

**HAZARDOUS WASTE MANAGEMENT PLAN
NAVAL AIR FACILITY EL CENTRO**

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1.0 AUTHORITY

In order for the Navy to accomplish its mission of being a responsible environmental steward, command or activity military and civilian personnel must be aware of the environmental laws and regulations which pertain to their specific process or operation that generate, store, treat or dispose of hazardous or toxic wastes. These requirements have been established and mandated by Federal, State or local law and are not discretionary.

Office of the Chief of Naval Operations Instruction (OPNAVINST) 5090.1B, dated 2 February 1999, requires all Naval facilities that generate hazardous waste (HW) to have a Hazardous Waste Management Plan (HWMP). The development of this HWMP is consistent with all Federal, State (California), local (Imperial County), and other Department of Defense/Navy regulations/policies identified in Section 4. The primary Federal regulations cited include Resource, Conservation, and Recovery Act (RCRA) 40 Code of Federal Regulations (CFR) Parts 260-279; Superfund Amendments and Reauthorization Act (SARA) Title III; Toxic Substances Control Act (TSCA) 40 CFR Parts 760-761, 40 CFR Parts 116-117; Occupational Safety and Health Act (OSHA) 29 CFR Parts 1910; and Hazardous Materials Transportation Act (HMTA) regulations 49 CFR Parts 100-199. The primary State of California regulations cited include the Title 22 California Code of Regulations (CCR), Division 4.5.

The HWMP identifies HW generated and handled by NAF EI Centro; identifies applicable federal, state, and local requirements; and describes how to comply with these requirements. The HWMP shall be kept up-to-date to reflect changes in HW generation and applicable state and federal regulations, and is applicable to all activity personnel.

2.0 INTRODUCTION

Southwest Naval Facilities Engineering Command (SWDIV) was contracted by Naval Air Facility (NAF) El Centro to update their HWMP. This update incorporates the changes in NAF El Centro HW organizations, responsibilities, HW accumulation areas, and operating procedures since the preparation of the September 1999 HWMP. The purpose of the HWMP is to provide guidance for the management of HW (see section 3 for the definition of HW) in accordance with current federal, state, and local regulations, and Navy guidelines.

NAF El Centro located in El Centro, California supports twenty-six tenant activities on the base, in addition to thirty transient tenants. NAF El Centro generated an estimated 242,004 pounds of hazardous waste in CY 2001.

By current legislation, NAF El Centro is classified as a fully regulated generator and as such is responsible for compliance with laws regulating the generation of HW. The enforcing regulations are found in 40 CFR, parts 260 to 272 and 300; and Title 22 Division 4.5, of the CCR. The Navy guidance is provided under OPNAVINST 5090.1B, Environmental and Natural Resources Program Manual and Naval Facilities Engineering Service Center (NFESC) 20.2-029B, Hazardous Waste Management Planning Guide. These regulations and Navy guidance will be referred to within the HWMP.

The Hazardous Waste Management Plan is intended to provide guidance to hazardous waste managers and handlers in the operation of hazardous waste generation and storage facilities. It covers HW management standard operating procedures (SOPs) for collection, containerization, labeling, marking, recordkeeping, temporary storage and transfer of HW. Included in Appendix D is an Explosive Hazardous Waste and Ordnance Derived Waste Guideline. The majority of the procedures are mandated by law and are not discretionary.

The details of this plan were tailored specifically for the types and amounts of hazardous waste generated by NAF El Centro. If any factor changes, this plan MUST be revised to reflect those changes.

NAF El Centro's HWMP is organized as follows:

Section 1 - Authority: quotes OPNAVINST 5090.1B series and states that the HWMP is required.

Section 2 - Introduction: summarizes NAF El Centro and the HWMP.

Section 3 - Definitions: gives the definitions of terms used in HW management.

Section 4 - Regulations: lists the major regulations governing NAF El Centro.

- Section 5 - Specific Responsibilities: Lists the HW management responsibilities for NAF El Centro personnel from the Commanding Officer through the entire chain-of-command.
- Section 6 - Hazardous Waste Inventory and Site Specific Maps: provides up to date HW inventory for the floor plans of all the buildings which generate HW along with site specific HW inventory.
- Section 7 - Requirements for Generators: Describes the operating procedures for collection, containerization, labeling, marking, temporary storage and transfer of HW within the work center.
- Section 8 - Storage Requirements for Hazardous Waste: Describes the required procedures for the temporary hazardous waste storage facilities.
- Section 9 - Disposal Requirements for Hazardous Waste: Describes the transportation for the disposal, and disposal requirements for NAF El Centro tenant activities. Provides instructions for the preparation of the HW Turn-in Form.
- Section 10 - Training Requirements: Lists the required HW management training for all NAF El Centro personnel.
- Section 11 - Reporting Requirements: Lists the required HW management related reporting requirements and describes each.
- Section 12 - Waste Analysis Requirements: Reviews regulatory requirements to satisfy permit and Land Disposal Restriction (LDR) waste analysis requirements.
- Section 13 - Hazardous Waste Spill Contingency Plan: References the plan for contingency action as required by 40 CFR 265.
- Section 14 - Closure Plan: References the plan for officially closing NAF El Centro's HW generating facilities.
- Section 15 - Hazardous Waste Minimization Techniques and Guidance: Describes HW minimization techniques being implemented at NAF El Centro.

