New Jersey
Army National Guard

Environmental Compliance Desktop Guide

June 2003

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Headquarters
State of New Jersey
Department of Military and
Veterans Affairs
Lawrenceville, New Jersey
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Forward

Summary. This document prescribes the New Jersey Army National Guard (NJARNG) responsibilities, policies, and procedures to preserve, protect, restore, and enhance the quality of the environment.

Authorization. This document is required to implement NJARNG environmental programs in accordance with federal, state and local laws, Department of Defense (DoD) Directives, Executive Orders (EOs), Department of the Army Regulations (ARs), to include AR 200-1, and National Guard Bureau Regulations (NGBRs) and policy. This document has been approved by the NJARNG Environmental Quality Control Committee (EQCC).

Applicability. This guidance applies to all NJARNG commanders, supervisors, managers and employees at the facility, operational, and leadership levels.

Suggested Improvements. The proponent of this document is the Office of Environmental Compliance. Users are invited to send comments and suggested improvements directly to this office at 101 Eggert Crossing Road, Lawrenceville, NJ, 08648.

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Introduction

A. Purpose

This Environmental Compliance Desktop Guide establishes the New Jersey Army National Guard (NJARNG) environmental protection and compliance program. It consolidates all previously published New Jersey Department of Military and Veterans Affairs (DMAVA) environmental protection regulations, policies, and procedures into one document. It prescribes the objectives, responsibilities, policies, and procedures to protect and preserve the environment, while promoting human health and safety. Program requirements are based on applicable Department of Defense (DoD), Department of the Army (DA), National Guard Bureau (NGB), federal, state and local environmental laws, regulations, rules, policies and/or directives.

This document supercedes the previous version entitled *New Jersey Army National Guard Desktop Guidebook for Environmental Compliance*, dated 1 April 1993 (revised 1 February 1997).

B. References

References for specific program areas are located in each chapter. A complete list of NJARNG environmental program references are in Appendix A. References to federal, state of New Jersey, and military regulations for specific program areas are in Appendix B.

C. Definitions

Appendix C contains a list of acronyms and definitions.

D. Objectives

These are the objectives of this guide:

- Achieve compliance with all federal, military, NGB, state, and local environmental laws, rules, regulations, policies, and directives at all times
- Establish and execute environmental compliance programs in accordance with (IAW) the responsibilities, policies, and procedures described herein
- Meet all specific program objectives which are addressed in the individual chapters that follow as they pertain to the NJARNG

E. Self-inspections, Reporting, and Training

Self-Inspections

Specific inspection procedures are described in each chapter. These inspections are summarized in Table I-1 below. Facility manages must ensure that these inspections are performed and documented.

Table I-1. Self-Inspection Requirements Summary

Protocol	Type of Inspection	Frequency
Air	Boiler Visual Monitoring Log	Daily
Hazardous Waste	Hazardous Waste Accumulation Areas	Daily
Petroleum, Oil, and Lubricant (POL)	Aboveground Storage Tank (AST)/Underground Storage Tank (UST) Inspection Checklist	Weekly
POL	Secondary Containment Inspection Checklist	Weekly
Storage Tanks	AST/UST Inspection Checklist	Weekly
Air	Boiler Compliance Checklist	Monthly
Air	Paint Booth Compliance Checklist	Monthly
Air	Generator Compliance Checklist	Monthly
Air	Fueling Facility Checklist	Monthly
Cultural Resources	Building and Structure Compliance Checklist	Semi-Annually
Cultural Resources	Archeological Compliance Checklist	Semi-Annually
Wastewater	Oil/Water Separator Checklist	Every 30 days for major users [1] Every 60 days for moderate users [2] Every 90 days for minor users [3]
Air	Combustion Equipment Fuel Usage/Visual Monitoring Log	While in use
Air	Paint Booth Usage Log	While in use

Protocol	Type of Inspection	Frequency
Air	Generator Visual Monitoring Log	While in use
Air	ODC Compliance Checklist	As needed
Air	Paint Booth Filter Removal Log	As needed
Air	Fuel Usage Log	As needed
Asbestos	Observation of Suspect ACM	As needed
Hazardous Materials	Hazardous Material Storage Unit Inspection Checklist	As directed
Wastewater	Grease Trap Checklist	As needed

[1] Major users include Army Aviation Support Facilities (AASFs), Combined Support Maintenance Facilities (CSMSs), Unit Training and Equipment Site (UTES), and Organizational Maintenance Shops (OMSs) with four bays.

[2] Moderate users are those OMSs with three bays.

[3] Minor users are those OMSs with two bays or less.

Reporting

Specific reporting procedures are described in each chapter These procedures are summarized in Table I-2 below. Facility managers must ensure that these reports are submitted in a timely manner to the Office of Environmental Compliance (ID-OEC).

Table I-2. Reporting Requirements Summary

Protocol	Type of Reporting	Frequency
Water Quality	Change in Quality of Drinking Water	Immediately
POL	Spill Incident Report Form	Within 24 hours of spill
Pesticides	Applications done by commercial applicators	After application
Noise	Noise Complaint Form	Within five days of complaint
Hazardous Materials	Hazardous Material Inventory Forms	Upon Request by ID-OEC

Protocol	Type of Reporting	Frequency
National Environmental Protection Act (NEPA)	Record of Environmental Consideration (REC) form	When project is planned
Air	Combustion Equipment Fuel Usage/Visual Monitoring Log	Monthly
Solid Waste	Recycling Report	Monthly
Asbestos	Change of Status Form	As needed

Training

Specific training procedures are described in each chapter. These procedures are summarized in Table I-3 below.

Table I-3. Training Requirements Summary

Protocol	Type/Level of Training	Target Audience	Provided by	Training Frequency	IAW
Air	Ozone Depleting Chemical (ODC) General Awareness	Shop-Level	Command & Unit Environ-mental Compli-ance Officers (UECOs)	Initial and annually thereafter	AR 200-1, paragraph 6-3
Air	ODC Technical Certification	Repairman/Shop-Level	State Certified Profes-sional trainer	Initial and as-needed thereafter	40 CFR Part 82.161
Air	Boiler Permit General Awareness	Shop-Level/Armorer	UECOs/ ID-OEC	Initial and as-needed thereafter	Permit
Air	Paint Booth General Awareness	Shop-Level	UECOs/ ID-OEC	Initial and annually thereafter	Permit

Protocol	Type/Level of Training	Target Audience	Provided by	Training Frequency	IAW
Air	Emergency Generators General Awareness	Shop-Level/Armorer	UECOs/ ID-OEC	Initial and annually thereafter	Permit
Air	Fueling Stations General Awareness	Shop-Level/Armorer	UECOs/ ID-OEC	Initial and annually thereafter	Permit
Asbestos	General Awareness	Armorer/Shop-Level/ Full Time Support Supervisor (FTSS)	UECOs/ ID-OEC	Initial and annually thereafter	Asbestos Management Plan
Asbestos	Operations and Maintenance (O&M)	Asbestos Containing Material (ACM) Maintenance, Maintenance Supervisor, and Other Workers	Profes-sional Trainer	Initial and annually thereafter	Asbestos Management Plan
Asbestos	Inspector/ Management Planner	Asbestos Program Manager	State Certified Profes-sional Trainer	Initial and annually thereafter	Asbestos Management Plan
Cultural Resources	Integrated Cultural Resources Management Plan (ICRMP) & General Awareness	Unit Commander, Shop Supervisors, and Shop-Level	UECOs/ IDOEC	Initial and annually thereafter	ICRMP and AR 200-4
Hazardous Waste	Hazardous Waste Operations, Communi-cation, Spill Response	Shop-Level	UECOs	Within six mos. of employment and annually thereafter	40 CFR 265.16

Protocol	Type/Level of Training	Target Audience	Provided by	Training Frequency	IAW
Natural Resources	General Awareness	Field Personnel	Plans, Opera-tions, Training, Readiness, and Military Support Office (G3)	As needed	Integrated Natural Resources Management Plan (INRMP)
NEPA	General Awareness	Field Personnel	G3	As needed	AR 200-2
Noise	General Awareness	Shop-Level	Command and UECOs	Annually	AR 200-1, Chapter 7
Pesticides	Applicator Certification/ License	Applicator and Pest Management Coordinator	ID-OEC	Initial and as-needed thereafter	Integrated Pest Management Plan (IPMP)
Pesticides	General Awareness	Shop-Level	Command and UECOs	Initial and as-needed thereafter	IPMP
POL	Spill Plan	Shop-Level/Armorer/ FTSS	UECOs/ ID-OEC	Annually	Spill Prevention and Contingency Plan (SPCP)
POL	Responder	Installation Response Team (IRT)/Shop Level	UECOs/ ID-OEC/ Shop Foreman	Within 6 mos. of employment and annually thereafter	SPCP
Pollution Prevention (P2)	General Awareness	Shop-Level	Command and UECOs	Annually	P2 Plan
Radon	General Awareness	Shop-Level/Armorer/ FTSS	UECOs/ ID-OEC	Initial and as-needed thereafter	AR 200-1, Chapter 9
Solid Waste	General Awareness and Recycling	Shop Level	Command and UECOs	Annually	AR 200-1, paragraph 5-10

Protocol	Type/Level of Training	Target Audience	Provided by	Training Frequency	IAW
Storage Tanks	Inspections, Hazards, and Remedial Action	Shop-Level	Command and UECOs	Annually	AR 200-1, paragraph 4-5
Toxic Substances	Lead-Based Paint Awareness and Indoor Range Safety	Shop-Level	Command, UECOs & ID-SO	Annually	AR 200-1, Chapter 4; and NGBR 385-15 (Responsibility and Procedures for Inspection and Evaluation of ARNG Indoor Firing Ranges)
Wastewater	Storm Water Pollution Prevention Plan (SWPPP) Training	Shop-Level/Armorer/ FTSS	ID-OEC	Annually	SWPPP
Wastewater	Field Training	Shop-Level	UECOs	Annually	AR 200-1, paragraph 2-7
Water Quality	Necessary Training and Meet the Drinking Water Operator Certification Requirements of New Jersey	Operators of Public Drinking Water Systems	ID-OEC	As needed	AR 200-1, paragraph 2-3

F. Compliance and Enforcement

Users of this guidebook need to know the following important information prior to reading and implementing this guidebook:

- Compliance Program
- Enforcement Issues
- ISO 14000 Principles

Compliance Program

Environmental Compliance Assessment System (ECAS)

The ECAS Program is a way that the NGB monitors environmental compliance of the all state Army National Guards (ARNGs). This program is required under AR 200-1. ECAS implementation procedures are described in Department of the Army Pamphlet (DA PAM) 200-1.

It is everyone's responsibility, from the Adjutant General (TAG) down, to ensure that each facility is prepared to undergo an ECAS assessment. Preparation for an ECAS assessment does not just mean fixing things and turning in excess materials weeks or even days before the assessment. ECAS preparation is an ongoing process. Facility managers should be constantly aware of activities that may lead to ECAS findings or non compliance and seek solutions to these problems as early as possible. It is all facility employees responsibilities to allow ECAS assessors access to all parts of the facility and make available any plans, standing operating procedures (SOPs), and/or records necessary to conduct the assessment.

ID-OEC Responsibilities

- Coordinates ECAS logistics with external and internal participants
- Ensures deficiencies are identified and validated
- Prepares corrective action reports
- Ensures selected corrected actions are implemented

NJARNG Responsibilities

- Assists ECAS team members as needed
- Implements selected corrective actions in a timely manner

Internal Compliance Assessment System (ICAS)

NJARNG will conduct internal assessments, using their own resources, and/or correctly complete and submit the Installation Status Report (ISR), Part II, Environment. ICAS is required under AR 200-1. Implementation guidance is described in DA PAM 200-1. All state ARNGs are required to conduct internal assessments. For installations required to file the ISR, Part II, Environment, the annual ISR will fulfill the internal assessment requirement unless otherwise notified by NGB. Environmental personnel conducting the internal assessments, at a minimum, shall:

- Review and follow-up on the corrective action and funding plan resulting from the last external and subsequent internal assessment

- Review corrective actions relating to regulatory violations received since the last assessment (internal or external)
- Assess compliance with any new regulatory requirements and address any special emphasis areas specified by higher command. The duration of the internal assessment is not limited to a prescribed time period. The assessment may consist of site visits over a period of months or an entire year. Any new environmental requirements identified during the internal assessment shall be included in the installation Environmental Program requirements (EPR) Report.

Enforcement Issues

External Inspections By Federal Or State Regulatory Agencies

Federal and state regulators must be allowed to enter the facility to conduct an environmental inspection. If the facility is out of compliance, the inspection may result in the issuance of a Notice of Violation (NOV). Under AR 200-1 and DA PAM 200-1, results of inspections by state or federal environmental agencies, NOVs or enforcement action (including noncompliance or administrative orders or compliance requests) received must be reported. ***Facility personnel must immediately report this information to ID-OEC who will forward this information within 24 hours to Assistant Chief of Staff for Installation Management (ACSIM) and simultaneously to NGB and the Environmental Quality Report (EQR).***

NOVs are very serious in that they may be associated with fines or even imprisonment. Fines may be as high as thousands of dollars per day until the facility comes back into compliance. Persons who knowingly violate environmental laws may even face jail time, especially if the intentional violation leads to an immanent and substantial threat to human health or the environment.

Compliance actions generally considered to be an Enforcement Action (ENF) or OV

An ENF or NOV is a written notification of any violation of an environmental law or regulation by the U.S. Environmental Protection Agency (EPA), or another authorized federal, state, or local regulatory agency, requesting compliance with the alleged violated provision. For the purposes of the NHPA (National Historic Preservation Act), the SHPO (State Historic Preservation Office) and the ACHP (Advisory Council on Historic Preservation) are regulatory authorities. One written notification counts as one ENF/NOV, regardless of the number of individual findings, violations, or citations it contains. Do not include deficiencies noted during an internal or DOD environmental audit or review.

Compliance actions generally not considered to be an ENF/NOV

As an alternative to an ENF/NOV, regulators may issue a Warning Letter. Unlike a ENF/NOV, a warning letter does not inform the installation that it is out of compliance. Warning Letters do not constitute an ENF as defined in the EQR. Ultimately, ID-OEC makes the final determination of what constitutes an ENF.

General guidance on interpretation of what constitutes an ENF

All official notices from a regulating entity must be evaluated based upon ENF definitions outlined in NGB policy memos. If the NJARNG is uncertain about the appropriate classification of an official notice, they are encouraged to seek clarification or help from NGB. NGB may request assistance from the legal staff of U.S. Army Environmental Center (USAEC). However, it will always be the NJARNG's prerogative to make the final determination whether or not official notification constitutes an ENF. The NJARNG is required to report ENFs in accordance with AR200-1 and NGB policy.

International Organization for Standardization (ISO) 1400

The NJARNG is required to incorporate ISO 14000 (i.e., Series 14000 of the International Organization for Standardization) principles into a comprehensive Environmental Management System (EMS) program. This program involves environmental awareness training at all levels, and the implementation of EMS management principles throughout the organization. The main purpose of EMS is to institute an environmental stewardship culture within all Army organizations. An EMS will result in improving environmental compliance, reduction of ENFs, enhancing the protection of training lands, human health and the environment.

Where appropriate, this guide has adopted the basic EMS principles as described in ISO 14000. In addition, EO 13148 (*Greening the Government through Leadership in Environmental Management* dated 22 April 22 2000) requires that all federal agencies first implement EMSs through pilot projects at facilities and then implement an EMS at all appropriate facilities based on facility size, complexity, and the environmental aspects of facility operations. The facility EMS must include measurable environmental goals, objectives, and targets that are reviewed and updated annually.

G. Responsibilities

The Adjutant General of New Jersey (TAG)

- Ensures the implementation, coordination and management of the NJARNG environmental program IAW federal, military, state, and local rules, regulations, and laws

- Ensures adherence to all directives listed in AR 200-1 and AR 200-2 as they pertain to the environmental programs in New Jersey
- Annually appoints the members of the NJARNG Environmental Quality Control Committee and (EQCC) and the EQCC Chairperson

NJARNG Environmental Quality Control Committee (EQCC)

In accordance with AR 200-1, paragraph 15-11, NJARNG has established an EQCC. As directed by AR 200-1, the NJARNG EQCC consists of members representing the operational, engineering, planning, resource management, legal, medical, and safety interests of the NJARNG. At a minimum, the NJARNG EQCC is comprised of the supervisors or their representatives from the following directorates, divisions, offices and organizations:

- Chief of Staff (COS)
- Construction and Facility Management Office (CFMO)
- Directorate of Logistics (G4)
- Surface Maintenance Office (DOL-SMO)
- Human Resources Office (J1)
- Installations Division (ID)
- Office of Environmental Compliance (ID-OEC)
- Safety Office (ID-SO)
- Legal Advisor to The Adjutant General (TAG-JA)
- State Army Aviation Office (SAAO)
- Occupational Health Office (SAAO-OH)
- Safety Management Office (SAAO-SM)
- Public Affairs Office (PAO)
- Plans, Operations, Training, Readiness, and Military Support Office (G3)
- United States Property and Fiscal Office (USP&FO)
- 254th Regiment
- Training and Training Technology Battle Lab (T3BL)
- 42nd Division Support Command (42DSC)
- 50th Brigade (50BDE)
- 57th Troop Command (57TC)

EQCC Chairperson

- Coordinates with other committee members as needed
- Conducts committee meetings and coordinates actions by committee members
- Schedules the NJARNG EQCC to meet at least on a quarterly basis
- Prepares and distributes Committee minutes

EQCC Members

Upon notification by the Chairperson, members attend all meetings for coordinating, implementing and managing the various environmental programs throughout the NJARNG. The NJARNG EQCC:

- Coordinates activities of the environmental programs covered under AR 200-1
- Advises the command on environmental priorities, policies, strategies, and programs
- Assists in the resolution of environmental policy and procedure conflicts and other areas of concern
- Adheres to any other applicable directives in accordance with AR 420-47, paragraph 6-6

Installation Division - Office of Environmental Compliance (ID-OEC)

- Is delegated by authority of the TAG to coordinate and manage the prescribed environmental programs for the NJARNG, to include, but are not limited to, the following:
  - Air Quality Management
  - Asbestos Management
  - Cultural and Historical Resources Management
  - Hazardous Materials Management
  - Hazardous Waste Management
  - Natural Resources Management
  - NEPA
  - Noise Management
  - Pesticide Management
  - Spill Planning and Response/POL
  - P2

  - Radon Management
  - Solid Waste (Recycling) Management
  - Storage Tank Management
  - Toxic Substances Management
  - Wastewater Management
  - Water Quality Management
  - Project Review
  - Real Estate Transactions
  - Environmental Audit/Compliance Program
- ID-OEC responsibilities include, but are not limited to, the following:
  - Compliance Evaluation
  - Program Management
  - Data Collection
  - Field Sampling
  - Project Planning
  - Budget Programming
  - Reporting
  - Department Liaison

NJARNG Station Commanders/Supervisors

- Are responsible to become familiar with this guidebook and the described programs
- Annually, reviews this guidebook with appropriate facility personnel
- Follow all state and federal directives and guidance herein, where applicable
- Responsible for the execution of the established environmental program to meet the objectives herein
- Responsible for installation compliance with all applicable directives

Unit Environmental Compliance Officer (UECO)

- Is the unit point of contact (POC) for all environmental issues and concerns
- Must become familiar with the directives herein
- Will ensure all published revisions to this guidebook are posted

- Will implement and manage the applicable environmental programs
- May appoint in writing individuals to manage specific environmental programs and areas at their facility

Unit Commanders

- Must become familiar with the guidelines herein
- Will ensure applicable environmental programs are implemented at home stations and all other training facilities

H. Approach

This guidebook addresses all of the environmental disciplines that comprise the overall NJARNG Environmental Program. Each chapter contains the following major components:

- Program Overview
- Compliance Thresholds
- Responsibilities
- Procedures
- Training
- Recordkeeping

Program Overview

Each chapter identifies program-specific training requirements.

Compliance Thresholds

Where applicable, each chapter identifies compliance thresholds for each program. A compliance threshold is a condition under which an operation is conducted that triggers a specific regulatory action. A compliance threshold may be qualitative (for example, an act not associated with a number) or quantitative (for example, a measured level or quantity of chemical, material, pollutant, or substance).

Responsibilities

In addition to the general responsibilities listed in this Introduction, each chapter lists specific responsibilities associated with the subject program.

Procedures

Each chapter identifies procedures that facility/operational-level personnel must follow to maintain compliance within the subject program. Where appropriate, compliance checklists are provided.

Training

Each chapter describes the level of training required for various personnel positions within the NJARNG.

Recordkeeping

Each chapter identifies the types of documents required to be maintained in the facility environmental records.

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Chapter 1
Air Emissions/Permits

This chapter discusses the NJARNG's policies/goals, procedures, and compliance tools used to support its Air Program.

A. Program Overview

AR 200-1 requires that all state ARNGs establish an air program that includes strategic planning for eliminating ODCs and requirements for complying with all federal, state, and local air regulations.[1] The NJARNG has established an air program in accordance with AR 200-1 designed to eliminate ODCs and for obtaining permits for the construction and/or operation of all potential sources of air pollutants. The following NJARNG Air Program components may be applicable to your facility:

- ODC Elimination Plan (ODCEP) [2]
  - ID-OEC maintains the ODCEP, which applies to all NJARNG facilities. It is your responsibility to manage ODCs at your facility by following the ODCEP. NJARNG's policy/goal is to eliminate ODCs from its inventory and to comply with all applicable federal, state, and local requirements. A copy of the ODCEP may be found at the NJARNG's environmental office (ID-OEC) located in Lawrenceville.
- Boiler General Permits
  - The State of New Jersey has established a general air permit (New Jersey State Category II type permit) that covers the emissions associated with the combustion of the number 2 fuel oil used in boilers. Some NJARNG facilities may be subject to the State of New Jersey's General Permit for Boilers and Heaters.[3]
- Paint Booth Permits
  - The State of New Jersey does not have a general air permit that covers the emissions associated with the operation of paint booths. Facilities that operate paint booths should have an existing air permit issued by the State of New Jersey.

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[1] The Army's Air Program policies and goals are stated in AR 200-1, paragraph 6-2.

[2] ODCEPs are required under AR 200-1, paragraph 6-3b. DA PAM 200-1, paragraph 6-11d identifies guidance and other mandates for eliminating ODCs including "Guide to Preparing Ozone-Depleting Chemical Elimination Plans for Installations."

[3] See State of New Jersey Department of Environmental Protection General Permit (GP)-006A, Boilers Less Than 10 million British Thermal Units per hour (MMBTU/hr) Combusting Natural Gas, Propane, No. 2 Fuel Oil, Diesel, Kerosene, or A Combination Of These Fuels.

This individual permit will have specific compliance information pertinent to each facility[4]

- Emergency Generator General Permits
  - The State of New Jersey has established a general air permit that covers the emissions associated with the operation of emergency generators. Some NJARNG facilities may be subject to the State of New Jersey's General Permit for Emergency Generators.[5]
- Fueling Stations (Retail and Non-Retail) General Permits
  - The State of New Jersey has established a general air permit that covers the emissions associated with the operation of fueling stations (retail and non-retail). Some NJARNG facilities may be subject to the State of New Jersey's General Permit for Fueling Stations (retail and non-retail).[6]

B. Compliance Thresholds

This section discusses compliance thresholds established for:

- ODCs
- Boilers
- Paint Booths
- Emergency Generators
- Fueling Stations
- Other Air Issues

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[4] New Jersey Administrative Code (NJAC) 7:27:22 addresses operation permits for facilities which emits or has the potential to emit hazardous air pollutants (HAPs).

[5] See State of New Jersey Department of Environmental Protection General Permit (GP)-005, This General Permit allows for the construction, installation, reconstruction, modification and operation at no more than 500 hours per year of a single emergency generator, with a maximum gross heat input rate of 15 MMBTU/hr for generators combusting number 2 fuel oil, diesel or kerosene, or 40 MMBTU/hr for generators combusting natural gas or propane.

[6] See State of New Jersey Department of Environmental Protection (NJDEP) General Permit (GP)-004. This General Permit allows for the construction, installation, reconstruction, modification and operation of one or more pieces of equipment used for storing and dispensing service station fuels at a single gasoline dispensing facility.

ODCs

Ozone occurs naturally in the stratosphere and protects us from exposure from the sun's ultraviolet radiation. Certain man-made chemicals destroy the ozone layer. The most common of these chemicals, called ODCs, are chlorofluorocarbons (CFCs) and halons. ODCs are used in coolants, foaming agents, fire extinguishers, solvents, and aerosol propellants. NJARNG facilities use CFCs and halons in building fire suppression systems and air conditioning and refrigeration equipment. Halon and CFC inventories have already been performed for your facility (see Tables 4 and 5 of the ODCEP, which is available at ID-OEC in Lawrenceville).

When servicing motor vehicle air conditioners (MVAC), make sure that you:

- Use only approved certified refrigerant recycling equipment IAW 40 CFR Part 82, Appendices A through F of Subpart B
- Are properly trained and certified IAW 40 CFR 82.40. Four Technician Certification Types are set forth in 40 CFR Part 82.161
- Maintain all records of refrigerant transfer information and personnel certification records for a period of three years IAW 40 CFR 82.42
- Do not vent any refrigerant into the atmosphere
- Call ID-OEC before disposing of any device that contains refrigerants

Never discard old ODC-containing equipment or products in the general refuse container. Contact an ODC Elimination Team member listed in Table 1-1 for further guidance.

ODCs should not be saved for potential use at other installations. Class I ODCs must be eliminated from all facilities on army installations by fiscal year (FY) 03. The ODC Team is responsible for maintaining and implementing the ODCEP. As such, they will facilitate recovering, recycling, and turning in ODCs.

NOTE	Even though there are no compliance thresholds applicable to you, there are still certain procedures you must follow to comply with the ODCEP and ODC regulations. See Section C of this Chapter for your individual responsibilities and Section D for specific procedures.

Boilers

Based on the current permitting requirements enforced by the NJDEP, the following requirements are applicable to your facility:

- Combustion equipment must be easily identifiable, with clear and conspicuous labeling

- A process flow diagram showing the location of all combustion units and fuel monitoring devices must be maintained for General Permit only
- Equipment shall not be used in a manner, which will cause visible emissions other than visible condensed water vapor, except for a period no more than three minutes in any consecutive 30-minute period
- Equipment shall not cause any air contaminant to be present in the outdoor atmosphere in such quantity and duration, which may be harmful to human, animal, plant life, or property
- A copy of equipment manufacturer's specifications and instructions manual must be maintained on site for the life of each combustion unit and fuel-monitoring device present at the facility
- All other records must be maintained on site for a period of five years, in either a permanently bound logbook or readily accessible computer memory. Support documentation includes, but is not limited to:
  - Fuel delivery records and invoices
  - Records of equipment repairs and corrective actions/preventative measures
- All records relating to the General Permit must be made readily available for the NJDEP's inspection on the operating premises

The NJDEP reserves the right to request specific boiler information at anytime. These requirements can change from year to year. A comprehensive review of the existing program procedures needs to be evaluated by ID-OEC annually.

Facility managers must ensure that the Combustion Equipment Fuel Usage/Visual Monitoring Logs are completed. ID-OEC will use these logs to determine if and when emission thresholds will be exceeded in any given period. Facility personnel are to record the record the fuel usage daily and report monthly to ID-OEC.

NOTE	See Section C of this Chapter for your individual responsibilities and Section D for specific procedures associated with maintaining compliance with your boiler permit.

Paint Booths

Activities associated with paint booths or painting in which the quantity of coating or cleaning material used by a source in any one hour is equal to or greater than one half gallon of liquid are subject to a construction and operational permit through the NJDEP.

Individual permits are issued by the NJDEP with specific guidelines for an individual facility. For example, a permit condition may be "in an hour period, no more than X gallons of paint may be applied." See Paint Booth Procedures in Section D of this chapter.

Emergency Generators

This General Permit allows for the construction, installation, reconstruction, modification and operation at no more than 500 hours per year of a single emergency generator, with a maximum gross heat input rate of 15 MMBTU/hr for generators combusting number 2 fuel oil, diesel or kerosene. See Emergency Generator Procedures in Section D of this chapter.

Fueling Stations

Fueling stations are aboveground storage tanks that contain petroleum fuels and are used to fill vehicles. As per the GP-004, the maximum throughput of gasoline is six million gallons per year. See Fueling Facility Checklists in Section D of this chapter for more specific guidance.

Other Air Issues

Open burning is prohibited in the State of New Jersey unless permitted. This includes the burning of leaves, refuse and building material. Under no circumstances is the burning of any waste, solid or liquid, permitted by the State of New Jersey.

C. Responsibilities

ID-OEC

ID-OEC establishes and oversees the ODC Elimination Team. The ODC Elimination Team is responsible for overseeing the proper use and removal of ODCs, and maintaining a current and accurate inventory of ODCs for all NJARNG facilities. Table 1-1. lists the current members of the ODC Elimination Team.

Table 1-1. ODC Elimination Team Members

Function	Facility Name	Symbol	Phone Number
Facilities Management Specialist	NJARNG	Construction Facilities Management Office (CFMO)	(609) 530-7165

Function	Facility Name	Symbol	Phone Number
Team Leader	NJARNG	ID-OEC	(609) 530-7136
Trenton Regional Supervisor	NJARNG	Facilities Maintenance Bureau (ID-FMB)	(609) 530-6976

ID-OEC also:

- Implements the ODCEP
- Maintains the facility in compliance federal, state, local, and Army ODC regulations
- Ensures that your facility is covered under the General Permit (GP-006)
- Provides facility personnel with guidance and compliance tools for operating the boiler
- Ensures facility personnel have received general environmental awareness training on the paint booth
- Ensures fuel-monitoring devices are present at the facility
- Ensures the vapor recovery system is operational
- Ensures there's not more than six million gallons of throughput documented for any tank

ODC Elimination Team

- Conducts and maintains an ODC inventory for each NJARNG facility
- Maintains the facility in compliance federal, state, local, and Army ODC regulations
- Ensures that ODC equipment and products are properly managed, and all unused or retired ODC equipment and products are properly recovered and turned in
- Ensures the recovery and turn-in of all ODCs

Shop Chiefs/Armorers

- Maintains the facility in compliance federal, state, local, and Army ODC regulations
- Uses only approved certified refrigerant recycling equipment IAW 40 CFR Part 82, Appendices A through F of Subpart B
- Ensures that only properly trained and certified personnel IAW 40 CFR 82.40 work with ODCs

- Maintains all records of refrigerant transfer information and personnel certification records for a period of three years IAW 40 CFR 82.42
- Maintains proper ODC equipment
- Maintains ODC leak repairs and maintenance records
- Calls ID-OEC before disposing any device that contains refrigerants
- Not vents a refrigerant into the atmosphere
- Ensures combustion equipment is easily identifiable with clear and conspicuous labeling
- Maintains a process flow diagram showing the location of all combustion units and fuel monitoring devices at the facility
- Ensures that boiler does not emit visible emissions other than visible condensed water vapor, except for a period no more than three minutes in any consecutive 30-minute period
- Maintains a copy of equipment manufacturer's specifications and instructions manual on site for the life of each combustion unit and fuel-monitoring device present at the facility
- Maintains all boiler records on site for a period of five years, in either a permanently bound logbook or readily accessible computer memory
- Conducts all required inspections and checklists
- Ensures copies of equipment and manufacturer's specifications and instructions manuals are maintained on site for the booth, spray guns, and filter material
- Ensures lids are being used to cover buckets or pales of opened thinner/cleaner
- Maintains paint and related chemical usage logs
- Ensures copies of equipment and manufacturer's specifications and instructions manuals are maintained on site for the life of each combustion unit
- Ensures fuel-monitoring devices are present at the facility
- Ensures generator operations do not lead to any ill effects off site
- Ensures the vapor recovery system is operational
- Ensures there's not more than six million gallons of throughput documented for any tank
- Maintains tank fuel throughput

Unit Commanders/UECOs

- Maintains the facility in compliance federal, state, local, and Army ODC regulations

- Uses only approved certified refrigerant recycling equipment IAW 40 CFR Part 82, Appendices A through F of Subpart B
- Ensures that only properly trained and certified personnel IAW 40 CFR 82.40 work with ODCs
- Maintains all records of refrigerant transfer information and personnel certification records for a period of three years IAW 40 CFR 82.42
- Maintains proper ODC equipment
- Maintains ODC leak repairs and maintenance records
- Calls the NJARNG IC-OEC before disposing any device that contains refrigerants
- Ensures combustion equipment is easily identifiable with clear and conspicuous labeling
- Maintains a process flow diagram showing the location of all combustion units and fuel monitoring devices at the facility
- Ensures that boiler does not emit visible emissions other than visible condensed water vapor, except for a period no more than three minutes in any consecutive 30-minute period
- Maintains a copy of equipment manufacturer's specifications and instructions manual on site for the life of each combustion unit and fuel-monitoring device present at the facility
- Maintains all boiler records on site for a period of five years, in either a permanently bound logbook or readily accessible computer memory
- Ensures copies of equipment and manufacturer's specifications and instructions manuals are maintained on site for the booth, spray guns, and filter material
- Ensures lids are being used to cover buckets or pales of opened thinner/cleaner
- Maintains paint and related chemical usage logs
- Ensures copies of equipment and manufacturer's specifications and instructions manuals are maintained on site for the life of each combustion unit
- Ensures fuel-monitoring devices are present at the facility
- Ensures the vapor recovery system is operational
- Ensures there's not more than six million gallons of throughput documented for any tank
- Maintains tank fuel throughput

Other Maintenance Shop Personnel

- Maintains the facility in compliance federal, state, local, and Army ODC regulations
- Not vents a refrigerant into the atmosphere
- Conducts all required inspections and checklists
- Maintains a maintenance SOP for replacing filter material
- Ensures lids are being used to cover buckets or pales of opened thinner/cleaner
- Maintains paint and related chemical usage logs

Other Armory/Unit Personnel

- Maintains the facility in compliance federal, state, local, and Army ODC regulations
- Not vents a refrigerant into the atmosphere
- Conducts all required inspections and checklists
- Ensures generator operations do not lead to any ill effects off site

D. Procedures

This section identifies specific procedures you will use to support the policies/goals of the ODCEP, General Boiler Permits, Paint Booth Procedures, Emergency Generator General Permit, and Fueling Station General Permit. These procedures are associated with specific checklists. logs, or other compliance tools. These step-by-step procedures are easy-to-follow, and support compliance with federal, state, and local requirements.

This section contains the following compliance tools:

- Facility Motor Vehicle Air Conditioning (MVAC) Compliance Statement
- ODC Compliance Checklist
- Combustion Equipment Fuel Usage/Visual Monitoring Log
- Boiler Compliance Checklist
- Boiler Visual Monitoring Log
- Paint Booth Compliance Checklist
- Paint Booth Usage Log
- Paint Booth Filter Removal Log
- Generator Compliance Checklist
- Generator Visual Monitoring Log

- Fueling Facility Checklist
- Fuel Usage Log
- Fueling Facility Tank Identification Log

FACILITY MVAC COMPLIANCE STATEMENT

The _____ facility(ies) located in _____, New Jersey, has acquired and is properly using, approved equipment according to 40 CFR Part 82.36. I certify that any individual servicing MVAC systems is certified according to 40 CFR Part 82.40. The equipment specifications are listed below.

Manufacturer	Model Number	Date Manufactured	Serial Number

I Certify that the above information given is true and correct.

