longer hold a charge they are to be returned to the HMCC. The HMCC then turns the batteries in for recycling through the DLADS or another outside contractor. Procedures for managing and turning in batteries can be found EMS-WI-SW002, *Waste Battery Management*.

7.1.3 Wood Pallets and Wooden Shipping Crates

Wood pallets are generated by installation organizations when receiving various pieces of equipment and multiple types of supplies. Organizations generating pallets

and crates may take them to the wood yard for recycling after coordination with personnel at the recycling center (bldg. 9322). Pallets are re-used or may be picked up by local businesses for re-use, or are ground up for mulch

7.1.4 Soil Reuse

Excess soil is generated as a result of various grading, renovation, and construction projects. This soil is generally free of contaminants and can be easily reused for other purposes. The soil is taken to borrow pits located on Fort Rucker to be used as fill dirt in the future. Procedures for obtaining and turning in excess soil to the borrow pits can be found in EMS-WI-WA002, *Soil Stockpiling and Borrow Pit Use*.

7.1.5 Absorbent Continued Use

Fort Rucker has an absorbent continued use program in which work rags, spill pads, socks, wipes, pillows, gloves, and mop heads are locally procured from an Absorbent Continued Use Company. Once the absorbent materials have been used they are collected and picked up by the Absorbent Continued Use Company. The Company then launders the absorbent materials and returns them to the users. GC Policy Memo 13-23 dated 9 JAN 2013 requires all organizations participate in the Continued Use Program. Procedures for purchasing the Absorbent continued Use items can be found in EMS-WI-SW009, *Absorbent Continued Use Program*. Additionally, organizations are required to track and report the Absorbent Continued Use items and report the diversion from the solid waste landfill or hazardous waste generation to the DPW-ENRD Office on USAACE Form 2732, *Continued Use Absorbents Tracking Document* (Appendix E).

Composting is an aerobic degradation process that decomposes plant and other organic waste under controlled conditions. Programs may consist of yard wastes only (leaves and grass clippings) or may be a compostable municipal solid waste program, using yard wastes, food wastes, and other degradable organic matter. Composting procedures include collecting wastes, forming waste piles, and aerating the material until an organic-rich material is produced. Backyard composting is operated by individual homeowners with little or low technology equipment. Centralized programs are accomplished at a centralized location and operated by installation personnel using mechanical equipment to turn over (aerate) the pile. End uses include mulches and soil conditioners used in landscaping and gardens.

DOD Instruction 4715.4 requires that each installation will, as practical, operate a composting program or participate in a regional composting program. Composting programs, although not considered recycling programs, are an important diversion mechanism for diverting organic materials from the landfill. Participation in a composting program increase the diversion totals and helps installations meet the DOD diversion goal of 50 percent by 2015.

The installation does not currently participate in a composting program. Army Environmental Command (AEC) completed a Draft Feasibility Study of Composting for Organic Solid Waste in June 2014. The study provided Fort Rucker with an analysis of the feasibility of establishing an on-site compost operation. AEC is still in process of gathering and verifying Fort Rucker-specific-data to determine what, if any staged start up approach should be recommended.

9.1 PROGRAM STATUS

Executive Order 13423, Section 2e mandates that each agency increases diversion of solid waste, as appropriate, and maintains cost-effective waste prevention and recycling programs in its facilities. This program takes the form of a QRP when funds received from the sale of recyclables are returned to the installation's recycling account, and in turn distributed to environmental, safety, and MWR programs. The Executive Order requires that each installation has a designated recycling coordinator. The Fort Rucker recycling coordinator is the QRP Manager within DPW-ENRD.

Sales are either direct sales or go through DLADS. All funds are put into the installation's QRP fund and disbursed according to applicable regulations. Proceeds from the Fort Rucker curbside recycling program in the housing areas do not go into the QRP because the Military Housing Contractor handles these recyclable materials as part of the privatization initiative.

The Fort Rucker recycling program is operated in accordance with federal, state, and Army regulations. Fort Rucker is in the process of preparing QRP additional documentation and guidance.

9.2 PROGRAM STRUCTURE

The QRP is managed by personnel in DPW-ENRD. The QRP Manager and the Solid Waste Program Manager work together to identify and implement recycling opportunities, promote the QRP and achieve designated recycling and solid waste management goals. The program utilizes both government and contract personnel to run the Recycling Center and pick up recyclables from various installation areas.

9.3 RECYCLED MATERIALS AND STORAGE/COLLECTION PROCEDURES

9.3.1 Aerosol Cans and Metal Filters

Empty or unusable aerosol spray cans are returned to the HMCC to be punctured, contents removed and crushed and placed in a scrap metal bin. Metal oil cans, metal fuel filters and oil metal oil filters are also returned to the HMCC to be drained and crushed according to EMS-WI-007, *Management of Used Oil and Fuel Filters*. These

items are then sold as scrap metal for recycling at the current market value through the QRP.

9.3.2 Batteries

9.3.2.1 Alkaline Batteries

LRC manages the battery recycling program through the HMCC. All used alkaline batteries are to be returned to the HMCC where they are accumulated and then turned in to DLADS for recycling. Organizations may collect the used alkaline batteries in boxes or 5-gallon buckets which are labeled "Used Alkaline Batteries". Once the box or bucket becomes full, the unit or organization should turn the used alkaline batteries into the HMCC for recycling.

9.3.2.2 Lithium, Mercury, Magnesium, Nickel-Cadmium, and Silver Batteries

As with the alkaline batteries, LRC manages the battery recycling program through the HMCC. All used lithium, mercury, magnesium and nickel-cadmium batteries will be managed as Universal Waste. A separate box or bucket will be used to collect each different type of battery. The box or bucket will be labeled with the words "Universal Waste", the type of battery (i.e. lithium) and the date that the first battery was placed into the box or bucket. All containers used to collect Universal Waste Batteries will be maintained closed at all times except when it is necessary to add or remove batteries. The unit or organization may collect the batteries up to six months. When the six month period is reached or when the container becomes full, the unit or organization should turn the Universal Waste Batteries into the HMCC for recycling.