3.0 DEFINITIONS

Characteristics of Hazardous Waste - A solid waste is a hazardous waste if it exhibits any of the characteristics of ignitability, corrosivity, reactivity or toxicity.

Contingency Plan - A document setting out an organized, planned, and coordinated course of action to be followed in the event of a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten public health, safety, or welfare, or pose a danger to the environment.

Corrosivity - A solid waste is corrosive if a representative sample of the waste has any of the following properties as listed in 40 CFR 260.20 and 40 CFR 261.22:

- 1) it is aqueous and has a pH less than or equal to 2, or greater than or equal to 12.5; or
- 2) it is a liquid that corrodes steel at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55 degrees C (130 degrees F).

Corrosive wastes are assigned EPA HW number D002.

Hazardous Material (HM) - A hazardous material is any material as defined in 29 CFR 1910.1200, Federal Standard 313, and 22 CCR 66260.10 that, because of its quantity, concentration, physical, chemical or infectious characteristics, may pose a substantial hazard to human health or the environment when treated, handled, used, packaged, stored, transported or disposed of. This includes ignitable, corrosive, reactive or toxic materials. Hazardous materials are defined by the Department of Transportation in 49 CFR 171.8 and include hazardous substances and hazardous wastes.

Hazardous Substance (HS) - A material included in a specific list of chemicals designated by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) in 40 CFR 302 as those which pose a threat to the environment when discharged or spilled. Releases of hazardous substances are regulated only when they exceed certain quantities (called reportable quantities). Reportable Quantities (RQ) are also assigned in 40 CFR 302. All materials meeting the definition of federal hazardous wastes have been defined by CERCLA as hazardous substances, with Reportable Quantities, and are listed in 40 CFR 302.

Hazardous Waste (HW) - A solid waste or combination of solid wastes that, because of quantity, concentration, physical, chemical, or infectious characteristics, may:

- 1) cause, or significantly contribute to, an increase in mortality, or an increase in serious irreversible, or incapacitating reversible illness; or
- 2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise mismanaged.

Federally listed hazardous wastes are identified in 22 CCR 66261.31 (40 CFR 261.31), 22 CCR 66261.32 (40 CFR 261.32) and 22 CCR 66261.33 (40 CFR 261.33).

Ignitability - A solid waste is ignitable if a representative sample of the waste has any of the following properties as listed in 40 CFR 260.20 and 260.21:

- 1) it is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has a closed-cup flash point less than 60 degrees C (140 degrees F);
- 2) it is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture, or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard;
- 3) it is an ignitable compressed gas as defined by 49 CFR 173.300;
- 4) it is an oxidizer as defined by 49 CFR 173.151.

Ignitable wastes are assigned EPA HW Number D001.

Lethal Concentration 50% (LC50) - concentration of a substance at which 50% of an exposed population die.

Lethal Dose 50% (LD50) - dosage of a substance at which 50% of a given exposed population of organisms die.

Manifest - An approved form used as a shipping document to identify the quantity, composition, and the origin, routing and destination of hazardous waste from the site of generation to the point of disposal, treatment, storage or use.

Other Regulated Material D (ORM-D) - A material such as a consumer commodity which presents a limited hazard during transportation due to its form, quantity and packaging. It must be a material for which exceptions are provided in the Table of Hazardous Materials located in Title 49 CFR section 172.101.

Reactivity - A solid waste is reactive if a representative sample of the waste has any of the following properties as listed in 40 CFR 260.20 and 40 CFR 261.23:

- 1) it is normally unstable and readily undergoes violent change without detonating;
- 2) it reacts violently with water;
- 3) it forms a potentially explosive mixtures with water;
- 4) when mixed with water it generates toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment;

- 5) it is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment;
- 6) it is capable of detonation or explosive reaction if it is subjected to a strong initiating source, or if heated under confinement;
- 7) it is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure;
- 8) it is a forbidden explosive, or a Class A or Class B explosive as defined in 49 CFR 173.51, 173.53, or 173.88.

Reactive wastes are assigned EPA HW Number D003.

Solid Waste - Any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility, and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved material in irrigation return flows or industrial discharges which are point sources subject to permits under Section 401 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923).

Spill - The accidental spilling, leaking, pumping, emitting, discharging, emptying or dumping of hazardous wastes or materials that become hazardous wastes when spilled into or on any land or water.

Toxicity - A solid waste exhibits the characteristics of toxicity of a representative sample of the waste has any of the following properties as listed in 22 CCR 66261.24, 40 CFR 260.20, and 40 CFR 261.24.

- 1) Toxicity Characteristic Leaching Procedure (TCLP). If the extract from a representative sample of material contains any of the 40 contaminants in 22 CCR 66261.24 or 40 CFR 261.24, Table I, at a concentration equal to or greater than the respective value given in the Table. A solid waste that exhibits the characteristics of toxicity, but is not a listed waste, has the EPA hazardous waste number specified in the table which corresponds to the toxic contaminate causing it to be hazardous.
- 2) It contains a substance listed in 22 CCR 66261.24(a)(2)(A) or (B) at a concentration which equals or exceeds its listed total threshold limit concentration (TTLIC) or soluble threshold limit concentration (STLC) of an extract prepared using the Waste Extraction Test (WET).
- 3) It has an acute oral LD50 less than 5,000 milligrams per kilogram.