Responsible Official:

_____

Date:

_____

Send to:

State of New Jersey Department of Military and Veterans Affairs
Office of Environmental Compliance
101 Eggert Crossing Road
Lawrenceville, NJ 08648

ODC COMPLIANCE CHECKLIST (PERFORMED AS REQUIRED)

Check ODC equipment and records as required. Use this checklist as a guide for completing your inspection. When finished, sign and date the form in the space provided. ***Should you note a deficiency, send a copy of the inspection form to the ID-OEC.***

Facility Equipment:		
Are all of the pieces of equipment used to recycle or recover refrigerant EPA approved?	Yes _____	No _____
Are all pieces of equipment containing ODCs properly maintained and free of leaks?	Yes _____	No _____
Personnel Training:		
Are the technicians servicing MVAC equipment certified by an EPA-approved Program?	Yes _____	No _____
Have all facility personnel received ODC general awareness training?	Yes _____	No _____
Recordkeeping:		
Is there a copy of the technicians EPA-approved MVAC certification on-site?	Yes _____	No _____
Is there a log book being maintained of the amount and type of MVACs serviced each year?	Yes _____	No _____
Is there a log book being maintained of the amount and type of ODC that is recovered and being sent off-site, and name and addresses of sites receiving ODCs?	Yes _____	No _____
Are records being maintained for at least three years?	Yes _____	No _____
Is there a copy of the MVAC Compliance Statement (ODC Procedure 1) on-site?	Yes _____	No _____

DATE	INSPECTOR'S INITIALS	DEFICIENCIES?	DATE CORRECTED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

COMBUSTION EQUIPMENT FUEL USAGE/VISUAL MONITORING LOG

Date	Fuel Type	Gallons Added	Total Capacity	Weather Conditions	Color of Smoke	General Observations

BOILER COMPLIANCE CHECKLIST (PERFORMED MONTHLY)

Check boiler equipment and records monthly. Use this checklist as a guide for completing your inspection. When finished, sign and date the form in the space provided. ***Should you note a deficiency, send a copy of the inspection form to the ID-OEC.***

Facility Equipment:

Is all combustion equipment easily identifiable by clear labeling plates?	Yes _____	No _____
Is a copy of equipment manufacturer's specifications and instructions manual maintained on site for the life of each combustion unit?	Yes _____	No _____
Are there fuel-monitoring devices present at the facility?	Yes _____	No _____

Recordkeeping:

Are all other records maintained on site for a period of five years, in either a permanently bound logbook or readily accessible computer memory including: • Boiler Fuel usage Log • Boiler Visual Monitoring Log • Fuel delivery records and invoices • Records of equipment repairs and corrective actions/preventative measures	Yes _____	No _____
Is the operator's certificate displayed and current?	Yes _____	No _____

DATE	INSPECTOR'S INITIALS	DEFICIENCIES?	DATE CORRECTED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

BOILER VISUAL MONITORING LOG

Date	Observer's Name	Plant ID (See Certificate)	Weather Conditions	Color of Smoke	General Observations

PAINT BOOTH COMPLIANCE CHECKLIST (PERFORMED MONTHLY)

Check paint booth equipment and records monthly. Use this checklist as a guide for completing your inspection. When finished, sign and date the form in the space provided. ***Should you note a deficiency, send a copy of the inspection form to the ID-OEC.***

Facility Operational Information:

Does the facility have an operational permit?	Yes _____	No _____
Is the permit, current, or has anything changed since the last inspection?	Yes _____	No _____
Is a copy of equipment manufacturer's specifications and instructions manual maintained on site for the booth, spray guns, and filter material?	Yes _____	No _____
Is there a maintenance SOP for replacing filter material?	Yes _____	No _____
Are lids being used to cover buckets or pales of opened thinner/cleaner?	Yes _____	No _____

Recordkeeping:

Are all other records maintained on site for a period of five years, in either a permanently bound logbook or readily accessible computer memory including: • Paint and Thinner usage Log (Paint Booth Procedure 2) • Emissions inventories and PTE calculations • Records of equipment repairs and corrective actions/preventative measures	Yes _____	No _____
Is the operator's certificate displayed and current?	Yes _____	No _____

DATE	INSPECTOR'S INITIALS	DEFICIENCIES?	DATE CORRECTED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

PAINT BOOTH USAGE LOG

Date	Paint/Thinner Type	Gallons Used/Added	Hours Operating	Process

PAINT BOOTH FILTER REMOVAL LOG
(PERFORM AS NEEDED OR PER MAINTENANCE SOP)

Date	Name	Location of Filter	Filter Condition	Why Filter Was Changed

GENERATOR COMPLIANCE CHECKLIST (PERFORMED MONTHLY)

Check generator equipment and records monthly. Use this checklist as a guide for completing your inspection. When finished, sign and date the form in the space provided. ***Should you note a deficiency, send a copy of the inspection form to the ID-OEC.***

Facility Operational Information:

Is all combustion equipment easily identifiable by clear labeling plates?	Yes _____	No _____
Is all fuel used to operate the generators documented through the use of a totalizing fuel meter?	Yes _____	No _____
Ensuring generator operations do not lead to any ill effects off site.	Yes _____	No _____
Is a copy of equipment manufacturer's specifications and instructions manual maintained on site for the life of each combustion unit?	Yes _____	No _____
Are there fuel-monitoring devices present at the facility?	Yes _____	No _____

Recordkeeping:

Are all other records maintained on site for a period of five years, in either a permanently bound logbook or readily accessible computer memory including: • Emergency Generator Fuel usage Log • Emergency Generator Visual Monitoring Log • Fuel delivery records and invoices • Records of equipment repairs and corrective actions/preventative measures	Yes _____	No _____
Is the general permit displayed and current?	Yes _____	No _____

DATE	INSPECTOR'S INITIALS	DEFICIENCIES?	DATE CORRECTED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

GENERATOR VISUAL MONITORING LOG
(PERFORMED WHEN IN USE)

Date	Observer's Name	Plant ID (See Certificate)	Weather Conditions	Color of Smoke	General Observations

FUELING FACILITY CHECKLIST (PERFORMED MONTHLY)

Check fueling equipment and records monthly. Use this checklist as a guide for completing your inspection. When finished, sign and date the form in the space provided. ***Should you note a deficiency, send a copy of the inspection form to the ID-OEC.***

Facility Equipment:

Is the AST/UST >2,000 gallons?	Yes _____	No _____
Is the vapor recovery system operational?	Yes _____	No _____
Is there more than six million gallons of throughput documented for any tank?	Yes _____	No _____
Are all AST's >2,000 gallons painted white?	Yes _____	No _____
Are all tanks >10,000 gallons equipped with a conservation vent?	Yes _____	No _____

Personnel Training:

Have facility personnel received general awareness training on gasoline storage and refueling procedures?	Yes _____	No _____

Recordkeeping:

Are all other records maintained on site for a period of five years, in either a permanently bound logbook or readily accessible computer memory including:	Yes _____	No _____

- Fuel throughput Log (Fueling Facility Procedure 2)
- Tank Identification Log (Fueling Facility Procedure 3)
- Fuel delivery records and invoices
- Records of equipment repairs and corrective actions/preventative measures

Is the general permit displayed and current?	Yes _____	No _____

DATE	INSPECTOR'S INITIALS	DEFICIENCIES?	DATE CORRECTED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

FUEL USAGE LOG

Date	Fuel Type	Gallons Used	Total Capacity

FUELING FACILITY TANK IDENTIFICATION LOG

Date	Tank Material Type	Fuel Type	Total Capacity

E. Training

ODCEP

Only properly trained and certified individuals may perform repairs or service on certified MVAC refrigerant systems. The following four technician certification types are set forth in 40 CFR Part 82.161:

- Type I – Maintain, service, or repair small appliances with five pounds or less of refrigerant
- Type II – Maintain, service, repair, or dispose of high- or very high-pressure appliances (an appliance using a refrigerant with a boiling point between –50° and 10°C). Typically these include comfort cooling appliances with greater than 50 pounds of refrigerant charge. Type II technicians can also maintain, service, or repair MVAC-like appliances.
- Type III – Maintain, service, repair, or dispose of low-pressure appliances (an appliance using a refrigerant with a boiling point above 10°C at atmospheric pressure). Typically these include industrial cooling systems such as large building chillers.
- Type IV (Universal Technicians) – Maintain, service, repair, or dispose of low- and high-pressure equipment must be certified as Universal Technicians

To arrange to the appropriate level of training for facility personnel, contact ID-OEC.

In addition, all facility personnel may be given ODC general awareness training.

Boiler General Permits

There are currently no training requirements mandated for boiler permits. However, as a best management practice, all facility personnel should be given general awareness training on the boiler.

Paint Booths

In the event that a location has a paint booth, training may be provided as per the site-specific permit.

Emergency Generators

There are currently no training requirements mandated for generator permits. However, as a best management practice, all facility personnel should be given general awareness training on emergency generators.

Fueling Stations

There are currently no training requirements mandated for fueling station general permits. However, as a best management practice, all facility personnel should be given general awareness training on storage tanks.

F Recordkeeping

The following records must be maintained in the facility's environmental records for at least five years (unless a longer period is specified on the document):

- Permit Certification Letters
- Self-inspection checklists

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Chapter 2
Asbestos Management

This chapter discusses the NJARNG's policies/goals, procedures, and compliance tools used to support its Asbestos Management Program.

A. Program Overview

AR 200-1 requires that all state ARNGs eliminate asbestos-related health hazards by conducting an inventory of all asbestos-containing material (ACM) and providing management guidelines through facility-specific Asbestos Management Plans (AMPs).[1] For each facility, NJARNG must assess the amount, type, condition, and location of all suspected ACM. For all NJARNG facilities with suspected ACM, NJARNG will prepare a site-specific AMP to describe management techniques and training procedures for the facility.

To fulfill the AR200-1 requirements, NJARNG has developed a Master Asbestos O&M Plan that outlines the general responsibilities, notification and labeling, training, work practices, requesting work, emergency response, inspections, and documentation requirements. In addition, NJARNG has developed site-specific AMPs for facilities with ACM. These plans augment the master plan by describing past abatement and indicating if any ACM remains onsite.

B. Compliance Thresholds

This section discusses compliance thresholds established in the Asbestos O&M Plan.

Asbestos is the name given to a number of naturally occurring fibrous minerals that have been mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength.

Asbestos is not always an immediate hazard. If maintained in good condition, asbestos may be left alone. It is only when ACM are disturbed and become damaged that asbestos becomes a hazard. When asbestos become damaged, the fibers separate and may become airborne or "friable." Friable asbestos means that it can be reduced to dust by hand pressure. Non-friable materials, such as brake shoes and floor tiles are not regulated provided it does not become friable.

There should be signs posted in accordance with the Asbestos O&M Plan that shows you where ACM is located. Consult the Master Asbestos O&M Plan and the site-specific plan for

[1] The Army's Asbestos Program policies and goals are stated in AR 200-1, Chapter 8. Paragraphs 8-2 and 8-3 of this regulation address AMPs.

your facility to determine if ACM has been identified. Or, you may also contact your Asbestos Program Manager (APM). He/she will be able to access the NJARNG asbestos database to determine what types of asbestos may be present and where it may be located.

All personnel who as part of their job requirements have the potential to disturb ACM in the workplace should be aware of potential ACM at their facility. Therefore, you are encouraged to review the Observation of Suspect ACM form to determine what building materials typically contain asbestos. If you suspect a building material contains asbestos and is not listed in your facility's asbestos management plan, immediately call the APM. You must also document any new development in material condition on a Change of Status Form and provide the form to the APM. These forms are located in Section D, Procedures.

Pay attention to any asbestos warning signs posted at your facility. Do not disturb any floor tile, ceiling tile, pipe and boiler insulation, etc., that has been identified as ACM.

C. Responsibilities

TAG

- In accordance with AR 200-1, the TAG will appoint an APM with responsibility for the Asbestos Management Program

ID-OEC

- Appoints, on behalf of the TAG, an APM

APM

- Provides occupants and employees a safe and healthy environment as it relates to the ACM located in their building
- Minimizes the potential for exposing NJARNG personnel, state workers, contractors, and visitors to asbestos during the use and regular maintenance of NJARNG facilities, as well as during the removal and disposal of ACM and suspected ACM
- Coordinates all aspects of asbestos operations and/or oversight including coordinating local regulatory requirements with the NJDEP, State of New Jersey Department of Community Affairs, New Jersey Public Employee's Occupation Safety and Health Administration (PEOSHA) and the United States Occupational Safety and Health Administration (OSHA)
- Annually reviews and updates the O&M Plan to ensure it is current with applicable standards and state-of-the-art asbestos control technologies
- Maintains overall responsibility for the O&M program

- Oversees all asbestos-related work performed in the facility, including work performed by contractors
- Administers the work permit system
- Maintains asbestos project records
- Holds a current Asbestos Hazard Emergency Response Act (AHERA) Building Inspector and Management Planner accreditation
- Acts as a competent supervisor when O&M work is conducted by NJDMAVA personnel
- Carefully following all guidelines of the O&M Plan to minimize the potential for exposing building occupants and employees to airborne asbestos fibers
- Is familiar with all ACM in NJDMAVA facilities and ensuring that all building occupants and employees are notified of the presence of ACM and the potential hazards of exposure to airborne asbestos fibers
- Ensures that all NJDMAVA personnel and all those involved with the Asbestos Management Program have received formal training
- Marks the ACM and/or ACM areas with permanent signs and/or labels to warn building occupants, employees and contractors of the presence of ACM
- Marks the ACM areas requiring restricted access with permanent signs to warn against entry by unprotected personnel
- Upon notification of an ACM observation or potential disturbance, takes the immediate precautionary measures and follow-up action
- Seeks guidance from qualified asbestos management consultants when the complexity or seriousness of the situation is beyond the capabilities of in-house personnel (e.g., large quantities of ACM involved or abatement projects requiring specialized equipment and/or supplies for ACM removal)
- At least once every six months, performs a detailed inspection of the facility using the Asbestos Inventory Report

CFMO-Engineering

- Provides technical support to the APM regarding building construction and drawings
- Advises the APM of all known building renovations/ modifications so that the disturbance of ACM is avoided
- Provides written notification to all contractors where ACM is present to avoid accidental disturbances

Installations Division Construction Management Bureau (ID-CMB)

- Provides technical support to the APM regarding building construction and drawings
- Advises the APM of all known building renovations/ modifications so that the disturbance of ACM is avoided
- Provides written notification to all contractors where ACM is present to avoid accidental disturbances

ID-FMB

- Advises the APM of all known building renovations/modifications so that the disturbance of ACM is avoided
- Provides written notification to the state maintenance force where ACM is present to avoid accidental disturbances

Installations Division Office of Real Property (ID-ORP)

- Advises the APM of all known building renovations/modifications so that the disturbance of ACM is avoided
- Notifies all NJDMAVA building leases of the location of any ACM to avoid accidental disturbances

Other Maintenance/Shop/Armory/Unit

- Follows the work procedures outlined in the Work Practices of the O&M Plan and the National Institute of Building Sciences (NIBS) Guidance Manual to minimize the potential for exposures to airborne asbestos fibers
- Follows the surveillance and maintenance schedules specified in the O&M Plan
- Notifies the APM of degradation of the condition of the ACM
- Is aware of ACM locations, how to recognize these materials, and the proper procedures to follow to minimize any exposure during routine and non-routine activities
- Notifies the APM immediately upon discovery of any potential disturbance to ACM including maintenance activities or projects which may affect ACM directly or indirectly
- During their normal duties, looks for signs of physical damage, such as gouges in pipe insulation, gouges/holes in ceiling tile or acoustical treatments, deterioration/cracking of floor tile, and holes/cracks in wall plaster that could increase the potential for asbestos exposure. Any new development in material condition will be noted, described on a Change of Status Form, and provided to the APM.

D. Procedures

This section identifies specific procedures you will use to support the policies/goals of the Asbestos O&M Plan. These procedures are associated with specific checklists, logs, or other compliance tools. These step-by-step procedures are easy-to-follow, and support compliance with federal, state, and local requirements.

During their normal duties, all personnel should look for signs of physical damage, such as gouges in pipe insulation, gouges/holes in ceiling tile or acoustical treatments, deterioration/cracking of floor tile, and holes/cracks in wall plaster that could increase the potential for asbestos exposure. As a guide, personnel should use the Observation of Suspect ACM form.

Any observation must be noted and described on a Change of Status Form and provided to the APM.

Compliance Tools

This section contains the following compliance tools:

- Observation of Suspect ACM
- Change of Status Form

OBSERVATION OF SUSPECT ACM

Check building for ACM, damage, and signs during the routine work day. Use this checklist as a guide for completing your inspection. ***Building occupants/workers should be aware of the following conditions and report immediately to the APM upon observation.***

Visual damage to or loose debris from the following suspect ACM:	**Problem/Deficiency?**	
Fireproofing	Yes _____	No _____
Attic or wall insulation	Yes _____	No _____
Acoustical materials	Yes _____	No _____
Insulation on piping	Yes _____	No _____
Insulation on HVAC ducts and mechanical equipment	Yes _____	No _____
Ceiling tiles and wall tiles	Yes _____	No _____
Floor penetration packing	Yes _____	No _____
Floor tiles	Yes _____	No _____
Plaster materials	Yes _____	No _____
Cementitious asbestos materials (piping, siding, wallboard, roofing, etc.)	Yes _____	No _____
Roofing materials (shingles, felt, etc.)	Yes _____	No _____
Window glazing and caulking	Yes _____	No _____
Any other suspect ACM	Yes _____	No _____
Signs, disturbances, and other:		
Damaged or missing asbestos warning signs	Yes _____	No _____
Breeches or openings in the existing suspended ceiling system if ACM is located above the ceiling	Yes _____	No _____
Performance of any work involving potential disturbances of ACM which is not in accordance with the work procedures described in this plan	Yes _____	No _____
During building renovation or demolition operations, possible disturbances of hidden or inaccessible ACM (sealed pipe chases, above fixed plaster ceiling, inside wall partitions, etc.) such as fireproofing or insulation material or debris	Yes _____	No _____
Entry into crawl spaces where soil may have been contaminated with asbestos debris	Yes _____	No _____

DATE	INSPECTOR'S INITIALS	DEFICIENCIES?	DATE CORRECTED
_____	_____	_____	_____
_____	_____	_____	_____

CHANGE OF STATUS FORM

Retain Copy in *Asbestos Operations and Maintenance Plan*

Date: _____ **Building No.:** _____

Building Name: _____ **Room:** _____

Inspector's Name (print clearly): _____

Inspector's Signature: _____

STATUS

Contact Damage: Y / N

Water Damage: Y / N

Other: _____

_____

Comments on Change of Status: _____

_____

Action Taken: _____

_____

_____

Action Approved By: _____ **Date:** _____

(Asbestos Program Manager)

E. Training

The O&M Plan describes the required training for managing asbestos in place and the methods for protecting workers from exposure to airborne asbestos. Training is also a requirement of OSHA's regulations for asbestos.

The APM must receive adequate training so they can effectively execute and enforce the requirements of the O&M Plan. This training shall include the AHERA Building Inspector and Management Planner accreditation training, EPA 16-hour O&M Course, and the relevant federal, state, and Army regulations concerning asbestos.

All employees, including custodial and maintenance workers, are also required to have formal training on selected asbestos-related subjects. This requirement also applies to all contractors prior to conducting work in the building. The APM, in conjunction with the federal and state health and safety offices, will determine when outside-accredited training organizations will be used to provide the required asbestos training. All training must be documented, and a record of each employee attending shall be kept in the Asbestos Management Program File.

OSHA classifies asbestos-related activities into four categories: Class I, which involves the highest potential for exposure to asbestos, through Class IV, which has the lowest potential exposure to asbestos. Subsequently, the control measures and training requirements are more rigorous for Class I and II operations and less rigorous for Class III and IV. NJDMAVA personnel will only be involved with asbestos-related activities of the Class III and IV category. Following is a list of the suggested training for the various personnel.

	Personnel	Suggested Training	Duration
•	Maintenance/Custodial	General Awareness	Two hours
•	ACM Maintenance	O&M (includes hands-on training)	16 hours
•	Maintenance Supervisor	O&M	16 hours
•	Asbestos Program Manager	AHERA Inspector/ Management Planner	Five days

Each new maintenance and custodial employee will be provided asbestos general awareness or O&M training (if applicable). All maintenance and custodial employees who work at a facility where ACBM has been found will have some training in the health effects of asbestos, use of asbestos in building systems/materials, location of asbestos in the facility, and measures to protect individuals from exposure to asbestos. OSHA requires that all maintenance staff performing Class III and IV work attend annual refresher training sessions. New employees will be trained on the location of ACBM and safeguards as part of their orientation program.

F. Recordkeeping

Maintain all inspection forms and change of status forms in your facility files indefinitely.

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Chapter 3
Cultural & Historic Resources Management

This chapter discusses the NJARNG's policies/goals, procedures, and compliance tools used to support its Cultural and Historic Resources Management Program.

A. Program Overview

AR 200-1 requires that all state ARNGs establish a program to manage their cultural and historic resources in compliance with applicable federal, state, and local laws and in a spirit of stewardship of America's historic and cultural heritage.[1] Cultural and historic resources include places, buildings, objects, documents, collections, and customs. This program includes an Integrated Cultural Resources Management Plan (ICRMP).

The NJARNG has developed an ICRMP that identifies, evaluates, and assesses actions on historic properties in compliance with 36 CFR Part 800, AR 200-4 and DA PAM 200-4. The ICRMP is a comprehensive decision and compliance-planning document that outlines specific regulatory issues and SOPs. The ICRMP addresses the following three categories of cultural and historic significance:

- Historic Buildings and Structures
- Historical Objects and Collections
- Archeological Sites

B. Compliance Thresholds

Historic Buildings and Structures

Some facilities could be identified as having structures of historical significance and sufficient architectural integrity to be regarded as eligible for listing on the National Register of Historic Places. The buildings and associated standing structures on these properties should not be demolished, refurbished, repaired, sold, or otherwise modified unless such actions are in strict accordance with the Secretary of Interior's Standards for Rehabilitation.

All projects, planned or in progress, must be coordinated through ID-OEC. Any project that may alter the characteristics of a property will need to be evaluated for its possible affects to

[1] The Army's cultural and historic resources policies and goals are stated in AR 200-1, 15-4. The Army's procedure for managing cultural resources are described in AR 200-4 and DA PAM 200-4.

the cultural and/or historical integrity of your facility. The project cannot begin until the evaluation is complete.

Historical Objects and Collections

Any damage or planned movement of historic documents or memorabilia should be reported to the State (NJDMAVA) Museum Committee. Curators should conduct annual reviews.

Archeological Sites

Any inadvertent discovery of human remains or cultural items (pottery, arrowheads, etc.) must be reported to ID-OEC.

C. Responsibilities

ID-OEC

- Implements the overall ICRMP to ensure compliance with applicable federal, state, and local laws and regulations
- Identifies, evaluates, and assesses the impacts of any action on historic properties
- Trains shop personnel on the ICRMP
- Informs proponent of facility-specific action of the ICRMP guidelines that govern any project that may alter the characteristics of property
- Notifies supervisor of any inadvertent discovery of archeological material due to construction, erosion, or other soil disturbance

Shop Chiefs/Armorers

- Facilitates shop personnel's awareness of the actions that could impact the cultural and historic resources of the facility
- Informs proponent of facility-specific action of the ICRMP guidelines that govern any project that may alter the characteristics of property
- Notifies ID-OEC immediately prior to any action that is believed to compromise the cultural and/or historic resources of the facility
- Is aware of the actions that could impact the cultural and historic resources of the facility
- Notifies your supervisor of any action you believe could impact the cultural and/or historic resources of the facility

- Notifies supervisor of any inadvertent discovery of archeological material due to construction, erosion, or other soil disturbance

Facility Curators

- Maintains historical collections and appoints directors of museums and/or historical holdings at their respective installations
- Notifies ID-OEC immediately prior to any action that is believed to compromise the cultural and/or historic resources of the facility

Unit Commanders/UECOs

- Facilitates shop personnel's awareness of the actions that could impact the cultural and historic resources of the facility
- Informs proponent of facility-specific action of the ICRMP guidelines that govern any project that may alter the characteristics of property
- Notifies ID-OEC immediately prior to any action that is believed to compromise the cultural and/or historic resources of the facility
- Is aware of the actions that could impact the cultural and historic resources of the facility
- Notifies your supervisor of any action you believe could impact the cultural and/or historic resources of the facility
- Notifies supervisor of any inadvertent discovery of archeological material due to construction, erosion, or other soil disturbance

Other Maintenance Shop Personnel

- Informs proponent of facility-specific action of the ICRMP guidelines that govern any project that may alter the characteristics of property
- Notifies ID-OEC immediately prior to any action that is believed to compromise the cultural and/or historic resources of the facility
- Is aware of the actions that could impact the cultural and historic resources of the facility
- Notifies your supervisor of any action you believe could impact the cultural and/or historic resources of the facility
- Notifies supervisor of any inadvertent discovery of archeological material due to construction, erosion, or other soil disturbance

Other facility Personnel

- Informs proponent of facility-specific action of the ICRMP guidelines that govern any project that may alter the characteristics of property
- Notifies ID-OEC immediately prior to any action that is believed to compromise the cultural and/or historic resources of the facility
- Is aware of the actions that could impact the cultural and historic resources of the facility
- Notifies your supervisor of any action you believe could impact the cultural and/or historic resources of the facility
- Notifies your supervisor of any inadvertent discovery of archeological material due to construction, erosion, or other soil disturbance

D. Procedures

This section identifies specific procedures you will use to support the policies/goals of the ICRMP. These procedures are associated with specific checklists, logs, or other compliance tools. These step-by-step procedures are easy-to-follow, and support compliance with federal, state, and local requirements.

Historic Buildings and Structures

If new construction, or modifications to existing structures are planned, notify ID-OEC early in the design process to identify any potential NRHP-eligible properties, traditional cultural properties, or sacred sites that may be affected.

Historical Objects and Collections

The Museum Committee is responsible for maintaining objects/collections. If there are any inadvertent discoveries of archeological material due to construction, erosion, or other soil disturbance, the project manager should contact ID-OEC immediately by telephone or radio, and work should cease until further notified.

Archeological Sites

If there are any inadvertent discoveries of archeological material due to construction, erosion, or other soil disturbance, the project manager should contact ID-OEC immediately by telephone or radio, and work should cease until NHPA and NAGPRA regulations are initiated and followed

Compliance Tools

This section contains the following compliance tools:

- Building and Structure Compliance Checklist
- Archeological Compliance Checklist

BUILDING AND STRUCTURE COMPLIANCE CHECKLIST (PERFORMED SEMI-ANNUALLY)

Check buildings and structures semi-annually. Use this checklist as a guide for completing your inspection. When finished, sign and date the form in the space provided. ***Should you note a deficiency, send a copy of the inspection form to the ID-OEC.***

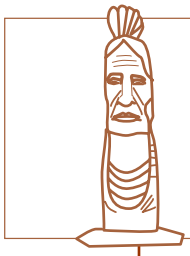
Building and Structures:

Are the exteriors, interiors, and structural integrity of the buildings free of damage and deterioration?	Yes _____	No _____
Has ID-OEC been notified of all existing and proposed construction/earth moving projects at your facility?	Yes _____	No _____

Recordkeeping:

Are records being maintained onsite that documents ICRMP building and structure training and notification/correspondence with ID-OEC?	Yes _____	No _____
Are all building and structure records being maintained for at least three years, including this checklist?	Yes _____	No _____

DATE	INSPECTOR'S INITIALS	DEFICIENCIES?	DATE CORRECTED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____



ARCHEOLOGICAL COMPLIANCE CHECKLIST (PERFORMED SEMI-ANNUALLY)

Check facility semi-annually. Use this checklist as a guide for completing your inspection. When finished, sign and date the form in the space provided. ***Should you note a deficiency, send a copy of the inspection form to the ID-OEC.***

Facility:

Has ID-OEC been notified of any discovery of potential archeological sites?	Yes _____	No _____
Has ID-OEC been notified of all existing and proposed earth/earth moving projects at your facility that may uncover any archeological sites?	Yes _____	No _____
	Yes _____	No _____

Recordkeeping (when/where needed):

Is there a log book being maintained onsite that documents ICRMP archeological site training and notification/correspondence with ID-OEC?	Yes _____	No _____
Are all archeological site records being maintained for at least three years, including this checklist?	Yes _____	No _____

DATE	INSPECTOR'S INITIALS	DEFICIENCIES?	DATE CORRECTED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

E. Training

ID-OEC is responsible for training unit commanders and shop supervisors on the ICRMP. Unit commanders and supervisors are responsible for ensuring that their personnel receive general awareness tanning on the ICRMP.

F. Recordkeeping

Maintain compliance checklists in facility files for at least three years.

Chapter 4
Hazardous Material Management

This chapter discusses the NJARNG's policies/goals, procedures, and compliance tools that support its Hazardous Materials Management Program.

A. Program Overview

The purpose of this program is to provide guidance for the safe management of hazardous materials IAW applicable federal, state, and Army regulations, and policies. The program establishes procedures which enable the DMAVA to comply with annual reporting, recordkeeping, and training requirements.

B. Compliance Thresholds

Most facilities utilize hazardous materials in order to support their mission. A hazardous material management program should be utilized in order to track all types, quantities and locations of hazardous materials purchased through the military system and locally. According to DA PAM 200-1, hazardous material inventories shall be maintained and updated annually. This information will be used and updated annually for Emergency Planning and Community Right-to-Know Act (EPCRA), state, and local reporting requirements. Hazardous material inventory maintenance also aids in pollution prevention, procurement and shelf-life.

C. Responsibilities

USP&FO

- Maintains records of hazardous material purchases

Maintenance Shop Chief and Armorers

- Ensures proper storage and segregation of hazardous materials
- Ensures proper inventory completion
- Monitors the use of hazardous materials to ensure that conditions and practices do not degrade personnel safety

Other Maintenance and Armory Personnel

- Attends any required hazardous material management training as directed

- Conducts any inventories or inspections of hazardous materials as directed by the supervisor

D. Procedures

This section addresses the following topics:

- Inventory Control
- Material Safety Data Sheets (MSDSs)
- Material Compatibility
- Maintaining Material Shelf-life

This section also identifies specific procedures you will use to support the policies/goals of the hazardous materials management program to include completing the Hazardous Material Storage Unit Inspection Checklist (located at the end of this section).

Inventory Control[1]

Proper inventory of hazardous materials is essential in controlling the amount and types of hazardous materials. perform inventories of hazardous material in accordance with existing Federal Worker Communications Act, New Jersey Worker & Community Right-to Know Act, and all other applicable programs. ID-OEC will assist USP&FO to update the existing NJARNG Hazardous Materials Inventory Control List. As specific on Chapter 10 (Spill Planning and Response/POL Management) of this guide, the Installation On-Scene Coordinator for each spill plan is responsible for updating hazardous material storage information in their spill plans as needed.

Material Safety Data Sheets

MSDSs provide compatibility information for specific hazardous materials. In addition, they include information about associated hazards, specific handling procedures, and spill response measures.

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[1] According to AR 200-1, paragraph 4-2c, it is Army policy to apply inventory control techniques to prevent waste generation. Further, AR 200-1, paragraph 4-3b requires that a current hazardous material inventory be maintained.

Each facility must maintain a binder that contains MSDSs for all the hazardous material being stored at the facility. This binder must be centrally located and organized so an MSDS can be located quickly in case of a spill or exposure.

The MSDS binder must be accessible at all times for review by employees or emergency personnel.

Follow the steps below to create a master binder that contains MSDSs for all hazardous material at the facility.

Step 1. Obtain an MSDS for each hazardous material at the facility from the Hazardous Materials Information Resource System (HMIRS) or by accessing *http://www.msdssearch.com/*.

If the MSDS is not available through HMIRS, obtain a copy from the manufacturer.

The MSDS must be specific to the product's National Stock Number (NSN), CAGE number (manufacturer's code) or product name. These numbers or identification is printed on the MSDS and on the hazardous material container.

Step 2. Place all MSDSs in a binder so that specific products can be associated with the corresponding MSDS. Create an index in the front of the binder(s) listing the MSDSs. Centrally locate the binder in the facility.

Material Compatibility

Once all the MSDSs are obtained for all the hazardous material at the facility, determine what types of chemicals can be stored together and what types must be segregated. Department of Transportation (DOT) warning labels and DOT precautionary labels will aid you with this determination (see Figures 4-1 and 4-2).

Figure 4-1. Sample DOT Labels

Figure 4-2. Precautionary Label

WARNING!

CAUTION!

DANGER!

Maintaining Material Shelf-life

Most hazardous material purchased through the military supply system has an expiration date (test date or inspection date) printed on the container label. These dates are key to the shelf-life program. Hazardous material purchased locally usually does not have a published expiration date. Call the manufacturer to establish a shelf life for these items.

Materials with expiration dates are classified as either Type I or Type II. Containers of Type I materials have an alphabetical shelf-life code and an expiration date. These materials are not extendible. DOD policy requires that Type I hazardous material be used or disposed of within 30 days of the expiration date. Containers of Type II materials have a numeric shelf-

life code and either a test date or an inspection date. These materials may be extended through visual inspection or laboratory testing. Type II chemicals must be used, extended, or disposed of within 90 days of their expiration date.

To extend by…	Consult the…
Laboratory testing	Quality Status Listing (QSL*)* at *www.dscr.dla.mil/qsl/qsl.htm*. The QSL provides laboratory testing data for hazardous material. See Figure 4-3.
Visual inspection	Material Quality Control Storage Standard (MQCSS) at *www.shelflife.hq.dla.mil/*. The MQCSS provides information from NSN on how to visually inspect an item and how many times an item may be extended. See Figure 4-4.

Figure 4-3. Example QSL Web Page (www.dscr.dla.mil/qsl/qsl.htm)

QUALITY STATUS LIST

The QSL now includes data from the Air Force Shelf-Life Extension Data Report (SLED). The SLED primarily reflects extension data for the Air Force retail tested by Air Force Labs. The following applies to these QSL records.
-- The "SOS" field displays: "RTL" for retail owned/tested stock.
-- Test data applies to retail stock only.
-- If the contract number is not available, "AF" is displayed in the "ISSUE TO" field and the CONTRACT" field. The last four digits of this field reflect date of manufacture of materiel tested.
-- To view or download the entire report, leave the NSN/FSC box blankand click on "Query".

NOTE: ENTER NSN WITH NO DASHES.

NSN/FSC 9150011029455

Query Clear

Enter the

QUALITY STATUS LIST

Download Query Results **NOTE:** Do NOT attempt to download from this screen if you are using Internet Explorer 3.0. Doing so will cause problems with the download. Netscape 4.0 and IE 4.0 users should not experience any problems.

NSN	CONTRACT NUMBER	LOT/BATCH	NOUN	SPECIFICATION	LAST TEST	TEST DUE	CONDITION CODE	ISSUE TO	SOURCE OF SUPPLY	TEST
9150011029455	DLA40088C5347	GB19595		MIL-B-46176	062001	062003	A	ALL	S9G	
9150011029455	DLA40090C5093	GB050518		MIL-B-46176	112000	112002	A	ALL	S9G	
9150011029455	DLA40091C5203	GB021702		MIL-B-46176	082001	082003	A	ALL	S9G	
9150011029455	DLA40091C5203	GB031711		MIL-B-46176	062001	062003	A	ALL	S9G	
9150011029455	SPO45196D0470	NO:SBF-1009		MIL-B-46176	042001	042003	A	ALL	S9G	
9150011029455	SPO45196D0470	990503		MIL-B-46176	042001	042003	A	ALL	S9G	
9150011029455	SP045000D0015	NOT GIVEN		MIL-B-46176	082000	082002	A	ALL	S9G	
9150011029455	SP045196D0470	97011		MIL-B-46176	072001	072003	A	ALL	S9G	
9150011029455	SP045196D0470	981109		MIL-B-46176	072001	072003	A	ALL	S9G	

Figure 4-4. Example MQCSS Web Page (www.shelflife.hq.dla.mil/)

To extend the shelf-life, follow the steps below:

Step 1. Determine if the material is Type I or Type II.

Step 2. If the shelf-life of a Type I material has not expired but is no longer needed, contact the USP&FO for turn-in procedures.

Step 3. If the shelf-life has expired, follow the appropriate procedure for Type I or Type II materials.

- For Type I materials, **STOP**. Turn the material in for disposal IAW established turn-in procedures.
- For Type II materials, determine if the shelf-life can be extended by test or inspection. Proceed to Step 4.

Step 4. Access the QSL online to see if the material has a test date. If test data is not available, go to Step 6.

Step 5. If test data is available, complete a shelf-life extension label and attach it to the container, or mark each container with the following information, if not already present:

- NSN

- Lot/batch number
- Date tested (day visually extended or QSL date)
- Next inspection/test date
- Authority (QSL, MQCSS, laboratory name)
- Initials of person who inspected and extended the item

Step 6. Access the MQCSS online to see if the material has inspection information. If inspection data is not available, go to Step 8.

Step 7. If inspection data is available, complete a shelf-life extension label and attach it to the container, or mark each container with the following information, if not already present:

- NSN
- Lot/batch number
- Date tested (day visually extended or QSL date)
- Next inspection/test date
- Authority (QSL, MQCSS, laboratory name)
- Initials of person who inspected and extended the item

Step 8. If a Type II item is not listed on the QSL or MQCSS, call the USP&FO Warehouse for guidance.

Step 9. If the USP&FO determines that the shelf-life cannot be extended, turn the material in for disposal.