9.3.2.3 Lead-Acid Batteries

LRC manages the lead-acid batteries program. LRC has arranged for some large quantity generators of lead-acid batteries to have a scheduled pick-up of the used lead-acid batteries on a routine schedule. These used lead-acid batteries are accumulated at the point of generation such as motor pools or supply points and picked up by a company that provides LRC with a core credit for each battery returned.

For organizations that do not have a routine scheduled pick-up of lead-acid batteries the used batteries must be managed as a Universal Waste. Used lead-acid batteries

may be accumulated in a storage container or on a wooden pallet inside of a building. The area must be marked as “Universal Waste Accumulation, Lead-acid Batteries”. If storage inside of a storage container either the outside of the container must be labeled with the date that the first battery was placed into the container OR each individual used battery must be marked with the date it was taken out of service. If the lead-acid batteries are accumulated on a wooden pallet each individual used battery must be marked with the date it was taken out of service. The unit or organization may collect the batteries up to six months. When the six month period is reached or when the container becomes full, the unit or organization should turn the Universal Waste Batteries into the HMCC for recycling.

9.3.3 Housing

The Military Housing solid waste contractor operates a curbside recycling program in the housing areas of the installation. The contractor provides recycling bins for each home. The materials are co-mingled at the source. The residents are asked to rinse the materials before placing them in the recycling bins.

9.3.4 Tires and Metals

The recyclables that are processed through DLADS (tires and metals) are segregated prior to bringing them to the DLADS yard. Individual organizations are responsible for bringing these materials to DLADS. The materials are stored by DLADS until a marketable amount of recyclables is collected.

9.3.5 Used Oil and F-24

Used oil and off-spec F-24 are collected and stored in above ground tanks at various locations. The operators who generate the used oil and off-spec oil are responsible for ensuring that the used oil and off-spec F-24 are handled according to the Fort Rucker Integrated Waste Management Plan. All containers of used oil and off-spec F-24 will be marked with the words “USED OIL” or “OFF-SPEC F-24”. Signs will be posted at the used oil collection point stating “Used Oil Only”. An overflow protection mechanism must be utilized on all organizations storing used oil (e.g 55-gal drums, tanks, etc.). When containers or tanks become nearly full, the unit or organization must contact the Environmental Office to coordinate a pick-up by the contractor for recycling/fuel blending.

9.3.6 Electronics

All government owned electronics are managed by the Network Enterprise Center (NEC). All outdated electronics are processed through NEC where they are either distributed for reuse or are turned in for recycling. All electronics not on a hand receipt can be turned into the Recycling Center for recycling.

9.3.7 Fluorescent Bulbs

LRC manages the fluorescent bulb recycling program through the HMCC. Organizations that generate bulbs intermittently can take them to the HMCC and get a voucher to receive new bulbs from Self-Help Supply. Organizations that generate larger quantities must accumulate the used bulbs in a designated Universal Waste area that is labeled "Universal Waste Accumulation – Fluorescent Bulbs." All used bulbs will be collected in cardboard boxes or other containers that are labeled "Used Fluorescent Bulbs." Containers used to collect Universal Waste Bulbs will be maintained closed at all times except when it is necessary to add or remove bulbs. The unit or organization may collect the bulbs up to six months or until the container becomes full. When the six month period is reached or when the container becomes full, the unit or organization should turn the Universal Waste Batteries into the HMCC for recycling.

9.3.8 Brass and Mixed Metal

LRC manages the expended brass and mixed metals gleaned from firing ranges. Spent brass and mixed metals are accumulated at the Ammunition Supply Point in 2-ton hoppers and then sold through the QRP. The purchasing contractor then demilitarizes the spent brass and mixed metals.

9.3.9 Mercury Containing Equipment

Mercury containing equipment such as thermostats and thermometers are collected by the generator and processed through the HMCC for turn-in to DLADS as a Universal Waste. Organizations that generate Universal Waste Mercury must accumulate the used the mercury containing equipment in a designated Universal Waste area that is labeled "Universal Waste Accumulation – Mercury Containing Equipment." All mercury containing equipment must be collected in cardboard boxes, plastic bucket or other containers that are labeled "Mercury Containing Equipment."

Containers used to collect Universal Waste Mercury will be maintained closed at all times except when it is necessary to add or remove mercury containing equipment. The unit or organization may collect the mercury containing equipment up to six months or until the container becomes full. When the six month period is reached or when the container becomes full, the unit or organization should turn the Universal Waste Mercury into the HMCC for recycling.

9.3.10 Office Paper

Office paper is consolidated into 90-gallon recycling carts, and shredded paper is bagged for pick-up by the Recycling Center Technicians. Boxes and pallets of paper, manuals, binders, etc. may be picked up as needed. The paper is then taken directly to a Recycling Company which pays the QRP quarterly for the paper.

9.3.11 Cardboard

Cardboard is flattened and consolidated by the generators and picked up by the Recycling Technicians. The collected cardboard is then baled and placed on pallets in the Recycling Center and sold through the QRP.

9.4 CONTRACTED OPERATIONS

The Recycling Program is very diverse due to the wide variety of waste generated and recycling opportunities. There are three contract employees that serve as Recycling Technicians at the Recycling Center. Their responsibilities include collection and processing of recyclable materials that are managed by the Recycling Center. All sales of recyclables are performed by the DPW-ENRD.

The HMCC is a contract operation that is managed by LRC. Their responsibilities include hazardous material management which allows for the collection of hazardous material containers back from the users. Additionally, the HMCC is responsible for receiving and processing all regulated, universal and hazardous waste generated on Fort Rucker. All recyclable materials handled by the HMCC are currently processed through DLADS.

9.5 PUBLICITY AND PROMOTION

DPW-ENRD is responsible for the majority of publicity, promotion, and community education activities relating to the Fort Rucker recycling program. A plan for promoting the Fort Rucker recycling program is addressed in Section 11.3.

9.6 MARKET RESEARCH

The QRP Manager/Solid Waste Program Manager, the Sustainability Program Manager and the P2 Manager must work cooperatively to identify new materials that could be recycled. These managers will conduct opportunity assessments that determine the feasibility of implementing new recycling processes. The QRP manager is primarily responsible for researching available markets for the identified recyclable materials as part of the opportunity assessments.