- 4) It has an acute dermal LD50 less than 4,300 milligrams per kilogram.
- 5) It has an acute inhalation LC50 less than 10,000 parts per million as a gas or vapor.
- 6) It has an acute aquatic, 96 hour LC50 of less than 500 milligrams per liter when measured in soft water with fathead minnows or golden shiners;
- 7) It contains any of the substances listed in 22 CCR 66261.24 (a)(7) at a single or combined concentration equal to or exceeding 0.001 percent by weight.
- 8) It has been shown through experience or testing to pose a hazard to human health or, the environment because of its carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties, or persistence in the environment.

4.0 REGULATIONS

4.1 FEDERAL REGULATIONS

In accordance with federal regulations and Naval policy, NAF El Centro is required to comply with the following public acts pertaining to HW and their respective regulations:

Resource, Conservation, and Recovery Act (RCRA) 40 CFR 260 -279 addresses "cradle to grave" hazardous waste management, establishes the duties and responsibilities of hazardous waste generators regarding the storage, treatment and disposal of hazardous waste, and authorizes the EPA to issue corrective actions clean-up orders for hazardous waste releases.

Emergency Planning and Community Right-to-Know Act (EPCRA) 40 CFR 370, 372 & 373 focuses on hazards associated with toxic chemical usage and release data, requires immediate notification of releases of oil and hazardous substances and CERCLA defined "reportable quantities" (RQ) to State and local emergency response organizations and planners.

Clean Water Act (CWA) regulations, 40 CFR Part 117. EPA establishes quantity limits for reporting spills of HW.

Hazardous Materials Transportation Act (HMTA) regulations, 49 CFR Parts 170-179. Department of Transportation (DOT) regulates transport of HM and HW.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) regulations, 40 CFR Parts 300, 302, 355, 370, 372 and 373. These regulations provide for identification, notification, reporting, and response to discharges of oil and releases of hazardous substances, pollutants, and contaminants. They also require coordination, notification and reporting to local community and State planning committees.

Occupational Safety and Health Administration (OSHA), 29 CFR Part 1910.120

4.2 STATE LAWS AND REGULATIONS

California Code of Regulations (CCR) Title 22. Social Security Division 4.5. Environmental Health Standards for the Management of Hazardous Wastes.

California Occupational Safety and Health Administration (Cal/OSHA) regulations are outlined in Title 8 CCR.

California Health and Safety Code Division 20, Chapter 6.5.

5.0 SPECIFIC RESPONSIBILITIES

5.1 Introduction

For effective HM/HW control, specific personnel and organizations at NAF El Centro are assigned defined responsibilities. Table 5-1 and 5.2 are listings of the NAF El Centro HW Management Organization and Figure 5-1 shows the NAF El Centro HW organizational structure.

5.2 SPECIFIC RESPONSIBILITIES

5.2.1 Commands Responsibilities

a. Commands and activities whose operations or processes generate hazardous waste and/or maintain less than 90-day hazardous waste storage or operate satellite accumulation areas must comply with all Federal, State and local hazardous waste laws or regulations.

1. Become familiar with any environmental permits and their provisions that may apply to the commands operations or processes and recognize the responsibilities of a hazardous waste generator relating to the "cradle to grave" waste disposal requirements.
2. Appoint in writing the personnel that are to be designated as the command, work center or shop Hazardous Waste Coordinator or Handler that will manage all applicable hazardous waste requirements. (These may be collateral duty positions, but their tasking must be prioritized to allow them to serve as a point of contact in matters regarding hazardous waste issues).
3. Ensure all command personnel assigned to hazardous waste operations complete a program of classroom instruction or on-the-job training as identified in Section 3-5 within 6 months after being assigned their duties. This training must include annual refresher training and ensure that the training provided specifically reflects the duties and responsibilities being performed by the individual.
4. Maintain at each generator location, records for hazardous waste turn-in, waste profile sheets, laboratory analysis, copies of manifests or any other information relating to hazardous waste determination or disposal.
5. Maintain at each generator location copies of environmental training records, designation letters and waste handler certificates for personnel currently and previously involved in hazardous waste operations. These records shall also include the business plan and HAZCOM training rosters or any other documented hazardous waste training provided to work center or shop personnel.

6. Notify the Federal Fire Department @ 911 for **ALL** spills of hazardous material/waste regardless of the quantity.

7. Coordinate with the CNRSW Environmental Department and Navy On-Scene Coordinator (NOSC) immediately after a spill or release to provide all necessary clean-up, disposal and or reporting information to ensure proper compliance with applicable hazardous waste laws and regulations.

5.2.2 CNRSW Responsibilities

a. Navy Region Southwest Hazardous Waste Programs and Policies Division shall research, develop and disseminate regional hazardous waste policies and guidance, request funding from higher echelon commands, serve as the primary point of contact to regulatory agencies and provide oversight for the overall management of hazardous waste. Which includes, but not limited to:

1. Advise commands/activities on emerging environmental laws, regulations or other requirements that will effect or potentially adversely impact command specific hazardous waste operations or processes.
2. Provide resources to regionalized commands/activities for approved special projects or emergent requirements, hazardous waste disposal, storage area permits, hazardous waste analysis and hazardous waste generation fees.
3. Complete and submit applications for hazardous waste accumulation area site permits, permit modifications or site closures to DTSC or other authorized regulatory agency.
4. Complete and submit hazardous materials business plans, including plan or site map modifications or site closures to the DTSC or other authorized regulatory agency.
5. Develop and disseminate to regional commands/activities the following management plans or similar guidance documents: Hazardous Waste, Pesticide, PCB and Tiered Permitting.
6. Provide an ombudsman to address base specific questions or concerns on hazardous waste management, regional policy or guidance, permitting or other issues relating hazardous waste operations.
7. Coordinate, compile and submit information for required environmental reports or datacalls such as EPCRA, P2ADS and PCB's to the appropriate regulatory agencies or naval activities.