HAZARDOUS MATERIAL STORAGE UNIT INSPECTION CHECKLIST (PERFORMED AS DIRECTED)

Check hazardous material (HAZMAT) storage units as directed by your supervisor. Use this checklist as a guide for completing your inspection. When finished, sign and date the form in the space provided. ***Should you note a deficiency, send a copy of the inspection form to the ID-OEC.***

Containers:

Containers good condition	Yes _____	No _____
Containers marked/labeled	Yes _____	No _____
Containers closed	Yes _____	No _____
Marking/label visible	Yes _____	No _____
No incompatibles	Yes _____	No _____
No loose lids or open bungs	Yes _____	No _____

Spills and Spill Equipment:

No spills	Yes _____	No _____
Spill kit available	Yes _____	No _____

Signs and Other Equipment:

Fire extinguisher near	Yes _____	No _____
Ground wire with alligator clip (for ignitables)	Yes _____	No _____
Sign posted	Yes _____	No _____
Emergency information posted	Yes _____	No _____

DATE/ ID of HAZMAT UNIT/AREA	INSPECTOR'S INITIALS	DEFICIENCIES?	DATE CORRECTED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

E. Training

Hazardous Material Training

Personnel handling hazardous materials must successfully complete general awareness and familiarization training, function-specific training, and safety training upon assignment and then annually thereafter.

F. Recordkeeping

Maintain inspection checklists in your facility files for at least three years.

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Chapter 5
Hazardous Waste Management

This chapter discusses the NJARNG's policies/goals, procedures, and compliance tools that support its Hazardous Waste Management Program.

A. Program Overview

The purpose of this program is to provide guidance for the safe management of hazardous waste IAW applicable federal, state, and Army regulations, and policies. The program establishes procedures which enable the DMAVA to track all hazardous waste from generation to disposal ("cradle-to-grave") and comply with annual reporting, recordkeeping, and training requirements.

B. Compliance Thresholds

Most NJARNG facilities are Conditionally Exempt Small Quantity Generators (CESQGs). In order to maintain CESQG status, each facility must not generate more than 220 lbs. of hazardous waste or 2.2 lbs. of acute hazardous waste per calendar month. Exceeding these thresholds will put the facility into the small quantity generator (SQG) or Large Quantity Generator (LQG) status, which have more recordkeeping and reporting requirements. Every effort should be made to recycle and implement waste reduction procedures.

C. Responsibilities

This section describes the roles and responsibilities of facility personnel.

Maintenance Shop Chief, Station Commanders, and Armorers

The shop chiefs (at maintenance facilities) and armorers (at armories), will ensure the following:

- Proper collection and segregation of hazardous and non-hazardous wastes generated at the facility
- Proper accumulation and packaging of hazardous waste in authorized containers
- Determine, monitor, and verify correct accumulation start dates for all hazardous waste accumulated at the facility
- Daily inspections of hazardous waste containers and accumulation areas
- Proper labeling of hazardous waste containers

- Maintain the original copy, three of each, of the completed hazardous waste manifest and notice of land disposal restriction form in an active file for three years
- Determine the required hazardous waste training needs given to maintenance personnel, and schedule the training

UECOs and Other Maintenance and Armory Personnel

- Attends any required hazardous waste management training
- Conducts any inventories or inspections of hazardous waste accumulation areas as directed by the supervisor

D. Procedures

This section addresses the following topics:

- Identifying Hazardous Waste
- Counting Hazardous Waste and Determining Generator Status
- Accumulating Hazardous Waste
- Marking and Labeling Containers
- Hazardous Waste Turn-in
- Manifest Tracking System

This section also identifies specific procedures you will use to support the policies/goals of the hazardous waste management program. These procedures are associated with specific checklists, logs, or other compliance tools and are located at the end of this section. These include:

- Daily Hazardous Waste Inspection Log

Identifying Hazardous Waste

NJARNG activities generate a wide variety of waste streams ranging from hazardous (such as paint thinner) to the least hazardous (such as waste paper). Generally, NJARNG's waste streams fall into the seven categories outlined in Table 5-1.

Note, for a material to be a hazardous waste, it must first be a solid waste (i.e., intended to be discarded). Some materials may be reused “as is” in lieu of disposal. For example, aviation fuel samples taken from the AASF flight line are not wastes as long as the they can be used as fuel elsewhere. For example, the fuel may be accumulated as POL (and not waste) prior to being poured into vehicle gas tanks of other fuel-burning equipment.

Table 5-1. Types of Waste Streams

Type of Waste	Definition
Hazardous Waste [1]	Defined as hazardous under Resource Conservation and Recovery Act (RCRA), these waste streams must be managed in accordance with all applicable federal and state hazardous waste management regulations.[1]
Universal Waste	These wastes include batteries, fluorescent lights, thermostats, lead-acid, non-lead batteries and pesticides that are defined as hazardous under RCRA. Although hazardous, they are subject to a reduced set of hazardous waste management regulations.
Recyclable/Reusable Materials	As long as they are recycled or reused, these materials are either excluded from hazardous waste regulations or subject to a reduced set. Reusable materials include aviation jet fuel samples taken from the AASF flight line that may be reused elsewhere as fuel.
Non-hazardous Waste	These are certain waste streams that are not regulated as hazardous under RCRA but may pose a potential danger if improperly handled.
General Refuse	These waste streams are not regulated as hazardous under RCRA, nor do they pose an immediate threat. They may be thrown in the dumpster.
Special Wastes	These waste streams meet the definition of hazardous waste in the state of New Jersey. These wastes streams include asbestos, asbestos containing materials, used oil, certain types of sludge, oil spill cleanup material, and PCB's
Process Waste Managed under Contract	These wastes generate in-process (e.g., sludge that accumulates in the oil/water separator). They remain in process until picked up by the contractor.

[1] Hazardous waste is a solid waste that is not specifically excluded from regulation and meets one of the following criteria: ignitable, corrosive, reactive, or toxic as measured by standard test methods or can be reasonably determined through generator knowledge; specifically listed in 40 CFR 261, Subpart D or NJAC 7:26.

Typical waste streams (hazardous as well as non hazardous) managed at NJARNG facilities are listed on Table 5-2.

Table 5-2 Typical Waste Streams Found at NJARNG Facilities

Type of Waste	Waste Characterization	Container Used
Used Engine Oil, Transmission Fluid, Non-Synthetic Hydraulic Fluids	Non-Hazardous	Closed Top Metal Drum or Used Oil Collection Tank
Synthetic Brake Fluid	Non-Hazardous	Closed Top Metal Drum or Used Oil collection Tank
Used Antifreeze	Non-Hazardous	Closed Top Metal Drum
Oil-Saturated Rags (Shop Rags not Containing Solvents)	Non Hazardous	Open Top Metal Drum
Solvent-Saturated Rags	Hazardous Waste	Open Top Metal Drum
Used Spill Absorbent Containing Oil (Not Solvent)	Non-Hazardous	Open Top Metal Drum
"Empty"[1] Aerosol Spray Paint Cans	Hazardous Waste	Open Top Metal Drum
"Empty"[1] Paint, Varnish, Paint Thinner Cans	Non-Hazardous (Solid Waste)	General Refuse
Brake Shoes Containing Asbestos	Control for Proper Disposal (Not RCRA Hazardous Waste)	Open Top Metal Drum
Used Magnesium, Nickel-Cadmium, Mercury, Lithium, Alkaline Batteries (Non Automotive Lead-Acid)	Universal Waste	Poly open top drum for each chemical type of battery
Used Automotive Batteries (Lead-Acid)	Recyclable Material	NA. Turn in one-for-one exchange.
Fluorescent Light Bulbs	Universal Waste	Use Original Shipping Box or Obtain Suitable Cardboard Box from USP&FO

[1] In this case, NJARNG has adopted the definition of RCRA empty in 40 CFR 261.7. A container is empty if all material has been removed that can be removed using the practices commonly employed to remove materials from that type of container, and either of the following are true: no more than one inch of residue remain on the bottom of the container; no more than three percent by weight of the total capacity of the container remains in the container (if the container is less than or equal to 110 gallons in size); or more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner (if the container is greater than 110 gallons in size). For a container that has held a compressed gas (e.g., spray paint), the container is empty when the pressure in the container approaches atmospheric.

Counting Hazardous Waste and Determining Generator Status

There are three categories of hazardous waste generators: CESQG, SQG, and LQGs. Generator status is determined by the quantity of hazardous waste generated by a facility per calendar month. See Table 5-3 below.

Table 5-3. Generator Status, Time Limits, and Quantity Limits

Generator Status	Hazardous Waste Generated per Calendar Month in kg [1]	Accumulation Time Limit	Accumulation Quantity Limit in kg [3]
CESQG	No more than 100	None	1,000
SQG	Greater than 100 but less than 1,000	180 days [2]	6,000
LQG	Greater than 1,000	90 days	None

[1] 100 kg = 220 lbs = 1/2 drum; 1,000 kg = 2,200 lbs = 5 drums; 6,000 kg = 13,200 lbs = 30 drums.

[2] In some cases, 270 days. Call ID-OEC for guidance.

[3] Maximum amount of hazardous waste accumulated onsite at any one time.

Certain categories of hazardous waste do not have to be counted when determining your generator status. For example, hazardous waste managed under the Universal Waste regulations, used oil regulations, or lead-acid battery recycling provisions are not counted.

Although hazardous waste generator status should be based on a month-to-month basis, for the purpose of enforcing the hazardous waste management regulations, the NJDEP bases its generator status determination on the quantities of hazardous waste shipped offsite as documented on hazardous waste manifests.

Of course, the best way to minimize your generator status is to minimize the quantity of hazardous waste generated (see Chapter 11, Pollution Prevention). So try to generated less than 220 lbs. per calendar month. However, to avoid giving the appearance to NJDEP that you may be a larger generator than you really are, make sure that your yearly offsite shipments of hazardous waste (as documented on your manifests) do not exceed 2,640 lbs. (exceeding the monthly average of 220 lbs. per calendar month over a 12-month period). Therefore, quick turn-in is essential; do not let your hazardous wastes pile up. Generators who exceed their accumulation quantity limit become regulated as the next level of generator. For example, CESQGs who accumulate more than 2,200 lbs. (about five drums) of

hazardous waste become SQGs. Likewise, SQGs who accumulated more than 13,200 lbs. (about 30 drums) become LQGs.

Accumulating Hazardous Waste

Federal, state, and local regulation strictly control the generation and accumulation of hazardous waste, the following section provides guidance regarding the required inspections and log keeping for the management of hazardous waste. Due to the generator status of this facility, daily inspections are required for all hazardous waste accumulation areas.

Types of Accumulation Areas

Hazardous Waste Accumulation Areas

These are areas where containers of hazardous waste are placed for accumulation prior to being sent off-site. Containers in this area may have a 90-day (for LQGs) or a 180-day (for SQGs) accumulation time limit. There is no accumulation time limit for CESQGs.

Satellite Accumulation Points

These are areas where small containers (55-gallons or less) are used to accumulate hazardous waste at the point of generation. These accumulation points allow the accumulation of hazardous without the restraint of accumulation times. Satellite accumulation points are to be inspected daily.

Containerizing Waste

Selecting the proper container to accumulate hazardous waste is extremely important. The container must be compatible with the type of hazardous waste placed in the container. For example, do not put corrosive waste streams in metal drums. The size of the container is also important, depending on the type of accumulation area established. In most instances, the smaller the container, the better. Containers must be in good condition with no major dents, no leaks in wall and head seams, no wall or head punctures, no rusted areas, and reusable container lids and caps.

Whenever practical, reuse empty containers that once stored degreasing solvents, anti-freeze, hydraulic fluids, engine lube oils, and brake fluids. These containers may be used to accumulate the spent material generated from the original product. For example, return spent degreasing solvent back in the empty in which is was delivered.

If the facility does not have the proper containers for accumulating hazardous wastes, neighboring NJARNG maintenance shops may have extras they can spare. Facility personnel

may contact the USP&FO and request containers for additional hazardous waste accumulation by submitting a DA Form 2765-1 for any of the drums listed on Table 5-4.

Table 5-4. List of Containers

Hazardous Waste	NSN	Capacity
Flammable Solids	8110-00-254-5716	12 gal.
Flammable Solids	8110-00-866-1728	30 gal.
Flammable Solids	8110-00-082-2629	45 gal.
Flammable Solids	8110-00-082-2623	77 gal.
Flammable Liquids	8110-00-282-2520	5 gal.
Flammable Liquids	8110-00-292-9783	55 gal.
Corrosives	8110-01-150-0677	55 gal.
Brake Fluids	Same as Flammable Liquids	
Cleaning Compound Solvents	Same as Flammable Liquids	
Contaminated Heating Oil #2	Same as Flammable Liquids	
Contaminated Diesel Fuel	Same as Flammable Liquids	
Overpack Drum	8110-01-101-4056	85 gal.
Packing Material	5640-00-801-4176	Bag, 4 cu. ft.

Only place liquid waste streams in closed top drums (drums with two bung ports). Place solid wastes in open top drums.

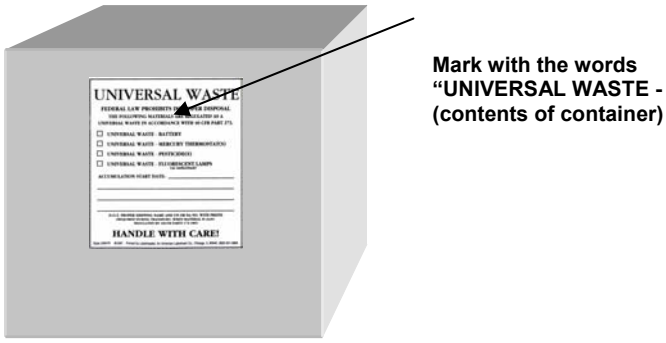
Marking and Labeling Containers

Containers holding hazardous waste should be properly marked and labeled in accordance with Figure 5-1.

Figure 5-1. Hazardous Waste Marking and Labeling

Containers holding universal waste should be properly marked and labeled in accordance with Figure 5-2.

Figure 5-2. Universal Waste Marking and Labeling



Hazardous Waste Turn-in

Waste turn-in documents must be prepared and sent to USP&FO as soon as the waste fills the drum or when the waste oil storage tank is 3/4 full. Do not wait to accumulate a group of drums (two or more) before submitting turn-in documents. Prepare turn-in documents as follows:

Step 1. Obtain the Waste Profile Sheet with the technical information required for prepare turn-in documents and drum labels.

Step 2. Add the Waste Profile Number to each DA Form 2765-1 document in the Publication Data Block. The Waste Profile Number is located in the upper right-hand corner of the waste profile sheet (HQ DRMS FORM 0120). Example: Profile #NJARNG-007.

Step 3. Add the waste container size (e.g., 55 gallons, 40 gallons, etc.) and approximate total weight in the Publication Data Block of each DA Form 2765-1.

Step 4. The individual preparing waste turn-in documents must place the following statement on to the Hand Receipt (DA Form 2062) and sign the turn-in document:

> "I CERTIFY THAT THE ABOVE ITEM(S) HAS/HAVE BEEN INSPECTED AND IS/ARE PROPERLY CLASSIFIED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE DOT, EPA, AND NJDEP."

Self-transportation of hazardous waste without the expressed written permission of ID-OEC is prohibited. Public road restrictions apply. Any questions are to be directed to ID-OEC.

In addition to the above, hazardous waste managers will maintain copies of all waste disposal requests submitted to the USP&FO. Facility managers must maintain a 60 day suspense file for all waste turn-in documents. If managers have not been contacted by the Defense Reutilization and Marketing Office (DRMO) within 60 days of submittal of turn-in documents, they must notify the USP&FO at commercial telephone number (609) 530-6748/6872 and request the status of turn-ins.

If you have any waste that is not described in your set of profile sheets, contact ID-OEC for guidance before preparing turn-in documents.

Manifest Tracking System

The Manifest Tracking System tracks the flow of hazardous waste from the point of generation through final disposal. Throughout the entire process, the generator is responsible for proper storage, transportation and disposal of hazardous waste. Manifests are required for all hazardous waste transported off DMAVA property and onto public property or roadways.

The generator must ensure that all data recorded on the manifest is legible and correct. The facility EPA ID Number is recorded in the appropriate box on the Manifest Form. See Table 5-5 for EPA ID numbers.

Table 5-5. NJARNG Facility EPA ID Numbers

Facility	ID Number	Facility	ID Number
Atlantic City	NJD980790729	Philipsburg	NJD980790976
Borden Town OMS	NJD980790737	Pitman	NJD980790984
Bordontown CSMS	NJD980790745	Plainfield	NJD980790992
Bound Brook	NJD980790752	Red Bank	NJD980791008
Bridgeton	NJD980790760	Riverdale	NJD980791016
Burlington	NJD980790778	Sea Girt	NJD980791024
Cape May	NJD980790786	Somerset	NJD980791032
Cherry Hill	NJD980790794	Teaneck	NJD980791040
Dover	NJD980790802	Toms River	NJD980791057
East Orange	NJD980790810	Tuckerton	NJD980791065
Mercer AASF	NJD980790828	Vineland	NJD980791073
Mercer OMS	NJD980790836	Washington	NJD980791081
Ft. Dix OMS	NJD986612380	Westfield	NJD980791099
Flemington	NJD980790844	West Orange OMS	NJD980791107
Franklin	NJD980790851	West Orange CSMS	NJD980791115
Freehold	NJD980790869	Woodbridge	NJD980791123
Hackettstown	NJD980790877	Woodbury	NJD980791131
Hammonton	NJD980790885	Woodstown	NJD980791149
Jersey City	NJD980790893	Picatinny AASF	NJ4210093577
Lawrenceville	NJD980790901	BG Doyle Cemetery	NJD986583169
Lodi	NJD980790919	Menlo Park	NJD986583177
Long Branch	NJD980790927	Paramus	NJD986583185
UTES	NJ7210090059	Vineland VA Home	NJD986583193
Morristown	NJD980790935	HTTC	NJD986597045
Mt. Holly	NJD980790943	USP&FO	NJD980769889
Newark	NJD980790950	NJDOD HQ	NJD981186356
Newton	NJD980790968		

Upon completion of the manifest, submit the "Generator State's Copy" and "Disposer State's Copy" to the ID-OEC. Retain the "Generator Copy" on file at the facility. Within 30 days, the facility should receive a copy of the signed manifest from the treatment, storage and disposal facility (TSDF). Attach the signed manifest to the "Generator Copy." If the signed manifest copy is not received within 30 days of the shipment, contact the TSDF listed on the manifest. If the problem is not resolved immediately, contact the ID-OEC.

DAILY HAZARDOUS WASTE INSPECTION LOG

Check hazardous waste accumulation areas daily. Use this checklist as a guide for completing your inspection. When finished, sign and date the form in the space provided. ***Should you note a deficiency, send a copy of the inspection form to the ID-OEC.***

Facility _____ **Mo/Yr** _____

A.	Is holding area marked as such?	Yes _____	No _____
B.	Is holding area at least 50 feet from property line?	Yes _____	No _____
C.	Are containers located in designated storage areas properly labeled?	Yes _____	No _____
D.	Are outdoor containers in good condition (no rust, dents, gaskets in place, etc.)?	Yes _____	No _____
E.	containers compatible with waste stored?	Yes _____	No _____
F.	Are hazardous waste labels visible and legible?	Yes _____	No _____
G.	Are containers in all areas kept securely closed when not in use?	Yes _____	No _____
H.	Is waste stream in satellite accumulation 55 gallons or less?	Yes _____	No _____
I.	Are satellite containers properly labeled?	Yes _____	No _____
J.	Are satellite containers in good condition (no rust, dents, gaskets in place, etc.)?	Yes _____	No _____
K.	Are all containers located away from ignition source?	Yes _____	No _____
L.	Are satellite containers moved to designated storage area within three days of being filled?	Yes _____	No _____

Initial daily inspections in spaces provided below.

1_____	2_____	3_____	4_____	5_____
6_____	7_____	8_____	9_____	10_____
11_____	12_____	13_____	14_____	15_____
16_____	17_____	18_____	19_____	20_____
21_____	22_____	23_____	24_____	25_____
26_____	27_____	28_____	29_____	30_____
31_____				

Deficiency Comments:

_____

_____

_____

E. Training

Hazardous waste training ensures that personnel are able to effectively manage hazardous waste generated at the facility. The ID-OEC coordinates all required training regarding the management and handling of hazardous waste. Personnel must successfully complete the requirements of 40 CFR 265.16. Minimum training program will include the following:

- Complete classroom or on-the-job training related to the assigned duties at the facility regarding hazardous waste
- Complete training in hazardous waste management procedures regarding contingency plan implementation related to the operators position including:
  - Procedures for using, inspecting, repairing and replacing emergency and monitoring equipment
  - Communications and alarm systems
  - Response for fires or explosions
  - Response to groundwater contamination incidents
  - Shutdown of operations

F. Recordkeeping

Maintain all turn-in documents and inspection logs for at least three years. Manifests must be kept indefinitely.

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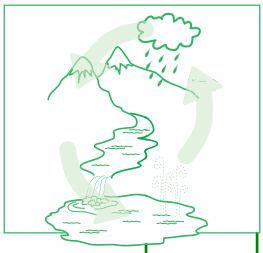


Chapter 6
Natural Resources Management

This chapter discusses the NJARNG's policies/goals, procedures, and compliance tools used to support its Natural Resources Management Program.

A. Program Overview

The NJARNG had an initial Planning Level Survey (PLS) with Geographic System Development (GIS) conducted at 41 installations throughout the state. The PLSs are intended to serve as the foundation for natural resource management planning, including future preparation of an Integrated Natural Resources Management Plan (INRMP), if required.[1] The identification of accurate information about existing natural resources is necessary to ensure compliance with these requirements and to ensure effective management and stewardship of NJARNG lands. Information obtained during the surveys was incorporated into a GIS to provide an understanding of the natural resources within the 41 installations. Together, this information facilitates future planning and natural resources management at NJARNG installations, both at individual and collective levels.

B. Compliance Thresholds

NOTE	Facility-level personnel are not responsible for preparing INRMPs. If an INRMP is required based on the criteria discussed below, ID-OEC will develop and distribute the document. See Section C below for facility-level responsibilities.

Trigger for Preparing an INRMP

The Army has established new criteria to evaluate the need to prepare an INRMP.[2] According to the Sikes Act, an INRMP is only required for installations containing "significant natural resources." Per Army criteria, an installation possesses "significant natural resources" if at least one of the following criteria applies:

- Federally listed, proposed, or candidate species are present on-site or critical habitat has been designated or proposed on the installation, and on-site conservation measures are necessary to conserve the listed species

[1] See AR 200-3, Natural Resources-Land, Forest and Wildlife Management, 28 February 1995, paragraph 9-2.

[2] See NGB-ARE 28 March 02 Memorandum, New Inventory of installations that Require an Integrated Natural Resources Management Plan Based on Army Criteria.

- Commercial forestry activities or agricultural out-leasing activities occur on-site on 100 acres or more
- Hunting and/or fishing are allowed on-site
- Unique biological resources, wetlands, species in decline, or ecological issues on the site require a level of planned management that can only be addressed by an INRMP
- Intensive, on-the-ground military missions are conducted on the site that require conservation measures to minimize impacts (e.g., soil, erosion, prescribed fire, etc.) and sustain natural resources

When INRMPs are Required, Trigger for Specific Parts

INRMPs are divided into the following five parts:

- General
- Land Management and Grounds Maintenance
- Forest Management
- Fish and Wildlife Management
- Outdoor Recreation

Only appropriate parts need be developed for each facility. The following are compliance thresholds that trigger the need to develop the correlating INRMP part.

General

Part I (General) will be prepared by installations s having 500 or more acres of improved, semi-improved, and unimproved grounds combined, or 50 or more acres of improved grounds.

A landscape planting plan, appendix to Part II (Land Management and Grounds Maintenance), will be prepared for all installations which are required by AR 210-20 (Master Planning for Army Installations, 30 July 1993) to prepare a complete master plan.

Land Management and Grounds Maintenance

Part II, Land Management and Grounds Maintenance, will be prepared by installations having 500 or more acres of improved, semi-improved and unimproved grounds combined, or 50 or more acres of improved grounds.

A landscape planting plan will be prepared as an appendix for all installations which are required by AR 210-20 to prepare a complete master plan.

Forest Management

Part III, Forrest Management, will be prepared by installations having 100 or more acres of commercial forest land.

Fish and Wildlife Management

Part IV, Fish and Wildlife Management, will be prepared by installations having land and water areas suitable for the management of fish and wildlife resources. The suitability of a military installation for fish and wildlife management will be determined by the MACOM and the installation after consulting with the U.S. Fish and Wildlife Service (USFWS) and host state.

Outdoor Recreation

Part V, Outdoor Recreation, will be prepared by installations with outdoor recreation programs which depend upon maintenance and management of the natural resources.

C. Responsibilities

TAG

- Ensures DMAVA staff consider environmental impacts when planning actions
- Complies with those responsibilities outlined in AR 200-2, Environmental Analysis of Army Actions, 29 March 2002, paragraph 1-4(j)

Action Proponents

- Initiates environmental reviews early in the planning process
- Submits review documentation to ID-OEC for concurrence or non-concurrence

ID-OEC

- Assists action proponents in the preparation of environmental documents
- Assists action proponents in the development of alternatives to proposed projects in order to minimize or avoid adverse environmental impacts

- Determines the level of study and evaluation needed to address known or potential impacts
- If required, develops an INRMP for NJARNG installations

Safety Offices

- Assists ID-OEC in the review of proposed actions when they involve actual or potential adverse impacts on human health and safety

Public Affairs Office

- Serves as DMAVA liaison to the public, media and government agencies
- Establishes a public affairs program when required
- Provides public affairs guidance in planned activities
- Is the DMAVA POC for media inquiries

Unit Commanders

- Complies with any applicable INRMP
- Ensures that personnel are familiar and can recognize endangered and/or threatened species that may be encountered during training
- Ensures that environmental consideration is given to any actions that might effect the environment including:
  - Unit training activities
  - Installation restoration
  - New installation construction
  - Real property transactions

D. Procedures

INRMP development is performed at the program management level at ID-OEC. However, in the absence of an INRMP, there are certain issues of which facility level personnel should be aware. Certain activities (such as development, construction, dumping, etc.) are either prohibited or require a permit in the following areas:

- areas prone to flooding
- coastal zones
- wetlands

- waterfronts
- shellfish habitat
- surf clam areas
- prime fishing areas
- finfish migratory pathways
- submerged vegetation habitats
- inlets
- ports
- shipwreck and artificial reef areas
- wet borrow pits
- intertidal and subtidal shallows
- dunes
- overwash areas
- erosion hazard areas
- bay island sites
- beaches
- filled water's edge areas
- existing lagoon edges

Endangered and threatened wildlife or vegetation species habitats must also be protected. For a current list of threatened and endangered species, contact ID-OEC.

E. Training

Training will be an integral part the INRMP, especially on installations with listed species, critical habitat, or other environmentally sensitive areas. For these installations, training and testing directorates, in coordination with the POTO will establish a mandatory, ongoing awareness program for all personnel, military and civilian, who may have contact with listed species or their habitat.

F. Recordkeeping

Up-to-date lists of areas where activity is prohibited (or requires a permit), sensitive areas and habitats, and endangered and threatened species at or near the facility or in training areas should be maintained in the facility files.

Chapter 7
National Environmental Policy Act (NEPA)

This chapter discusses the NJARNG's policies/goals, procedures, and compliance tools used to support its National Environmental Policy Act (NEPA) Program.

A. Program Overview

NEPA contains "action forcing provisions" that require federal agencies to consider the environmental impacts of their actions before they are implemented, document those considerations, and involve the public in their planning process. The NEPA process includes public notification and participation for projects/activities with significant impacts on the environment. An overview of the NEPA process is presented in Figure 7-1.

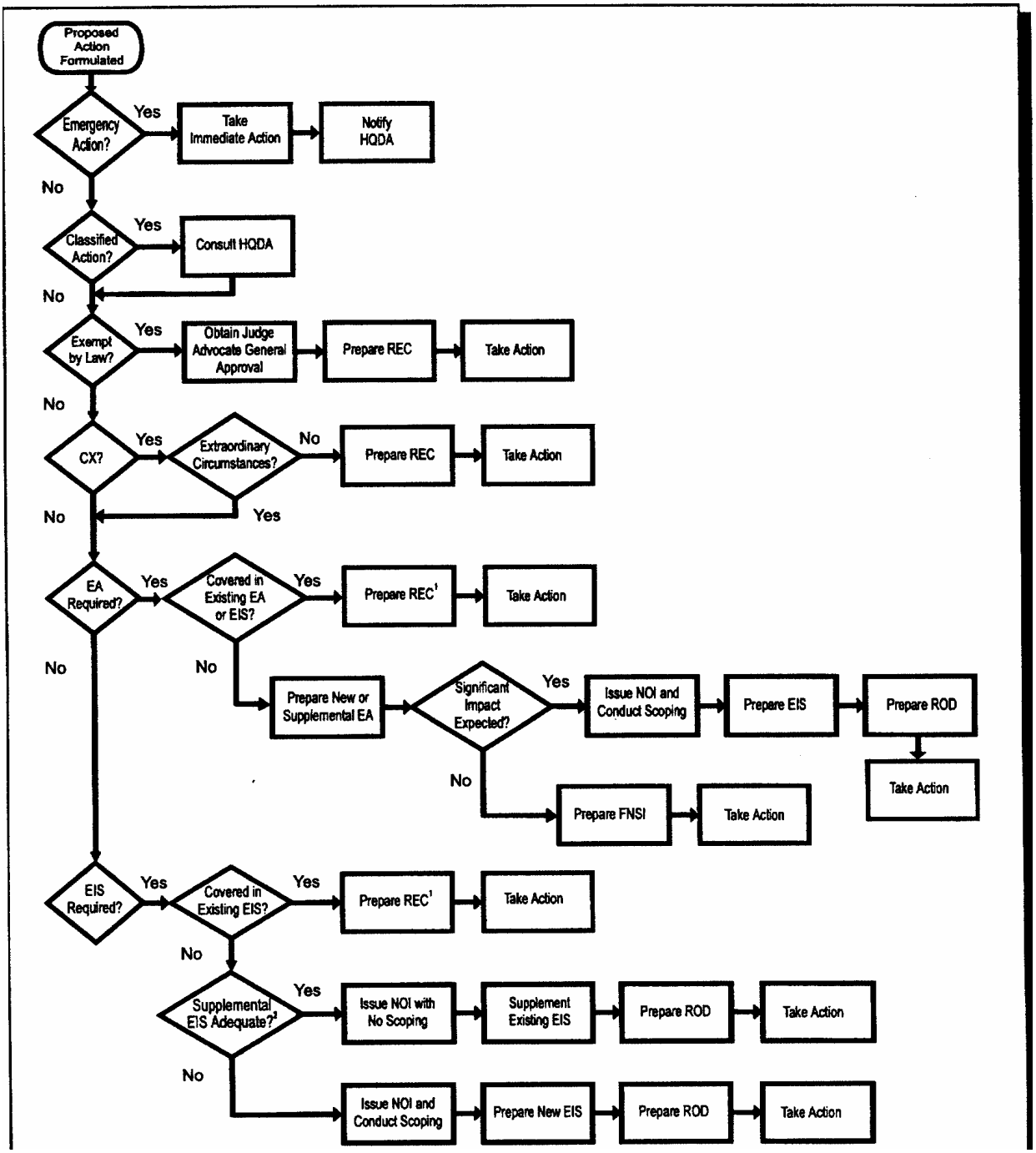
NEPA requires NJARNG decision makers to analyze the environmental effects of proposed programs, projects, and actions before initiating them. All actions must be reviewed to determine the potential for impacts to human and environmental health. The NEPA process will assist the decision maker in selecting a preferred course of action. It provides the relevant background information and subsequent analyses of the proposal's positive and negative environmental effects.

As illustrated in Figure 7-1, the degree of NEPA documentation depends on how significant the action is expected to have on the environment. Depending on the expected impact, the decision maker's written environmental evaluation is either:

- A Record of Environmental Consideration (REC) if the action is meets the Categorical Exclusion (CX) criteria (that is, expected to have no significant impact)
- An Environmental Assessment (EA) if the action may have a potential significant impact
- An Environmental Impact Statement (EIS) if the action is expected to have a significant impact

After completion of an EA, the analysis may show that the action will have no significant impact. In this case, the resulting decision document will be a Finding of No Significant Impact (FONSI). The proposed action may then be taken. However, the EA may conclude that there will be a significant impact and therefore, an EIS would be required. The decision document resulting from an EIS is called a Record of Decision (ROD). The proposed action may only be taken after the ROD is prepared. The ROD will dictate how the action will be implemented (if at all).

Figure 7-1. NEPA Overview



[1] As a general rule, the existing EA or EIS covering an action may not be more than three years old.

[2] Existing EIS should be re-examined if more than five years old.

Objectives

The objectives of the NJARNG NEPA program are to:

- Integrate environmental considerations into the planning and decision making process
- Identify, and be responsible for, environmental impacts of planned decisions in a detailed, systematic process
- Minimize or avoid adverse environmental impacts from DMAVA actions

References

- AR 200-2, Environmental Analysis of Army Actions, 29 March 2002
- 40 CFR Parts 1500-1508 (Regulations Implementing the National Environmental Policy Act of 1969)
- New Jersey State EO 215 (Environmental Assessment)
- NJAC 7:7A-1.1 *et seq.* (Freshwater Wetlands Protection Act Rules)
- The NGB NEPA Handbook, March 2002
- NGB-ARE Memorandum, Guidance for Environmental Documentation, 13 November 2002

B. Compliance Thresholds

NEPA applies to ***any*** project or action that may impact cultural resources, soils, forests, rangelands, water and air quality, and fish and wildlife as well as any other natural resources or environmentally sensitive issues. There are, however, exceptions. Known as CXs, these exceptions include actions like emergency disaster relief, preparation of administrative reports, ceremonies, funeral, and concerts.

As the proponent of the action (see Section C for responsibilities), you will be required to fill out and submit to ID-OEC an ARNG Environmental Checklist (see Section D for instructions) before initiating any action. ID-OEC will determine if your proposed action qualifies as a CX.

NOTE	Do not make a CX determination on your own. Submit the ARNG Environmental Checklist to ID-OEC. The will make the CX determination.

C. Responsibilities

TAG

- Ensure DMAVA staff consider environmental impacts when planning actions
- Comply with those responsibilities outlined in AR 200-2, paragraph 1-4(j)

Action Proponents

- Proponents of ARNG actions will initiate environmental reviews early in the planning process
- Proponents will submit ARNG Environmental Checklist to ID-OEC for concurrence or non-concurrence

ID-OEC

- Assist action proponents in the preparation of environmental documents (ARNG Environmental Checklist or REC)
- Assist action proponents in the development of alternatives to proposed projects in order to minimize or avoid adverse environmental impacts
- Determine the level of study and evaluation needed to address known or potential impacts
- Coordinate with DMAVA staff throughout the NEPA review process

Safety Offices

- Assist ID-OEC in the review of proposed actions when they involve actual or potential adverse impacts on human health and safety

Public Affairs Office

- DMAVA liaison to the public, media and government agencies
- Establish a public affairs program when required
- Provide public affairs guidance in planned activities
- Be the DMAVA POC for media inquiries

Unit Commanders

- Comply with the INRMP, if one exists

NOTE	Unit Commanders should assure that environmental consideration is given to any actions that might effect the environment.

- Examples include:
  - Unit training activities
  - Installation restoration
  - New installation construction
  - Real property transactions

D. Procedures

Unit Commanders must complete and submit the ARNG Checklist (provided on CD) or a Record of Environmental Consideration (REC) statement. Units will coordinate all efforts with the ID-OEC staff. Before performing any proposed action, follow the steps below:

Step 1. Open the electronic version of the ARNG Environmental Checklist (provided on CD) and fill out the appropriate fields. As an alternative, you may obtain a printed version and complete the form by hand.

Step 2. E-mail or fax the completed form to ID-OEC.

Step 3. Assist ID-OEC on any follow-up questions or concerns they may have. For example, ID-OEC may determine that your proposed action meets a CX. In this case, they may prepare a REC and send you a copy. Or, they may request your assistance in preparing a REC.

Step 4. Take appropriate action as determined by ID-OEC. If the NEPA documentation results in a REC, the proposed action may be implemented. However, based on the ARNG Environmental Checklist, the proposed action may warrant an EA or EIS. In this case, do not take action. ID-OEC will be responsible for performing the EA or EIS. Wait until the ID-OEC issues a FONSI or a ROD before taking any action.

E. Training

NEPA training will be an integral part the INRMP (when required, see Chapter 6), especially on installations with listed species, critical habitat, or other environmentally sensitive areas. For these installations, training and testing directorates, in coordination with the POTO, will establish a mandatory, ongoing awareness program for all personnel, military and civilian, who may have contact with listed species or their habitat.