9.7 FUNDING AND FINANCIAL ACCOUNTABILITY

Funding Mechanisms and procedures for Operating QRP

The Fort Rucker recycling program is a formally established QRP. Revenues from recovering recyclable materials are posted to the Budget Clearing Account (BCA) by DFAS. They are then disbursed to cover recycling program operating expenses and approved projects. The QRP must cover all operating expenses annually before designating funds for any qualifying projects. The QRP will make all efforts to reinvest funds to grow the recycling program.

The QRP annual budget for the upcoming fiscal year will be proposed in June and voted upon no later than the September QRP meeting. Upon approval, GRMO will transfer funds to appropriate agency accounts.

Accounting Procedures for Distribution of Recycling Proceeds

The proceeds from the sale of recyclable materials will be dispersed according to the following hierarchy:

Proceeds shall first be used to cover the costs directly attributable to all Fort Rucker recycling programs, including, but not limited to, manpower, facilities, equipment, overhead, and other capital investments. Ensure amounts are sufficient to cover the

costs of operations, maintenance, equipment and overhead for processing recyclable materials at Fort Rucker. All expenses outlined in the approved annual budget must be funded before using sale proceeds for environmental projects or DFMWR programs.

After these costs are recovered, up to 50 percent of the remaining proceeds may be used for pollution abatement and prevention, composting, alternative fueled vehicle infrastructure, alternative vehicle conversion, energy conservation, occupational safety and health projects. A project may not be carried out under the proceeding sentence for an amount greater than 50 percent of the amount established by law as the maximum amount for a minor construction project, or to exceed the minimum balance in the QRP account. Any remaining proceeds may be accumulated in the recycling account or transferred to the non-appropriated DFMWR account for appropriate DFMWR programs. In addition MWR cannot use the QRP money for projects/initiatives that do not benefit the Community. QRP proceeds shall not be transferred from the Budget Clearing Account (BCA) or distributed without the approval of the QRP Committee and the funds authorization of the Garrison Commander (GC). If the balance available to the installation at the end of the fiscal year is an excess of \$2,000,000, the amount of that excess will be transferred to the U.S. Treasury miscellaneous receipt account.

Accounting Methods

QRP committee approved expenses and environmental projects will be paid using any of the following methods:

1. Invoice accompanied by SF Form 1034 "Public Voucher for Payment for Purchases and Services other than Personnel." This is the preferred method to reimburse non-appropriated fund labor and supplies, if the recycling program utilizes any.
2. Direct fund cite.
3. Process creation of on-post customers. A reimbursable customer number at Directorate of Public Works (DPW) would be created with an estimated ceiling. At the end of the month, generate a bill, charge the recycling account and reimburse the DPW customer number.

Funds will not be transferred to the non-appropriated DFMWR account without QRP approval.

9.8 RECORDKEEPING

QRP Documentation Procedures

The Recycling Manger will:

1. Prepare and submit an annual recycling program budget for review and approval by the QRP Committee. The budget will identify and describe operational expenses and projected revenues. The annual budget will be submitted for review at the June QRP Committee Meeting each fiscal year.
2. Establish and maintain a property book for accountability of all equipment and resources available to the recycling program. All equipment and resources will be hand receipted, as needed, to Fort Rucker organizations, units and tenant activities.
3. Establish an accounting and control system for recycling programs which provides detailed management and audit information, tracks material quantity handled, calculates sales and handling costs for recycling material, and tracks expenditures made for appropriate projects and DFMWR programs. Integrity of the audit will be priority concern.

QRP Financial Management Recordkeeping

The GRMO will:

1. Establish and maintain a clearing account for the deposits of proceeds and ensure that all collections are accumulated in this account as received.
2. Ensure that all collection vouchers are issued for funds received in the clearing account and contain complete accounting classification. Copies of collection vouchers shall be provided to the QRP Manager.
3. Establish an accounting and control system for recycling programs which provides detailed management and audit information, tracks

material quantity handled, calculates sales and handling costs for recycled material, and tracks expenditures made for appropriate projects and DFMWR programs. Integrity of the audit will be priority concern.

9.9 CALCULATIONS OF DIVERSION RATE

The diversion rate of solid waste is determined by calculating the percentage of non-hazardous solid waste that is composted, mulched, recycled, reused, or donated compared to the amount of non-hazardous solid waste that is shipped to the landfill.

The diversion rate formula is as follows:

$$(R/(R+L))*100=\text{diversion rate (percent)}$$

R= amount (in tons) of non-hazardous solid waste (including construction and demolition debris) that is composted, mulched, recycled, reused, donated or otherwise diverted from the disposal facility.

L= amount (in tons) of non-hazardous solid waste (including construction and demolition debris) transferred to a disposal facility.

The waste diversion table in Appendix D uses this formula to determine Fort Rucker's past diversion rates. Fort Rucker has incorporated the DOD diversion goal of 50 percent solid waste and 60 percent C&D waste diverted from the landfill by 2015 and annually thereafter until 2020.

10.1 RECYCLING CENTER

The recycling facility is located in Building 9322, on 3rd Avenue. The facility is approximately 19,000 square feet in size. The facility serves as a processing, packaging, and transport center. Behind the building is 16,000 square feet that is fenced and gated to control entry and ensure safekeeping of commodities and equipment.

Recyclables are collected from installation facilities Monday through Friday based on a schedule. Additional pickups due to special circumstances (e.g. clearing out files, moving, etc) may be scheduled by contacting the Recycling Center at 255-0468. Changes are made to the collection schedule when recycling pickups are determined to be excessive or too infrequent based on the organizations rate of generation.

Organizations may bring recyclable materials to the Recycling Center during normal business hours of 0730 - 1530. Organizations should enter the facility utilizing the driveway on the south side of the building. All turn-ins will be taken in to building 9322 and placed in designated bins during drop off hours. Organizations will receive credit for the incentive program as described in EMS-WI-SW012, *QRP Incentive Program*, for applicable commodities turned in to the Recycling Center. There are drop off containers behind the Recycling Center for dropping off segregated commodities on the weekend. Weekend drop off containers should not be used during regular business hours.