5.2.3 Public Works Officer

The Public Works Officer's responsibilities are as follows:

- a.) Keep the Commanding Officer apprised of the program on a regular basis; report major deficiencies in the program or significant planned or unplanned deviations from the program schedule.
- b.) Ensure that the NAF El Centro HW management program receives appropriate command attention; ensure that the policies of the HWMP are implemented.
- c.) Provide manpower allotments/task assignments for HW management actions.
- d.) Through a representative, direct spill clean up operations when appropriate.

5.2.4 Director, Environmental and Natural Resources (Code 83):

A division of the Public Works Department, the Environmental Division, receives and considers recommendations for Base personnel involved with hazardous materials/waste and coordinates recommended actions with the Commanding Officers of other appropriate departments. It is responsible for implementing and ensuring the effectiveness of required training in the HWMP. The Environmental Division is the overall repository for records on personnel who work with hazardous materials/wastes. This would include copies of Safety Department records on applicable safety programs for these personnel. Maintaining complete environmental, health, and safety records on personnel involved with hazardous materials/waste in one central location facilitates the review of records by local/state/federal agencies during an environmental inspection.

- a.) Report to Public Works Officer on the status of all basewide environmental programs.
- b.) Serve as the point of contact for federal, state, regional, local, and other agencies with regard to environmental matters.
- c.) Coordinate with FISC to implement the NAF El Centro HW/HM management.
- d.) Assist installation program managers and military personnel in assessing potential environmental impacts of planned activities, and provide technical assistance for meeting environmental compliance requirements.
- e.) Work with the appropriate competencies and tenant commands to ensure compliance with all applicable environmental regulations (Navy and regulatory: United States Environmental Protection Agency (USEPA), California Environmental Protection Agency (Cal-EPA), and local government) and timely implementation of approved plans.

- f.) Maintain a central file that contains reports, records, correspondence, inventories, copies of original manifests, and other information that pertains to documenting OHS/HW spills.
- g.) Perform monthly inspections of HW accumulation areas for compliance with HW regulations.
- h.) Ensure that the policies of the Hazardous Waste Management Plan are implemented and the Hazardous Waste Management Plan is updated to include changes in HW generation, uses, and specific responsibilities, as well as, changes in applicable Federal, State, and local HW regulations.
- i.) Coordinate all base-wide environmental programs such as air pollution prevention, underground storage tanks, installation restoration, industrial wastewater and hazardous waste minimization.
- j.) Provide the necessary guidance and technical expertise to support implementation of the Hazardous Waste Management Plan.
- k.) Coordinate efforts with CNRSW and the Public Works Officer to investigate, evaluate, recommend, procure, and track necessary HW-related equipment.
- l.) Coordinate with the Fire Chief and the Hazardous Waste Media Manager in the development of procedures and equipment for fire and spill protection at HW accumulation areas in accordance with the Activity Spill Contingency Plan (SCP).
- m.) Maintain routine liaison with SOUTHWESTNAVFACENGCOM, Naval Region Southwest Environmental Department, and EPA along with other state and local regulatory agencies regarding hazardous waste rule interpretation, inspections and compliance.
- n.) Prepare hazardous waste reports and compliance documentation as required by federal, state and local regulatory agencies and Navy instructions.
- o.) Coordinate with the Fire Chief, tenant commands, and the NAF El Centro Hazardous Waste Media Manager in the development of procedures for fire and spill protection at hazardous waste storage sites in accordance with the activity spill contingency plan.
- p.) Coordinate with the base HAZMAT, Fire Department, Safety Office, Supply and Public Works Environmental Department in matters pertaining to hazardous waste.
- q.) Perform long-range planning for the reduction of hazardous waste through source reduction, reclamation and recycling programs.

- r.) Provide support/assistance during spills and spill clean up operations, when appropriate.
- s.) Assure that adequate training and annual retraining is provided for civilian and military personnel, and those records of training are documented and maintained in the central file for a minimum of three years.
- t.) Coordinate training of all hazardous waste management personnel.
- u.) Sign manifests for the Commanding Officer as specified by DoD 4160.21M designated in writing, "by direction authority".
- v.) Maintain copies of the Environmental Deficiency Forms (Appendix A) and keep records for at least three years.
- w.) Maintain the weekly inspection logs (See Figure 7.4) and records for at least three years.
- x.) Maintain training files for each NAF El Centro personnel that receives HM/HW management training.
- y.) Assure the timely submittal of all external reports, including the following:
 - Biennial HW reports (EPA form 8700-13A to California Environmental Protection Agency, Department of Toxic Substances Control (Cal-EPA).
 - OHS releases of reportable quantities (RQ) shall be reported to NRC at USCG headquarters at 1-800-424-8802 or 202-267-2675 by voice communication, in accordance with OPNAVINST 5090.1B (Chapter 10) and NAFELCINST 5090.3 of NAF El Centro Hazardous Substance Spill Plan.
 - Submittal of the NFESC P2ADS report on an annual basis.
 - Review and update this Hazardous Waste Management Plan to ensure conformity with the most current applicable federal, state, and local regulations.
 - Review all requisitions for HM **not** on the authorized use list (AUL) before the HM is purchased.