In the absence of an INRMP, NEPA training may range from general awareness to NEPA document writing. Depending on the level of training, NEPA training may be offered in-

house or available from outside institutions (e.g., contractors or universities). Contact the ID-OEC or the POTO for information on NEPA training.

F. Recordkeeping

Anytime a project is planned, the approved ARNG Environmental Checklist must be retained in the facility files. Any resulting REC, FONSI, or ROD must also be kept on file in addition to EAs and EISs. This documentation shall be maintained for a minimum of five years. Other types of supporting NEPA documentation shall also be maintained, including:

- Notice of Intent (NOI)
- Environmental Planning Guide
- Environmental Planning Record
- Environmental Monitoring Report

Chapter 8
Noise Management

A. Program Overview

This chapter establishes local policies, assigns responsibilities, directs actions, and prescribes procedures to achieve compliance with applicable outdoor noise regulations in a manner consistent with mission accomplishment.

B. Compliance Thresholds

Under the environmental noise abatement program, the NJARNG will:

- Assess the impact of all noise that may be produced by proposed NJARNG actions/activities, and lessen harmful or objectionable impacts to the greatest extent possible
- Comply with all applicable federal, state, and local laws and regulations respecting the control and abatement of environmental noise

C. Responsibilities

Facility Managers

- Ensures the Noise Complaint Form is completed and submitted within five calendar days of receiving a complaint
- Track and maintain records of noise complaints and surveys
- Ensure the completion of follow-up action

D. Procedures

The NJARNG will perform the following:

- Control environmental noise at the greatest extent possible to protect the health and welfare of military personnel and their dependents, Army civilian employees, tenants and the public adjacent to our facilities
- Reduce community annoyance from environmental noise to the extent feasible, consistent with NJARNG training and activities

Noise Complaint Reporting Procedures

A noise complaint will be processed as follows:

- The NJARNG facility receiving the complaint will complete and forward a copy of the Noise Complaint Form to the PAO within five calendar days. The Noise Complaint Form is found on the following page.
- The PAO will notify the complainant in writing within five days of receipt that the complaint has been received, an investigation is being conducted into the cause of the disturbance, and that a final response should be expected within thirty days of the incident.
- The noise-generating activity causing the complaint will complete a follow-up by identifying the cause of the noise and any action taken to correct the deficiency. A copy of the follow-up report will be forwarded to the PAO, ID-OEC and military higher HQ. ID-OEC will forward the report to the PAO and EQCC chairman.
- The noise-generating activity will maintain a log of all noise complaints.

The NJARNG facilities will handle jet aircraft noise complaints. The State Army Aviation Office (SAAO) in coordination with the EQCC, COS, and ID-OEC will handle helicopter noise complaints. However, it is up to shop-level personnel to report any noise complaint using the Noise Complaint Form.

NOISE COMPLAINT FORM

Facility:_____**Date**:_____**Time**:_____

Facility POC:_____**Telephone Number** _____

Name Of Person Making Complaint: _____

Address: _____**City:** _____**State:**____**Zip:**_____

Telephone Number: _____

Type Noise:_____

Description Of Facility Activities During Time Of Complaint:

_____

_____

Facility Commander/AO: _____ **Phone:** _____

Complaint Received By: _____ **Date:** _____

***Date Forwarded To PAO**: _____

Copy To: ID-OEC: _____**PAO**: _____

How Resolved? (List All Actions/Dates Taken To Resolve The Complaint):_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

EQCC Review Date_____

*** Must Be Within five Calendar Days Of Complaint**

E. Training

Conduct noise awareness training for all facility personnel annually.

F. Recordkeeping

Maintain the following records for at least three years.

- Document awareness training for all facility personnel
- A log of all noise complaints

Chapter 9
Pesticide Management

A. Program Overview

This chapter provides guidance for operating and maintaining an effective Integrated Pest Management (IPM) Program. The IPM Program consists of the judicious use of both chemical and nonchemical control techniques to achieve effective pest management with minimal environmental contamination. NJARNG has developed the Integrated Pest Management Plan, dated 8 September 2001. Adherence to this plan will ensure effective, economical, and environmentally acceptable pest management and will maintain compliance with pertinent laws and regulations.

B. Compliance Thresholds

Specific pesticides shall be procured under the supervision and approval of the Pest Management Coordinator (PMC) and IAW the NJARNG Integrated Pest Management Plan.

C. Responsibilities

TAG

- Designate a NJARNG PMC[1] for all pest management activities
- Approves and supports the NJARNG Integrated Pest Management Plan
- Ensures that NJARNG personnel performing pest control receive adequate training, and achieve pest management certification (if required)

Facility Managers

- Obtains and maintains adequate supplies of approved self-help pesticides and pest control equipment that functions properly
- Ensures that NJARNG personnel performing pest control receive adequate training, and achieve pest management certification (if required)
- Maintains adequate records of pest management operations
- Obtains PMC approval of all pest control contracts initiated for organizational use prior to solicitation

[1] The NJARNG PMC is appointed, in writing, in the NJARNG Integrated Pest Management Plan. The duties of the PMC are described in this plan.

- Requests pest management trained Quality Assurance Evaluators (QAE) to monitor contractor performance

Facility Occupants

- Practices good sanitary practices to prevent pest infestations.
- Only applies those pesticides approved for use by Facility Managers
- Cooperates fully with contractors and armory/facility personnel in scheduling pest management operations, to include preparing the areas to be treated
- Uses all nonchemical and chemical pest control techniques available through the self-help program to the fullest extent before requesting additional assistance

Pest Management Personnel

- Uses IPM techniques to the maximum extent possible
- Controls pests according to the provisions of the IPM
- Operates in a manner that minimizes risk of contamination to the environment and personnel
- Ensures the Facility Manager is kept informed of changes in pest management requirements

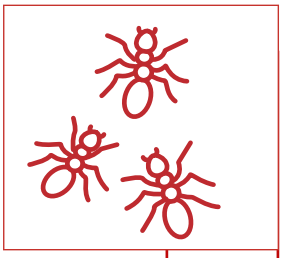
D. Procedures

Prior to any pesticide application, refer to the NJARNG Integrated Pest Management Plan for the specific procedures to be used.

Integrated pest management is the use of multiple techniques to prevent or suppress pests in a given situation. Although IPM emphasizes the use of nonchemical strategies, chemical control may be an option used in conjunction with other methods. IPM strategies depend on surveillance to establish the need for control and to monitor the effectiveness of management efforts.

The four basic types of pest control techniques used at NJARNG sites to manage pests are described below. Specific IPM measures can be found in the NJARNG Integrated Pest Management Plan.

- *Mechanical and Physical Control* – This type of control alters the environment in which a pest lives, traps and removes pests where they are not wanted, or excludes pests. Examples of this type of control include: harborage elimination through caulking or filling voids, screening, mechanical traps or glue boards, and nets and



other barriers to prevent entry into buildings. Mechanical and physical controls are the primary means for pest control whenever possible.

- *Cultural Control* – Strategies in this method involve manipulating environmental conditions to suppress or eliminate pests. For example, spreading manure from stables onto fields to dry prevents fly breeding. Elimination of food and water for pests through good sanitary practices may prevent pest populations from becoming established or from increasing beyond a certain size.
- *Biological Control* – In this control strategy, predators, parasites or disease organisms are used to control pest populations. Sterile flies may be released to lower reproductivity. Viruses and bacteria may be used which control growth or otherwise kill insects. Parasitic wasps may be introduced to kill eggs, larvae, or other life stages. Biological control may be effective in and of itself, but is often used in conjunction with other types of control.
- *Chemical Control* – Pesticides kill living organisms, whether they are plants or animals. At one time, chemicals were considered to be the most effective control available, but pest resistance rendered many pesticides ineffective. Since personal protection and special handling and storage requirements are necessary with the use of chemicals, the overall cost of using chemicals as a sole means of control can be quite costly when compared with nonchemical control methods. Whenever possible, chemical control will be considered the last option when performing control operations.

Equipment

- Only authorized, trained personnel shall operate pest control equipment
- Only authorized, trained personnel IAW manufacturer's instruction manuals for the specific equipment item shall do cleaning and storage of pest control equipment
- Maintenance and adjustment of pest control equipment shall be carried out in accordance with the manufacturer's instructions for the specific equipment item
- All equipment used in pest control activities shall be marked "Contaminated with Pesticides"

Personnel Safety

All NJARNG personnel who apply pesticides are included in a medical surveillance program. It is not anticipated that federal employees or M-Day soldiers will be authorized to perform pest management activities requiring medical surveillance.

The following minimum protective clothing and equipment will be provided:

- Chemical resistant gloves, aprons, and boots

- Full-face shield
- Splash goggles
- Respirators approved for use with pesticides
- Coveralls

Pesticide Storage

- All pesticides shall be stored in buildings, or rooms within buildings, designated for this purpose. The pesticides shall be stored in their original containers. The buildings/rooms shall be kept locked when not in use.
- All pesticides shall be segregated as to kind of pesticide during storage (i.e., insecticides, herbicides, fungicides, etc.). Labels on all containers shall be visible at all times. Pesticides that are classed as moderately or highly toxic must be stored in facilities that meet the criteria described in MIL-HDBK-1028/8A, Design of Pest Management Facilities.
- The local fire department shall be furnished with an inventory of the kinds and amounts of pesticides present at each storage or mixing location. This inventory shall be updated at least annually, at the end of each calendar year by the PMC.
- A pesticide spill cleanup kit, appropriate to the type and amount of pesticide used or stored, should be located in each building where pesticides are stored.

Pesticide Transportation

- Only authorized operators shall transport pesticides upon approval by the PMC
- When transporting pesticides, operators shall have with them protective clothing and equipment
- Pesticides will not be transported in the cabs or passenger compartments of vehicles
- Pesticides will not be left unattended or unsecured in the vehicle

Pesticide Mixing

- Self-help pesticides will be handled and mixed by authorized, certified personnel only
- Dispensing concentrates and mixing of all liquid pesticides shall be done on a nonporous surface (cement, asphalt, etc.)
- Any pesticide contamination on the skin shall immediately be washed off with soap and water. Contamination of the eyes shall be flushed generously with water. After washing, the individual will secure immediate medical attention.
- Pesticide containers shall be returned to their storage locations upon completion of mixing

- All pesticides shall be applied IAW the label directions
- When mixing liquid pesticides, the spray tank shall be filled 1/3 to 1/2 full with the diluent, the pesticide shall be added, and the spray tank shall then be filled with diluent. All pesticide mixtures shall be agitated.

Pesticide Application

- When applying dry, granular pesticide, including weed and feed products, personnel shall:
  - Conduct application when the wind speed is less than 10 miles per hour to prevent drift
  - Use an approved respirator whenever required by the label or deemed necessary by the PMC
- Outdoor liquid pesticide application shall be conducted:
  - When the wind speed is less than 10 miles per hour to prevent drift
  - Approved respirators shall be worn whenever required by the pesticide label or deemed necessary by the PMC

Pesticide Container Disposal

- Liquid pesticide containers shall:
  - Be triple rinsed, with the rinse water placed in the spray tank and used as a diluent
  - Be emptied and then crushed and placed in the garbage dumpster
  - Pesticide containers shall not be used for any purpose except that of holding the pesticide shown on the label
  - Do not use pesticide containers
- Dry, granular pesticide containers (bags and/or sacks) shall:
  - Be emptied thoroughly and placed in the garbage dumpster
  - Not be burned or stored near heat or open flame

E. Training

All NJARNG personnel who apply pesticides will be DOD or state-certified and licensed IAW the NJARNG Integrated Pest Management Plan. The PMC and personnel who evaluate the quality of work of pest control contracts, must also be certified. Personnel must be certified, as appropriate, in the following categories:

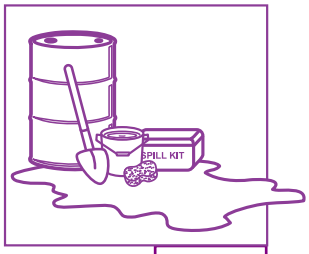
- Ornamental and Turf Pest Control

- Right-of-way Pest Control
- Industrial, Institutional, Structural, and Health Related Pest Control

F. Recordkeeping

Facility personnel responsible for the storage, control, and application of pesticides will maintain the following records for at least three years:

- Adequate records of all pest management operations performed by maintenance personnel, contractors, and self-help
- Maintain the daily pesticide application and surveillance records are using DD Form 1532-1, Pest Management Maintenance Record. These forms are properly maintained to provide a permanent historical record of pest management operations for each building, structure, or outdoor site on the armory/facility.
- Applications done by commercial applicators will be recorded on the DMAVA form provided in the NJARNG Integrated Pest Management Program and copies forwarded to ID-OEC



Chapter 10
Spill Planning and Response/ POL Management

A. Program Overview

This chapter discusses NJARNG policies/goals, procedures, and compliance tools used to support its Spill Planning and Response/POL Management Program and includes regulations, responsibilities, and compliance requirements associated with POL management.

AR 200-1 defines policy for prevention, control, reporting, and contingency planning for spills of oil and hazardous substances. The Army's goal is to use, generate, transport, store, handle, and dispose of oil and hazardous substances in a manner that protects the environment and public health. Laws and other applicable guidance to this chapter include:

- 40 CFR Part 300, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) regulations, including the National Oil and Hazardous Substances Spill Contingency Plan, commonly known as the National Contingency Plan (NCP)
- 40 CFR Part 112, Oil P2 regulations
- 29 CFR 1910.120, HAZWOPER regulations
- EPCRA
- The Federal Water Pollution Control Act, commonly known as the Clean Water Act (CWA)
- RCRA
- Oil Pollution Act (OPA) of 1990
- Army Environmental Hygiene Agency (AEHA) Information Paper No. 12, Preparation of Oil and Hazardous Substance Spills, 1990
- NJSA 58-10-23.11-23.44 et seq., the New Jersey Spill Compensation and Control Act
- NJAC 7:1E, Discharge of Petroleum and Other Hazardous Substances
- NJDMAVA Department Directive No. 600.9 (Installation Spill Plan)

Facilities in New Jersey which have a total combined storage capacity of 200,000 gallons or more of hazardous substances including petroleum products or 20,000 gallons or more of hazardous substances other than petroleum products are required to prepare and submit a Discharge Prevention Containment and Countermeasure (DPCC) plan and Discharge Cleanup and Removal (DCR) Plan. The plans must be submitted to the NJDEP Bureau of Discharge Prevention.

B. Compliance Thresholds

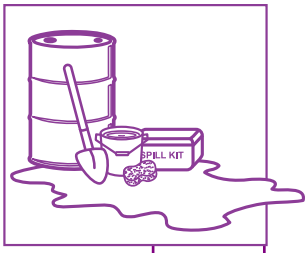
NJARNG facilities are generally subject to three types of spill response plans:

- *RCRA Contingency Plan* - Required under the hazardous waste management regulations of 40 CFR 262, certain hazardous waste generators are required to develop and maintain procedures for responding to spills of hazardous waste
- *Facility Response Plan (FRP), formerly known as Integrated Spill Contingency Plan (ISCP)* - This AR requirement (see AR 200-1, paragraph 3-3 and DA PAM 200-1, paragraph 3-4) applies to facilities and activities that store or use oil and/or hazardous substances. ARs and policy require these facilities/activities to implement an FRP) for their home stations, as well as for field locations where oil and hazardous substances are used. Note, however, that this Army-required FRP is not the same as the federally-required FRP under 40 CFR 112.20. Federally-required FRPs apply to facilities that, because of their location, could be expected to cause substantial harm to the environment by discharging oil into waters or adjoining shorelines.
- *Spill Prevention Control and Countermeasure Plan (SPCCP)* - 40 CFR 112 requires that SPCCPs be prepared for facilities that meet one of the following conditions:
  - There is a reasonable potential for discharging oil from fixed facilities into waters of the United States and one of the following is true:
    - Oil storage capacity on site exceeds 42,000 gallons of total underground storage of which those tanks that are not currently subject to all of the technical requirements of 40 CFR 280 or all of the technical requirements of a State program approved under 40 CFR 281.
    - Oil storage capacity on site exceeds 1,320 gallons of total aboveground storage counting only storage containers of 55 gallons or greater toward that total capacity
  - A toxic storage and disposal facility is present or enough HAZMAT is stored on site to produce a reportable quantity (RQ) release
  - A substance is present in amounts equal to or above its threshold planning quantity (TPQ)

  The Army also requires SPCCPs to be prepared for LQGs and for units or activities that store more than consumer quantities of hazardous substances. See AR 200-1, paragraph 2-4h and 3-3c and DA PAM 200-1, paragraph 3-3.

Spill Prevention and Contingency Plan (SPCP)

NJARNG has developed spill plans for there facilities designed to meet the requirements of a RCRA contingency plan, FRP (formerly ISCP), and SPCCP. These spill plans, called Spill



Prevention and Contingency Plans (SPCPs), in essence, goes above and beyond the SPCCP requirements in that it requires that all hazardous materials, not just petroleum/oil products, be addressed. In addition, SPCPs require that secondary containment be provided for all aboveground oil and hazardous material storage facilities/systems and spill contingency planning for field exercises and training activities must be included in the plan.

C. Responsibilities

ID-OEC

- Publishes procedures needed for implementing the SPCP
- Coordinates all required training and ensures that all required personnel receive training
- Assists DOL with programming and budgeting for equipment required for hazardous substance spill prevention, countermeasures, and controls
- Evaluates system changes to determine if they affect the SPCP
- Coordinates with the UECO to review the plan at least once every three years
- Establishes spill prevention and control procedures
- Serves as liaison to federal, state, and local regulatory agencies regarding waste management issues
- If the spill is reportable, ensures that the Installation On-Scene Coordinator (IOSC) reports the spill to NJDEP within 15 minutes and submits the *Spill Incident Report Form* within 24 hours of the spill (see SPCP)
- Makes required notifications and reports to state and federal agencies within 24 hours: for example, the NRC, EPA, and Local Emergency Planning Committee
- Forward spill reports to PAO and NJARNG Emergency Operations Center (EOC)
- ID-OEC will coordinate, if required, with designated commercial spill response/clean-up companies for spill containment and clean-up actions
- Uses authority to immediately access NJARNG funding to initiate cleanup activities

Facility Commander

- Ensures that adequate training is conducted
- Ensures that environmental protection/pollution abatement procedures are implemented in their areas of responsibility

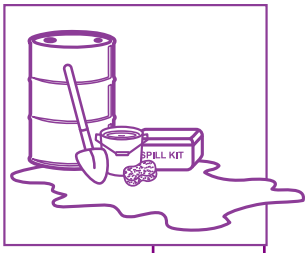
- Designates additional project officers; monitors these officers as needed to ensure they continually inspect the work areas under their control and follow effective pollution abatement procedures
- Ensures that site-specific spill contingency plans are posted in prominent locations at potential spill sites
- Ensures that employees know where spill response equipment is located in each work area
- Instructs employees to only clean up a spill if they have training, sufficient equipment, and specific written instructions

UECO

- Is familiar with the SPCP
- Maintains all records related to this document
- Coordinates all required training
- Ensures personnel are familiar with their SPCP response actions and site-specific information contained within the SPCP
- Assigns an Installation On-Scene Coordinator (IOSC) and alternate from full-time support personnel
- Programs and budgets for materials and equipment required for hazardous substance spill prevention, countermeasures, and controls
- Evaluates system changes to determine if they affect the SPCP
- Conducts inspections
- Periodically reviews the SPCP
- Establishes and implements spill prevention and control procedures
- Coordinates with the ID-OEC to review this plan at least once every three years

Installation On-Scene Coordinator (IOSC)

- Immediately contacts the ID-OEC to report spill and assess response actions
- Evaluates spill reports and directs and coordinates control and cleanup efforts at the scene of a spill
- Establishes and maintains a Response Operations Center (ROC) to act as the central messaging, receiving, and distributing center during a spill
- Notifies local law enforcement and medical authorities if needed
- Mobilizes the Installation response Team (IRT) and directs its actions



- Requests assistance from other response agencies as needed
- If the spill is reportable, submits the *Spill Incident Report Form* to the NJARNG ID-OEC within 24 hours of the spill
- Maintains incident log
- Keeps local health officials informed of the situation

Emergency Coordinator

- Must be a full-time person at the facility
- Activates internal alarms and hazard communication systems to notify all facility personnel of an emergency
- Notifies all response personnel, as needed
- Identifies the character, exact source, amount, and extent of the release, as well as other items needed for notification
- Performs internal response reporting and ensures external reporting occurs in the event of a spill
- Assesses the possible hazards to human health and the environment due to the release, including both direct and indirect effects
- Assesses the substance released and implements prompt actions to contain and remove it
- Directs cleanup activities for small spills

Installation Response Team (IRT)

A spill response team should be established at each facility. The team should respond to and mitigate incidental spills. The team should be made up of NJARNG personnel trained to first responder operations level as specified in 29 CFR 1910.

Most local fire departments will respond to all emergency spills. If required, the local fire department assumes control of the situation and performs containment procedures. Mitigation is performed by NJARNG personnel or by a private contractor.

D. Procedures

NJARNG personnel without the specific training which meets OSHA emergency response requirements of 29 CFR 1910.120 are not qualified to actively take part in "emergency" containment and cleanup activities. However, personnel will make required notifications and may construct dikes/barriers downstream of spill flow at a safe distance to prevent discharges

into storm water drains, lakes, streams, etc. (passive response). NJARNG personnel are qualified to fully respond to "incidental releases" of hazardous substances where substances can be quickly absorbed, neutralized, or otherwise controlled at the time of release. Incidental releases are those where there are no actual or potential safety or health hazards (fire, explosion, chemical exposure, etc.) from hazardous substance spills/leaks.

All mobile refuelers should be equipped with an SOP that details spill response procedures in the event of a spill during training or while in transit. Personnel should familiarize themselves with this SOP and its spill response procedures.

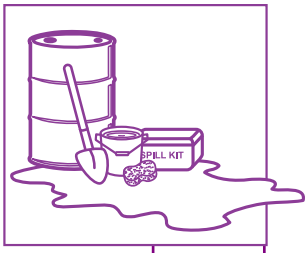
General Spill Response Procedures

These general spill response procedures are not meant to replace other SPCP procedures. All personnel should familiarize themselves with the plan and spill response procedures. Refer to the facility SPCP for specific spill response procedures for potential spill sites.

Upon discovering a spill, you must first determine if the release is incidental or an emergency. Then, follow the appropriate response sheet. For guidance in making this determination, see the table below.

Table 10-1. Incidental Release Vs. Emergency Release

Incidental Release	Emergency Release
Incidental releases are small spills of routinely used substances that do not pose a significant safety or health hazard, such as fire or explosion, or a risk to a water source, and that can be handled using spill kits located in the immediate area. NJARNG personnel may clean up incidental releases that do not present any obvious health risks (fire, explosion, inhalation, etc.). Follow the Incidental Release Procedures following the next page.	Emergency releases are spills of unknown substances or spills that cannot be absorbed or otherwise controlled at the time of the release by personnel in the immediate release area. These include spills that pose a significant safety or health hazard such as fire or explosion, or that reach a water source. NJARNG personnel are not trained and should not clean up large spills. Follow the Emergency Release Procedures on the next page.



EMERGENCY RELEASE PROCEDURES

If the spill is **LARGE** or **HAS OBVIOUS HEALTH THREATS** (fire, explosion, vapor, inhalation, etc.), then

Step 1. Evacuate the area.

Step 2. Immediately notify the Emergency Coordinator:

Emergency Coordinator: _____

Alternate: _____

Step 3. Notify the local fire department and provide the following information:

- Name
- Spill location
- Injured personnel and nature of injury
- Type and amount of material spilled
- Estimated rate at which material is spilling
- Time spill started

Step 4. When the fire department arrives, relinquish control to the Senior Fire Official (SFO), who becomes the IOSC. Have the SPCP available.

Step 5. After the fire department contains the spill, the Emergency Coordinator is authorized to call one of the contracted spill remediation companies to remove the spill and contaminated material, if necessary.

Step 6. Contact the ID-OEC at (609) 530-7134.

INCIDENTAL RELEASE PROCEDURES

If the spill is **SMALL** and **HAS NO OBVIOUS HEALTH THREATS** (fire, explosion, vapor, inhalation, etc.), then

Step 1. Notify the Emergency Coordinator.

Emergency Coordinator:

Alternate:

Step 2. Put on at least the following personal protective equipment (PPE):

- Gloves
- Safety glasses
- Apron
- Rubber boots

NOTE	Always check the MSDS to determine if more PPE is required.

Step 3. Stop the spill:

- Approach the spill with the wind at your back
- Turn off all sources of ignition (vehicle motors, electric devices, etc.)
- Move other materials that may pose hazards away from the incident area without placing yourself or others at risk to injury
- Stop the flow of spilled material by uprighting containers or plugging holes in containers
- If necessary, place leaking containers into compatible larger containers

Step 4. Obtain absorbent material from the nearest spill kit and place a berm of absorbent material (socks, pads, mats, etc.) around the edge of the spill to keep it from spreading.

Step 5. Localize the spilled material into the smallest area possible.

Step 6. Absorb the remainder of the spill with additional absorbent material (e.g., dry sweep, soil, or any other compatible material).

Step 7. Dispose of used absorbent in accordance with the Chapter 5 of this guide.

Step 8. Complete a *Spill Incident Report Form* and forward to ID-OEC.

Spill Notification

The IOSC is responsible for notifying the local fire department and the ID-OEC in the event of an emergency release. In addition, the OSC must complete the *Spill Incident Report Form* (see SPCP), and must submit the form to ID-OEC within 24 hours of the release. Refer to the facility specific SPCP for emergency contact information and specific spill notification procedures.

Reviews and Revisions

IOSC Review

The IOSC will review the SPCP at annually and update the plan as necessary. IOSC reviews are limited to:

- Facility changes that alter the potential for spills or change the spill prevention and response procedures, methods, and equipment. Examples of these types of changes include the following:
  - Addition of new HAZMAT/POL storage buildings
  - Major changes to positioning of mobile refuelers
  - Installation of new aboveground storage tanks
  - Fueling activity changes (addition of onsite fueling, or cessation of onsite fueling)
- Changes in the assignment of the IOSC, the IRT, or in the contents of the spill response equipment list. The IOSC will use the *Record of Changes* form in the SPCP to document any revisions to the SPCP.

ID-OEC Reviews and Revisions

ID-OEC will coordinate with the IOSC to review this SPCP at least every three years and amend as required. The review must include a detailed inspection of oil and hazardous substance sites and verification of all data generated during the initial SPCP development. A Professional Engineer (PE) must approve any changes, which must be entered into the SPCP within six months. Log the review and any resulting amendments or changes to the SPCP on the *Record of Changes* form in the SPCP.

Other circumstances that may warrant an SPCP review and update are listed below:

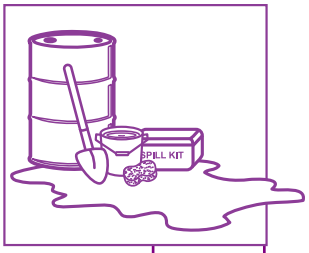
- When either federal regulations or NJ regulations change significantly, affecting the applicability and effectiveness of this SPCP

- When facility changes increase the potential for spills or change the spill prevention and response procedures, methods, and equipment
- When the SPCP fails or proves to be ineffective in preventing or responding to a spill
- At the request of the EPA or NJDEP
- When changes occur in the assignment of the IOSC or in the contents of the spill response equipment list
- After pertinent federal or state legislation is enacted or amended or DOD or NJARNG policy changes, especially changes in reportable spill quantities
- After pertinent national, regional, or state contingency plans are modified
- After any changes in adjacent land and water use that would affect spill prevention and response

Inspections

The IOSC is responsible for conducting inspections at the facility. Refer to the facility SPCP for additional information. This inspection program has been implemented to ensure that spills or other releases can be identified in a timely manner. Refer to Chapter 16 of this guide for additional inspection requirements of grease traps and oil/water separators.

The following checklists may be found in your spill plan.



AST/UST INSPECTION CHECKLIST

Check ASTs and USTs weekly. Use this checklist as a guide for completing your inspection. When finished, sign and date the form in the space provided. ***Should you note a deficiency, send a copy of the inspection form to the ID-OEC.***

Check tanks and tank-to-piping connections:

1. Apparent drip marks? Yes _____ No _____
2. Apparent discoloration? Yes _____ No _____
3. Any visible corrosion? Yes _____ No _____
4. Apparent localized dead vegetation? Yes _____ No _____
5. Puddles containing material? Yes _____ No _____

Check piping:

6. Visible droplets of stored material? Yes _____ No _____
7. Apparent discoloration? Yes _____ No _____
8. Visible corrosion? Yes _____ No _____
9. Pipe bowing between supports? Yes _____ No _____
10. Evidence of stored material on valves or seals? Yes _____ No _____
11. Localized dead vegetation? Yes _____ No _____

Check secondary containment (ASTs Only):

12. Relief valve closed? Yes _____ No _____
13. Cracks or other penetrations apparent? Yes _____ No _____
14. Visible seepage at joints? Yes _____ No _____
15. Excessive ponded water?* Yes _____ No _____
16. Product residue in secondary containment? Yes _____ No _____

* *Use the Rainwater Discharge SOP for instructions on discharging ponded water.*

DATE	INSPECTOR'S INITIALS	DEFICIENCIES?	DATE CORRECTED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

SECONDARY CONTAINMENT INSPECTION CHECKLIST

Check secondary containment at the mobile refueler parking pad weekly. Use this checklist as a guide for completing your inspection. When finished, sign and date the form in the space provided. ***Should you note a deficiency, send a copy of the inspection form to the ID-OEC***.

Check Localized Secondary Containment(s):

1. Excessive ponded water?** Yes _____ No _____
2. Depressions or cracks on the containment surface? Yes _____ No _____
3. Outside of the containment discolored? Yes _____ No _____
4. Stored material visible in the containment? Yes _____ No _____
5. Drainage control closed? Yes _____ No _____
6. Any parked motor vehicles leaking? Yes _____ No _____

***Complete the Rainwater Release Inspection Log before discharging excessive ponded water.*

DATE	INSPECTOR'S INITIALS	DEFICIENCIES	DATE CORRECTED

RAINWATER RELEASE INSPECTION LOG

Copy and complete this form before discharging rainwater from secondary containment

Containment Area	Water quality/ Visible Contamination *	Name of person who determined the water quality	When the release began	When the release ended
	• Sheen? • Color? • Other (explain)?			
	• Sheen? • Color? • Other (explain)?			
	• Sheen? • Color? • Other (explain)?			
	• Sheen? • Color? • Other (explain)?			

** If Yes, Contact the ID-OEC for further direction. DO NOT DISCHARGE STORM WATER!!*

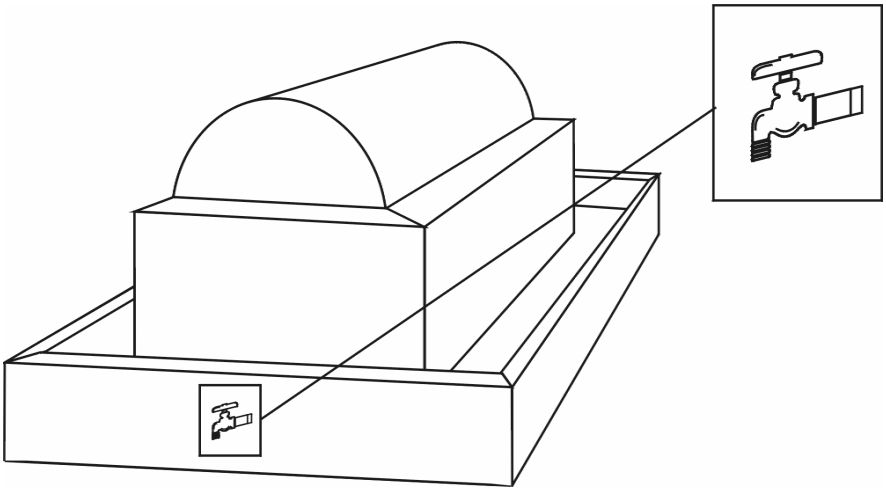
RAINWATER DISCHARGE SOP
(Page 1 of 2)

Rainwater will accumulate in outdoor uncovered secondary containment. All personnel will use the following SOP to inspect drain valves weekly. Check secondary containment after ***any*** rain event.

Weekly Inspection

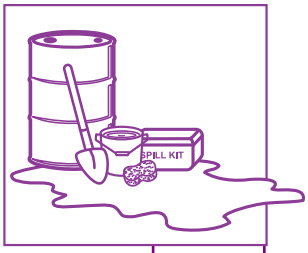
Debris can clog drain valves. Every Friday, check that drain valves are clear of debris and are closed:

1. Remove grates and sweep up debris.
2. Place debris in 55-gallon drums.
3. Dispose of debris as contaminated soil.
4. Replace grating.
5. Check that drain valves are ***CLOSED*** (turn right).



After Any Rain Event

1. Check secondary containment for a visible sheen on the surface of the water, indicating residual spilled fuel product.
2. If there is a visible sheen, remove grating and place absorbent pads on the water surface to remove spilled product.
3. Clean up spilled product.
4. Dispose of oily rags.
5. Open the drain valve (turn left) and remove accumulated water.
6. Close the drain valve (turn right) and replace the grate.
7. Complete the Rainwater Release Inspection Log.



RAINWATER DISCHARGE SOP
(Page 2 of 2)

If there are any questions about the quality of the water present, the UECO, at his/her option, will either:

- Arrange for offsite transport for proper treatment and disposal
- Allow the water to evaporate and, if appropriate, take corrective action to clean up the residual contamination
- Analytically test a water sample for suspect pollutants to determine if the water meets the requirements of the National Pollution Discharge Elimination System Storm Water Permit, if applicable

Only personnel who have received training to determine the water quality can discharge water from containment areas, and then only upon the direct order of the UECO.

Maintain a record that reflects the following information:

- An explanation of why excess precipitation needed to be released
- The name of the person who determined the water quality and what method he/she used
- When the release was initiated
- When the release was terminated
- Approximate volume of water that was discharged

E. Training

All personnel working with oil and HAZMAT must attend training at least once a year or:

- After any significant revisions to the training program or the SPCP
- After a spill response in which training deficiencies were noted

All personnel starting a supervisory position receive initial training within six months (two weeks recommended).

Spill Plan Training

Spill plan training consists of an internal briefing on the contents of the plan, and an internally conducted spill response exercise. The UECO conducts this training at least once a year. The briefing can take place during one of the periodic safety meetings, or at any other time. At the discretion of the Facility Commander, these briefings may be conducted more frequently.

Spill plan training includes spill response exercises. These exercises are mock spill drills designed to practice the most likely spill scenarios. For example, a spill exercise gives personnel assigned to the IRT a chance to practice how long it takes to begin and complete response procedures, including deploying spill equipment, such as drain covers or portable booms. A spill response exercise should be performed at least once a year.

Responder Training

Personnel assigned to the IRT, IOSC and other personnel assigned supervisory positions receive *First Responder Operations Level* training within six months of their hire date or of being appointed to the IRT (two weeks recommended). The training covers the following topics:

Preventing Spills	The purpose and requirements of good housekeeping
	Using and maintaining all alarms and monitoring equipment
	Conducting a visual inspection

Personnel Safety	Health effects resulting from exposure to oil or HAZMAT
	First aid procedures following exposure to oil or HAZMAT
	Protective equipment, requirements, and procedures
	Notification and evacuation procedures
Responding to Spills	Initial spill notification procedures
	Immediate spill response actions
	Combustibility of spill material and potential for flashback along vapor trails
	Applicable fire fighting procedures and special hazards of combustion products
	Reactivity of spill material with common materials, including water
General Information	Location of posted site-specific spill contingency plans, if applicable
	Using the SPCP
	DOT packaging and transportation requirements for hazardous material (including hazardous waste)

Table 10-2 below outlines training requirements for personnel who participate in, or are expected to participate in, emergency response.