Recyclables currently processed by the Recycling Center are as follows:

- Cardboard
- Office paper
- Aluminum Cans
- Plastic Bottles
- Glass
- Printer and Toner Cartridges
- Scrap Metal
- Used Cell Phones

- Electronics

10.2 DEFENSE LOGISTICS AGENCY DISPOSITION SERVICES (DLADS)

The most visible function of the DLADS is the public auctioning of reusable, demilitarized, or non-military goods. Although sales include a wide variety of items from office supplies to appliances, DLADS also markets expendable military items through auctions; these materials, such as old uniforms and canteens, typically end up in private Army surplus stores. DLADS is tasked with establishing a market for the reutilization, sale, or donation of reusable/recyclable goods. In the event that a market cannot be established, the DLADS will store the material as long as possible and will landfill only as a last resort.

Currently, DLADS is processing the following recyclable materials, either at the point of generation or in the DLADS staging area for recycling:

- Scrap Metal
- Scrap Tires
- Off-spec F-24/F-24
- Used Oil
- Used Cooking Oil
- Batteries (alkaline, Lithium, Ni-Cad, Mercury, Lead-Acid, Silver)
- Lamps Containing Mercury
- Electronics

10.3 HAZARDOUS MATERIAL CONTROL CENTER (HMCC)

The HMCC is responsible for managing hazardous materials for the tenants and organizations on the installation. As part of the service they provide they either collect or receive deliveries of empty containers from the hazardous material users. These items are segregated by the HMCC personnel into collection bins for recycling. The following items are currently being processed by the HMCC for recycling through the QRP: Aerosol Cans, Oil Filters, Metal Oil Cans, Metal Paint Cans.

The HMCC also manages the Fort Rucker 90-day Hazardous Waste Accumulation Site and processes all Universal and Hazardous Waste through DLADS.

10.4 MUNICIPAL SOLID WASTE LANDFILL

All non-hazardous solid waste that is not turned in to DLADS or the Recycling Center is disposed of in the Coffee County Landfill. The landfill is approximately 30 miles from Fort Rucker, and 8 miles from Elba, AL and operates under Permit No. 16-10 for Municipal Solid Waste. The landfill services surrounding counties in Alabama, Florida, and Georgia. The Coffee County Landfill was opened in 1993 with an expected closure year of 2067. The Coffee County Landfill on average receives 1,200 tons of waste per day.

10.5 CONSTRUCTION AND DEMOLIATION DEBRIS LANDFILL

Construction and Demolition (C&D) waste goes to either the Coffee County Landfill or Rose Hill Landfill. The Rose Hill Landfill is located in Midland City, Dale County, AL and operating under Permit No. 23-07 for C&D Waste.

11.1 PROMOTIONAL TOOLS

Education, publicity, and outreach programs are essential to the success of the solid waste management and recycling programs. In particular, promotion of the waste reduction and recycling programs must be wide spread in order to obtain continual improvement of the recycling quantities and reduction in solid waste generation.

DPW-ENRD has primary responsibility for promotion of the solid waste and recycling programs. Educating the installation population on issues relating to solid waste and recycling is essential for a successful program. DPW-ENRD has developed instructor-led training courses that include information about pollution prevention, solid waste management and recycling. The Fort Rucker Environmental Office also maintains a website that provides information about the Fort Rucker Recycling Program and an informational brochure designed to inform all segments of the installation about proper management of solid waste and recyclable materials. Below are suggestions for increasing awareness on Fort Rucker of the Solid Waste and Recycling Programs.

11.2 PUBLIC AWARENESS

Public education is an integral part of a solid waste management program, particularly a recycling program. On most Army installations, the public has daily interactions with the soldiers and civilians who work there. Waste-generating operations directly affect both the workers and surrounding communities. Legislation such as EPCRA has reinforced the need to keep neighbors informed of Army activities, and has heightened the general awareness of the public sector.

Periodic articles published in the *Army Flier* advocating solid waste issues and highlighting the Fort Rucker Recycling Program should be optimized to the fullest extent possible to increase awareness. Suggested topics include information about the recycling program; changes to the solid waste collection schedule, particularly due to holidays; general waste management information; programs that the environmental office is organizing; and information about Earth Day and America Recycles Day activities.

Earth Day and America Recycles Day activities are opportunities for educating both the installation and surrounding communities on the benefits of recycling and general information about solid waste management. DPW-ENRD should use this opportunity to provide information to the installation schools and local schools.

11.3 PROMOTIONAL STRATEGIES BY PROGRAM AREA

This section identifies the activities or individuals that are responsible for promoting each of the following program areas: source reduction, green purchasing and recycling. This section also includes, for each program area, other offices that will assist and support the dissemination of information and advertisements and details of promotional methods specific to each program area.

11.3.1 Source Reduction

DPW-ENRD is responsible for promoting source reduction. The Solid Waste Program Manager has primary responsibility for this aspect of waste management. The Solid Waste Program Manager, QRP Manager, Sustainability Program Manager and P2 Program Manager work together to develop source reduction initiatives and to promote these programs throughout the installation. The Compliance Team is a key component to the education of the installation on initiatives being implemented. During compliance assessments, the team can share the goals and objectives of this ISWMP and the Recycling Program to encourage and enhance participation in the solid waste diversion and recycling efforts.

11.3.2 Green Procurement

The Mission Installation Contracting Command (MICC) has primary responsibility for the installation green purchasing program. All promotional methods are discussed in the Green Purchasing Plan.

The environmental office will assist MICC with technical information and implementation of the program. The EMS, Sustainability and P2 Program Managers will be the primary points of contact for the environmental office. The compliance assessment team will aid in distribution of information to individual organizations.

MICC will ensure that all appropriate clauses are included in the contracts and specifications. This portion of the program will be implemented upon completion of the development of the green purchasing program. Specifications for US Army Corps of Engineer projects already include green purchasing.