5.2.5 Safety Office:

The Safety Department implements and maintains the Personal Protective Equipment Program, Respiratory Protection Program, Medical Surveillance, Hearing Conservation Program, and any other applicable health and safety programs for personnel involved with hazardous materials/waste include the Confined Space Entry Program, Industrial Hygiene Survey Program, Workplace Monitoring Program, Asbestos Control Program, and Lead Control Program.

- a.) Cooperate with the Environmental Coordinator in establishing joint hazardous waste facility/procedure inspection and training programs. Maintain information about auxiliary hazardous waste training from external sources.
- b.) Coordinate with the Environmental Coordinator on necessary action to be taken during spill responses.
- c.) Maintain a technical library of references detailing hazardous waste safety, handling, storage, transport, treatment, disposal and characteristics for both stock and nonstock items including hazardous materials characterization references and Material Safety Data Sheets (MSDS) from Supply.
- d.) Routinely note and inform the Environmental Coordinator of environmental health/safety deficiencies while performing safety inspections.
- e.) Provide information regarding the EPCRA Right-to-Know requirements for hazardous waste training courses.

5.2.6 Hazardous Waste/Hazardous Materials/Hazardous Minimization Division
HAZMAT [Pacific Environmental Services (PES)]

This department is responsible for the procurement, storage, dispersment, and effective use of hazardous materials at NAF El Centro. Hazardous materials that are no longer used, off-specification, or in excess are picked up by this department and are transferred back to the Central Hazardous Waste Storage Area (CHWSA), which is maintained by HAZMAT. Hazardous wastes that are generated and require pickup (within 14 days) from the Hazardous Waste Generator Sites (HWGSs) located throughout the base, HAZMAT personnel are responsible for picking up those wastes and transferring them to the CHWSA. All HWGSs are managed by this department, including inspections and maintenance.

This division is also responsible for ensuring that their own personnel are initially trained to the appropriate level for working with hazardous materials/wastes and that they maintain the necessary training refresher courses.

- a.) Report to the Head Environmental Division on the status of all basewide hazardous waste programs.
- b.) Provide interpretation on policy and procedures pertaining to the procurement, storage, transportation, handling, use, and disposal of hazardous material and hazardous waste.
- c.) Deliver HM and pick up HW from customers; determine when HM is no longer useable and becomes HW.
- d.) Manage and operate the HAZMAT Center ready issue and reutilization store.

- e.) Operate Hazardous Substance Management System (HSMS). Recycle, rather than dispose of, all material possible. Prepare HW for transfer to 90-day facility.
- f.) Serve as the focal point for all inquiries from base personnel requiring information or assistance pertaining to HW and HM.
- g.) Determine which wastes are hazardous by applying the criteria established by the California Code of Regulations (CCR Title 22, Division 4.5). Perform all sampling and identify analytical procedures for all waste streams, and verify that laboratories are state certified to perform such analyses. Perform all tracking and maintain chain of custody (COC) for the continuity of all sampling efforts. Lab logs shall be made available for inspection.
- h.) Monitor contractor operations performed by Public Works, which involve the handling of hazardous material and hazardous waste (e.g. contractor removal and disposal of asbestos) to insure compliance with appropriate regulations.
- i.) Conduct hazardous material and hazardous waste compliance inspections of units and activities.
- j.) Conduct quarterly Environmental Coordinators meetings.
- k.) Assume on scene command authority and overall responsibility for all hazardous waste spills at the activity.
- l.) Provide the necessary support and management expertise to facilitate implementation of the Hazardous Waste Management Plan.
- m.) Investigate, evaluate, recommend, procure and track necessary equipment for handling and storage of hazardous waste in coordination with the Safety Office.
- n.) Address issues relative to the base Hazardous Waste Management Plan implementation and management.
- o.) Initiate corrective measures to facilitate proper operations regarding hazardous waste.
- p.) Maintain all the necessary records and reports as required by the regulations.
- q.) Maintain records and inventories of all hazardous materials throughout the station to be periodically submitted to the Environmental Coordinator.
- r.) Ensure that Material Safety Data Sheets (MSDS) are obtained for those materials not previously listed on the Hazardous Materials Information System (HMIS). Supply copies of the MSDSs to shop personnel, Safety Office, Fire Department and the Hazardous Waste Coordinator.

- s.) Maintain a stock of appropriate hazardous waste labels and marking stencils to be applied as necessary and to be provided to departments upon request.
- t.) Require manufactures and vendors to properly label all hazardous material prior to shipment and to provide an MSDS. These requirements shall be included as part of each purchase contract involving hazardous materials.
- u.) Coordinate with the Director, Environmental and Natural Resources regarding hazardous material classification.
- v.) Draft and maintain Supply Department Hazardous Material operating instructions.

5.2.7 Hazardous Material/Waste Coordinator/Long-Term and Short-Term Contractors/Visiting Squadrons:

All Hazardous Material/Waste Coordinators have the responsibility of procuring hazardous materials from HAZMAT and maintaining the hazardous materials storage lockers for their department. All long and short term contractors that employ personnel involved with hazardous materials/wastes are required to operate in accordance with all environmental, health, and safety guidelines in their contract as established by the Resident Officer in Charge of Construction (ROICC). All visiting squadrons with personnel that are involved with hazardous materials/wastes are required to show proof of applicable training prior to operation at the Base in accordance with this HWMP.