Table 10-2. Responder Training

Responder Level	Definition	Length/ Frequency	Required Training Item
First Responder Awareness Level	Witness or discover a release of hazardous materials and notify proper individuals.	Length not specific; must cover required items. Annual refresher required.	• Understand what hazardous substances are • Understand the risks associated with hazardous substances in an incident • Know how to recognize the presence of the hazardous substance • Understand their role in the response plan

Responder Level	Definition	Length/ Frequency	Required Training Item
First Responder Operations Level	Respond to a release of HAZMAT in a defensive manner, without trying to stop the spill. Contain the spill from a safe distance.	At least eight hours, including the required training items listed here. Annual refresher required.	• Know basic hazard and risk assessment techniques • Know how to select and use proper PPE • Understand basic hazardous materials terms • Know how to perform basic control, containment, and/or confinement operations with the capabilities of the resources and PPE available • Know how to implement basic decontamination procedures • Understand relevant standard operating procedures and termination procedures
Hazardous Materials Technician	Respond to a release of HAZMAT for the purpose of stopping the release. Assume a more aggressive role, approaching the point of release to plug, patch, or otherwise stop the release.	At least 24 hours, equal to the First Responder Operations Level Training level plus the required training items listed here. Annual refresher required.	• Know how to implement the emergency response plan • Know the classification, identification, and verification of known and unknown materials by using field survey instruments and equipment • Understand hazard and risk assessment techniques • Be able to perform basic control, containment, and/or confinement operations with the capabilities of the resources and PPE available • Understand and implement decontamination procedures • Understand basic chemical and toxicological terminology and behavior
Hazardous Materials Specialist	Responsibilities parallel those of the HAZMAT Technician, however, they have a more directed or specific knowledge of the substances they may be called upon to contain. Would also act as the site liaison with federal, state, and local authorities.	At least 24 hours, equal to the First Responder Operations Level Training level plus the required training items listed here. Annual refresher required.	• Know how to implement the local emergency response plan • Understand classification, identification, and verification of known and unknown materials by using advanced survey instruments and equipment • Know of the state emergency response plan • Be able to select and use proper specialized chemical PPE provided to the hazardous material specialist • Understand in-depth hazard and risk techniques • Be able to perform specialized control, containment, and/or confinement operations within the capabilities of the resources and PPE available • Be able to develop a site safety and control plan • Understand chemical, radiological, and toxicological terminology and behavior

Responder Level	Definition	Length/ Frequency	Required Training Item
On-Scene Incident Commander	Will assume control of the incident scene beyond the First Responder Awareness Level.	At least 24 hours, equal to the First Responder Operations Level Training level plus the required training items listed here. Annual refresher required.	• Know and be able to implement the site incident command system • Know how to implement the site emergency response plan • Know and understand the hazards and risks associated with working in chemical PPE • Be able to select and use proper specialized chemical PPE provided to the hazardous material specialist • Know how to implement the local emergency response plan • Know of the state emergency response plan and of the Federal Regional Response Team • Know and understand the importance of decontamination procedures

F. Recordkeeping

Training certificates must be retained indefinitely when placed in personnel folders. Retain the following forms or documents for at least three years in your facility files:

- Spill Plans (SPCPs, SPCCPs, ISCPs, etc.)
- Spill Drills (invitations to local emergency responders)
- IRT Updates
- Spill Response Training
- Self-inspection Checklists

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Chapter 11
Pollution Prevention

A. Program Overview

The NJARNG Pollution Prevention (P2) Program establishes a preferred method for HAZMAT and hazardous waste management. By analyzing inputs, processes, and waste streams, a feedback process will develop that encourages regular improvements throughout the system.

B. Compliance Thresholds

The NJARNG P2 Plan applies to all NJARNG facilities that perform the following tasks:

- Uses, stores, and handles HAZMAT
- Generates and/or accumulates hazardous waste
- Solid waste recycling

C. Responsibilities

Facility Commander

- Promotes recycling of all solid wastes identified as recyclable materials
- Ensures personnel receive annual environmental awareness training
- Promotes periodic Pollution Prevention Opportunity Assessments (PPOA)
- Ensures proper implementation of the most current NJARNG P2 Plan

UECO

- Ensures NJARNG military organizations and activities implement the procedures established by the NJARNG P2 Plan
- Provides periodic training to unit personnel regarding the NJARNG P2 Plan

Full-time Support Supervisors (FTSS)

- Ensures NJARNG military organizations and activities implement the procedures established by the NJARNG P2 Plan
- Provides periodic training to unit personnel regarding the NJARNG P2 Plan

D. Procedures

The following procedures guide a facility through the basic steps of the NJARNG P2 Plan established within the NJARNG:

1. Develop baseline hazardous chemical and waste stream data in accordance with the NJARNG P2 Plan. A baseline inventory of HAZMAT use and hazardous waste generation throughout NJARNG will be the key to measuring success in the NJARNG P2 Program
2. Set goals for reduction of wastes. Table 11-1 lists the P2 Goals for the target year 2005. The facility is required to track the annual progress of waste stream reduction.

Table 11-1. NJARNG Pollution Prevention Goals

Waste Type	1994 Baseline (lbs/year)	Current (lbs/year)	Current Reduction (%)	Reduction Goal (%)	Target Year
Antifreeze	12,858			40%	2005
Asbestos (brake shoes)	1,201			20%	2005
Batteries (aggregate total)	3,185			20%	2005
Solvents (aggregate total)	248,336			40%	2005
Diesel Fuel	18,063			20%	2005
Gasoline	33,264			20%	2005
Oil Filters	7,910			50%	2005
Paints (aggregate total)	4,556			40%	2005
Used Oil	177,292			20%	2005

3. Perform periodic PPOAs in accordance with the NJARNG P2 Plan. Identify the processes[1] in place at the facility that generate waste. Using the worksheets in the

[1] "Process wastes" refers to waste generated from a specific process (e.g., parts cleaning). P2 alternatives include modifying the "process" to avoid or minimize the quantity of "process waste" generated.

NJARNG P2 Plan, perform the assessment and evaluate if the process can be changed to reduce the amount of waste generated.

4. Encourage elimination of hazardous chemicals and waste streams and streamlining processes. Table 11-2 lists various waste streams and P2 alternatives or best management practices that will reduce the amount and/or type of wastes generated.
5. Evaluate progress once per year.

Table 11-2. Material Input and Waste Streams

Waste Stream	P2 Alternative	P2 Best Management Practice
Aerosol Cans	Aerosol Can Puncturer	
Antifreeze	Antifreeze Recycling	Extend Antifreeze Change Interval
Batteries	Battery Exchange/Maintenance Program	
	Battery Desulfation	
Brake Fluid		Top-off Fluids Rather Than Change-out
Brake Pads/Shoes	Return Brake Pads/Shoes to Manufacturer	Recycle Shavings, Pads and Shoes
Excess/Expired Materials	Hazardous Material Pharmacy	
Fluorescent Lights	Send to Recycler	
Fuels	Filter Contaminated Fuels	
General Debris		Waste Segregation and Recycling
Hydraulic Fluid		Top-off Fluids Rather Than Change-out
Junk Parts		Recycle
Metal Shavings / Scrap		Recycle
Oil	Engine Oil Analysis	Used Oil Segregation
	Engine Oil Bypass Filters	Blend Used Oil with Diesel Fuel
	Used Oil Re-refining	Use Oil Caddies or Drip Pans
	Used Oil Space Heaters	

Waste Stream	P2 Alternative	P2 Best Management Practice
Oil / Fuel Filters	Oil/Fuel Filter Crushers	Drain Filters and Recycle
Paint Debris	Dry Filter Paint Booths	
	Vacuum Sanders with HEPA Filters	
	Media Blasting	
Paint Waste	HVLP Paint Guns	Use Excess Paint as Base or Undercoat
	Paint Gun Cleaner	Schedule Painting By Color
	Paint Pot Liners	
Parts Washing Waste	Hot Water Aqueous Parts Washers	Wipe Off Heavy Grease Before Washing
		Keep Parts Washer Cover Closed
Pesticides		Minimization
Rags	Waste Rag Reduction	
Refrigerants	Recover and Reuse	
Solvents	Solvent Filtration	Solvent Substitution
Tires	Sell Used Tires to Road Paver	
Transmission Fluid		Top-off Fluids Rather than Change-out
Used Absorbent	Use Lightweight Absorbents	Segregate Used Absorbent
		Use Three-tiered Storage
	Compact Absorbent Pads Prior to Disposal	Wring-out Pads and Reuse
	"Dry" Absorbent Pads in Cyclone and Reuse	
Vehicle Wash Water	Use High Pressure, Low Volume Hoses	Properly Maintain Wash Rack
		Use Non-Phosphate, Biodegradable Detergents

Waste Stream	P2 Alternative	P2 Best Management Practice
Weapons Cleaning Waste	Small Equipment Steam Cleaner	Solvent Substitution
Yard Waste		Mulch/ Compost

E. Training

All personnel should receive environmental awareness training once per year regarding the continuing effort of the NJARNG P2 Program.

F. Recordkeeping

Maintain data pertinent to all hazardous chemicals and waste streams for at least three years, especially when reductions have been achieved.

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Chapter 12
Radon Management

A. Program Overview

This program provides information and actions that can be taken to control the amount of radon present at a NJARNG facility.

B. Compliance Thresholds

NJARNG facilities are tested for the presence of radon based on their classification. Priorities for Radon assessment and mitigation are as follows:

- Priority 1-Daycare centers, hospitals, schools, and living areas (family housing, bachelor officer quarters/bachelor enlisted quarters, and billets)
- Priority 2-Areas having 24-hour operations
- Priority 3-The acceptable recommended guideline radon concentration threshold is 1 to 3 piCu (pico curries). The action level is 4 piCu or greater

Contact the ID-OEC regarding the current priority status and results of radon testing at your facility.

C. Responsibilities

ID-OEC

- Ensures that the required testing survey is performed at the facility
- Initiates corrective actions if radon concentrations exceeds thresholds

Facility Managers

- Ensures that all personnel are aware of the concerns with respect to radon exposure
- Maintains copies of radon tests

D. Procedures

General Information

Radon is a naturally occurring radioactive gas, which has always been a part of our environment. It is a natural decay product of uranium and is found in soil everywhere in varying concentrations. The NJDEP and the EPA have found that radon can also be an unwelcome part of our home and work environment.

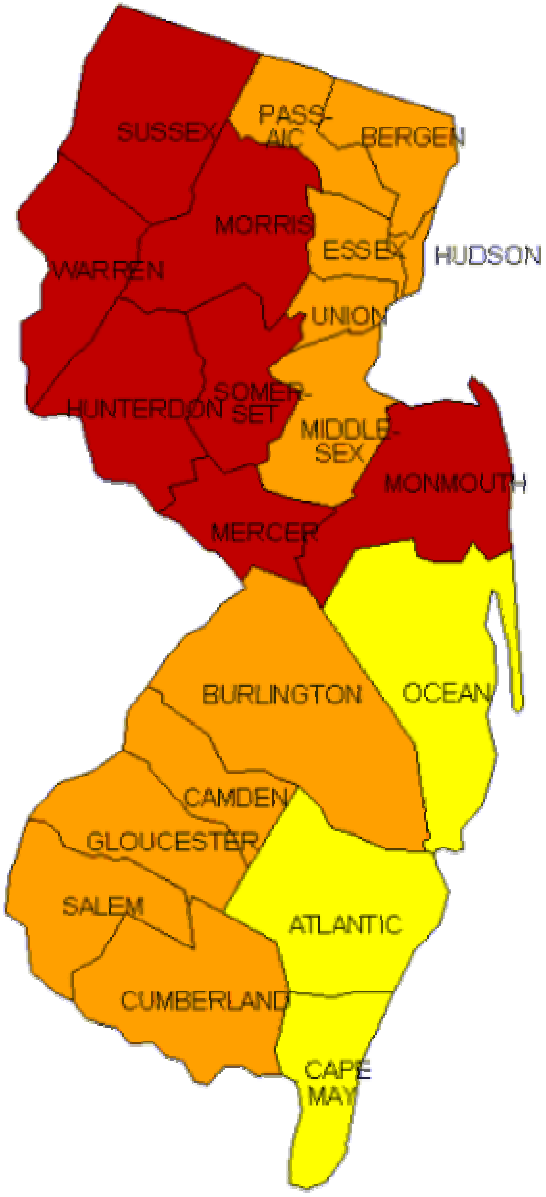
Radon gas can accumulate in enclosed places, such as a house, but its presence, even in high concentrations, cannot be detected by human senses because the gas is invisible and has no odor. However, because of its physical characteristics, the only way to detect the presence of radon gas and measure the level is by a test.

Radon can move easily through soil and tiny cracks in rock. When it reaches the surface of the soil, it disperses and becomes diluted to very low levels in the outdoor environment. However, when the gas moves upward through soil beneath a home, it may enter through cracks or other openings in the foundation and build up to unacceptable levels.

Where Radon Occurs in New Jersey

The EPA and the U.S. Geological Survey have evaluated the radon potential in the U.S. and have developed maps is to assist national, state, and local organizations to target their resources and to assist building code officials in deciding whether radon-resistant features are applicable in new construction. The radon potential map form the state of New Jersey is presented as Figure 12-1. This map is not intended to be used to determine if a home in a given zone should be tested for radon. Homes with elevated levels of radon have been found in all three zones. All homes should be tested regardless of geographic location. The map assigns each county to one of three zones based on radon potential. Each zone designation reflects the average short-term radon measurement that can be expected in a building without the implementation of radon control methods. The radon zone designation of the highest priority is Zone 1.

Figure 12-1. Radon Potential



Zone 1 Highest Potential (greater than 4 pCi/L)

Zone 2 Moderate Potential (from 2 to 4 pCi/L)

Zone 3 Low Potential (less than 2 pCi/L)

Health Concerns Regarding Radon

Long term or chronic exposure to radon has been linked to lung cancer. The greater the concentration and the longer a person is exposed, the greater the risk, so all people are encouraged to reduce their exposure.

The higher the levels of radon gas in a building, the greater the amount inhaled. Just as radon is produced from the decay of radioactive materials, it further decays producing new radioactive materials in the form of solids. These radon decay products can attach to other particles, such as dust and cigarette smoke, which is inhaled and become trapped in the lungs where they emit radiation. These decay products can damage lung tissue and increase the risk of developing lung cancer.

The risk of radon for smokers is much greater than for nonsmokers. For a nonsmoker who has an average radon exposure of 4.0 pCi/L over their entire lifetime, the risk is one in 500 of developing lung cancer due to radon. The risk for a smoker in the same situation is one in 35 (in addition to the risk of lung cancer from the smoking itself). See Table 12-1 below for radon risk comparisons between smokers and non smokers (EPA *Physicians Guide*, 1993).

Table 12-1. Radon Risk Comparison for Smokers and Nonsmokers

Radon Level (pCi/L)	Odds for smokers of developing lung cancer if exposed to this level over a lifetime	Odds for nonsmokers of developing lung cancer if exposed to this level over a lifetime
20	one in 7	one in 125
8	one in 18	one in 333
4	one in 35	one in 500
2	one in 67	one in 1000
0.4	one in 333	one in several thousand

Lung cancer is the only known health effect linked to radon exposure at this time. The EPA estimates that between 5,000 and 20,000 of the 125,000 annual deaths from lung cancer may be attributable to radon exposure. In New Jersey, of the annual 4,500 lung cancer deaths, as many as 500 may be associated with radon exposure. These estimates of cancer risk from radon exposure are less than those caused by smoking, but are far greater than the number of

cancers estimated to occur as a result of exposure to other environmental hazards, such as toxic chemicals in drinking water or pesticide residues on food.

Testing For Radon: The Do's and Don'ts

When ID-OEC schedules the facility for radon testing, the following guidelines will be followed:

- Do not become involved in any aspect of the testing process. Even sealing and mailing back the test kit would interfere with the process. The certified tester will inspect the test site when they pick up the test to ensure that there has been no tampering, that proper testing conditions were observed.
- Radon tests require "closed house" conditions, meaning that all windows and doors that could let outside air enter the building should be kept closed during the test, except for normal exit and entry. If the test is less than four days in length, closed conditions should be maintained an additional 12 hours before the start of the test.

E. Training

Initial O&M training is required for staff tasked to operate a radon mitigation system if installed at the facility.

F. Recordkeeping

Maintain facility radon test results indefinitely. Test results are available from the ID-OEC by contacting the Environmental Specialist at (609) 530-7134.

Document awareness training is required for all facility personnel. These records should be retained for at least three years.

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Chapter 13
Solid Waste (Recycling) Management

A. Program Overview

The NJARNG Recycling Program reduces the dependence on non-renewable natural resources (raw materials and the amount of space required for landfills. This chapter outlines responsibilities, policies, methods, and procedures for collection and disposal of recyclable items. According to NJAC 726a, products are required to be recycled whenever possible.

B. Compliance Thresholds

Recyclable products that are generated and accumulated in NJARNG facilities must be recycled through the Defense Reutilization Marketing Office DRMO, a New Jersey state recycling program, or a county or local recycling program approved by ID-OEC.

All material should be recycled, if possible. Some recyclable materials include:

- Cardboard boxes
- Plastic
- Paper products
- Glass
- Light bulbs
- Scrap metals (aluminum, ferrous metal, etc.)
- Batteries (lead acid only)
- Printer cartridges
- Organic material/composting

C. Responsibilities

ID-OEC

- Coordinates container procurement
- Collects monthly reports
- Annually reports quantities and types of wastes to NGB

EQCC

- Monitors overall NJARNG Recycling Program and advises Recycling Committee Chairperson

Recycling Committee

- Develops and revising recycling collection procedures and expenditures
- Selects projects to receive recycling funds
- Reports to the EQCC and Public Advisory Board

Facility Commanders

- Implements and requires all personnel to participate in the NJARNG Recycling Program
- Establishes organizational operating instructions as appropriate to implement the NJARNG Recycling Program
- Appoints a recycling monitor for recycling efforts at the facility, and provide the name and phone number of the monitor to ID-OEC
- Ensures that the recycling monitor performs duties associated with the NJARNG Recycling Program in a manner that will increase recycling efforts throughout the facility
- Ensures that the procedures described in Section D of this chapter are implemented at the facility

UECO

- Becomes familiar with local municipal and county recycling programs and requirements
- Reviews the site-specific recycling plan
- Becomes familiar with local landfill restrictions
- Conducts period inspection of solid waste collection receptacles for improper disposal practices

Armorer

- Ensures that all personnel within the facility, both full-time and part-time personnel, and those using the facility for any length of time, are aware of the requirement to recycle and comply with this guide
- Keeps track of the amount of recyclable material generated and collected, and provide tracking information to ID-OEC every month utilizing a copy of the NJARNG Monthly Recycling Report
- Forwards the NJARNG Monthly Recycling Report to ID-OEC along with time sheets

D. Procedures

The procedures outlined in this section guide a facility through the basic steps of the P2 Plan established within the NJARNG.

General Procedures

1. Ensure all personnel within the facility, both full time and part time personnel, and those using the facility for any length of time must be aware of the requirement to recycle and comply with the Recycling Plan.
2. Designate areas within the facility for the collection and accumulation of recyclable material, and keep area clean and neat.
3. Obtain collection containers from the ID-OEC or the county or municipal coordinator and schedule for pick-up of collected recyclable material.
4. Ensure that recyclable material is not taken to or collected by a private contractor or scrap dealer without first contacting ID-OEC for procedures and written approval.
5. Conduct periodic inspections throughout the facility to ensure compliance with this guide, and notify the chain-of-command and ID-OEC when recycling efforts need to be improved.
6. Notify ID-OEC when deviations from the NJARNG P2 Plan are required or should any problems in implementing the NJARNG Recycling Program occur at the facility.

Specific Recyclable Materials Handling Procedures

1. Cardboard Boxes – All cardboard boxes should be broken down. Some facilities will have to take the cardboard periodically to the county or municipal facility while other facilities will have local collection through a recycler.

2. Plastic – Each facility monitor will have to check with the municipal or county coordinator to determine what plastics are being recycled in the community.
3. Paper Products – Computer printouts with carbon paper are not acceptable. Carbon paper sheets must be removed.
    a. Mixed paper, such as post-it notes, newspaper inserts, and lined colored paper, may be recycled.
    b. White paper, such as bond, copy, regulations (bindings removed), should be recycled. Paper that includes "For Official Use Only" and paper that is subject to the "Privacy Act" should be placed in boxes (taped closed) or shredded, then recycled.
    c. Newspapers, including magazines, must be recycled.
    d. Junk mail may be recycled.
4. Glass – Each facility will have to check with the local township or county coordinator to determine if glass is recycled in the community. If glass is recycled, it does not have to be separated by color into separate containers.
5. Fluorescent Light Tubes – Effective January 1, 2000, fluorescent light tubes, mercury vapor, and sodium lamps may not be placed with solid waste. Each facility is required to collect spent bulbs or lamps. The Facility Manager will determine the frequency that spent tubes and lamps are disposed of and where.
    a. Listed below on Table 13-1 are the four locations within the state of New Jersey that take fluorescent bulbs for recycling. However, NJDMAVA will incur a cost to dispose at these locations. Prepaid fluorescent tube boxes are available from the State Supply. Contact the ID-OEC should you require a box.

Table 13-1. Fluorescent Light Bulb Recycling Locations

Collection Facility	Telephone Number
Burlington County Office of Solid Waste Management Florence Township, NJ	(609) 499-1001
Morris County Municipal Utilities Authority Dover, NJ	(973) 285-8390
Union County Utilities Authority Rahway, NJ	(732) 382-9400
Advanced Environmental Recycling Corp. 3 Gold Mine Road Flanders, NJ	(973) 691-3908

b. Spent Mercury Vapor and Sodium Lamps must be returned to the State Supply Warehouse.

c. Incandescent light bulbs are discarded as general refuse.

6. Scrap Metals – Metal and mixed metal include metal that is generated at the facility (CSMS, OMS, or Armory), such as broken metal cabinets, furniture, auto parts, vehicle parts, shelving, piping, fencing, etc.

   a. Metals should be separated according to type, such brass, copper, aluminum, iron, etc.

   b. If Metal and mixed metal is picked up by, or taken to, a local scrap dealer, prior approval must be obtained from ID-OEC. Under no circumstance will any individual or contractor take title or possession of any state or federal property without providing compensation. Actions such as these will be considered theft of government property.

   c. Metal and Mixed Metal must be taken to DRMO with a turn-in document available from USP&FO. A copy of this document must be forwarded to ID-OEC after material has been taken to DRMO. Any amount of recyclable items taken to DRMO must be included on a monthly report (see below), which is completed by the facility recycling monitor and forwarded to ID-OEC with time sheets. Follow turn-in procedures and accounting requirements outlined in the NJARNG Recycling Plan.

NEW JERSEY ARMY NATIONAL GUARD MONTHLY RECYCLING REPORT

FAX THIS FORM WITHOUT A COVER SHEET TO ID-OEC

Fax (609) 530-6880

Location: _____ (Armory, OMS, CSMS, AASF)

Month_____ County: _____

Product Recycled (Type)	Weight (Actual or Est.)	Where Recycled Location	Proceeds Received (All)
White Paper			
Newspaper			
Aluminum Cans			
Tin Cans			
Glass			
Cardboard			
Plastic			
Scrap Metal			
Batteries			
Tires			

Use only one form per facility. For example, if you were collocated with an Armory and an OMS this would count, as ***two*** facilities and a form ***must*** be completed for each.

Report any proceeds from the sale of recycled items to ID-OEC.

FACILITY POC (Print)_____

PHONE NUMBER: (_____)_____

SIGNATURE: _____ DATE: _____

7. Spent Batteries – Handled as universal waste. Follow the universal waste regulations in accordance with 40 CFR 273. Do not dispose of batteries as general refuse. The following exceptions to this are explained below:
    a. Some facilities can dispose of alkaline batteries as general refuse. The UECO must verify if alkaline batteries can be disposed of at the local landfill.
    b. Lead acid batteries are to be treated as recyclable items. They must be disposed of in accordance with Maintenance Memorandum No. 13:
        (1) Lead acid batteries will be contained on wooden pallets in an upright position, provided they are not leaking.
        (2) Lead acid batteries that are leaking or missing fill caps must be drained into a plastic container and laid on their sides on wooden pallets.
        (3) Battery acid can only be drained into polyethylene (plastic) containers.
    c. Alkaline batteries can be recycled through a local recycling facility in NJDMAVA prepaid buckets. Contact the ID-OEC for buckets.
8. Printer Cartridges – Printer cartridges will be recycled. Printer cartridges should be forwarded to the ID-OEC in the replacement boxes. Most types of print cartridges, including inkjet cartridges and toner cartridges, can be recycled. Anyone that wishes to obtain a new printer cartridge for his or her printer will have to bring the old cartridge to the print shop or State Supply Warehouse for disposal prior to obtaining a new cartridge. Most other cartridges (such as Hewlett Packard and Epson) may be returned once you have opened the new container; they include a shipping label for their return. Any questions should be directed to ID-OEC at (609) 530-7134.

E. Training

Train personnel on the requirements of this guide.

F. Recordkeeping

Retain all solid waste/recycling records for at least three years.

1. Ensure that all recyclable materials turned in to DRMO are processed with a DD1348 or other turn-in document. Forward copies of all DD 1348s or turn-in documents to ID-OEC after recycled material has been turned into DRMO and maintain a copy of the turn-in documents at facility.
2. Each facility will complete the recycling log and forward to ID-OEC. ID-OEC will track all recyclable items turned in to any facility on a monthly basis.

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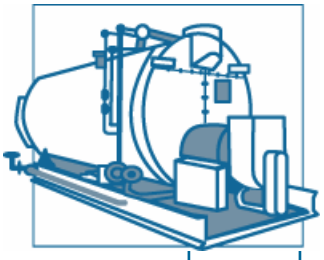
Chapter 14
Storage Tank Management



A. Program Overview

This chapter establishes the procedures and guidance for managing aboveground storage tanks (ASTs) and underground storage tanks (USTs) at NJARNG facilities.

B. Compliance Thresholds

Any facility that has either ASTs or USTs containing hazardous substances will most likely be subject to some federal, state, or local regulation. The following is a brief list of regulations regarding storage:

- 40 CFR 112, Spill Prevention Control and Countermeasures Plan
- 40 CFR 280, Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks
- NJAC 7:14B-5, General Operating Requirements for Underground Storage Tanks
  - 7:14B-5.1, Spill and Overflow Control (inspection requirements for catchment basins)
  - 7:14B-5.2, Operation and Maintenance of Corrosion Protection (inspection of cathodic protection)
  - 7:14B-5.6, Recordkeeping (maintenance of inspection records)
- State of the Art Manual for Volatile Organic Compound Storage Tanks

C. Responsibilities

Facility Commander:

- Ensures that adequate training is conducted
- Ensures that environmental protection/pollution abatement procedures are implemented in their areas of responsibility

UECO

- Maintains all records related to this document
- Coordinates all required training
- Conducts inspections

- Establishes and implements spill prevention and control procedures

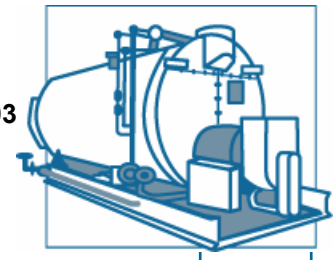
D. Procedures

This section identifies specific procedures you will use to support the policies/goals storage tank management. These procedures are associated with specific checklists, logs, or other compliance tools. These step-by-step procedures are easy-to-follow, and support compliance with federal, state, and local requirements.

This section contains the following compliance tools:

- AST/UST Inspection Checklist
- Rainwater Discharge SOP
- List of Monitoring Equipment

In addition to the inspections identified above, all UST systems equipped with cathodic protection systems shall be inspected for proper operation within six months of installation and at least every three years thereafter by an individual certified in accordance with NJAC 7:14B-13. Inspections must be performed by a Cathodic Protection Tester or Cathodic Protection Specialist certified pursuant to NJAC 7:14B-13.



AST/UST INSPECTION CHECKLIST (PERFORMED WEEKLY) (Page 1 of 2)

Check ASTs and USTs weekly. Use this checklist as a guide for completing your inspection. When finished, sign and date the form in the space provided. ***Should you note a deficiency, send a copy of the inspection form to the ID-OEC.***

Check Tanks and Tank-to-Piping Connections:		
Apparent drip marks?	Yes _____	No _____
Apparent discoloration?	Yes _____	No _____
Any visible corrosion?	Yes _____	No _____
Apparent localized dead vegetation?	Yes _____	No _____
Puddles containing material?	Yes _____	No _____
Check Piping:		
Visible droplets of stored material?	Yes _____	No _____
Apparent discoloration?	Yes _____	No _____
Visible corrosion?	Yes _____	No _____
Pipe bowing between supports?	Yes _____	No _____
Evidence of stored material on valves or seals?	Yes _____	No _____
Localized dead vegetation?	Yes _____	No _____
Check Secondary Containment (For ASTs Only):		
Relief valve closed?	Yes _____	No _____
Cracks or other penetrations apparent?	Yes _____	No _____
Visible seepage at joints?	Yes _____	No _____
Excessive ponded water?*	Yes _____	No _____
Product residue in secondary containment?	Yes _____	No _____

* *Use the Rainwater Discharge SOP for instructions on discharging ponded water.*

AST/UST INSPECTION CHECKLIST (PERFORMED WEEKLY) (Page 2 of 2)

Perform visual inspection of UST spill catchment basins before every delivery and a visual inspection of spill catchment basins, dispenser sumps and piping sumps to keep them clean of product, water and debris.

Check Spill Catchment Basin (For USTs Only):		
Evidence of cracks?	Yes _____	No _____
Any holes?	Yes _____	No _____
Any loose fittings?	Yes _____	No _____
Any accumulation of debris or liquid?	Yes _____	No _____
Any other deficiency which may compromise the integrity of the spill containment equipment?	Yes _____	No _____

All UST systems equipped with cathodic protection systems shall be inspected for proper operation within six months of installation and at least every three years thereafter by an individual certified in accordance with NJAC 7:14B-13.

Cathodic Protection (For USTs Only):		
Has the cathodic inspection system been initially inspected within six months of installation?	Yes _____	No _____
Has the cathodic inspection system been inspected at least every three years thereafter?	Yes _____	No _____

DATE	INSPECTOR'S INITIALS	DEFICIENCIES?	DATE CORRECTED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

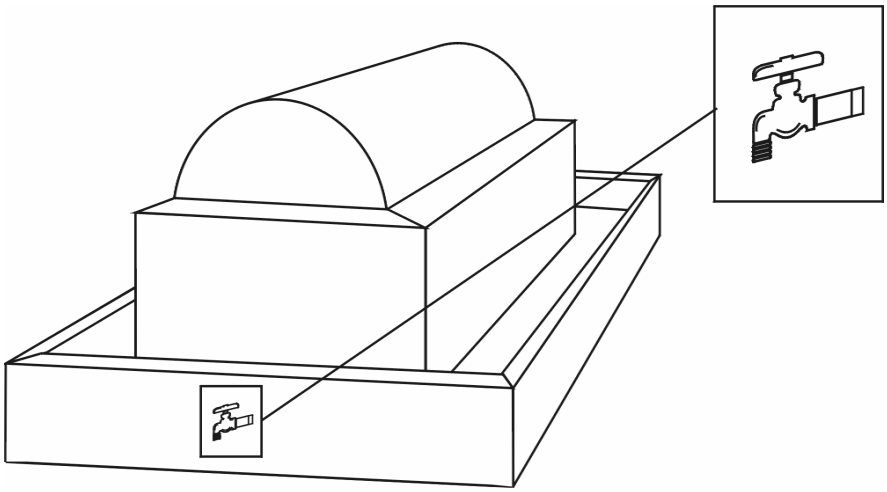
RAINWATER DISCHARGE SOP
(Page 1 of 2)

Rainwater will accumulate in outdoor uncovered secondary containment. All personnel will use the following Standard Operating Procedures to inspect drain valves weekly. Check secondary containment after ***any*** rain event.

Weekly Inspection

Debris can clog drain valves. Every Friday, check that drain valves are clear of debris and are closed:

1. Remove grates and sweep up debris.
2. Place debris in 55-gallon drums.
3. Dispose of debris as contaminated soil.
4. Replace grating.
5. Check that drain valves are ***CLOSED*** (turn right).



After Any Rain Event

6. Check secondary containment for a visible sheen on the surface of the water, indicating residual spilled fuel product.
7. If there is a visible sheen, remove grating and place absorbent pads on the water surface to remove spilled product.
8. Clean up spilled product.
9. Dispose of oily rags.
10. Open the drain valve (turn left) and remove accumulated water.
11. Close the drain valve (turn right) and replace the grate.
12. Complete the Rainwater Release Inspection Log.

RAINWATER DISCHARGE SOP
(Page 2 of 2)

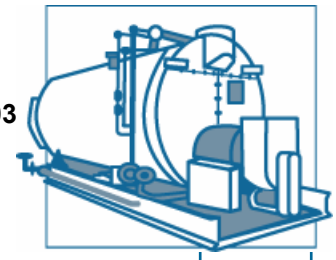
If there are any questions about the quality of the water present, the UECO, at his/her option, will either:

- Arrange for offsite transport for proper treatment and disposal
- Allow the water to evaporate and, if appropriate, take corrective action to clean up the residual contamination
- Analytically test a water sample for suspect pollutants to determine if the water meets the requirements of the National Pollution Discharge Elimination System Storm Water Permit, if applicable

Only personnel who have received training to determine the water quality can discharge water from containment areas, and then only upon the direct order of the UECO.

Maintain a record that reflects the following information:

- An explanation of why excess precipitation needed to be released
- The name of the person who determined the water quality and what method he/she used
- When the release was initiated
- When the release was terminated
- Approximate volume of water that was discharged



LIST OF MONITORING EQUIPMENT

For each AST and UST at your facility, complete this table with the appropriate information about your tanks and monitoring equipment. Send a copy to ID-OEC and retain a copy in your facility files. Update this list to reflect each change in storage tank and/or monitoring system equipment.

Region/ County	Facility Name and Address	POC Name and Pone	Tank and Contents	Monitoring System	Manufacturer	Model

E. Training

Train designated individuals to conduct the required tank and containment inspections. Use the inspection checklists and logs contained in this chapter to conduct and document the suggested inspections. Designated individuals should have the authority and knowledge to perform the following actions regarding the inspection program:

- Implement the suggested inspections
- Evaluate and assess hazards
- Recommend corrective or remedial actions

F. Recordkeeping

Retain the following forms or documents for at least three years in your facility files:

- Recent compliance with release detection requirements
- Results of the site investigation conducted at permanent closure
- Inspection and repair documents provided by NJDEP licensed contractor
- AST/UST inspection Checklists
- Rainwater discharge records
- Monitoring equipment table
- Cathodic protection inspection records (for USTs)

Chapter 15
Toxic Substances Management

A. Program Overview

The Toxic Substances Management Program consists of the following:

- Asbestos, see Chapter 3
- Radon, see Chapter 13
- PCBs
  - Transformers
  - Fluorescent Light ballasts
- Lead
  - Lead-based paint (many structures built before 1978 have paint that contains lead; exposure to lead chips and dust can cause serious health problems)
  - Lead bullets left in indoor firing ranges.

B. Compliance Thresholds

PCBs

Transformers

A PCB transformer is a transformer that contains PCB concentrations greater than or equal to 50 ppm. PCB transformers must be marked with the appropriate warning signs in accordance with 40 CFR 761.40.

Fluorescent Light Ballasts

The Toxic Substances Control Act (TSCA) management requirements for fluorescent light ballasts depends on condition and PCB concentrations in the potting material. See Table 15-1 below for guidance.

Table 15-1. TSCA Management Requirements for Fluorescent Light Ballasts

PCB Capacitor	PCB Concentration	Management	Reference
"No PCBs" label	NA	Not regulated under TSCA.	NA
None	< 50 ppm	Not regulated under TSCA.	NA
Intact and non-leaking or none	≥ 50 ppm	Is a PCB bulk product waste. No labeling is required. Manifesting is required for disposal in accordance with 40 CFR 761.62(a); is not required under 40 CFR 761.62(b); may be required under 40 CFR 761.62(c).	40 CFR 761.50(b)(2)(ii) and 761.62(a) through (c)
Intact and non-leaking	< 50 ppm	No labeling or manifesting required.	40 CFR 761.50(b)(2)(i) and 761.60(b)(2)(ii)
Leaking	< 50 ppm or ≥ 50 ppm	Disposal as PCB bulk product waste. No labeling is required. Manifesting is required for disposal in accordance with 40 CFR 761.62(a); may be required under 40 CFR 761.62(c).	40 CFR 761.62(a) or (c)

Lead

Any renovations or alterations to structures constructed before 1978. On any surface that is tested and found to contain lead equal to or in excess of 1.0 milligrams per square centimeter or equal to or in excess of 0.5% by weight, a licensed contractor should be hired to conduct abatement.