11.3.3 Recycling

DPW-ENRD has primary responsibility for promotion of the Recycling Program. There are various promotion tools already in operation at Fort Rucker that can serve the DPW-ENRD in heightening the public awareness of the Recycling Program. A few of these avenues for promotion are the *Flying Green* newsletter, articles in the *Army Flier Newspaper*, Military Housing Contractor's Newsletter, E-TV located in the Soldier Service Center, closed circuit TV, posters, Recycling Brochure, and in-processing training. Other avenues for public awareness would be to include recycling program information in all environmental training classes; brief recycling successes at monthly, quarterly or other meetings; and presenting the recycling program in "town hall" meetings. Participation in activities for Earth Day and America Recycles Day at installation schools, youth services, child development facilities and in the surrounding communities.

11.4 ENVIRONMENTAL QUALITY CONTROL COMMITTEE (EQCC)

The EQCC, which is chaired by the Garrison Commander, is the ideal forum to discuss concerns regarding solid waste management, recycling, or procurement issues. The Solid Waste Program Manager is the POC for solid waste issues at the quarterly EQCC. The EQCC should discuss and identify tasks relating to solid waste issues that will be followed up on at subsequent meetings.

11.5 TRAINING

Proper and relevant training is integral to the success and safety of solid waste management operations and recycling programs. Training programs may be in the form of formal training courses, correspondence courses, hands-on applications, or attendance at seminars and conferences.

Through multiple environmental training courses, Fort Rucker provides instruction to soldiers and civilians on the keys to successfully maintaining and managing the main waste streams of Fort Rucker. This training allows Fort Rucker to convey their primary policies for managing solid waste, which are:

- All organizations will minimize solid waste generation through pollution prevention actions which will be specified by DPW-ENRD, including maximizing recycling and reuse when available in order to reduce the

amount of waste going to a landfill and subsequently reduce the negative impacts on the environment and the training areas.

- All organizations will comply with applicable Federal and State regulations as well as the requirements applicable to their operations that are included in the ISWMP and AR 200-1.
- All C&D activities will ensure the management of wastes in a manner such that a significant amount of the materials generated can be reused in their original form with little or no processing, through systematic disassembly or deconstruction, more careful handling, segregating, and making them available to specialized markets.
- All personnel will dispose of waste in a sanitary, non-polluting, aesthetic manner.
- Protect public health, safety and the environment.
- Develop procedures to educate all purchasing activities, including government credit card holders, in environmentally preferable buying practices. MICC is the primary organization for the green purchasing program. The Solid Waste Program Manager will assist DOC as necessary to ensure compliance with the applicable regulations.

12.1 SOLID WASTE ANNUAL REPORTING SYSTEM

The SWARWeb is a tool for tracking and reporting solid waste information on DOD facilities. SWARWeb is intended to eliminate the need for installations to enter data into more than one system. It serves as a flexible data tracking and analysis tool at the installation-level, as well as a reporting tool to provide data to higher levels. The system can compare data with DOD metrics and provide trend analysis of solid waste data.

SWARWeb has the capability of generating reports containing the following information.

- Solid Waste Management Information
 - Solid waste disposal records
 - Disposal costs, methods, and transactions
 - Recycling costs, methods, and transactions
 - Quantities of solid waste generated
 - Quantities of solid waste recycled or disposed
 - Historical information
- Annual Reporting Information
 - Disposal and recycling transaction reports
 - Solid waste inventory reports
 - Composition of solid waste recycled
 - Disposal costs and methods
 - Custom ad hoc reports

The Solid Waste Program Manager is responsible for inputting data into SWARWeb and for reporting the information to IMCOM on a biannual basis or as requested by IMCOM. The data is maintained on SWARWeb and reports are submitted electronically from the website.

The Solid Waste Program Manager obtains recycling information from DLADS that includes universal waste, tires, metals, F-24 and used oil.

12.2 CONSTRUCTION AND DEMOLITION (C&D) RESOURCE RECOVERY REPORTING

Army policy in the Unified Facilities Guide Specifications (UFGS) 017419 and UFGS 015720 requires reporting on C&D resource recovery and disposal. UFGS 017419, Section 1.7, Records, specifies the information that must be documented regarding waste generation, diversion, and disposal and how the records must be maintained and submitted. UFGS 017419, Section 1.8, Reports, includes requirements for reporting C&D waste management data. For all Army projects, monthly reports must be submitted to the SWARweb coordinator, which is the Solid Waste Program Manager at Fort Rucker. All reports must include the project name; information for waste generated this quarter and cumulative totals for the project; supporting documentation to include manifests, weigh tickets, receipts, and invoices specifically identifying the project and waste material; and timber harvest and demolition information, if any. Contractors on Fort Rucker are required to use USAACE Form 2720, *Debris Recovery Plan and Statement*, (Appendix B) for reporting this information.

12.3 REFUSE COLLECTION AND RECYCLING REPORTING

Monthly invoices of solid waste transported to the Coffee County Landfill are submitted to the DPW-ENRD for tracking purposes. Weekly, monthly and quarterly reports are prepared for quantities of materials collected, processed and shipped off for recycling. The DPW-ENRD also tracks source reductions from hazardous materials management and continual re-use programs to document Fort Rucker's success in reaching the 50 percent diversion of solid waste goal established by the DOD.

13.1 LIMITATIONS OF CURRENT DISPOSAL CAPACITIES

The Coffee County Landfill is currently used by the installation for disposal of non-hazardous solid waste and has enough capacity to continue to accept Fort Rucker refuse for the foreseeable future. However, in the event that the Coffee County Landfill were unable to receive solid waste from Fort Rucker there is another potential landfill close by, Timberland's Sanitary Landfill in Escambia County, Rutledge, AL operating under Permit No. 27-08. Additionally, there are approximately four other solid waste landfills in the State of Alabama that will receive solid waste from across the state.

13.2 COST**13.2.1 Off-Post Disposal Costs**

Costs associated with solid waste disposal at the Coffee County Landfill under the current contract include a tipping fee of \$26.50/ton of solid waste and a fee of \$16.00/ton of C&D wastes. In addition to the tipping fees, the solid waste contract includes the dumpsters, roll-off containers and collection service which are between \$36,000 and \$38,000.00 per month.

13.2.2 Cost Avoidance

By diverting 50 percent of the solid waste from going to the Coffee County Landfill, Fort Rucker can reduce the initial solid waste disposal costs by approximately \$10,000 a month or \$120,000 per year. Once the goals have been reached for diversion of solid waste from the landfill, the solid waste contract should be re-evaluated to determine the number of dumpsters, collection schedule, and roll-offs needed. This should result in an additional reduction in the monthly service charges.