Refer to Appendix C for Contractor sample certification of training document.

- a.) Designate a primary and an alternate person to take responsibility for the proper accumulation of hazardous waste generated in their area.
- b.) Be responsible for the collection, segregation, containerization, labeling, marking of HW containers, and maintaining accumulation areas including the associated compliance documentation.
- c.) Notify Hazmat to collect accumulated wastes at the appropriate times. Note: An activity representative must be present for the hazardous waste pickup with the original HW Turn-in Form and one copy.
- d.) Ensure that the procedures of this HWMP are followed (each department or tenant command that generates HW will designate one person as the HWC).
- e.) Attend quarterly HW Coordinators meetings.
- f.) Other responsibilities of the HWC are as follows:
 - Ensure that all personnel associated with HW management are familiar with and act in accordance with the procedures outlined in the HWMP.

- Ensure that personnel from their organization have received adequate HM/HW management training. Supervisors will submit names of personnel who require training to the Hazardous Waste Media Manager.
- Obtain an MSDS for each material procured and maintain a permanent file
- Ensure that personnel are familiar with the contingency actions that must be implemented immediately following the discovery of a HM/HW spill.
- Maintain an adequate supply of spill response equipment (drums, absorbents, brooms, etc.) to effectively contain and clean up fuel, oil, or hazardous substance spills.
- Report to HAZMAT and the Environmental Division Head the benefits of, problems with and recommendations for improving these procedures, as needed.

5.2.8 Contractor Responsibilities

a. All contractors conducting operations or processes located at Regionalized Commands or Activities that produce “contractor generated” hazardous waste shall, label, segregate, accumulate, containerize, dispose and overall manage their waste as “the generator of the hazardous waste” in accordance with all Federal, States and local environmental laws or regulations and including but not limited to the following.

- (1) Hazardous waste shall be placed into Department of Transportation (DOT) shipping containers.
- (2) All wastes shall be compatible with the containers used to store the waste.
- (3) Inspect their container storage area weekly, checking for open or leaking containers, missing labels, and or deterioration of containers or containment system.
- (4) Ignitable and or reactive waste must be stored at least 50 feet from the base property line or from the closest inhabitable building.
- (5) All containers shall be kept closed during storage except when adding or removing contents.
- (6) All materials/wastes must be compatible if they are mixed or consolidated.
- (7) All containers must have a clearly and properly filled out label with the accumulation start date.
- (8) All waste must be properly disposed within 90 days from the initial accumulation start date.
- (9) Hazardous waste/materials shall not be placed or disposed in dumpsters or other solid waste (trash) containers.
- (10) All hazardous waste / material spill or releases regardless of quantity must

immediately be reported to the Federal Fire Department at 911. Cost of the clean-up and disposal of the spilled or released material shall be the sole responsibility of the contractor.

CONTRACTOR GENERATED NAVY WASTE

a. All Regionalized Commands or Activities using contractors that generate Navy owned hazardous waste shall be responsible for the proper management of their waste in accordance with the provisions of the Regional Hazardous Waste Management Plan.

Note: Contractors, refer all questions or comments regarding this section the ROICC Contract Office or environmental point of contact.

**Table 5.1:
NAF EL CENTRO HAZARDOUS WASTE MANAGEMENT ORGANIZATION LISTING
JUNE 2002**

POSITION	NAME	WORK PHONE
Commanding Officer (CO)	Capt. Crane	(760) 339-2401
Executive Officer (XO)	CDR Hyes	(760) 339-2401
Public Works Officer	Lt. Lewis	(760) 339-2207
Environmental/Natural Resources Director	Ron Curiel	(760) 339-2264
Supply Officer	Lt. Miranda	(760) 339-2353
Hazardous Material/ Hazardous Waste Director	Conrad Jutras	(760) 339-2534
Safety Officer	Ed Gamble	(760) 339-2448

Note: DSN Prefix 658

**Table 5.2: NAF EL CENTRO ACTIVITY/TENANT COMMAND LISTING
June 2002**

Generator	Building #	Contact Name	Phone Number
Raytheon (C-12)	HGR 9 (505)	Brain Smith	339-2510
Brown and Root, GSE	222	Huberto Arispe	339-2643
Brown and Root, Transportation	157	Rogelio Pereira	339-2218
Brown and Root, T-line	519	Al Betancourt	339-2425
NAVAIRSEFAC	514	Mark Reece	339-2392
Fire Department	HGR 1	Raul Valenzuela	339-2232
Hanger 3	112	Kimberly Lineses	339-2534
Hanger 4	218	Kimberly Lineses	339-2534
Hanger 5	225	Kimberly Lineses	339-2534
Hanger 6	524	Kimberly Lineses	339-2534
Hanger 7	502	Kimberly Lineses	339-2534
Hanger 8	503	Kimberly Lineses	339-2534
HAZMAT (PES)	512	Conrad Jutras	339-2534
Trajen	507	Barry Bennet	339-2471
Medical*	523	HM2 Torres	339-2675
MWR	362	Danny Lineses	339-2689
Raytheon (T-34)	HGR 9	Michael Bybee	339-2528
Security	565	AB2 Vega	339-2525
Strike Fighter (CSFWPMU)	HGR 2	AK2 Faulk	339-2615
Weapons	517	AO1 Gibson	339-2962

6.0 HAZARDOUS WASTE INVENTORIES AND SITE MAPS

6.1 SURVEY OF CURRENT CONDITIONS

A comprehensive survey was conducted to identify the types and quantity of wastes as well as the processes and activities generating waste for calendar year 2001 at NAF El Centro in order to fulfill the requirements imposed by the California Hazardous Waste Source Reduction and Management Review Act of 1989, more commonly referred to as Senate Bill (SB) 14. Requirements of SB 14 are located in CCR Title 22 Ch. 31 Article 1.