If NJARNG owns property with lead-based paint where tenants reside, are selling property where lead-based paint exists, or are involved with renovating lead-based paint structures, NJARNG personnel must be aware of the following:

- Landlords have to disclose known information on lead-based paint and lead-based paint hazards before leases take effect. Leases must include a disclosure form about lead-based paint.
- Sellers have to disclose known information on lead-based paint and lead-based paint hazards before selling a house. Sales contracts must include a disclosure form about lead-based paint. Buyers have up to 10 days to check for lead.
- Renovators have to provide residents EPA's pamphlet "Protect Your Family from Lead in Your Home" before starting work

C. Responsibilities

Facility Managers

- If the facility was constructed prior to 1978, ensures a lead-based paint survey is performed in any area that renovations are scheduled
- Ensures facility personnel are familiar with hazards associated with lead-based paint
- Ensures ID-OEC is notified if lead waste is stored on-site or is improperly disposed

ID-CMB and Safety Office

- Ensures lead surveys are conducted and for oversees contractors

Range Control Officers

- Ensures ranges are operated and maintained in accordance with NJDMAVA Indoor Firing Range SOP

D. Procedures

Transformers

For facilities with PCB transformers, Facility Managers should inspect annually to ensure that the transformers are properly monitored and labeled.

Fluorescent Light Ballasts

For facilities with PCB light ballasts, Facility Managers should inspect the ballasts to ensure they are properly marked and labeled and, if necessary, tested.

Lead-Based Paint

Lead-based paint is a major source of lead poisoning for children and can also affect adults. In children, lead poisoning can cause irreversible brain damage and can impair mental functioning. It can retard mental and physical development and reduce attention span. It can also retard fetal development even at extremely low levels of lead. In adults, it can cause irritability, poor muscle coordination, and nerve damage to the sense organs and nerves controlling the body. Lead poisoning may also cause problems with reproduction (such as a decreased sperm count). It may also increase blood pressure. Thus, young children, fetuses, infants, and adults with high blood pressure are the most vulnerable to the effects of lead.

Eating paint chips is one way young children are exposed to lead. It is not the most common way that consumers, in general, are exposed to lead. Ingesting and inhaling lead dust that is created as lead-based paint "chalks," chips, or peels from deteriorated surfaces can expose consumers to lead. Walking on small paint chips found on the floor, or opening and closing a painted frame window, can also create lead dust. Other sources of lead include deposits that may be present in homes after years of use of leaded gasoline and from industrial sources like smelting. Consumers can also generate lead dust by sanding lead-based paint or by scraping or heating lead-based paint.

Lead dust can settle on floors, walls, and furniture. Under these conditions, children can ingest lead dust from hand-to-mouth contact or in food. Settled lead dust can reenter the air through cleaning, such as sweeping or vacuuming, or by movement of people throughout the building.

The following guidelines are established with regards to lead-based paint operations:

- If the facility was constructed prior to 1978, verify if lead-based paint is present in the schedule renovation area prior to the commencement to work. Contact the ID-OEC at 609-530-7134 and the state Safety Officer for the NJARNG.
- Conduct briefings for facility personnel prior to the start of renovations covering the safety precautions for lead-based paint
- Any lead survey must be done by a New Jersey licensed inspector
- If survey is conducted in a school or apartment, a risk assessment should also be conducted

Indoor Firing Ranges

Range Control Officers (RCOs) must ensure all indoor range operations and routine range maintenance is performed in accordance with their local NJDMAVA Indoor Firing Range SOP. RCOs will ensure all waste containing lead generated from indoor ranges is properly containerized and shipped off-site for disposal or recycling.

E. Training

Conduct lead-based paint awareness and indoor range safety training for all facility personnel annually. The applicable safety officer is responsible for any training of staff and safety procedures while working with toxic substances.

F. Recordkeeping

Documents dealing toxic substances shall be maintained indefinitely at the facility. RCOs will also maintain copies of indoor range logs, inspection reports, and waste disposal manifests for an indefinite period.

G. Personal Protective Equipment

Workers shall wear the appropriate PPE as outlined in 29 CFR 1926.62. This equipment should include respirators, disposable coveralls, gloves, and boots.

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Chapter 16
Wastewater Management

This chapter discusses NJARNG policies/goals, procedures, and compliance tools used to support its Wastewater Management Program and includes regulations, responsibilities, and compliance requirements associated with wastewater discharges.

A. Program Overview

AR 200-1 requires that personnel comply with all requirements, substantive and procedural, for control and abatement of water pollution, as outlined in the CWA. The CWA governs the control of water pollution in the nation. In addition to the CWA, the following laws and regulations apply to this chapter:

- The Federal Facility Compliance Act (FFCA). This act, dated 6 October 1992, amends the Solid Waste Disposal Act (SWDA) and addresses requirements for federally-owned treatment works (FOTW).
- EO 12088, Federal Compliance with Pollution Standards. This EO, dated 13 October 1978, requires federally owned and operated treatment works to comply with applicable federal, state, and local water pollution control standards.
- NJSA. 58:10A et seq., New Jersey Water Pollution Control Act. The purpose of the Water Pollution Control regulations is to restore, enhance, and maintain the chemical, physical, and biological integrity of the state's waters.
- New Jersey's Soil Erosion and Sediment Control Act (SESCA), Chapter 251, Public Law 1975 includes the review of site plans for virtually all land disturbances associated with residential and commercial development, land grading, utility and public facility construction, gravel pits, mining operations and landfills
- NJAC 7:14A-1.1 et seq., New Jersey Pollutant Discharge Elimination System (NJPDES) Regulations. These regulations sets forth the rules concerning implementation and operation of the NJPDES permit program and the Treatment Works Approval (TWA) program.

Wastewater discharges can include any of the following:

- Storm water runoff from operational or industrial areas to a stream or water body
- Storm water runoff from construction activities to a stream or water body
- Sanitary or industrial wastewater discharge to a publicly owned treatment works (POTW) or an FOTW or other non-agency-specific treatment facility
- Industrial wastewater or storm water discharged to an industrial waste impoundment or lagoon.
- Sanitary or industrial wastewater discharge directly to a receiving stream

B. Compliance Thresholds

Construction and Mining Activities Storm Water General Permit

The Construction and Mining Activities Storm Water General Permit authorizes point source discharges from certain construction and mining activities. Regulated entities are required to develop a soil erosion and sediment plan aimed at eliminating the flow of contaminated rainwater into streams and rivers.

Construction activities that disturb five acres of land or more must obtain a Construction General Permit for storm water discharges. The Construction General Permit NJ0088323 is issued by the local soil conservation district when a soil erosion and sediment control certification is obtained.

In addition, as a result of the Phase II Storm Water Regulations, which were published in the Federal Register on 8 December 1999, the NJDEP is revising the NJPDES program to include additional permit requirements for those construction sites that disturb one acre or more. NJDEP's NJPDES storm water rules were proposed in the 6 January 2003 New Jersey Register (NJR) at 35 NJR169(a). NJDEP also issued four draft NJPDES general permits in January 2003:

- Tier A Municipal Storm Water General Permit (NJ0141852)
- Tier B Municipal Storm Water General Permit (NJ0141861)
- Public Complex Storm Water General Permit (NJ0141879)
- Highway Agency Storm Water General Permit (NJ0141887)

Public hearings were held on both the rules and the general permits in February 2003. The public comment period on the rules and the permits closed on 7 April 2003.

Soil Erosion and Sediment Control Act Project Permit

The New Jersey County Soil Conservation Districts are charged with implementing the SESCA to control and reduce erosion and sedimentation on construction sites. In addition to the five acre compliance threshold for triggering a storm water permit, there is also a 5,000 square feet compliance threshold for projects triggering a permit under this SESCA. Under 4:24-41 of the SESCA, a project means a disturbance of more than 5,000 square feet of the surface area of land for the:

- Accommodation of construction for which the State Uniform Construction Code would require a construction permit (except that the construction of a single-family

dwelling unit is not considered a "project" unless it is part of a proposed subdivision, site plan, conditional use, zoning variance, planned development or construction permit application involving two or more such single family dwelling units)

- Demolition of one or more structures
- Construction of a parking lot
- Construction of a public facility
- Operation of any mining or quarrying activity
- Clearing or grading of any land for other than agricultural or horticultural purposes

Sanitary or Industrial Wastewater Discharged to a POTW or FOTW

Wastewater discharged into a “sewer system” should be sanitary wastewater, water from the latrines, showers, and kitchens, or operational wastewater, washrack water or water used for a specific operation. Operational wastewater may be subject to specific local regulations.

Wastewater Discharged to an Impoundment or Lagoon

Wastewater may be discharged to an impoundment or sometimes referred to as a lagoon. Whenever a POTW or FOTW is not accessible by the installation, wastewater must be managed or disposed of into an impoundment. This type of disposal method requires a permit and specific operational requirements.

Wastewater Discharged directly to a Stream or Waterway

Sanitary or operational wastewater should never be discharged directly to a stream or waterway without an NPDES discharge permit issued by the NJDEP. If you should suspect that an illicit connection exists, notify ID-OEC immediately. An illicit connection is a type of non-storm water discharge that occurs when indoor plumbing (oil/water separators (OWSs), floor drains, trench drains, sinks, or boiler room drains) connect to the storm water sewer system rather than the sanitary sewer system.

C. Responsibilities

CFMO

- Authorizes funding and sets limits for maintenance and repair services

- Is notified of all emergency OWS system maintenance problems or hazardous waste/material leaks and spills
- Obtains coverage under Construction General Permit NJ0088323 for construction activities where five acres or more will be disturbed

ID-OEC

- Monitors the development of the NJDEP NJPDES Phase II program for changes that may affect NJARNG activities
- Routinely monitors wastewater discharges and NJPDES permit compliance
- Coordinates emergency OWS maintenance and leak/spill clean up projects with the CFMO
- Provides storm water pollution prevention training to personnel
- Ensures that unit commanders are aware of the purpose and objectives for water pollution control

Maintenance Shop Supervisors/Armorers

- Ensures that ID-OEC is notified of all construction activities where one acre or more will be disturbed
- Notifies the CFMO for all OWS and grease trap maintenance problems and repairs
- Coordinates OWS system inspection, maintenance, and operation with ID-OEC and personnel
- Ensures that all personnel not present at the storm water pollution prevention workshop are briefed on the content of the workshop and best management practices that apply at your facility
- Ensures kitchen/shop grease traps are inspected and properly maintained

Unit Commanders

- Ensures that all training activities are conducted in a manner that prevents and controls water pollution
- Ensures that all applicable training area rules, regulations, and policies are adhered to

D. Procedures

Regarding compliance with the NJARNG Wastewater Management Program, the following items are required by most facilities:

- Perform an inspection of the kitchen grease trap as needed, if one exists, as described below. Use the inspection checklist at the end of this section to complete your inspection and follow instructions for clean-out, when necessary.
- Perform inspections of each OWS at the complex, as described below. Use the inspection checklist at the end of this section to complete your inspection.
- Ensure that personnel have received a briefing of storm water pollution prevention best management practices, which were covered during the April 2001 workshop (refer to Section E for further information on this workshop).
- Ensure that ID-OEC is aware of any construction activity planned at your facility that will disturb one or more acres of ground. ID-OEC is responsible for determining whether a NJPDES permit for discharges associated with construction activity must be obtained.
- Ensure that personnel practice good housekeeping practices in the shop, properly utilize structural best management practices (e.g., use of release valves on mobile refueler parking pads), utilize drip pans under leaky vehicles, and are aware of other best management practices that should be employed at your facility to minimize storm water pollution.

Grease Trap Inspection and Maintenance

- Personnel using the kitchen will inspect the grease trap as needed for grease accumulation. However, the grease trap should be checked no less than annually.
- If you should note grease build-up in the trap, follow the clean-out checklist at the end of this section. Any excess grease removed from the trap may be bagged and thrown in the dumpster.

If you should have any questions about the grease trap or suspect that it is not operating properly, notify ID-OEC.

OWS Maintenance

- Personnel using the wash rack will conduct routine inspections of all OWS systems located indoors and outdoors
- Routine inspections will include floor drains, sand traps, washpad drains, inside separator compartments, and gauging storage tank levels

- Inspection schedule for separators:
  - Every 30 days for major users (AASFs, CSMSs, UTES and those OMSs with four bays)
  - Every 60 days for moderate users (those OMSs with three bays)
  - Every 90 days for minor users (those OMS with two bays or less)
- Indoor OWS maintenance:
  - All shop foremen will ensure periodic cleaning of indoor floor drains
  - Sediment buckets located inside separators will be cleaned each time they are inspected
  - If oil debris is in the sediment bucket, the debris will be handled and stored as hazardous waste IAW established procedures found in Chapter 5 of this guide
- Outdoor oil/water service maintenance and repair:
  - ID-OEC will manage inspection and maintenance for all tank emptying, and/or repair of all outdoor OWS systems
- Emergency maintenance:
  - The facility representative will notify ID-OEC to request authorization for immediate corrective maintenance and/or repair services from a vendor for OWS systems

GREASE TRAP INSPECTION AND CLEAN-OUT CHECKLIST (PERFORMED AS NEEDED)

Inspect the grease trap as needed for grease accumulation after each heavy use; however, the grease trap should be checked no less than annually. Follow the directions below for cleaning the grease trap if should you note that grease has accumulated in the grease trap. When finished, sign and date the form and indicate whether the grease trap was cleaned out in the space provided. ***Should you note that the grease trap is not functioning properly, send a copy of the inspection form to the ID-OEC.***

Cleaning Operation:

1. Run a full stream of hot water in the sink. It is preferable to have this water at 140 degrees or higher, running for a period of at least two minutes.
2. Turn off the hot water and allow the unit to cool for a period of three minutes.
3. Close the line control valve.
4. Open the automatic draw-off valve at the top of the interceptor and place a container underneath this valve. Run hot water through the interceptor at a rate of approximately two gallons per minute.
5. The unit will fill. Turn off hot water. Accumulated liquefied grease will be raised into cone and draw-off piping.
6. Allow accumulated liquefied grease to flow out of draw-off valve until clear water appears.
7. When clear water appears, shut off flow of hot water into sink, turn line control valve to open position. Close automatic draw-off valve at top of grease trap.
8. Grease trap is now ready for normal use.

DATE	INSPECTOR'S INITIALS	GREASE TRAP CLEANED?	DEFICIENCIES?	DATE CORRECTED
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

OIL/WATER SEPARATOR INSPECTION CHECKLIST (PEFORMED EVERY 30, 60, OR 90 DAYS)

Inspect each OWS for build up of sand, trash, sludge, and oil IAW the inspection schedule stated in Section D of this chapter and after heavy rainfall events. Over a period of time, the sediment, oil, grease will build up on the walls of the separator. Dirt and heavy oil may build up on the parallel plates and the build-up will reduce the unit's efficiency. In addition, the skimmer mechanism becomes "gummy." This causes partial clogging of the mechanism and the formation of a continual oil slick of increasing depth.

Follow the directions below for inspecting the OWS. Inspect each OWS at your facility every ***30 days for major users*** (AASFs, CSMSs, UTES and those OMSs with four bays), ***60 days for moderate users*** (those OMSs with three bays), and ***90 days for minor users*** (those OMS with two bays or less). When finished, sign and date the form and indicate whether the OWS was cleaned out in the space provided. ***Should you note that the OWS is not functioning properly, send a copy of the inspection form to the ID-OEC***. It is recommended that the OWS be cleaned **at least once a year**. Annual cleaning consists of removing the oil build-up on surfaces of the OWS walls and coalescer plates with steam or high-pressure wash.

Location: _____ Type of OWS: _____ Age: _____

1. Determine the depth of oil in the OWS: _____ inches or centimeters
2. Inspect for excessive sediment, grease, and trash.
3. Date OWS last cleaned: _____
4. Amount of oil recovered at cleaning: _____ gallons
5. Method of disposal of recovered oil: _____
6. Determine depth of water in waste oil tank: _____ inches or centimeters
7. Has OWS outflow backed-up into drains since the last inspection: _____

Comments: _____

DATE	INSPECTOR'S INITIALS	CLEANED?	DEFICIENCIES?	DATE CORRECTED
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

E. Training

As a result of the 4 May 2000 pre-application conference held between the NJARNG and the NJDEP, the NJDEP agreed that in lieu of NJPDES permits for NJARNG facilities, the NJARNG would provide a Storm Water Pollution Prevention Workshop to personnel. On 23 and 24 April 2001, shop chiefs from each NJARNG maintenance shop attended the Workshop. The outline for the Workshop is presented as Figure 16-1.

Shop chiefs who attended the Workshop were to brief personnel at their respective shops/locations on the content of the course. ***If you have not been briefed on this course, see your shop chief for this information. If no one at your facility attended the workshop, contact ID-OEC to obtain the presentation materials.***

Military Field Training

Military training activities will be planned so that all applicable training area rules and regulations are followed. Unit commanders will ensure sufficient precautions are taken to prevent the discharge of hazardous substances/wastes into surface/ground waters and wetland areas. These precautions may include:

- Avoid training in wetland areas, lakes, streams, etc., whenever possible and practical
- Have spill absorbent and cleanup materials on hand during vehicle refueling, maintenance, and transport operations
- Anticipate equipment and operational breakdowns that may result in water pollution

F. Recordkeeping

Maintain all self-inspections checklists in the facility environmental records for at least three years. Any records of water analyses are maintained at ID-OEC indefinitely.

Figure 16.1 Storm Water Pollution Prevention Workshop Syllabus

Introduction

What is storm water? The relationship between storm water and surface water (ponds, rivers, oceans, etc.) will be introduced, as will the differences between the storm sewer system and the sanitary sewer system. Storm water travel pathways and destinations will also be discussed.

Federal Regulations Overview

Storm water regulatory background will be briefly discussed, including an introduction to the Clean Water Act, the Water Quality Act, Phase I regulations, and Phase II regulations. In addition, NGB National Policy regarding storm water permitting will be introduced.

Sources of Storm Water Pollution

Several potential source areas for storm water pollution have been identified at ARNG facilities. These include outdoor activities (e.g., fuel storage and transfer areas, hazardous material/waste storage areas, vehicle and equipment maintenance areas, vehicle and equipment washing operations, vehicle and equipment parking/staging areas, and trash dumpsters), illicit connections (e.g., indoor plumbing such as sinks or floor drains that are improperly connected to the storm sewer system), and areas with high soil erosion.

Pollution Effects on the Environment

A variety of materials and chemicals are present at ARNG facilities that could potentially contaminate storm water. Soaps, oils, fuels, and soil from construction sites can cause poor water conditions in our rivers and lakes. Not only can the beauty of surface water be destroyed, but so can the aquatic wildlife, which can be harmed by the toxic conditions or the reduced oxygen levels that can result from pollution.

Facility Walkthrough

Personnel will take a brief tour of the facility and will observe facility drainage, potential sources of storm water pollution, and practices employed to prevent storm water pollution. After the walkthrough, personnel will review what they observed.

Best Management Practices for Preventing Storm Water Pollution

Best management practices (BMPs) are measures used to prevent or mitigate storm water pollution. They can consist of general BMPs that occur facility wide (e.g., good housekeeping practices or personnel training), or they can be structural BMPs installed in a specific area (e.g., secondary containment around a fuel tank or a roof over a fueling area).

Spill Response

What do you do if there is a spill in your work area? The first couple minutes of a spill event are crucial to preventing a major environmental catastrophe. The "2-Minute Drill" describes how to react immediately to a spill by first stopping the spill at its source and then protecting the immediate storm sewer inlets.

Question and Answer

Chapter 17
Water Quality Management

This chapter discusses NJARNG policies/goals, procedures, and compliance tools used to support its Water Quality Management Program and includes regulations, responsibilities, and compliance requirements associated with water quality.

A. Program Overview

The Army's water quality management objective is to ensure availability, conservation, and protection of water resources. The following regulations apply to this chapter:

- Safe Drinking Water Act (SDWA) Regulations (40 CFR 141through 143)
- New Jersey Safe Drinking Water Act (NJSDWA) (NJSA 58:12A-1 et seq., as amended) Regulations (NJAC 7:10)
- New Jersey Coastal Permit Program Rules (NJAC 7:7)
- New Jersey Freshwater Wetlands Protection Act Rules (NJAC 7:7A)
- New Jersey Coastal Zone Management Rules (NJAC 7:7E)
- Sewerage and Facilities Act (NJSA 58:11-23 et seq.)
- Subsurface and Percolating Waters Act (NJSA 58:4A-4.1 et seq.) Regulations (NJAC 7:9-9.1)
- Realty Improvement Sewerage and Facilities Act (NJSA 58:11-23 et seq.)
- Water Supply Management Act (NJSA 58:1A-1 et seq.) Regulations (NJAC 7:19-1 and 7:20A-1)
- Licensing of Water Supply and Waste Water Operators (NJSA 58:11-64 to 58:11-73)
- Interconnections Between Approved Public Potable Water Supplies and Unapproved Water Supplies (NJSA 58:11-9.1 to 58:11-9.11)
- CWA
- FFCA
- Marine Protection, Research, and Sanctuaries Act
- Coastal Zone Management Act (CSMA)
- Energy Policy Act of 1992

Major Provisions Of Federal And State Water Quality Regulations

Federal and State Safe Drinking Water Act

The Army must provide drinking water to fixed facilities in accordance with the requirements of the NJSDWA and federal SDWA. Drinking water provided for the field environment and other military-unique operations will meet the Army Surgeon General directives. Drinking water provided on Army watercraft will meet the drinking water quality standards of the SDWA.

The federal SDWA includes the following major provisions:

- Primary and secondary drinking water standards
- Limits on allowable lead content in materials used to distribute water
- Lead Contamination Control Act
- Ground water source protection programs

The New Jersey Water Supply Administration administers the NJSDWA and strives to meet the following objectives:

- To ensure that drinking water supply systems meet the federal and New Jersey Safe Drinking Water Standards
- To ensure that surface and ground water diversions do not exceed the sustainable yield of available water resources
- To protect the ground water resources of the state through proper well drilling activities and well head protection
- To help protect the surface and ground water sources of the state through development and implementation of New Jersey's source water assessment plan and watershed planning and management strategies
- To administer the Drinking Water State Revolving Fund and other funds to finance the costs of drinking water infrastructure improvements needed to achieve or maintain compliance with the SDWA, and to implement other drinking water initiatives
- To ensure the proper construction, operation, and management of drinking water supply systems
- To help identify water supply needs and issues and develop plans for their resolution
- To ensure the proper response to water supply drought emergencies

Subsurface and Percolating Waters Act

The Well Permitting and Regulations Section of the Bureau of Water Allocation is responsible for the permitting of all categories of wells (such as potable, industrial, monitoring, irrigation etc.), providing technical assistance on well construction to well drillers and local health departments, and administering compliance programs relating to the locating and sealing of abandoned wells. This section licenses and regulates all well drillers and pump installers in New Jersey.

Water Supply Management Act

The Water Resources Management section of the Bureau of Water Allocation operates under the New Jersey Water Supply Management Act and regulates all ground and surface water diversions in New Jersey that are in excess of 100,000 gallons of water per day. This includes water diverted for public water supply, industrial processing and cooling, irrigation, sand and gravel operations, remediation, and power generation. The regulation could take the form of a permit, certification, registration, or permit-by-rule.

B. Compliance Thresholds

If your facility provides drinking water, then you are subject to the regulations described above and must monitor your drinking water well following the procedures outlined in Section D of this chapter. This includes sampling and analysis for bacteria, nitrates, and volatile organic compounds (VOCs).

If your facility receives drinking water from a POTW, then you are not subject to either the federal or state SDWA. Facilities that meet the following criteria are not required to comply with the requirements of the SDWA since they are not public water systems:

- The system consists only of distribution and storage facilities and does not have any collection and treatment facilities
- The facility gets all of its water from a public water system that is owned and operated by another party
- The facility does not sell water to any party

C. Responsibilities

ID-OEC

- Collects water samples and reports test results

- Supervises the well water monitoring program statewide
- Prepares and submits reports
- Notifies installations and appropriate government agencies of any water contamination and provides assistance for remedial action
- Develops, distributes, and implements a water conservation plan and ensures that water conservation measures are installed in federal buildings by 1 January 2005
- Surveys all NJARNG facilities to identify potential water conservation measures
- May delegate water sampling to installation personnel who have been instructed in proper sampling procedures

ID-FMB Regional Supervisors

- Coordinates water disinfection at the installations with assistance from installation personnel and ID-OEC

New Jersey Department of Health (NJDOH)

- Provides sample bottles and conducts the physical testing of the water samples
- Provides testing results of samples to ID-OEC

D. Procedures

Regarding compliance with the NJARNG Water Quality Management Program, the procedures may vary. However, any changes in drinking water quality at your facility should be reported to the local water supplier and ID-OEC for corrective action. The following items would be required by ID-OEC and Installations Division-Facilities Purchasing Bureau (ID-FPB) in the event a drinking water well was installed.

Well Water Monitoring

- Well water collection and analysis must be conducted quarterly for bacteria, and annually for nitrates
- Well water must be collected and analyzed for VOCs and other regulated organics once every five years
- If contamination is found, additional water testing is required
- ID staff will collect water samples from each well and deliver them to ID-OEC, who will deliver them to NJDOH

- ID-OEC notifies the installation POC of laboratory analysis results and advises to secure potable water supplies until further notice if samples are bad

Well Disinfection and Additional Sampling

The volume of chlorine bleach needed to make a 50 ppm solution may be found from Table 17-1 below if the depth of the water in the well and the casing size are known.

Table 17-1. Bleach Volume Based on Well Diameter

Well Diameter (Inches)	Used One Ounce of Bleach Per Number of Feet Shown Below
3	18
6	5
9	2
12	1

For example, if the well casing is 6 inches in diameter and the water is 50 feet deep, then the amount of bleach needed is 10 ounces (50 feet divided by 5 feet).

- Installation personnel will shock treat the entire water supply system with chlorine obtained from the State supply warehouse and let stand for 24 hours
- The system will then be thoroughly flushed
- Two successive monthly well water check samples must be taken and result with no bacteria present before the water quality can be considered safe for consumption
- ID-OEC will notify the Regional Supervisor and facility personnel when the water is safe for use as potable water

Notifications

- ID-OEC prepares and submits water quality reports to NJDEP, county health departments, and other officials as necessary
- Facility managers will post public notices throughout the buildings in the event contamination is found that the well water supply is unsafe to drink and, therefore, secured from use (ID-OEC and ID-FMB will provide assistance)

E. Training

Operators of public drinking water systems must receive the necessary training and meet the operator certification requirements of New Jersey. Operators must meet the minimum water system operator certification requirements that satisfy the standards set by the EPA and the State of New Jersey.

F. Recordkeeping

Records of all drinking water analyses are maintained at ID-OEC indefinitely.

Appendix A
NJ Environmental Statutes, Regulations, & Guidelines and NJARNG Plans & SOPs

A. New Jersey State Environmental Statutes, Regulations, & Guidelines

This appendix lists New Jersey state environmental statutes, with the corresponding regulations listed under the applicable statute. This appendix also identifies related NJARNG plans and SOPs. Where available, hyperlinks lead to website resources.

Air Quality Management

Air Pollution Control Act (1954), NJSA 26:2C-1 to -25.2

- **Air Pollution Control**, NJAC 7:27
- **Air Administrative Procedures & Penalties**, NJAC 7:27A
- **Sampling & Analytical Procedures**, NJAC 7:27B

Air Pollution Emergency Control Act (1967), NJSA 26:2C-26 to -36

- **Air Pollution Control**, NJAC 7:27
- **Subchapter 12 - Prevention & Control of Air Pollution Emergencies**

Radiation Protection Act, NJSA 26:2D-1 to -23.4

- **Bureau of Radiation Protection,** NJAC 7:28

Radiologic Technologist Act, NJSA 26:2D-25 to -36

- **Medical Exposure to Ionizing Radiation by Radiologic Technologists**, NJAC 7:28

The Radiation Accident Response Act, NJSA 26:2D-37 to -58

- **Major Nuclear Facilities Subchapter 18.1 - Scope**, NJAC 7:28

Asbestos Management

- **Industrial Site Recovery Act Rules**, NJAC 7:26B
- **Department Oversight of the Remediation of Contaminated Sites**, NJAC 7:26C

- **Technical Requirements for Site Remediation**, NJAC 7:26E

Cultural and Historical Resources Management

New Jersey Conservation Restriction and Historic Preservation Restriction Act, NJSA 13:8B - 1 to – 9

Division of Parks, Forestry, and Recreation, NJSA 13:1B-15.100 to -15.158

- State Park Service Code, NJAC 7:2
- Historic Preservation Grant Program, NJAC 7:4A
- Historic Preservation Revolving Loan Program, NJAC 7:4B
- Historic Preservation Bond Program, NJAC 7:4C
- Historic Preservation Grant Program, NJAC 7:4D

Hazardous Waste Management

Regional Low-Level Radioactive Waste Disposal Facility Siting Act, NJSA 13:1E-177 to –198

Waste Control Act, NJSA 13:1I-1 to – 8

Industrial Site Recovery Act, NJSA 13:1K-6 to -18

- **Department Oversight of the Remediation of Contaminated Sites**, NJAC 7:26C
- **Technical Requirements for Site Remediation**, NJAC 7:26E
- **Hazardous Waste**, NJAC 7:26G
- **Industrial Site Recovery Act Rules**, NJAC 7:26B

Brownfield and Contaminated Site Remediation Act, NJSA 58:10B

Regulations Governing the Certification of Laboratories and Environmental Measures, NJSA 7:18

Natural Resource Management

Soil Erosion and Sediment Control, NJSA 4:24-39 to -55

- State Soil Conservation Committee, NJAC 2:90

- Soil Erosion and Sediment Control Standards, NJAC 16:25A

Water-Front and Harbor Facilities, NJSA 12:5-1 to –11; Part of this set of statutes can be found on the Land Use Regulations NJSA page.

- **Division of Coastal Resources: Coastal Permit Program Rules**, NJAC 7:7; see also the **CAFRA Rules page**
- **Coastal Zone Management**, NJAC 7:7E

Endangered Plant Species List Act, NJSA 13:1B-15.151 to -15.158

- Endangered Plant Species Program, NJAC 7:5C

Open Lands Management Act, NJSA 13:1B-15.133 to -15.150

- Open Lands Management, NJAC 7:5B

Division of Environmental Protection - Organization, NJSA 13:1D-1 to -19

- Rules of Practice and Procedure, NJAC 7:1

Construction Permits, NJSA 13:1D-29 to -34

- **Ninety-Day Construction Permits**, NJAC 7:1C

Environmental Aid Act, NJSA 13:1H-1 to -7

- Office of Environmental Services Matching Grants Program for Local Environmental Agencies, NJAC 7:5

Aid for Urban Environmental Concerns Act, NJSA 13:1H-8 to –11

State Park and Forestry Resources Act, NJSA 13:1L-1 to -25

- State Park Service, NJAC 7:2
- Bureau of Forestry Natural Areas and the Natural Areas System, NJAC 7:3, NJAC 7:5A

NEPA Management

New Jersey Trails System Act, NJSA 13:8-30 to -44

- State Trails System, NJAC 7:5D

New Jersey Wild and Scenic Rivers Act, NJSA 13:8-45 to -63

New Jersey Green Acres Land Acquisition Act of 1961, NJSA 13:8A-1 to -18

- Green Acres Grant Program, NJAC 7:36

New Jersey Green Acres Land Acquisition Act of 1971, NJSA 13:8A-19 to -34

- Green Acres Grant Program, NJAC 7:36

New Jersey Green Acres Land Acquisition and Recreation Opportunities Act, NJSA 13:8A-35 to -55

- Green Acres Grant Program, NJAC 7:36
- State Trails System, NJAC 7:5D

State Forest Fire Service, NJSA 13:9-1 to -52

Forest Fire Prevention and Control Act, NJSA 13:9-44 to -44.10

Wetlands Act of 1970, NJSA 13:9A-1 to -10

- **Division of Coastal Resources: Coastal Permit Program Rules** , NJAC 7:7
- See also the **CAFRA Rules page**.
- **Coastal Zone Management**, NJAC 7:7E

Freshwater Wetlands Protection Act, NJSA 13:9B-1 to -30

- **Division of Coastal Resources: Coastal Permit Program Rules** , NJAC 7:7
- See also the **CAFRA Rules page**.
- **Freshwater Wetlands Protection Act Rules**, NJAC 7:7A
- **Coastal Zone Management**, NJAC 7:7E

Pinelands Protection Act, NJSA 13:18A-1 to -29

- **Pinelands Comprehensive Management Plan**, NJAC 7:50

Pinelands Development Credit Bank Act, NJSA 13:18A-30 to -49

- Pinelands Development Credit Bank, NJAC 3:42

Coastal Area Facility Review Act, NJSA 13:19-1 to -21

- **Division of Coastal Resources: Coastal Permit Program Rules** , NJAC 7:7; see also the **CAFRA Rules page**

New Jersey Commission on Environmental Education, NJSA 18A:6-91.1

Endangered and Nongame Species Conservation Act, NJSA 23:2A-1 to -13

- Endangered, Nongame and Exotic Wildlife, NJAC 7:25

Marine Fisheries Management and Commercial Fisheries Act, NJSA 23:2B-1 to -18

- Marine Fisheries, NJAC 7:25
- Division of Fish, Game and Wildlife Rules: Fisheries Closure and Advisories for Striped Bass, American Eel, Bluefish, White Perch & White Catfish Taken from the Northeastern Region of the State, NJAC 7:25

Fish and Game, Wild Birds and Animals - Licenses and Permits, NJSA 23:3-1 to -81

- License, Permit & Stamp Fees, NJAC 7:25
- Possession, Propagation, Liberation, Sale and Importation of Game Animals & Game Birds, NJAC 7:25

Game, Wild Birds and Animals, NJSA 23:4-12 to -63.7

- Division of Fish, Game and Wildlife Rules, NJAC 7:25

Fish and Game; Permitting Unlawful Contrivances on Property, NJSA 23:6-1

Game Farms and Fish Hatcheries; Game Refuges; Fish Cultural Operations, NJSA 23:8-1 to -13

Public Hunting and Fishing Grounds, NJSA 23:8A-1 to -3

Noise Management

Noise Control Act of 1971, NJSA 13:1G-1 to -23

- Noise Control, 7:29

Pesticide Management

Pesticide Control Act of 1971, NJSA 13:1F-1 to -18

- Pesticide Control Code, NJAC 7:30

POL Management and Spill Planning and Response

Oil and Gas Wells, NJSA 13:1M-1 to -18

Spill Compensation and Control Act, NJSA 58:10-23.11 to -23.24

- **Discharges of Petroleum & Other Hazardous Substances**, NJAC 7:1E
- Processing of Damage Claims Pursuant to the Spill Compensation and Control Act, NJAC 7:1J

Transportation of Hazardous Liquids, NJSA 58:10-46 to -50

Pollution Prevention

Pollution Prevention Program Rules , NJAC 7:1K

Radon Management

Radon, NJSA 26:2D-59 to -80

- **Certification of Radon Testers and Mitigators**, NJAC 7:28

Solid Waste Management (Recycling)

Processing of Damage Claims Pursuant to the Sanitary Landfill Facility Closure and Contingency Fund Act, NJAC 7:1I

Solid Waste Utility Control Act, NJSA 48:13A-1 to -7

- **Solid Waste Management Regulations,** NJAC 7:26
- **Recycling Rules,** NJAC 7:26A
- **Solid Waste Utility Regulations**, NJAC 7:26H
- **Uniform System of Accounts for Solid Waste Collection and Disposal Utilities**, NJAC 7:26I

Storage Tank Management

Underground Storage of Gas, Petroleum Products, etc., NJSA 58:10-35.1 to -35.4

Underground Storage Tanks, NJSA 58:10A-21 to –37

- **Underground Storage Tanks**, NJAC 7:14B (current rule)
- **Underground Storage Tanks**, NJAC 7:14B (proposed rule)

Toxic Substances Management

Toxic Catastrophe Prevention Act, NJSA 13:1K-19 to -35

- **Toxic Catastrophe Prevention Act Program**, NJAC 7:31

Worker and Community Right to Know Act, NJSA 34:5A

- Worker and Community Right to Know Regulations, NJAC 7: 1G

Wastewater Management

Water Pollution Control Act, NJSA 58:10A-1 to -60

- **Standards for Ind. Subsurface Sewage Disposal Systems**, NJAC 7:9A
- **Storm Water Management**, NJAC 7:8
- Water Pollution Control, NJAC 7:9
- **Pollutant Discharge Elimination System**, NJAC 7:14A
- Water Supply Allocation Permits, NJAC 7:19
- Water Pollution Control, NJAC 7:9
- Licensing of Water Supply & Wastewater Treatment System Operators, NJAC 7:10A
- **Sludge Quality Assurance Regulations,** NJAC 7:14C
- Financial Assistance Programs for Wastewater Treatment Facilities, NJAC 7:22
- Sewage Infrastructure Improvement Act Grants, NJAC 7:22A

Water Pollution Control Act, Supplement, NJSA 58:10A-15 to -20

Soil Erosion and Sediment Control Act

Ocean Sludge Dumping Elimination Act, NJSA 58:10A-44 to 46

Ocean Dumping Enforcement Act, NJSA 58:10A-47 to -51

Clean Ocean Education Act, NJSA 58:10A-52 to –55

Realty Improvement Sewerage and Facilities Act, NJSA 58:11-23 to -48

Pretreatment Standards for Sewerage, NJSA 58:11-49 to –58

New Jersey Wastewater Treatment Trust Act, NJSA 58:11B-1 to -27

- Financial Assistance Programs for Wastewater Treatment Facilities, NJAC 7:22
- Sewage Infrastructure Improvement Act Grants, NJAC 7:22A
- Wastewater Treatment Trust Procedures & Requirements, NJAC 7:22

New Jersey Wastewater Treatment Privatization Act, NJSA 58:27-1 to -18

Water Quality Management

Water Supply Management Act, NJSA 58:1A-1 to -17

- Water Supply Loan Programs, NJAC 7:1A

New Jersey Water Supply Authority Act, NJSA 58:1B-1 to -25

- Water Pollution Control Act, NJAC 7:14
- Water Supply Allocation Permits, NJAC 7:19
- Standards & Procedures for Establishing Privileges to Divert Water and for Obtaining Water Usage Certifications for Agricultural or Horticultural Purposes, NJAC 7:20A
- Processing of Damage Claims Pursuant to the Sanitary Landfill Facility Closure and Contingency Fund , NJAC 7:1I
- New Jersey Water Supply Authority, NJAC 7:11

Payments to State for Waters Diverted, NJSA 58:2-1 to -5

- Procedures for determining, Assessing & Collecting Payment for Excess Water Diversion, NJAC 7:19

Dams and Reservoirs, NJSA 58:4-1 to -10

- **Dam Safety Standards**, NJAC 7:20
- Dam Restoration Grant Regulations, NJAC 7:24
- Dam Restoration and Inland Waters Projects Loan Program, NJAC 7:24A

Subsurface and Percolating Waters, NJSA 58:4A-4.1 to -28

Clean Ocean Act, NJSA 58:10-23.25 to -23.34

Petroleum Pipelines Across Fresh Water Streams, NJSA 58:10-24 to -35

- **Surface Water Quality Standards**, NJAC 7:9B
- Safe Drinking Water Act, NJAC 7:10
- **Flood Hazard Area Control**, NJAC 7:13
- **Watershed Management Rules,** NJAC 7:15

Facilities and Services of Small Water Companies, NJSA 58:11-59 to -63

- Small Water Company Takeover Act Regulations, NJAC 7:19

Water Supply and Wastewater Operators' and Licensing Act, NJSA 58:11-64 to -73

- Licensing of Water Supply and Wastewater Treatment System Operators, NJAC 7:10A

Water Quality Planning Act, NJSA 58:11A-1 to -16

Safe Drinking Water Act, NJSA 58:12A-1 to -25

- Water Supply Loan Programs, NJAC 7:1A
- Safe Drinking Water Act, NJAC 7:10
- Water Supply Allocation Permits, NJAC 7:19

State Flood Control Facilities Act, NJSA 58:16A-1 to -17

- Flood Control Bond Grants, NJAC 7:23

Flood Hazard Area Control Act, NJSA 58:16A-50 to -101

- **Flood Hazard Area Control**, NJAC 7:13

Additional Water Supply Site Reservations, NJSA 58:21B-1 to -6

New Jersey Water Supply Law, 1958, NJSA 58:22-1 to -19

Shellfish and Shellfish Beds, NJSA 58:24-1 to -10

- Shellfish Growing Water Classification, NJAC 7:12

New Jersey Water Supply Privatization Act, NJSA 58:26-1 to -18

B. NJARNG Plans and SOPs

Air Emissions/Permits

- NJARNG Ozone-Depleting Chemical Elimination Plan, December 2000
- Air Emissions inventory and title IV Applicability, May 1996

Asbestos Management

- NJARNG Asbestos Operation and Maintenance Plans, April 2003

Cultural and Historical Resources Management

- NJARNG Integrated Cultural Resources Management Plan, November 2002
- Historic Objects Inventory, May 1999
- Architectural inventory, April 1999

Natural Resource Management

- NJARNG Natural Resources Planning Level Survey Report, November 1999
- Sea Girt Integrated Natural Resources Management Plan

Noise Management

- NJARNG Environmental Noise Abatement Program SOP, 2000

Pesticide Management

- NJARNG Pest Management Plan, May 2000 (Revised 2003)

POL Management & Spill Planning and Response

- Facility-Specific Spill Prevention and Contingency Plans (SPCPs)
- NJDMAVA Department Directive No. 600.9 (Installation Spill Plan)

Pollution Prevention

- NJARNG Pollution Prevention Plan, May 2000 (Revised 2003)

Solid Waste (Recycling) Management

- SOP for Recycling at all NJARNG Facilities, 2003

Wastewater Management

- Stormwater Management Plan, May 2000

Toxic Substances Management

- Radon Operations and Maintenance Plan, Phillipsburg Armory, September 2001
- Radon Operations and Maintenance Plan, Phillipsburg OMS 3, 2003

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Appendix B
Federal, DoD, and Army Regulations, Orders, & Guidance

A. Code of Federal Regulations (CFR)

40 CFR can be accessed using the EPA Website at:

http://www.epa.gov/epahome/rules.html.