13.3 LEGAL FACTORS

No legal hindrances to solid waste management options are expected as long as the installation continues to manage the solid wastes in the current manner.

13.4 FEDERAL AND STATE POINTS OF CONTACT (POCS)

The following table contains a listing of federal and state points of contact for solid waste information.

**Table 13.3-1
List of Federal and State Solid Waste Management Offices**

Solid Waste Management Office	Contact Information	Phone / Fax
USEPA Office of Solid Waste	USEPA Office of Solid Waste (5305 W) 1200 Penn Ave NW Washington, DC 20460	Phone: 800-424-9346
USEPA Region 4	USEPA Region 4 345 Courtland Street, NE Atlanta, GA 30365	Phone: 404-347-4727
Alabama Department of Environmental Management (ADEM)	ADEM Montgomery Office P.O. Box 301463 Montgomery, AL 36130-1463	Phone: 334-271-7730

13.5 FUTURE ACTIONS

Begin imputing solid waste management data into SWARWeb on a monthly basis so that success toward reaching Fort Rucker's diversion goals is easily monitored. The Solid Waste Program Manager is the POC for SWARWeb. The solid waste contractor submits all disposal and recycling data to the COR on a monthly basis. The Solid Waste Program Manager gathers other recycling data from individual sources on post.

Periodically review this plan and the solid waste management program to evaluate their effectiveness and relevance. The Solid Waste Program Manager has primary responsibility for ensuring that the ISWMP is updated when changes to the management of solid waste occur. In accordance with AR 420-1, Section 23-11.a., the plan will be reviewed every five years or when significant changes occur in the installation mission or infrastructure. Examples of conditions that would warrant reevaluations of the plan are:

- Regulatory changes;
- Changes in the types or quantities of wastes generated;

- Reductions in the waste stream due to successful minimization/recycling programs;
- Changes in the availability of regional disposal facilities; and
- New or amended contracts that affect solid waste management.

13.6 RECOMMENDATIONS FOR WASTE DIVERSION

This section has suggestions or recommendations of actions that may help Fort Rucker to reach the 50 percent solid waste diversion goal.

- Aggressively implement the promotional tools identified in Section 11 to increase the amount of recyclable materials turned in for recycling instead of going in the solid waste dumpsters.
- Promote the metal container recycling program through the HMCC to increase scrap metal recycling.
- The Solid Waste Program Manager should periodically inspect dumpsters to ensure that no recyclable materials are being disposed of in the dumpsters and provide guidance if recyclables are identified in the dumpsters.
- Ensure that all C&D contractors complete the USAACE Form 2736, *Waste Shipment Record*, (Appendix F) pre-planning section and that they are submitted and reviewed prior to the beginning of each project.
- Ensure that all C&D contractors complete the USAACE Form 2736, *Waste Shipment Record*, (Appendix F) post C&D section and submit them to the DPW-ENRD for reporting into SWARWeb.

APPENDIX A

References

1. Army Regulation 420-1, Army Facilities Management, 2 Nov 2007.
2. Army Regulation 200-1, Environmental Protection and Enhancement, 13 Dec 2007.
3. Public Law 101-508, Pollution Prevention Act of 1990, 5 November 1990.
4. Draft Real Property Master Plan Digest; Fort Rucker, Alabama; 11 Mar 2008, PBSJ.
5. Executive Order 13423, Strengthening Federal Environmental, Energy and Transportation Management, 26 Jan 2007.
6. Executive Order 13514, Federal Leadership in Environmental, Energy and Economic Performance, 5 October 2009
7. Instructions for Implementing Executive Order 13423, 29 March 2007.
8. Public Law 152, The Federal Property and Administrative Services Act of 1949, as amended.
9. Department of Defense Instruction 7310.1, Disposition of Proceeds from DOD Sales of Surplus Personal Property.
10. Supply Catalogue, U.S. General Services Administration, Federal Supply Service, Spring 1997.
11. Decision-Maker's Guide to Solid Waste Management, Second Edition, EPA530-R-95-023, August 1995.
12. Executive Order 12856, Federal Compliance With Right-to-Know Laws and Pollution Prevention Requirements, 3 August 1993.
13. Environmental Products, Defense Logistics Agency, December 1996.
14. Federal Register, Volume 56, Number 196, "Solid Waste Disposal Criteria," 9 October 1991.
15. Greening the Government, A Guide to Implementing Executive Order 12873, Summer 1997.

APPENDIX B

USAACE Form 2720, *Debris Recovery Plan and Statement*

DEBRIS RECOVERY PLAN AND STATEMENT

For use of this form, see the Integrated Solid Waste Management Plan; the proponent is DPW-ENRD

Project Address:	
Date:	Contractor:
Contact:	Title:
Phone:	Email:
Project Type:	

Specify whether materials will be reused, recycled or disposed by completing the table below. The percent diversion will automatically be calculated based on the other entries. In accordance with Executive Order 13514, at least 50% of all waste generated must be recycled. Select the designated box and provide the name of each facility or service provider to be used. If the materials are to be reused on site, describe under the facilities/service providers column. For example, wood waste chipped on site for mulch in plant beds. Salvaged materials from deconstruction should be designated as reuse.