SB 14 requires that businesses generating HW in excess of specified annual amounts prepare a Source Reduction Evaluation Review and Plan, and a Hazardous Waste Management Performance Report by September 1991 and every four years thereafter.

The HWMP must include an estimate of the quantity of HW generated, an evaluation of potential source reduction approaches and a time table for implementing selected source reduction measures. The Report must assess the effect of each waste management approach implemented since the baseline year (i.e. the first year inventoried), including source reduction, recycling and treatment measures. These documents are kept on file at the Staff Civil Engineering office and may be examined upon request.

6.2 WASTE GENERATION RATE

The total waste generated at NAF El Centro in 2001 was estimated to be 242,004 lbs. (Table 6.1 lists waste totals by name). The majority of the waste, 30,587 lbs. was generated from a non-hazardous sock filters, which is considered to be exempted and/or non-routinely generated waste that is not to be considered when determining the major waste streams. The frequency of pickup for Hangars 3-8 is based on hangars being utilized by transient squadrons.

6.3 HM/HW SITE SPECIFIC LOCATION MAPS AND INVENTORIES

NAF El Centro has recently undergone a fuel conversion. This fuel conversion from JP-5 to JP-8 commenced November 2001 with full conversion completed January 2002.

The HW Contingency Plan kept on file at the HAZMAT (Building 512) and at each activity, contain hazardous materials inventory, current maps giving locations of hazardous material storage areas, HW storage areas, drains, and other relevant information.

See Figure 6.1 for the map of NAF El Centro.

**TABLE 6.1
WASTE GENERATION TOTALS BY NAME FOR NAF EL CENTRO 2001**

Name of waste stream	Weight Shipped In 01	Name of waste stream	Weight Shipped In 01
Asbestos Brake Shoes	19	Waste Fuel Filters	1,368
Car Wash Sludge	16,981	Waste Gasoline	62
Chlorinated Oil	6	Waste Grease	219
Electrolyte	71	Waste Housing Asbestos	179
Hanger 6 Sludge	13,228	Waste Joint Compound with Water	1,757
Hydroblaster Cleaning Sludge	3,617	Waste Latex Paint	3,987
Non-hazardous Sock Filters	7,175	Waste Lead Acid Batteries	515
Non-hazardous Waste Drill Cuttings	142	Waste Liquid Adhesives	466
Non-Rechargeable Batteries	607	Waste Lithium Batteries	232
Oily Rags and Debris	23,591	Waste NiCad Batteries	1
Parts Washer Sludge	8,902	Waste Nickel Cadmium Batteries	8
PCB Containing Light Ballast	7,767	Waste Non-Friable Asbestos Containing Material	4,251
JP5 (Recyclable)	26,885	Waste Oil/Water Mixture	7,230
Runway Rubber	1,855	Waste Paint and Thinner	711
Safestep Contaminated with POLs	22,341	Waste Paint Remover-Non Aerosol	68
Spent Carbon with High Lead Content	7,585	Waste Runway Rubber with Zinc	2,157
Used Antifreeze	2,200	Waste Sodium/Mercury Light Bulbs	186
Used Oil (Recyclable)	33,602	Waste Soldering Paste	3
Used Oil Filters	3,771	Waste Stream with Unprofiled Constituents	14,518
Used Paint Rags and Debris	560	Waste Washrack Sludge	15,091
Waste Cable Preservative	475		
Waste Car Wax	4		
Waste Flammable Aerosols	1,136		
Waste Floor Stripper	344		
Waste Flourescent Light Tubes	6,131	Total Waste (lbs.)	242,004

**2001 Hazardous Waste Inventory
Fire Department (Hanger 1)**

Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
None			

**2001 Hazardous Waste Inventory
Hanger 2**

ELC Number	Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
ELC-99-003	Oily Rags and Debris	6,864	2 weeks	None
ELC-99-028	Used Oil	4,257	2 weeks	Recycled
ELC-99025	Used JP-5	9,306	2 weeks	Recycled
ELC-99-017	Used Oil Filters	12	2 weeks	None
ELC-99-015	Non-Rechargeable Batteries	200	2 weeks	None
ELC-99-001	Safestep Contaminated with POLs	2,153	2 weeks	Reissue, reuse to point of saturation.
ELC-99-002	Waste Nickel Cadmium Batteries	8	One Time	None

**2001 Hazardous Waste Inventory
Hanger 3**

ELC Number	Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
ELC-99-025	Used JP-5	1,305	2 weeks	Recycled
ELC-99-028	Used Oil	1,458	2 weeks	Recycled
ELC-99-003	Oily Rags and Debris	1,346	2 weeks	None

**2001 Hazardous Waste Inventory
Hanger 4**

ELC Number	Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
ELC-99-003	Oily Rags and Debris	1,600	2 weeks	None
ELC-99-025	Used JP-5	4,987	2 weeks	Recycled
ELC-99-001	Safestep contaminated with POLs	312	2 weeks	Reissue, reuse to point of saturation.
ELC-99-028	Used Oil	1,635	2 weeks	Recycled