29 CFR can be accessed using the OSHA Website at:

http://www.osha-slc.gov/OshStd_data/1910_0120.html.

Other CFR titles can be accessed using the National Archives Records Administration Website at:

http://www.access.gpo.gov/cgi-bin/cfrassemble.cgi?title=199940.

Relevant CFR titles include:

- 29 CFR 1910, Occupational Safety and Health Standards
- 33 CFR 335, Operation And Maintenance Of Army Corps Of Engineers Civil Works Projects Involving The Discharge Of Dredged Or Fill Material Into Waters Of The U.S. Or Ocean Waters
- 40 CFR 50 through 87, U.S. Environmental Protection Agency Air Programs
- 40 CFR 110, EPA Regulation on Discharge of Oil
- 40 CFR 112, Oil Pollution Prevention
- 40 CFR 116, Designation of Hazardous Substances
- 40 CFR 117, Determination of Reportable Quantities for Hazardous Substances.
- 40 CFR 122 through 124, National Pollutant Discharge Elimination System (NPDES)
- 40 CFR 129, Toxic Pollutant Effluent Standards
- 40 CFR 141, National Primary Drinking Water Regulations
- 40 CFR 143, National Secondary Drinking Water Regulations
- 40 CFR 195, Radon Proficiency Programs
- 40 CFR 201 through 211, Environmental Noise
- 40 CFR 230 through 233, Wetland Permits
- 40 CFR 260 through 279, HW Treatment, Storage and Disposal

- 40 CFR 280, Underground Storage Tanks
- 40 CFR 300, National Contingency Plan
- 40 CFR 302, Designation, Reportable Quantities, and Notification (CERCLA)
- 40 CFR 355, Emergency Planning and Notification
- 40 CFR 370, Hazardous Chemical Reporting: Community Right-to-Know
- 40 CFR 372, Toxic Chemical Release Reporting: Community Right-to-Know
- 40 CFR 373.3, Reporting Hazardous Substance Activity When Selling or Transferring Federal Real Property
- 40 CFR 400, Clean Water Act
- 40 CFR 700, Toxic Substances Control Act Regulations
- 40 CFR 745, Lead-based paint poisoning prevention in certain residential structures
- 40 CFR 761, Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions
- 49 CFR 171-199, Transportation
- 50 CFR 402, Wildlife and Fisheries: Interagency Cooperation on Endangered Species

B. Executive Orders

Federal EOs are located online through the Defense Environmental Network and Information Exchange (DENIX) at:

http://www.denix.osd.mil/.

EOs may also be accessed at:

http://www.nara.gov/fedreg/eo.html.

Relevant EOs include:

- EO 12088, Federal Compliance With Pollution Control Standards
- EO 12114, Environmental Effects Abroad of Major Federal Actions
- EO 12843, Procurement Requirements and Policies for Federal Agencies for Ozone Depleting Substances
- EO 12844, Alternative Fuel Vehicles
- EO 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements
- EO 12873, Federal Acquisition, Recycling, and Waste Prevention

- EO 13123, Greening the Government through Efficient Energy Management
- EO 13031, Federal Alternative-Fueled Vehicle Leadership
- EO 13112, Invasive Species
- EO 13148, **Greening the Government through Leadership in Environmental Management**
- EO 12898, Environmental Justice
- EO 13045, Protection of Children
- EO 11990, Protection of Wetlands
- EO 11988, Floodplains Management
- EO 11989, Use of Off-Road Vehicles on Public Land

C. DoD Publications

Defense Environmental Network and Information Exchange (DENIX)

- DoD Instruction 4150.7, Pest Management Program, April 22, 1996
- DoD Policy to Implement the EPA's Military Munitions Rule, 1 July 1998

D. Army Publications

Army Regulations (Series 1-930)

- AR 11-27, 3 February 1997, **Army Energy Program**
- AR 27-40, 19 September 1994, **Litigation**
- AR 40-5, 15 October 1990, Preventive Medicine
- AR 55-355, 11 April 1994, **Military Traffic Management Regulation**
- AR 70-1, 15 December 1997, **Army Acquisition Policy, Research, Development, and Acquisition**
- AR 200-1, 21 February 1997, **Environmental Protection and Enhancement**
- AR 200-2, 29 March 2002, **Environmental Analysis of Army Actions**
- AR 200-3, 28 February 1995, **Natural Resources - Land, Forest, and Wildlife Management**
- AR 200-4, 1 October 1998, **Cultural Resources Management**
- AR 200-5, **Pesticide Management**
- AR 210-10, 30 July 1993, Master Planning for Army Installations

- AR 350-4, 8 June 1998, Integrated Training Area management (ITAM)
- AR 385-16, 2 Nov 01, System Safety Engineering and Management
- AR 405-10, 15 July 1974, **Acquisition of Real Property and Interests Therein**
- AR 405-80, 10 October 1997, **Granting Use of Real Estate**
- AR 405-90, 10 May 1985, **Disposal of Real Estate**
- AR 415-15, 4 September 1998, Army Military Construction Program Development and Execution.
- AR 420-47, Draft, Solid and Hazardous Waste Management
- AR 420-49, 28 April 1997, **Utilities Services**
- AR 420-70, 10 October 1997, **Buildings and Structures**

Department of the Army Pamphlet (DA PAM) Series

- DA PAM 70-3, Army Acquisition Procedures
- DA PAM 200-1, Environmental Protection and Enhancement

Technical Bulletins (TBs)

- TB MED 575, Swimming Pools and Bathing Facilities
- TB MED 576, Sanitary Control and Surveillance of Water Supplies at Fixed Installations
- TB MED 577, Occupational and Environmental Health: Sanitary Control and Surveillance of Field Water Supplies

Technical Guides

- Technical Guide No. 179, Guidance for Providing Safe Drinking Water at Army Installations, USAEC
- Technical Guide No. 197, Developing an Integrated Solid Waste Management Plan, USAEH

Technical Manuals (TMs)

- TM 5-660, Maintenance and Operation of Water Supply Treatment and Distribution Systems
- TM 5-662, Swimming Pools Operation and Maintenance
- TM 5-665, Operation and Maintenance of Domestic and Industrial Wastewater Systems
- TM 5-813, Water Supply: Source, Treatment, and Distribution Systems

- TM 5-814, Domestic Wastewater Collection and Treatment

United States Army Environmental Hygiene Agency (USAEHA) Documents

- USAEHA Technical Guide No. 197, Developing an Integrated Solid Waste Management Plan, A Guide for Army Installations
- USAEHA Water Quality Paper No. 12, Preparation of SPCCPs

Other Army Publications

- Policy and Guidance for Identifying U.S. Army Environmental Program Requirements, and subsequent amendments, 15 June 1997, HQDA (DAIM-ED)
- Pollution Prevention Opportunity Assessment Protocol, 15 October 1994, USACHPPM
- Protocol for Conducting an Air Pollution Emission Inventory at the Department of the Army Activities, 19 May 1993, USACHPPM
- Strategic Guidance and Planning for Deleting Ozone Depleting Chemicals from U.S. Army Application, first revision, Oct 95, U.S. Army Acquisition Pollution Prevention Support Office
- Strategic Guidance and Planning for Deleting Ozone Depleting Chemicals from U.S. Army Application, first revision, Oct 95
- U.S. Army Environmental Center, Training Circular (TC) 5-400, Unit Leader's Guide to Environmental Stewardship

E. NGB Regulations and Publications

- NGBR 385-15, Responsibilities and Procedures for Inspections and Evaluation of ARNG Indoor Firing Ranges
- NGBR 385-10, Army National Guard Safety and Occupational Health Program.
- NGB Policy, All States Log Number (I94-0061) Internal Compliance Assessment System (ICAS), 3 March 3 1994
- NGB-ARE Memorandum, New Inventory of installations that Require an Integrated Natural Resources Management Plan Based on Army Criteria, 23 April 2002

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Appendix C
Acronyms and Definitions

A. Acronyms

AASF – Army Aviation Support Facility

ACBM – Asbestos Containing Building Material

ACM – Asbestos Containing Material

AEHA – Army Environmental Hygiene Agency

AHERA – Asbestos Hazard Emergency Response Act

AMP – Asbestos Management Plan

APM – Asbestos Program Manager

AR – Army Regulation

ARNG – Army National Guard

AST – Aboveground Storage Tank

BTU – British Thermal Unit

CAAA90 – Clean Air Act Amendments of 1990

CA – Commercial Activities

CCR – Consumer Confidence Report

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act

CERFA – Community Emergency Response Facilitation Act

CESQG – Conditionally Exempt Small Quantity Generator

CFC – Chlorinated Fluorocarbon

CFMO – Construction & Facilities Management Office

CFR – Code of Federal Regulations

CoS – Chief of Staff

CPT – Captain

CRM – Cultural Resource Manager

CSMS – Combined Support Maintenance Shop

CY – Calendar Year

CZMA – Coastal Zone Management Act

CWA – Clean Water Act

DA – Department of the Army

DA PAM – Department of the Army Pamphlet

DCR – Discharge Cleanup and Removal

DD – Department of Defense (used for forms only)

DLA – Delegated Local Agency

DOD – Department of Defense

DMAVA – Department of Military and Veterans Affairs

DOT – Department of Transportation

DPCC – Discharge Prevention Containment and Countermeasure

DRMO – Defense Reutilization and Marketing Office

DRMS – Defense Reutilization and Marketing Service

EA – Environmental Assessment

EIS – Environmental Impact Statement

ENF – Enforcement Action

ENMP – Environmental Noise Management Plan/Procedures

EPR – Environmental Program Requirements

EO – Executive Order

EOC – Emergency Operations Center

EPA – Environmental Protection Agency

EPCRA – Emergency Planning and Community Right to Know Act

EQCC – Environmental Quality Control Committee

FFCA – Federal Facility Compliance Act

FONSI – Finding of No Significant Impact

FOTW – Federally - Owned Treatment Works

FTSS – Full Time Support Supervisor

FY – Fiscal Year

GIS – Geographic Information System

GP – General Permit

HAP – Hazardous Air Pollutant

HAZMAT – Hazardous Materials

HMIRS – Hazardous Materials Information Resource System

HQDA – Headquarters Department of the Army

HW – Hazardous Waste

HWAA – Hazardous Waste Accumulation Area

IAW – In Accordance With

ICRMP – Integrated Cultural Resources Management Plan

ID-OEC – Installation Division - Office of Environmental Compliance

ID-FMB – Installation Division - Facilities Maintenance Bureau

ID-FPB – Installations Division - Facilities Purchasing Bureau

IDT – Inactive Duty Training

INRMP – Integrated Natural Resources Management Plan

IPM – Integrated Pest Management

IRT – Installation Response Team

LQG – Large Quantity Generator

LTA – Local Training Area

MACOM – Major Command

MMBTU – Million British Thermal Unit

MQCSS – Material Quality Control Storage Standard

MSDS – Material Safety Data Sheet

MVAC – Motor Vehicle Air Conditioner

NEPA – National Environmental Policy Act

NGB – National Guard Bureau

NGBR – National Guard Bureau Regulation

NHPA – National Historic Preservation Act

NIBS – National Institute of Building Sciences

NJAC – New Jersey Administrative Code

NJARNG – New Jersey Army National Guard

NJDEP – New Jersey Department of Environmental Protection

NJDOH – New Jersey Department of Health

NJPDES – New Jersey Pollutant Discharge Elimination System

NJR – New Jersey Register

NOI – Notice of Intent

NRC – National Response Center

NSN – National Stock Number

O&M – Operations and Maintenance

ODC – Ozone - Depleting Chemical

ODCEP – Ozone - Depleting Chemical Elimination Plan

OMS – Organizational Maintenance Shop

OPA – Oil Pollution Act

OSC – On - Scene Commander

OSHA – Occupational Safety and Health Administration

OWS – Oil/Water Separator

P2 – Pollution Prevention

PCB – Polychlorinated Biphenyl

PE – Professional Engineer

PEOSHA – Public Employee's Occupation Safety and Health Administration

Pi/Cu – Pico Currie

PL – Public Law

PLS – Planning Level Survey

PMC – Pest Management Coordinator

PMCS – Preventive Maintenance Checks and Services

POC – Point of Contact

POL – Petroleum, Oil, and Lubricants

POTO – Plans, Operations, and Training Office

POTW – Publicly - Owned Treatment Works

PPE – Personal Protective Equipment

PPM – Parts Per Million

PPOA – Pollution Prevention Opportunity Assessments

PX – Post Exchange

QAE – Quality Assurance Evaluators

QSL – Quality Status Listing

RCO – Range Control Officer

RCRA – Resource Conservation and Recovery Act

REC – Record of Environmental Consideration

ROC – Response Operations Center

ROD – Record of Decision

RQ – Reportable Quantity

SAA – Satellite Accumulation Area

SAAO – State Army Aviation Office

SAP – Satellite Accumulation Point

SCP – Spill Contingency Plan

SDWA – Safe Drinking Water Act

SESCA – Soil Erosion and Sediment Control Act

SFO – Senior Fire Official

SOP – Standing Operating Procedure

SPCCP – Spill Prevention, Control and Countermeasures Plan

SPCP – Spill Prevention and Contingency Plan

SQG – Small Quantity Generator

SWDA – Solid Waste Disposal Act

TAG – The Adjutant General

TDY – Temporary Duty

TPQ – Threshold Planning Quantity

TWA – Treatment Works Approval

UECO – Unit Environmental Compliance Officer

USC – United States Code

USEPA – United States Environmental Protection Agency

USFWS – United States Fish and Wildlife Service

USP&FO – United States Property & Fiscal Officer

UST – Underground Storage Tank

UTES – Unit Training and Equipment Site

VOC – Volatile Organic Compounds

B. Definitions

Acquisition – Obtain, use, or control real property by purchase, condemnation, donation, exchange, easement, license, lease, permit, reinvestment, and recapture as defined in chapter 1-4, Estates and Methods of Acquisition (AR 405-10); or, a directed, funded effort that is designated to provide a new or improved material capability in response to a validated need (DODI 5000.2).

Activity – A unit, organization, or installation that performs a function or mission; or a group on an installation or facility assigned space for a common usage or function and held operationally accountable by an authority other than the installation commander (e.g., airfields, hospitals, arsenals, commissaries).

Air Pollutants – Includes carbon monoxide, sulfur oxides, hydrocarbons, particulate matter, nitrogen oxides, and photochemical oxidants associated in the formation of air pollution and chronic or acute health effects.

Applicable Water Quality Standards – The water quality standards:

a. Promulgated by EPA per the CWA.

b. Adopted by a state and approved by EPA per section 303 of the CWA.

Army Proponent – The lowest-level decision-maker (for example, the Army unit, element, or organization responsible for initiating or carrying out the proposed action).

Aboveground storage tank – The entire outer surface area of the tank, including the bottom, is easily visible. The tank may be located within a vault as long as the vault is not backfilled and can be entered for tank external inspections.

CERCLA Substance – A substance published on the list in 40 CFR 302.4.

Disposal – The discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into any land or water. The act is such that the solid waste or hazardous waste, or any constituent thereof, may enter the environment or be emitted into the air or discharged into any waters, including ground water (40 CFR 260.10).

Disposal (Real Property) – Any authorized method of permanently divesting DA of control of and responsibility for real property. This also includes sales as defined below. (Note that this definition varies according to the Army regulation consulted.)

Emission standards – Limits on the quality of emissions that may be discharged to the atmosphere from any regulated source, established by federal, state, local, and host nation authorities.

Endangered species – Any species in danger of extinction throughout all or a significant portion of its range.

Enforcement Action – Any written notice of a violation of any environmental law from a regulatory official having legal enforcement authority. Examples include, but are not limited to: Warning Letters, Notice of Noncompliance (NON), Notice of Violation (NOV), Notice of Significant Noncompliance (NOSN), Compliance Order (CO), Administrative Order (AO), Compliance Notice Order (CNO), and Finding of Violation (FOV).

Environment – All of the following:

a. Navigable waters

b. Near-shore and open waters and any other surface water

c. Groundwater

d. Drinking water supply

e. Land surface or subsurface area

f. Ambient air

g. Vegetation

h. Wildlife

The term "environment" includes water, air, and land, and the interrelationship which exist among and between water, air, land, and all living things.

Environmental audit – An environmental compliance review of facility operations, practices, and records to assess and verify compliance with Federal, state, and local environmental regulations. These reviews are not audits as defined in DOD Directive 7600.2. The USEPA defines environmental auditing as a systemic, documented, periodic, and objective review by regulated entities (Army installations) of facility operations and practices related to meeting environmental requirements.

Environmental awareness – Environmental knowledge or understanding of the importance of performing normal job skills in accordance with appropriate environmental requirements, and of consulting with environmental staff and Army or local compliance publications to determine specific procedures. Environmental Awareness Training is environmental knowledge provided by written information or presentations. It is often provided outside a normal classroom setting. It has limited applicability to teaching competence in specific environmental job skills. It is intended to promote an environmental stewardship ethic; create an understanding of how non-environmental missions and functions can effect the

environment; and encourage consultation with environmental staff and Army or local compliance publications to determine specific procedures.

Environmental noise – The outdoor noise environment consisting of the noise, including ambient noise, from all sources that extends beyond the work place. The noise environment of the work place is not considered environmental noise.

Environmental pollution – The condition resulting from the presence of chemical, mineral, radioactive, or biological substances that:

a. Alter the natural environment.
b. Adversely affect human health or the quality of life, biosystems, the environment, structures and equipment, recreational opportunities, aesthetics, and/or natural beauty.

Environmental Training – Instruction with the primary purpose of providing measurable competence for doing specific environmental jobs or tasks. This is commonly taught in a classroom, by such methods as lecture, discussion, or practical exercise. However, other methods may also be used. Environmental training includes both separate environmental courses and environmental content in non-environmental courses. It also includes both training mandated by Federal or state regulation, and training not mandated by law or regulation but which is intended to prepare the trainee to meet the requirements of all applicable mandatory regulations.

Extremely Hazardous Substance – The term "extremely hazardous substance" indicates a substance published on a list in 40 CFR 355, Emergency Planning and Notification. This list contains over 360 substances, including chemicals in pure form and mixtures. Placing a substance on this list reflects concern for the substance's toxicity, reactivity, volatility, dispersability, combustibility, and/or flammability.

Facility – Facilities include buildings, structures, public works, equipment aircraft, vessels, and other vehicles and property under control of, or constructed or manufactured for leasing to, the Army. Any buildings or collection of buildings, grounds, or structure, as well as any fixture or part thereof, which is owned or held under a lease-acquisition agreement by the United States or any Federal agency. Also includes any building leased in whole or in part for use by the Federal Government where the term of the lease exceeds five years and the lease does not prohibit implementation of the provision in question.

Federal – The U.S. government; this does not include a host nation government where the term "federal" is also applicable**.**

Federal Action/Undertaking – A project, activity, or program funded in whole, or in part, under direct or indirect jurisdiction of a federal agency, including: A) those carried out by or in behalf of an agency; B) those carried out by federal financial assistance; C) those regulated by a federal permit, license, or approval; and D) those subject to state or local regulations administered pursuant to delegation or approval by a federal agency.

Federal agency – An Executive Agency as defined in 5 USC 105, Executive Agency; for military departments, as defined in 5 USC 102, Military Departments.

Groundwater – The supply of water found beneath the Earth's surface, usually in aquifers, which supply wells and springs.

Hazardous Chemical – As defined in 40 CFR 335 and 40 CFR 370, which implement EPCRA. These sections define a hazardous chemical the same as 29 CFR 1910.1200 (c), OSHA Regulation on Hazardous Communications, Worker's Right To Know, except that they do not include the following substances:

a. Any food, food additive, color additive, drug, or cosmetic regulated by the Food and Drug Administration.

b. Any substance present as a solid in any manufactured item to the extent exposure to the substance does not occur under normal conditions of use.

c. Any substance to the extent it is used for personal, family, or household purposes, or is present in the same form and concentration as a product packaged for distribution and used by the general public.

d. Any substance to the extent it is used in a research facility under the laboratory or a hospital or other medical facility under the direct supervision of a technically qualified individual.

e. Any substance to the extent it is used in routine agricultural operations or is a fertilizer held for sale by a retailer to the ultimate customer.

Hazardous Material – A material as defined by Federal Standard, Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities (FED-STD-313C, 3 April 96) (the General Services Administration has authorized the use of this federal standard by all federal agencies).

a. Any item or chemical that is a "health hazard" or "physical hazard" as defined by OSHA in 29 CFR 1910.1200, which includes the following:

   (1) Chemicals that are carcinogens, toxic, or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucus membranes.

   (2) Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive.

   (3) Chemicals that in the course of normal handling, use, or storage operations may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics.

b. Any item or chemical that is reportable or potentially reportable or notifiable as inventory under the requirements of the Hazardous Chemical Reporting (40 CFR Part 370), or as an environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372), which includes:

(1) Chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

c. Any item or chemical that, when being transported or moved, is a risk to public safety or an environmental hazard and is regulated as such by one or more of the following:

(1) Department of Transportation Hazardous Materials Regulations (49 CFR 100-180).

(2) International Maritime Dangerous Goods Code of the International Maritime Organization.

(3) Dangerous Goods Regulations of the International Air Transport Association.

(4) Technical Instructions of the International Civil Aviation Organization.

(5) U.S. Air Force Joint Manual, Preparing Hazardous Materials for Military Air Shipments (AFJMAN 24-204).

Hazardous Materiel – Any materiel that contains hazardous material(s).

Hazardous Substance – A substance as defined by section 101(14) of CERCLA:

a. For the purposes of this regulation, a hazardous substance is any of the following:

(1) Any substance designated pursuant to section 311(b)(2)(A) of the CWA.

(2) Any element, compound, mixture, solution, or substance designated pursuant to section 102 of the CAA.

(3) Any hazardous waste having the characteristics identified under the RCRA.

(4) Any toxic pollutant listed under TSCA.

(5) Any hazardous air pollutant listed under section 112 of the CAA.

(6) Any imminently hazardous chemical substance or mixture with respect to which the EPA Administer has taken action pursuant to subsection 7 of TSCA.

b. The term does not include:

(1) Petroleum, including crude oil or any fraction thereof, which is not otherwise specifically listed or designated as a hazardous substance in (a) above.

(2) Natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures or natural gas and such synthetic gas usable for fuel (or mixtures or natural gas and such synthetic gas).

c. A list of hazardous substances is found in 40 CFR 302.4, Designation of Hazardous Substances.

(1) Anything that due to its chemical, physical, or biological nature causes safety, public health, or environmental concerns.

(2) Any material that:

(a) Is regulated as a hazardous material per 49 CFR 173.2, shippers - General Requirements for Shipment and Packaging.

(b) Requires an MSDS per 29 CFR 1910.1200, OSHA Hazard Communications Standards.

(c) Which during end use, treatment, handling, packaging, storage, transportation, or disposal, meets or has components which meet or have the potential to meet, the definition of hazardous waste as defined by 40 CFR 261, Identification and Listing of Hazardous Waste, subparts A, B, C, or D.

(3) In general, any material, which because or its quality, concentration, or physical chemical, or infectious characteristics, may pose a substantial hazard to human health or the environment.

Hazardous Waste – A solid waste identified in 40 CFR section 261.13, Identification and Listing of Hazardous Wastes, or applicable foreign law, rule, or regulation (see also solid waste).

Hazardous Waste Disposal – As defined in 40 CFR section 260.10, Hazardous Waste Management Systems, disposal means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

Hazardous Waste Generator – The hazardous waste generator is defined in 40 CFR section 260.1 as "...any person, by site whose act or process produces hazardous waste identified or listed in part 261... or whose act first causes a hazardous waste to become subject to regulation." For reporting purposes in the Army, the IC is considered the generator.

Hazardous Waste Storage – As defined in 40 CFR section 260.10,"...the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere."

Hazardous Waste Treatment – As defined in 40 CFR section 260.1," any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or

so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume."

Installation Response Team – A group of persons on an installation designated to act in an emergency as directed by the OSC.

Integrated Pest Management – The management of actual and potential pest problems using a combination of available preventive and corrective control measures. The biological effectiveness, environmental acceptability, and cost effectiveness of the measures must be considered before such measures can be approved for use on Army-controlled property.

Mobile source – Any non-stationary source of air pollution such as cars, trucks, motorcycles, busses, airplanes, or locomotives.

Monitoring – The assessment of emissions or discharges from various sources. Monitoring guidelines are often outlined and required in facility permits.

National Environmental Policy Act – A United States statute that requires all federal agencies, or authorized representatives, to consider the potential effects of proposed actions on the human and natural environment.

National Response Team – A team of representatives from the primary and advisory agencies that serves as the national policy-making body for planning and preparedness actions to prevent and minimize accidental pollution discharges.

Oil – Oil or petroleum products of any kind or in any form, and oil mixed with wastes other than dredged spoil.

Outgrant – A legal document that conveys or gives the right to use Army-controlled real property, including, for the purposes of this regulation only, leases and, when appropriate, easements.

Permit, Environmental – Authorization from an environmental regulatory agency to operate a facility, discharge, or emit pollutants to an authorized standard, or perform an activity with environmental effects.

Pollution/Pollutant – The terms “pollution” and “pollutant” refer to all nonproduct outputs, irrespective of any recycling or treatment that may prevent or mitigate releases to the environment.

Potential to Emit – The maximum capacity of a stationary source to emit pollutants under its physical and operational design.

Process Waste – Waste generated from a specific process (e.g., parts cleaning). P2 alternatives include modifying the "process" to avoid or minimize the quantity of "process waste" generated.

Procurement – The acquiring by contract with appropriated funds for supplies or services by and for the use of the Federal Government through purchase or lease, whether the supplies or services are already in existence or must be created, developed, demonstrated and evaluated.

Proponent – The person responsible for planning an action.

Public Water System – A Public Water System (PWS) is a system that supplies piped water for human consumption, through pipes or constructed conveyances. A system is not considered a PWS (and therefore is not regulated by the Safe Drinking Water Act) if it meets all of the following requirements:

a. Receives its water from another regulated PWS.
b. Does not provide any additional treatment to the water.
c. Does not sell any of the water it receives.
d. Does not supply the water to commercial carriers conveying passengers in interstate commerce.

Resource Conservation and Recovery Act – A Federal law (42 USC 6901 et seq.) that established requirements for the management of hazardous waste. RCRA established specific requirements for hazardous waste generators, transporters, and owners/operators of hazardous waste treatment, storage, and disposal facilities (see 40 CFR Parts 260-271).

Real property – This includes the definition for real property found in the Federal Property Management Regulations, 41 CFR 101-47.103.12.

Reclamation – Regeneration of a material, or processing of a material to recover a usable product. Examples include recovery of lead from spent batteries, or the regeneration of spent solvents.

Recycling – The series of activities, including separation, and processing, by which products or other materials are reclaimed, recovered and reused either on or off site.

Release – A discharge of one or more hazardous substances into the environment by any means. Excluded are:

a. Minor releases within the workplace.
b. Emissions from engine exhaust.
c. Normal applications of fertilizer.

Reportable Spill or Event – A release of a reportable quantity of oil or hazardous substance into the environment.

a. For oil (defined by 40 CFR 110, Discharge of Oil): A discharge of such quantities of oil into or upon the navigable waters of the United States, its adjoining shorelines, or the contiguous zone so as to meet the qualifications listed in harmful discharge (of oil) into navigable waters or into or beyond the contiguous zone above.

b. For hazardous substances: Any release of one or more reportable substances in reportable quantities into the environment, requiring that:

   (1) The EPA National Response Center to be notified immediately.

   (2) All other reporting as required by the ISCP and SPCCP.

Reportable Quantity – Quantity of environmental pollutant above which a report must be rendered to environmental authorities such as the EPA, state or local regulators.

Secondary Containment – Refers to secondary containment designed to contain all leaks and spills from tanks and their associated underground equipment (tank piping). Secondary containment must be designed to prevent the escape of leaks and spills into the surrounding soil, groundwater and/or surface water. Common options are: dike areas constructed of concrete with a pad (floor); double wall tanks and piping; liners that completely cover the bottom and side walls of a tank excavation or dike area; and vaults which are rigid structures (i.e., concrete) located within the ground and which serve to completely isolate the tank system from the surrounding soil. All forms of secondary containment must be installed 100 percent around the tank and associated underground equipment; must be designed to contain at least 110 percent of the capacity of the largest tank within its boundary plus be designed or operated to prevent run-on or infiltration of precipitation from a 25-year, 24 hour rainfall; and must be impervious to the material being stored. Impervious being confined as chemically compatible with the material being stored and capable of forming a barrier through which the material cannot penetrate to enter the surrounding area.

Solid Waste – Materials that are discarded by being abandoned or by being recycled, or are inherently waste-like (refer to the definition of "abandon" in this section). Recycled means to use, reuse, or reclaim certain types of materials in certain limited cases as described in table 1 of 40 CFR 261.2, Identification and Listing of Hazardous Waste. Since explosive ordnance is not a type of material listed in table 1, its recycling normally does not make it a solid waste under RCRA. Unused explosive ordnance normally is not inherently waste-like.

Spill – A generic term, as used in this regulation, which encompasses the accidental and the deliberate but unpermitted, discharge or release of a pollutant. For distinction, see discharge classifications, harmful discharge (etc.), potential discharge, release, and reportable spill or event. For comparison, see discharge and federally permitted release.

Stationary Source – Any building, structure, facility, or installation which emits or may emit an air pollutant for which a national standard is in effect.

Storage – The holding of hazardous substances (as defined in this section), other than for a temporary period of less than 30 days, prior to the hazardous substance being either used, neutralized, disposed of, or stored elsewhere.

Threatened Species – Any species likely to become endangered within the foreseeable future, throughout all or a significant portion of it's range.

Toxic Chemical – The term "toxic chemical" is a substance published on the list in 40 CFR 372.65, Toxic Chemical Release Reporting. About 650 chemicals and chemical categories, both in pure and mixture form, are currently listed.

Toxic Pollutant – Those pollutants or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism - either directly from the environment or indirectly by ingestion through food chains - will cause death; disease; behavioral abnormalities; cancer; generic mutations physiological malfunctions, including malfunctions in reproduction; or physical deformations in such organisms or their offspring.

Transfer, Real Property – Change in jurisdiction over real property from one federal agency or department to another, including military departments and defense agencies, to include permits for the purposes of this regulation only. Refer to AR 405-90, Disposal of Real Estate, for the full definition.

Treat – Conducting a methodology, technique, or process designed to change the physical, chemical, or biological character or composition of a material to recover energy, render material less or non-hazardous, or reduce material volume (see "Treatment" under 40 CFR 260.10).

Underground Injection – The subsurface emplacement of fluids through:

a. A bored, drilled, or driven well.
b. A dug well where the depth of the dug well is greater than the largest surface dimension.

Underground Storage Tank – Any one or combination of tanks (including underground pipes connected thereto) which is used to contain an accumulation of regulated substances, and the volume of which (including the volume of the underground pipes connected thereto) is ten percent or more beneath the surface of the ground (Army policy does not exclude heating oil tanks as given under Subtitle I of RCRA.).

Waste Minimization –

a. Any source reduction or recycling activity that is undertaken by a generator that results in:

(1) The reduction of the quantity of hazardous waste.