ESTIMATES PRIOR TO PROJECT INITIATION

MATERIAL	REUSE (tons)	RECYCLE (tons)	DISPOSE (tons)	PERCENT DIVERSION	FACILITY / SERVICE PROVIDER TO BE USED
Asphalt				NA	
Brick				NA	
Cardboard				NA	
Concrete				NA	
Dirt / Clean Fill				NA	
Dry Wall				NA	
Metal				NA	
Pallets				NA	
Plant Debris				NA	
Plastics				NA	
Roofing				NA	
Wood - Clean				NA	
Wood - Treated				NA	
Other:				NA	
Other:				NA	
TOTAL	0	0	0	NA	

$$\text{PERCENT DIVERSION} = \frac{\text{REUSE} + \text{RECYCLE}}{\text{REUSE} + \text{RECYCLE} + \text{DISPOSE}} \times 100$$

For assistance in recovering materials at the jobsite, visit the following websites for a Builders Guide to Reuse and Recycling. <http://www.cdrecycling.org/find.html>

DEBRIS RECOVERY PLAN AND STATEMENT

For use of this form, see the Integrated Solid Waste Management Plan; the proponent is DPW-ENRD

Project Address:	
Date:	Contractor:
Contact:	Title:
Phone:	Email:
Project Type:	

Identify which materials were reused, recycled or disposed by completing the table below. The percent diversion will automatically be calculated based on the other information entered. Select the designated box and provide the name of each facility or service provider and weight of materials. If the materials were reused on site, describe the reuse application under the facilities/service providers column. \Salvaged materials from deconstruction should be designated as reuse. **Attach copies of receipts, gate tags, or other verifying documentation.**

ACTUAL DATA AFTER PROJECT COMPLETION

MATERIAL	REUSE (tons)	RECYCLE (tons)	DISPOSE (tons)	PERCENT DIVERSION	FACILITY / SERVICE PROVIDER USED
Asphalt				NA	
Brick				NA	
Cardboard				NA	
Concrete				NA	
Dirt / Clean Fill				NA	
Dry Wall				NA	
Metal				NA	
Pallets				NA	
Plant Debris				NA	
Plastics				NA	
Roofing				NA	
Wood - Clean				NA	
Wood - Treated				NA	
Other:				NA	
Other:				NA	
TOTAL	0	0	0	NA	

$$\text{PERCENT DIVERSION} = \frac{\text{REUSE} + \text{RECYCLE}}{\text{REUSE} + \text{RECYCLE} + \text{DISPOSE}} \times 100$$

APPENDIX C

DD Form 1348-1A, *Issue Release/Receipt Document*

DD FORM 1348-1A, JUL 91 (EG) ISSUE RELEASE/RECEIPT DOCUMENT

1	2	3	4	5	6	7	23	24	25	26	27	28	29	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	1. TOTAL PRICE		2. SHIP FROM		3. SHIP TO	
COD ZIMO							QUANTITY							SUPPLEMENTARY ADDRESS							UNIT PRICE		DOLLARS		CTS		4. MARK FOR																												
RI FROM							SIG							DOLLARS		CTS																																							
M							F DZCC							PROJECT		PAR		COMTE		DATE		ADV		RI		OP		DZOC		MTE		5. DOC DATE		6. NMFC		7. FRT RATE		8. TYPE CARGO		9. PS															
24. DOCUMENT NUMBER & SUFFIX (30-44)							25. NATIONAL STOCK NO. & ADD (8-22)							26. RIC (4-6) UI (23-24) QTY (25-29) CON CODE (71) DIST (55-56) UP (74-80)							10. QTY. REC'D		11. UP		12. UNIT WEIGHT		13. UNIT CUBE		14. UFC		15. SL		16. FREIGHT CLASSIFICATION NOMENCLATURE																						
27. ADDITIONAL DATA							17. ITEM NOMENCLATURE						18. TY CONT		19. NO CONT		20. TOTAL WEIGHT		21. TOTAL CUBE		22. RECEIVED BY				23. DATE RECEIVED																														

PREVIOUS EDITION MAY BE USED

FormFlow (DLA)

DD FORM 1348-1A, JUL 91 (EG) ISSUE RELEASE/RECEIPT DOCUMENT

1	2	3	4	5	6	7	23	24	25	26	27	28	29	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	1. TOTAL PRICE		2. SHIP FROM		3. SHIP TO	
COD ZIMO							QUANTITY							SUPPLEMENTARY ADDRESS							UNIT PRICE		DOLLARS		CTS		4. MARK FOR																												
RI FROM							SIG							DOLLARS		CTS																																							
M							F DZCC							PROJECT		PAR		COMTE		DATE		ADV		RI		OP		DZOC		MTE		5. DOC DATE		6. NMFC		7. FRT RATE		8. TYPE CARGO		9. PS															
24. DOCUMENT NUMBER & SUFFIX (30-44)							25. NATIONAL STOCK NO. & ADD (8-22)							26. RIC (4-6) UI (23-24) QTY (25-29) CON CODE (71) DIST (55-56) UP (74-80)							10. QTY. REC'D		11. UP		12. UNIT WEIGHT		13. UNIT CUBE		14. UFC		15. SL		16. FREIGHT CLASSIFICATION NOMENCLATURE																						
27. ADDITIONAL DATA							17. ITEM NOMENCLATURE						18. TY CONT		19. NO CONT		20. TOTAL WEIGHT		21. TOTAL CUBE		22. RECEIVED BY				23. DATE RECEIVED																														

PREVIOUS EDITION MAY BE USED

FormFlow (DLA)