(2) The reduction in toxicity of hazardous waste that is either generated or subsequently treated, stored, or disposed of. Such activities must be consistent with the goals of minimizing present and future threats to human health and the environment.

b. A working definition of waste minimization reflects two types of activities, source reduction or elimination of waste at the point of generation (for example, within a process). Recycling refers to:

(1) The use or reuse of a waste stream byproduct as an effective substitute for a commercial product or as an ingredient or feed-stock in a process.

(2) The reclamation of a waste material which involves recovery of whatever constituent fractions can be reused.

Wetland – Land characterized by the presence of water at a frequency and duration sufficient to support, and that under normal circumstances does support, wetland vegetation or aquatic life and commonly referred to as a bog, swamp, or marsh.

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Appendix D

Installation Fact Sheets

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INSTALLATION FACT SHEET
ATLANTIC CITY ARMORY

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Atlantic City Armory	1008 Absecon Boulevard	Atlantic City	08401-1999
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Atlantic	Atlantic City	RP-6/1
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
4.01	<5 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Great Egg Harbor	Atlantic Coastal Basin	Within Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	80	West
• Dr. Martin Luther King Jr. School Complex	475	West
• Penrose Canal	1,800	West
• Clam Creek	2,800	East

Site Description

Urban site surrounded by residential, commercial, and industrial land use. Site is essentially flat, with runoff collecting in storm drains and a few low spots. Majority of property paved or mowed, and landscaped with a few trees, such as red cedar (Juniperus virginiana), sycamore (Platanus occidentalis), and ornamental shrubs.

INSTALLATION FACT SHEET
BORDENTOWN ARMORY & OMS

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Bordentown Armory	1048 Route 206 South	Bordentown	08505-2124
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Bordentown	Mercer	Trenton East	128/18
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
4.23	35-50 ft.	0.03	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Crosswicks-Neshaminy	Delaware River Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residence	800	North
• Bordentown High School	2,200	Southwest
• Sucker Run	200	Southeast
• Blacks Creek	425	Southwest

Site Description

The majority of the installation is paved or occupied by buildings. Hwy 206 forms the eastern boundary, which is landscaped by large pin oaks (Quercus palustris) and several ornamental species. The western portion of the property contain the largest area of vegetation, and this is dominated by black locust (Robinia pseudoacacia), cherry (Prunus sp.), ash (Fraxinus sp.), wild grape (Vitis sp.), and poison ivy (Toxicodendron radicans). Species such as multiflora rose (Rosa multiflora), blackberry (Rubus sp.), and japanese honeysuckle (Lonicera japonica) are dominant understory plants in some patches along the western boundary.

INSTALLATION FACT SHEET
BORDENTOWN CSMS

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Bordentown CSMS	US Hwy 130, Box 108	Bordentown	08505-9617
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
CSMS	Mercer	Trenton East	128/28
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
14.90	70-90 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Corsswicks-Neshaminy	Delaware River Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	120	Southwest
• Bordentown High School	800	Southeast
• Blacks Creek	1,800	Northeast
• Small Lake	600	Southwest

Site Description

Site is mostly kept mowed, with some ornamental fruit trees and juniper shrubs, and woody species along the southern edge of the property (including red maple (Acer rubrum), red oak (Quercus rubra), white oak (Q. alba), and sweetgum (Liquidambar styraciflua)). This area is managed for picnicking and recreation. Along the drainage channel which runs from the northwest corner to the east, a similar community of mixed hardwoods includes tulip poplar (Liriodendron tulipifera), cherry (Prunus sp.), dogwood (Cornus sp.), and staghorn sumac (Rhus typhina). In the understory, Viburnum sp., poison ivy (Toxicodendron radicans), Smilax sp., golden rod (Solidago sp.), and blackberry (Rubus sp.) are present.

INSTALLATION FACT SHEET
BRIDGETON ARMORY

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Bridgeton Armory	State Hwy 77	Bridgeton	08302-9317
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Vacant	Cumberland	Bridgeton	70/2
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
26.64	85-100 ft.	5.05	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Cohansey-Maurice	Delaware River Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residence	1,100	Southeast
• Country Kids Learning Center	1,125	North
• Loper Run	Adjacent to western boundary	

Site Description

The property is adjacent to Hwy 77 to the east and farmland to the north and south. Buildings and pavement are limited to a small area along Hwy 77. The lawn is maintained in this area, but immediately to the west, areas formerly used as tank trails have begun to support young cherry (Prunus sp.) trees, grasses, and other species. The majority of the western property is a forested by upland vegetation, particularly red oak (Quercus rubra) and white oak (Q. alba). Along the small drainage channel that runs southeast to northwest, the dominant vegetation becomes red maple (Acer rubrum), common reed (Phragmites australis), and balsam poplar (Populus balsamifera).

INSTALLATION FACT SHEET
BURLINGTON ARMORY

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Burlington Armory	559 High Street	Burlington	08016-4516
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Burlington	Bristol	156/11
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
1.20	20 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Crosswicks-Neshaminy	Delaware River Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residence	25	North
• Wilbur Watts Intermediate School	150	West
• Assiscunk Creek	1,600	East
• Delaware River	3,250	North

Site Description

The installation sits between High Street on the west and Lawrence Street on the east, in a very urban area. Although the majority of the site consists mostly of buildings and pavement, a lawn with ornamental trees and shrubs is maintained along High Street. The surrounding land use is a mix of industrial, and property.

INSTALLATION FACT SHEET
CAPE MAY ARMORY & OMS

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Cape May Court House	600 Garden State Pkwy.	Cape May Court House	08210-1699
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Cape May	Stone Harbor	115/17-A
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
22.17	<10 ft.	11.09	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Great Egg Harbor	Atlantic Coastal Basin	Within Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
Vo-Tech School	140	North
Residence	700	Northwest
Pond	400	Northwest
Holmes Creek	Adjacent to southwest boundary	

Site Description

The property is bordered on the west by the Garden State Parkway and on the South by a saltmarsh and tidal creek. The northern half of the property contains buildings and parking lots, but the majority of this area is mowed lawn. Two types of wetland areas are found on the southern half of the property. Those areas farther from the tidal creek appear disturbed and are dominated by shrubs, small trees, and impenetrable vines. Approaching the tidal creek, the wetland community becomes dominated by common reed (Phragmites australis), eventually becoming a typical salt marsh community immediately surrounding the creek. This area is predominantly saltmarsh cordgrass (Spartina alternifloraand S. patens). Rare and endangered species include: Bald eagle (Haliaeetus leucocephalus), Cope's gray treefrog (Hyla chrysoscelis),Stinking fleabane (Pluchea foetida), Martha's pennant (Celithemis martha), and Red-headed woodpecker (Melanerpes erythrocephalus).

INSTALLATION FACT SHEET
CHERRY HILL ARMORY & OMS

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Cherry Hill Armory	Grove Street & Park Blvd.	Cherry Hill	08002-2797
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Camden	Camden	49/1
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
11.30	<25 ft.	11.30	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Lower Delaware	Delaware River Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	75	North
• Cooper River	Adjacent to southern boundary	

Site Description

The property sits along the north back of the Cooper River, and is bounded by Park Drive to the north. The Armory buildings, vehicles compound, and parking lots are concentrated along Park Drive, and areas along the river are forested. The forested areas are comprised mostly of red oak (Quercus rubra), red maple (Acer rubrum), and sweetgum (Liquidambar styraciflua), and the understory is kept open for picnicking and recreation. Vegetation on the river banks is similar, except for the appearance of black willow (Salix nigra), box elder (A. negundo), and green ash (Fraxinus pennsylvanica) and various herbaceous species.

INSTALLATION FACT SHEET
DOVER ARMORY & OMS

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Dover Armory	479 West Clinton Street	Dover/Rockaway	07801-1799
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Morris	Dover	151-A/1,2,3
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
16.17	615-645 ft.	2.93	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Hackensack-Passaic	Passaic/Hackensack/NY	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	50	South
• Green Pond Brook	50	Northeast
• Rockaway River	300	Southwest

Site Description

Western portion of property borders Hwy 15 and contains Armory buildings and vehicle compound. The land on this half of the installation is generally mowed or paved, while the land on the eastern half remains forested. The area immediately east of the vehicle compound is best described as a red maple (Acer rubrum) swamp, with green ash (Fraxinus pennsylvanica) and coast pepperbush (Clethra alnifolia) dominating the understory. Farther east, the forest community is dominated by more upland species such as oak (Quercus sp.) and beech (Fagus grandifolia). Threatened/endangers species include the Wood turtle (Clemmys insculpta)

INSTALLATION FACT SHEET
FLEMINGTON ARMORY

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Flemington Armory	State Hwy 12	Flemington/Raritan Twp.	08822-9511
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Hunterdon	Pittstown	42/14
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
13.07	525-535 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Middle Delaware-	Delaware River Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	50	East
• Plum Brook	400	West

Site Description

Hwy 12 and Everetts Hill Road form the northern and southeastern boundaries of the installation, respectively. The area immediately surrounding the Armory is a mowed lawn with very few ornamentals. Along the northeastern boundary, a mixed oak forest community contains white oak (Quercus alba), chestnut oak (Q. prinus), northern red oak (Q. rubra), and hickory (Carya sp.), as well as many understory species. The southern end of the site is also forested, but has a much younger stand of similar tree species. A drainage ditch runs along the western boundary, and is populated by weedy species such as golden rod (Solidago sp.), sumac (Rhus sp.), and blackberry (Rubus sp.). Although this drainage meets another drainage at the northwest corner, the area does not appear support wetland vegetation or hydric soils.

INSTALLATION FACT SHEET
FORT DIX T3BL

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Fort Dix	Bldg 3650	Fort Dix	08640-7600
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
HQ & T3BL	Burlington	Columbus	Federal Military
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
44.30	175-195 ft.	0	Military & Federal
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
Federal	Crosswicks-Neshaminy	Delaware River Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
Saylors Pond	1,100	West
Tributary of Barkers Brook	1,400	North

Site Description

Florida Avenue forms the eastern boundary of the NJARNG property, which consists of several buildings, paved parking lots, a large, fenced-in vehicle compound, and an expansive lawn along Florida Avenue. This area is also landscaped with a few willow oaks (Quercus phellos) and red cedars (Juniperus virginiana). The western portion of the property is adjacent to a mixed hardwood forest community, including beech (Fagus grandifolia), red maple (Acer rubrum), sassafras (Sassafras albidum) and several oaks (Quercus sp.). In the southern end of the site, between Technology Drive and Florida Ave., a large field of wildflowers thrives in the growing season. Rare species include the Barred owl (Strix varia).

INSTALLATION FACT SHEET
FRANKLIN ARMORY

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Franklin Armory	12 Munsonhurst Road	Franklin	07416
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Sussex	Franklin	74/15
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
10.85	545-560 ft.	1.63	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Rondout	Wallkill River Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
Residences	110	East
Hardyston Township Elementary	950	East
Franklin Pond Creek	Adjacent to eastern boundary	
Wallkill River	Adjacent to western boundary	

Site Description

The Wallkill River runs through the western portion of the property and lies within a sugar maple-oak-hickory forest. Old tank trails in the forest have left depressions that now support herbaceous wetland vegetation and sometimes contain standing water. Franklin Pond Creek runs along the northeastern boundary, and is only narrowly surrounded by vegetation such as white ash (Fraxinus pennsylvanica) and sycamore (Platanus occidentalis). The remaining central and southeastern property contains two buildings a parking lot and a helicopter landing zone. Rare species include the Bog turtle (Clemmys muhlenbergii) and Wood turtle (Clemmys insculpta).

INSTALLATION FACT SHEET
FREEHOLD ARMORY

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Freehold Armory	Jerseyville Rd.	Freehold	07728
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Monmouth	Freehold	108/401-5
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
4.64	155-160 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Mullica-Toms	Raritan River/Bay Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	350	South
• Tributary of Debois Creek	700	Southwest

Site Description

This property is located between Jerseyville Road to the north, and Hwy 33 to the south, and is surrounded by both industrial and land use. Much of the site is paved and occupied by buildings, but a forested lawn is maintained along Hwy 33. White pine (Pinus strobus) and pin oak (Quercus palustris) are planted in front of the Armory, as well as sugar maple (Acer saccharum) and northern red oak (Q. rubra).

INSTALLATION FACT SHEET
HACKETTSTOWN ARMORY

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Hackettstown	901 Willow Grove Street	Hackettstown	07840-5099
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Warren	Hackettstown	44/2
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
15.91	620-650 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Middle Delaware-	Delaware River Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Musconetcong River	900	East
• Unnamed Tributary	Adjacent to northern boundary	

Site Description

Willow Grove Street forms the eastern boundary of the installation. The length of the property extends to the railroad right of way to the west. Over 75 percent of the land is forested, as is most of the surrounding land which is encompassed by Stephens State Park. The vegetative community is dominated by red oak (Quercus rubra), and cottonwood (Populus deltoides) in the canopy, and dogwood (Cornus sp.) in the subcanopy. Stands of white pines (Pinus strobus) are interspersed with the hardwoods, particularly in the northernmost corner and central region of the property. The eastern-most portion of land is cleared for the Armory buildings and parking lot. A small wetland area sits to the west of the pines along the southern boundary. This area contains common reed (Phragmites australis), cattails (Typha sp.), and bulrush (Scirpus sp).

INSTALLATION FACT SHEET
JERSEY CITY ARMORY

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Jersey City Armory	678 Montgomery Street	Jersey City	07306-2208
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Hudson	Jersey City	1898/1-21, 30-39
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
1.85	75 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Hackensack-Passaic	Passaic/Hackensack/NY	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residence	15	Northeast
• Greek Orthodox Church	200	East

Site Description

Located in an urban area, the Armory encompasses most of a city block. Neighboring properties consist of residential and commercial buildings.

INSTALLATION FACT SHEET
LAWRENCEVILLE HQ

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Lawrenceville	101 Eggert Crossing Rd.	Lawrenceville	08648-2805
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory & DMVA	Mercer	Princeton	80/13,14,15,17,20,21,22
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
78.14	80-120 ft.	25.23	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Middle Delaware-Musconetcong	Delaware River Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
Residences	50	South
St. Ann's School/Rectory	250	East
Little Shabakunk Creek	1,750	Northeast

Site Description

Eggert Crossing forms the northern boundary of the site, which extends southward almost to Eldridge Road. The majority of the buildings and associated infrastructure are located on the northern portion of the property, whereas the southern portion is forested. Although mapping classifies the area as deciduous wooded wetlands, the vegetation is characteristic of uplands. Species such a hickory (Carya sp.), red maple (Acer rubrum), sugar maple (A. saccharum), and tulip poplar (Liriodendron tulipifera) are dominant in the canopy. Many of the forested areas appear to be young, successional stands.

INSTALLATION FACT SHEET
LODI ARMORY

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Lodi Armory	178 Essex Street	Lodi	07644-2795
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Non-military use	Bergen	Hackensack	286/1A
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
4.28	45 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Hackensack-Passaic	Passaic/Hackensack/NY	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	350	Southwest
• Deciduous Wooded Wetlands	1,250	Northeast
• Saddle River	2,300	West

Site Description

The property is bordered by both I-80 and Hwy 17, and surrounding land use is commercial and industrial. Generally, the land slopes downward toward Rt. 80. Mature oak trees (Quercus rubra and Q. alba) and mowed grass are the dominant vegetation types in the northeastern part of the property. Along the eastern boundary, the vegetation is successional. Staghorn sumac (Rhus typhina), poison ivy (Toxicodendron radicans), and goldenrod (Solidago sp.) dominate. The remaining property is largely paved or occupied by buildings.

INSTALLATION FACT SHEET
MORRISTOWN ARMORY & OMS

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Morristown Armory	Jockey Hollow Road	Morristown	07960-0499
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Morris	Mendham	330/1
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
41.70	560-680 ft.	4.23	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Hackensack-Passaic	Passaic/Hackensack/NY	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	75	South
• Villa Walsh School	800	North
• Pond	1,800	Northeast
• Catfish Brook	2,150	Southeast

Site Description

About 70 percent of the property is characterized by a mature sugar maple (Acer saccharum) - mixed hardwood forest, although herbaceous species appear along the forest edges. In the western portion of the property, a deciduous wooded wetland area is fed by several intermittent stream channels. A pocket of herbaceous wetlands is also found on the property, to the east of the Armory building. This area is surrounded by forest and an open field which is predominantly vegetated by grasses. The land immediately surrounding the Armory is kept mowed, and a large gravel parking lot lies to the west of the building. The North and West property boundaries are formed by Western Ave. and Bailey Hollow Rd., respectively, and the South and East boundaries are adjacent to suburban properties. Rare species include the Long-tail salamander (Eurycea longicauda longicauda).

INSTALLATION FACT SHEET
MOUNT HOLLY ARMORY

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Mount Holly Armory	1670 Route 38 East	Mount Holly	08060-9701
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Burlington	Mount Holly	22/4-B
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
6.12	55-60 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Lower Delaware	Delaware River Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
Residences	90	South
South Branch Rancocas Creek	2,100	North

Site Description

Route 38 forms the northern boundary of the property, while Windmill and Stuyvesant Streets form the eastern and southern boundaries, respectively. The western boundary is marked by a line of shrubs, trees and grasses, since the majority of the property is mowed lawn. Buildings and parking lots occupy the northern half, while the southern portion is designated as a helicopter landing area. Several white ash (Fraxinus americana) trees are planted along Windmill Street.

INSTALLATION FACT SHEET
NEWARK ARMORY & OMS

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Newark Armory	120 Roseville Avenue	Newark	07107
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Essex	Elizabeth	1905/28
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
1.99	140-145 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Hackensack-Passaic	Passaic/Hackensack/NY	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• St. Rose of Lima Church	80	South
• First Hopewell Missionary Baptist Church		
• River	2250	East

Site Description

Located in the middle of a city block, this installation is very urban and is surrounded on all sides by buildings or pavement.

INSTALLATION FACT SHEET
NEWTON ARMORY

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Newton Armory	Highway 206	Newton	07860-1436
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Sussex	Newton East	803/49-A
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
5.98	575-610 ft.	0.78	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Middle Delaware-Musconetcong	Delaware River Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Wetlands bordering property	100	East
• Paulins Kill	650	Northeast

Site Description

Buildings and paved areas are clustered on the western portion of the installation. The southern corner contains herbaceous and deciduous wooded wetlands. Species such as red maple (Acer rubrum), swamp dogwood (Cornus amomum), green ash (Fraxinus pennsylvanica) and Viburnum sp. are dominant. A ravine which receives runoff from the area behind the vehicle compound runs eastward from the northern corner of the property. The steep slopes along this drainage are vegetated mainly by grasses, vines and a few large box elder (A. negundo) trees.

INSTALLATION FACT SHEET
PHILLIPSBURG ARMORY & OMS

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Phillipsburg Armory	Heckman & Bates Streets	Phillipsburg	08865-2698
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Warren	Easton	308/45
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
6.18	335-370 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Middle Delaware	Delaware River	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residence	100	Southwest
• NORWESCAP Head Start Daycare	350	West
• Pond	1500	East

Site Description

The Armory entrance is located along Heckman Street, which forms the southeastern boundary of the installation. An unlandscaped, mowed lawn occupies the majority of the undeveloped property, with the exception of six large pin oaks (Quercus palustris) planted at the entrance.. Along the northeastern perimeter, a small drainage is vegetated by red maple (Acer rubrum), sumac (Rhus sp.), birch (Betula sp.), cherry (Prunus sp.), and many herbaceous species.

INSTALLATION FACT SHEET
PICATINNY AASF

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Picatinny Arsenal	Building 3801	Picatinny Arsenal	07806-5000
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
AAFS #2	Morris	Dover	Federal Military
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
28.48	850-905 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
Federal	Hackensack-Passaic	Passaic/Hackensack/NY	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Community Recreation BR Trailer Park	300	South
• Hibernig Brook	750	Southeast
• Pond	525	Northeast
• Lake Denmark	850	North

Site Description

Property is fenced and almost all the area within the fenced is mowed in order to provide open space for flight activities. However, the fenceline is bordered by an upland mixed hardwood forest, dominated by sugar maple (Acer saccharum), on three sides. The unmowed areas within the fenceline are vegetated by shrubs and herbaceous species, such as staghorn sumac (Rhus typhina), Russian olive (Elaeagnus angustifolia), and wild rose (Rosa sp.). A small seepage area runs northeast from the northwestern corner of the runway, continuing beyond the property fenceline into an area of deciduous wooded wetlands. Rare species include the Barred owl (Strix varia) and the Bobcat (Lynx rufus).

INSTALLATION FACT SHEET
PITMAN ARMORY

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Pitman Armory	Delsea Dr. & Columbia Ave.	Pitman	08071
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Gloucester	Pitman East	166/1
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
6.02	120-125 ft.	1.03	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Lower Delaware	Delaware River Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	40	Northwest
• St. James Evangelical Lutheran Church	400	Northwest
• Mantua Creek tributary	0	Runs east from property
• Kressey Lake	1375	Northeast

Site Description

Hwy 47, Delsea Drive, forms the eastern boundary of the property. Buildings, parking lots, and a vehicle compound occupy a northern section of the property, while the remaining land is forested. The abundance of vines and invasive species along the edges of forested areas indicates significant disturbances. Within the southeastern portion of the forested area, the dominant vegetation is red maple (Acer rubrum) in the canopy and American holly (Ilex opaca) in the understory. A steam channel runs through this area, and is mapped a deciduous wooded wetlands. The western area of forest is drier, becoming dominated by northern red oak (Quercus rubra) and southern red oak (Q. falcata).

INSTALLATION FACT SHEET
PLAINFIELD ARMORY

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Plainfield Armory	1201 East 7th Street	Plainfield	07052-1907
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Union	Chatham	266/87
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
1.87	110-135 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Raritan	Passaic/Hackensack/NY	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
Residences	50	Northeast
Cross of Life Lutheran Church	400	Northeast
Pond	1,200	Southeast

Site Description

This installation consists primarily of the Armory building , surrounding paved parking areas, and a narrow mowed lawn along the eastern and southern boundaries, which are formed by Seventh and Leland Streets, respectively. The lawn is landscaped with northern red oak (Quercus rubra) and a few shrubs, and is otherwise kept open. Weedy vegetation invades the site in some places through the fenceline, but is generally restricted to the neighboring properties.

INSTALLATION FACT SHEET
PRINCETON WAREHOUSE

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Princeton	River Road, PO Box 166	Princeton	08540-0166
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Warehouse	Mercer	Monmouth Junction	32.04/36
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
8.21	65-90 ft.	1.03	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Raritan	Delaware River Basin	

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	450	South
• Church of Christ	1,300	South
• Millstone River	850	East
• Delaware & Raritan Canal	1,000	East

Site Description

River Road forms the easternmost boundary of the property, while the other three boundaries are not marked by any constructed features. The majority of the southern half of the property is dominated by a mixed hardwood forest, particularly species such as red maple (Acer rubrum), red cedar (Juniperus virginiana), and Viburnum sp. An intermittent stream runs close to the western boundary, and is surrounded by deciduous wooded wetlands. South of the parking lot, a small area of herbaceous wetlands is also fed by this drainage pattern. The stream channel continues to the northern section of the property, where it is contained within steep hillsides. A stand of white pines (Pinus strobus) dominates the ridge. rare species include the Robbin's pondweed (Potamogenton robbinsii).

INSTALLATION FACT SHEET
RIVERDALE ARMORY & OMS

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Riverdale Armory	107 Newark-Pompton Tnpk	Riverdale	07457
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Morris	Pompton Plains	26/23,24
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
9.83	200-215 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Hackensack-Passaic	Passaic/Hackensack/NY	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	50	West
• Sunshine School	250	North
• Tributary of Pompton River	1,000	Northeast

Site Description

The western and southern property boundaries are formed by Newark-Pompton Turnpike and Riverdale Rd., respectively. The eastern boundary follows a railroad right of way, and the northern portion of the property is adjacent to NJDOT property. The majority of the installation is paved and contains several buildings for administrative and vehicle maintenance use, with the exception of the lawn and landscaping in the southwest corner.

INSTALLATION FACT SHEET
SEA GIRT TRAINING CENTER

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Sea Girt NGTC	PO Box 277	Sea Girt	08750-0277
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Training Center	Monmouth	Point Pleasant	85/1
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
171.02	<20 ft.	5.14	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Mullica-Toms	Atlantic Coastal Basin	Within Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	50	North
• Sea Girt Elementary School	875	North
• Stockton Lake	Adjacent to south property line	
• Atlantic Ocean	Adjacent to east property line	

Site Description

This property is surrounded by residential communities on the north, south, and west, and is adjacent to the Atlantic Ocean on the east. The majority of the land is maintained as open, mowed fields, although a few acres of dune habitat remain as a buffer between the installation and the shoreline. Disturbance has altered the vegetative composition of the dune community, but some pure patches of beach grass (Ammophila breviligulata) remain. The greatest concentration of buildings is in the northwest corner of the property, although a network of roads runs throughout the southern property. Also along the southern boundary, adjacent to Stockton lake and a tidal marsh community, is an area designated for camping. Additionally, two very different wetland communities exist in isolated patches; a scrub/shrub wetland in the southwest corner and an herbaceous community in the southeastern portion of the site.

INSTALLATION FACT SHEET
SOMERSET ARMORY & OMS

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Somerset Armory	1060 Hamilton Street	Somerset/Franklin Twp.	08873
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Somerset	New Brunswick	103/2
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
18.06	120-130 ft.	4.14	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Raritan	Raritan River/Bay Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	100	North
• Emmanuel Tabernacle Baptist Apostolic Faith Church	400	West
• Six Mile Run	3,000	West
• Tributary of Delaware & Raritan Canal	2,750	North

Site Description

Hamilton Street forms the northern boundary of the installation. The majority of the property is occupied by buildings, parking areas, and a large vehicle compound. A helicopter landing area, which has been graded to collect drainage, also occupies a large area in the southeastern section. The northwestern corner of the property is forested, with red maple (Acer rubrum) and sugar maple (A. saccharum) being the dominant canopy species. Another forested area exists in the southeast corner, which is highly disturbed. The understory is denser in this area, and the canopy is dominated by black cherry (Prunus serotina), red oak (Quercus rubra), and balsam poplar (Populus balsamifera). Mapping of deciduous scrub/shrub wetlands does not appear accurate, and drainage patterns may have been altered by the artificial drainage system created in the helicopter landing zone.

INSTALLATION FACT SHEET
TEANECK ARMORY & OMS

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Teaneck	Teaneck & Liberty Roads	Teaneck	07666-0687
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Bergen	Yonkers	5301/1
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
14.43	50-80 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Hackensack-Passaic	Passaic/Hackensack/NY	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	100	North
• Church of God	100	North
• Tributary of Overpeck Creek	550	East
• Pond	900	East

Site Description

Most of the property is mowed grass, gravel or pavement, with a few mature trees such as red oak (Quercus rubra), or honey locust (Gleditsia triacanthos) lining the streets (Teaneck, Liberty and Ward) which form the property boundary. The property slopes to the southeast.

INSTALLATION FACT SHEET
TOMS RIVER ARMORY & OMS

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Toms River	1200 Whitesville Road	Toms River/Dover Twp.	08753-4130
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Ocean	Toms River	409/30-2
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
30.21	25-45 ft.	6.84	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Mullica-Toms	Atlantic Coastal Basin	Within Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residence	850	Northwest
• Winding River Park	300	Northwest
• Toms River	1,150	West
• Pond	350	West

Site Description

This installation is mostly forested, and the majority of the Armory buildings and parking lots are concentrated in the northern corner of the property. The eastern portion of the property encompasses a utility easement, which is frequently mowed. Some emergent wetlands in this area shows signs of recent cutting and disturbance. The composition of the forested communities ranges from red maple (Acer rubrum) or Atlantic white cedar (Chamaecyparis thyoides) dominated to an upland oak/pine community with shrub understory.

INSTALLATION FACT SHEET
TUCKERTON ARMORY

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Tuckerton	365 E. Main Street	Tuckerton	08087-2805
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Ocean	Tuckerton	49/3
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
16.09	20-35 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Mullica-Toms	Atlantic Coastal Basin	Within Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	60	Northeast
• Thompson Creek	1800	South
• Tributary to Jesses Creek	1800	East

Site Description

The majority of the installation is forested and the neighboring land is also forested to the north, south, and west. Main Street runs along the eastern boundary. The forested area of the property can be generally characterized as an oak/pine community, with areas of successional grassland within. These areas are utilized as driver training areas, and as a result are frequently disturbed. The dominant species of the forest are pitch pine (Pinus rigida), red oak (Quercus rubra), and hickory (Carya sp.) in the canopy and Vaccinium sp. in the understory. The central portion of the property along Main Street contains the Armory building and associated infrastructure, such as the maintenance shop, vehicle compound and asphalt parking lots. In addition, the unpaved areas surrounding the buildings are mowed lawns with no landscaping.

INSTALLATION FACT SHEET
Vineland Armory

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Vineland	2560 South Delsea Drive	Vineland	08360-7093
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Cumberland	Milleville	962/1
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
46.18	70-100 ft.	0.06	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Cohansey-Maurice	Delaware River Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Straton Hall/Cumberland Christian School	575	West
• Residences	225	South
• Closed lake	2,000	Northeast
• Parvin Branch of Maurice River	3,600	North

Site Description

Hwy 47, or Delsea Drive, forms the eastern property boundary, and the main ICRC facilities are located along this road. In the front of the ICRC is an expansive lawn, and behind it is a vehicle compound and fields of successional grass communities. A network of unpaved roads navigates throughout the oak/pine forest to the west, south, and east of the ICRC. A successional pitch pine (Pinus rigida) community is dominant in the areas immediately adjacent to bare ground and roads, eventually becoming a mixed oak community in the western regions of the installation.

INSTALLATION FACT SHEET
WASHINTON (PORT MURRAY) ARMORY

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Washington (Port Murray)	550 Route 57	Port Murray Mansfield Twp.	07865
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Training Site	Warren	Washington	1509/6-A
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
41.67	560-580 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Middle Delaware-	Delaware River Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• NJ Dept. of Education Regional School, Warren Co.	On property	
• Residences	50	East
• Stream	1,850	Northwest
• Tributary to Musconetcong River	3,000	East

Site Description

Hwy 57 forms the northern boundary of the property, and the Armory facilities are concentrated in the northern section. The greater part of the installation is occupied by fields, occasionally separated by a line of trees. The vegetation in these areas consists of scarlet oak (Quercus coccinea), white ash (Fraxinus americana), cherry (Prunus sp.), birch (Betula sp.), and sumac (Rhus sp.), with a dense understory of blackberry (Rubus sp.). Many of the field areas are frequently mowed, especially in the southeastern portion of the property. Weedy herbaceous species such as chickory (Cichorium intybus), golden rod (Solidago sp.), and ragweed (Ambrosia artemisiifolia) are abundant in these areas.

INSTALLATION FACT SHEET
WESTFIELD ARMORY

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Westfield	500 Rahway Avenue	Westfield	07090-3335
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Union	Roselle	751/40
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
12.05	125-155 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Sandy Hook-	Passaic/Hackensack/NY	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	50	Southeast
• Westfield High School	250	Northeast
• Robinsons Brook	950	Southeast

Site Description

The installation is bordered by Rahway Avenue on the northeastern side and extends in the southwest direction for several blocks. The Armory facilities encompass almost all of the property, with the exception of the forested area along the southeastern edge. This forest community appears mature, with a mix of sweetgum (Liquidambar styraciflua), northern red oak (Quercus rubra), white oak (Q. alba), beech (Fagus grandifolia), and hickory (Carya sp.) in the canopy. The western boundary appears more disturbed, but is also densely vegetated.

INSTALLATION FACT SHEET
WEST ORANGE ARMORY, OMS, & CSMS

General Information

Installation Name:	Address:	City/Township:	Zip Code:
West Orange	1299 Pleasant Valley Way	West Orange	07052-5269
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory & CSMS	Essex	Caldwell	171/1
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
64.57	385-600 ft.	0.90	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Sandy Hook-	Passaic/Hackensack/NY	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Kessler Institute for Rehabilitation	350	North
• Residences	60	South
• West Branch Rahway River	600	East

Site Description

The installation is bordered on the east by Pleasant Valley Way, and extends westward into a deciduous hardwood forest. The majority of the Armory facilities are located on the eastern third of the property, except for a tank training area located in the northwest section. As a result of the steep increase in elevation from east to west, a rocky outcropping separates the tank training area from the forest to the west. Sugar maple (Acer saccharum), beech (Fagus grandifolia), hickory (Carya sp.), and oak (Quercus sp.) are the dominant trees of the forest. Several pockets of associated wetlands occur along the western boundary, including species such as Juncus effusus, Carex sp., and Panicum sp. A stream channel also runs through a low-lying area of the western property, and species such as red maple (Acer rubrum), blackgum (Nyssa sylvatica), and green ash (Fraxinus pennsylvanica) appear along its floodplain.

INSTALLATION FACT SHEET
WEST TRENTON ARMORY, OMS, & AASF

General Information

Installation Name:	Address:	City/Township:	Zip Code:
West Trenton - Mercer	Mercer Airport-Scotch Rd.	West Trenton/Ewing Twp.	08628-1389
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
AASF #1	Mercer	Pennington	373/9
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
20.48	160-180 ft.	0.74	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Middle Delaware-Musconetcong	Delaware River Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	100	South
• Church	2,250	Southeast
• West Branch Shabakunk Creek	Runs through eastern property	

Site Description

The majority of the site is occupied by buildings, pavement, and mowed lawn, which is maintained for flight operations. A small strip of oak/scrub-shrub forest remains along the northeastern boundary. The west branch of the Shabakunk Creek runs northwest-southeast through several culverts and supports a narrow strip of herbaceous wetlands along its banks. Most of the vegetation has been recently cleared from the banks of the creek, but a small patch of wetland vegetation, including willows (Salix sp.) and cattails (Typha sp.), remains.

INSTALLATION FACT SHEET
WOODBRIDGE ARMORY

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Woodbridge Armory	625 Main Street	Woodbridge	07095
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Middlesex	Perth Amboy	189/1
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
3.89		0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Sandy Hook-Staten Island	Passaic/Hackensack/ NY Harbor Complex	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences		West
• Pond	900	East
• Heards Brook	2400	North

Site Description

Main Street forms the northern boundary of the installation, while the New Jersey Turnpike forms the southern boundary. The majority of the property is occupied by buildings and pavement, and the vegetated areas are predominantly mowed lawns with a few landscaping trees. Successional species such as winged sumac (Rhus copallina), black cherry (Prunus serotina), rasberry (Rubus sp.), and sweetgum (Liquidambar styraciflua) grow along the southern boundary.

INSTALLATION FACT SHEET
WOODBURY ARMORY & OMS

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Woodbury Armory	North Evergreen Avenue	Woodbury	08096-1399
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Armory	Gloucester	Woodbury	BA-0150-A/1,2,3
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
4.83	25-35 ft.	0	Outside Reserve
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**
State	Lower Delaware	Delaware River Basin	Outside Zone

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	100	North
• St Stephan's Lutheran Church	1,200	South
• Stewart Lake	675	South
• Pond	1,800	East

Site Description

The installation is bordered on the north, south, east, and west by Dare, Red Bank, Evergreen, and Roosevelt streets, respectively. Buildings and pavement occupy the majority of the property, with the vehicle compound encompassing over half of the area. Along Evergreen Street, the lawn is maintained and several large red maples (Acer rubrum), sugar maples (A. saccharum), red oaks (Quercus rubra), and white ash (Fraxinus americana) trees are planted.

INSTALLATION FACT SHEET
WOODSTOWN ARMORY

General Information

Installation Name:	Address:	City/Township:	Zip Code:
Woodstown	501 North Main Street	Woodstown Borough &	08098-9549
Type of Facility:	**County:**	**USGS Quad:**	**Block/Lot Number:**
Total Acreage:	**Elevation (range):**	**Wetlands Acreage:**	**Pinelands Designation:**
Land Owner:	**Watershed:**	**Drainage Basin:**	**CAFRA Zone:**

Nearest Noise Sensitive Receptors and Surface Waters

Receptor(s):	Distance (ft):	Direction:
• Residences	130	Southwest
• Morning Star Baptist Church	750	Southwest
• Tributary to Salem River	250	North

Site Description

The majority of the property is mowed lawn, with several red oaks (Quercus rubra) planted along the southwest and northwest perimeters. The eastern half of the property is designated as a helicopter landing area and is kept mowed. The Armory building and parking areas are located on the western property. In the northwest corner, a successional community, including black cherry (Prunus serotina), rose (Rosa multiflora), maples (Acer sp.), red cedar (Juniperus virginiana), and Viburnum sp., has become established.

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