APPENDIX D

Waste Generation and Diversion Rates

Waste Generation and Diversion Rates from Installation Solid Waste

Date	Type	Waste Generated (tons)	Waste Disposed (tons)	Waste Recycled (tons)	Diversion Percentage
FY04	C&D	NR*	NR*	NR*	NR*
	Non-C&D	2896.00	2871.00	25.00	1%
	<i>Total</i>	<i>2896.00</i>	<i>2871.00</i>	<i>25.00</i>	<i>1%</i>
FY05	C&D	NR*	NR*	NR*	NR*
	Non-C&D	5755.00	5654.50	100.50	1.80%
	<i>Total</i>	<i>5755.00</i>	<i>5654.50</i>	<i>100.50</i>	<i>1.80%</i>
FY06	C&D	NR*	NR*	NR*	NR*
	Non-C&D	4587.00	4474.00	114.00	2.50%
	<i>Total</i>	<i>4587.00</i>	<i>4474.00</i>	<i>114.00</i>	<i>2.50%</i>
FY07	C&D	503.06	503.06	0.00	0%
	Non-C&D	3107.70	2891.43	216.30	7%
	<i>Total</i>	<i>3610.76</i>	<i>3394.49</i>	<i>216.30</i>	<i>7%</i>
FY08	C&D	NR*	NR*	NR*	NR*
	Non-C&D	7441.40	829.50	517.30	12.85%
	<i>Total</i>	<i>7441.40</i>	<i>829.50</i>	<i>517.30</i>	<i>12.85%</i>
FY09	C&D	319.29	0.00	319.29	100%
	Non-C&D	3277.42	3149.16	128.26	3.9
	<i>Total</i>	<i>3596.71</i>	<i>3149.16</i>	<i>447.55</i>	<i>4.9</i>
FY 10	C&D	251117.23	677.66	250439.57	99.7
	Non-C&D	3409.66	2594.64	815.02	23.9
	<i>Total</i>	<i>254526.89</i>	<i>3272.30</i>	<i>251254.60</i>	<i>123.6</i>
FY 11	C&D	15171.18	179.18	14992.00	98.8
	Non-C&D	3581.58	2361.94	1219.64	34.1
	<i>Total</i>	<i>18752.76</i>	<i>2541.12</i>	<i>16211.64</i>	<i>132.9</i>
FY 12	C&D	12157.38	393.40	11763.98	96.8
	Non-C&D	3457.79	2486.02	971.77	28.1
	<i>Total</i>	<i>15615.17</i>	<i>2879.42</i>	<i>12735.75</i>	<i>124.9</i>
FY 13	C&D	2652.85	1315.15	1337.70	50.4
	<i>Non-C&D</i>	<i>2502.16</i>	<i>1809.24</i>	<i>692.92</i>	<i>27.7</i>
	<i>Total</i>	<i>5155.00</i>	<i>3124.39</i>	<i>2030.61</i>	<i>78.1</i>
FY 14	C&D	17571.15	3924.16	13646.99	77.7
	Non-C&D	3064.58	2322.14	742.44	24.2
	<i>Total</i>	<i>20635.73</i>	<i>6246.30</i>	<i>14389.43</i>	<i>101.9</i>

NR* - Not Reported

Waste Diversion by Waste Types from Non-residential Facilities

Recycling Category	FY09		FY10		FY11		FY 12		FY13		FY14	
	Tons	Total Revenue	Tons	Total Revenue	Tons	Total Revenue	Tons	Total Revenue	Tons	Total Revenue	Tons	Total Revenue
ABC -Asphalt			43,975.80		14,032.00						978.75	0.00
ABC- Concrete					220.00				1,323.87		446.80	0.00
Aluminum			18.77	3,230.00	12.50		3.91		9.05		17.42	3,633.00
Absorbent Continued Use			11.48				44.86				26.47	(234,247.00)
Alkaline Batteries							5.90	(7,436.80)	5.69	(6,833.60)	2.64	(1,638.00)
Antifreeze			1.13	(657.79)	0.30	4.40	1.35	(406.40)	2.15	(571.60)	1.66	(501.60)
Bimetal Cans			9.55	0.00	15.64							
Brass			13.11	46,793.80	53.48	218,198.40	14.79	65,208.50	13.98	62,364.70	8.32	31,619.00
Cardboard	22.61		94.82	8,309.70	15.65	19,683.10	250.12	27,923.90	115.61	9,248.60	123.42	10,398.30
Electronics			3.59	0.00	4.60				5.33	0.00	1.11	82.00
Jet Fuel (JP8)/F24									13.13	0.00	51.57	16,502.00
Land-crushed Stone/Base			250.00		540.00							
Land-Vegetation/Timber			75.00									
Lead-Acid Batteries Lead Solder	15.03	(23,658.20)	27.13		4.69		1,104,405.00	(302.00)	22.47	0.00	17.24	757.80
Lithium Batteries									0.20	(403.80)	0.47	(1,493.20)
NiCad Batteries									0.15	0.00		
Pallets, Scrap					275.00	0.00						
Toner Cartridges			55.58									
Used Cooking Oil									16.95	1,938.00	21.94	0.00
Used Motor Oil	17.94	22,604.40			94.72	19,710.10	84.20	13,471.20	43.06	11,056.20	151.20	51,356.70
Total	55.58	(1,053.80)	44,535.94	57,675.71	15,268.57	257,596.00	1,104,810.13	98,458.40	1,571.62	76,798.50	1,849.02	(123,531.00)

APPENDIX E

USAACE Form 2732, *Continued Use Absorbents Tracking Document*

CONTINUED USE ABSORBENTS TRACKING DOCUMENT

For use of this form, see EMS-WI-SW009; the proponent is DPW-ENRD

Location
Organization
POC

Comments

ABSORBENT TYPE	DATE	RECEIVED OR TURNED IN?	RECEIVED		TURNED IN		NOTES	
			DRUM NUMBER	WEIGHT (LBS)	DRUM NUMBER	WEIGHT (LBS)		
			TOTAL	0	0	0	0	

APPENDIX F
USAACE Form 2736, *Waste Shipment Record*

WASTE SHIPMENT RECORD

For use of this form, see the Asbestos Management Plan; proponent is DPW-ENRD

Generator	1. Work Site Name		Work Site Mailing Address 1121 Dilly Branch Rd Fort Rucker AL 36362		Owner Name Fort Rucker		Owner Phone No. 334-255-1656		
	2. Operator's Name and Address (Abatement Contractor)					Operator's Telephone No.			
	3. Waste Disposal Site Name, Mailing Address, and Physical Site Location					Waste Disposal Site Telephone No.			
	4. Name and address of responsible agency (Prime Contractor)								
	5. Description of Materials					6. Containers No. Type		7. Total Quantity m ³ yd ³	
	8. Special Handling Instructions and Additional Information								
9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.									
Printed/Typed Name & Title			Signature			Month	Day	Year	
Gov't	10. FORT RUCKER REPRESENTATIVE (Acknowledgement of Generation of Materials)								
	Printed/Typed Name & Title			Signature			Month	Day	Year
Transporter	11. Transporter I (Acknowledgement of Receipt of Materials)								
	Printed/Typed Name & Title			Signature			Month	Day	Year
	12. Transporter II (Acknowledgement of Receipt of Materials)								
	Printed/Typed Name & Title			Signature			Month	Day	Year
Landfill	13. Discrepancy Indication Space								
	14. Waste Disposal Site Owner or Operator: Certification of Receipt of Asbestos Materials Covered by this Manifest Except as Noted in Item 13.								
	Printed/Typed Name & Title			Signature			Month	Day	Year