**2001 Hazardous Waste Inventory
Hanger 5**

ELC Number	Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
ELC-99-025	Used JP-5	46543	Monthly	Recycled
ELC-99-028	Used Oil	698	2 weeks	Recycled
ELC-99-003	Oily Rags and Debris	1,211	2 weeks	None
ELC-99-001	Safestep contaminated with POLs	259	2 weeks	Reissue, reuse to point of saturation.
ELC-99-030	Waste Paint and Thinner	333	Monthly	None
ELC-99-002	Used Paint Rags Debris	239	2 weeks	None

**2001 Hazardous Waste Inventory
Hanger 6**

ELC Number	Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
ELC-99-028	Used Oil	102	2 weeks	Recycled
ELC-99-025	Used JP-5	47	2 weeks	Recycled
Elc-99-003	Oily Rags and Debris	17	2 weeks	None

**2001 Hazardous Waste Inventory
Hanger 7**

ELC Number	Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
Elc-99-028	Used Oil	184	2 weeks	Recycled
Elc-99-003	Oily Rags and Debris	211	2 weeks	None
Elc-99-025	Used JP-5	553	2 weeks	Recycled

**2001 Hazardous Waste Inventory
Hanger 8**

ELC Number	Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
Elc-99-025	Used JP-5	5,159	2 weeks	Recycle
ELC-99-028	Used Oil	789	2 weeks	None
ELC-99-003	Oily Rags and Debris	2,411	2 weeks	None
ELC-99-001	Safestep contaminated with POLs	119	As needed	Reissue, reuse to point of saturation.

**2001 Hazardous Waste Inventory
Hanger 9**

ELC Number	Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
ELC-99-049	Waste Lead Acid Batteries	254	2 weeks	Recycled
ELC-99-025	Used JP-5	1,842	2 weeks	Recycled
ELC-99-017	Used Oil Filters	3	Monthly	None
ELC-99-015	Non-Rechargeable Batteries	8	Monthly	None
ELC-99-010	Parts Washer Sludge	145	Monthly	None
ELC-99-014	Used Antifreeze	16	2 weeks	Recycled
ELC-99-028	Used Oil	263	2 weeks	Recycled
ELC-99-019	Waste Grease	2	Monthly	None

**2001 Hazardous Waste Inventory
Building 157/165**

ELC Number	Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
ELC-99-025	Used JP-5	146	2 weeks	Recycled
ELC-99-028	Used Oil	8,130	2 weeks	None
ELC-99-001	Safestep contaminated with POLs	3,861	2 weeks	Reissue, reuse to point of saturation.
ELC-99-017	Used Oil Filters	1,414	2 weeks	None
ELC-99-010	Parts Washers Sludge	7,038	Monthly	None
ELC-99-011	Car Wash Sludge	12,790	2 weeks	None
ELC-99-014	Used Antifreeze	400	2 weeks	None
ELC-99-023	Waste Gasoline	28	One time	None
ELC-99-053	Waste Oil/Water Mixture	45	One time	None
ELC-00-005	Waste Runway Rubber w/Zinc	1,176	As needed	None
ELC-01-002	Waste Joint Compound w/water	526	One time	None
ELC-99-047	Waste Washrack Sludge	11,762	As needed	None
ELC-99-022	Waste Flammable Aerosols	53	2 weeks	None
ELC-99026	Runway Rubber	1,785	As needed	None
ELC-99-008	Chlorinated Oil	6	As needed	None

**2001 Hazardous Waste Inventory (cont.)
Building 157/165**

ELC Number	Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
ELC-99-044	Waste Flourescent Light Tubes	60	As needed	Recycled
ELC-99-015	Non-Rechargeable Batteries	71	As needed	None
ELC-99-003	Oily Rags and Debris	145	2 weeks	None

**2001 Hazardous Waste Inventory
Building 222**

ELC Number	Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
ELC-99-025	Used JP-5	90	2 weeks	Recycled
ELC-99-007	Asbestos Brake Shoes	19	Monthly	None
ELC-99-028	Used Oil	3,377	Monthly	None
ELC-99-003	Oily Rags and Debris	131	Monthly	None
ELC-99-014	Used Antifreeze	324	2 weeks	Recycled
ELC-99-017	Used Oil Filters	228	2 weeks	None
ELC-99-011	Car Wash Sludge	434	Monthly	None
ELC-99-010	Parts Washer Sludge	1,549	Monthly	None

**2001 Hazardous Waste Inventory
Building 362**

ELC Number	Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
ELC-99-001	Safestep contaminated with POLs	244	Monthly	Reissue, reuse to point of saturation.
ELC-99-013	Waste Fuel Filters	15	2 weeks	None
ELC-99-028	Used Oil	7,517	Monthly	Recycled
ELC-99-003	Oily Rags and Debris	235	Monthly	None
ELC-99-014	Used Antifreeze	1,460	2 weeks	Recycled
ELC-99-017	Used Oil Filters	921	2 weeks	None
ELC-99-021	Waste Liquid Adhesives	82	Monthly	None

**2001 Hazardous Waste Inventory
Building 378**

ELC Number	Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
ELC-99-011	Car Wash Sludge	3,757	Monthly	None
ELC-99-047	Waste Washrack Sludge	1,456	Monthly	None
ELC-99-010	Parts Washer Sludge	157	Monthly	None

**2001 Hazardous Waste Inventory
Building 507**

ELC Number	Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
ELC-99-053	Waste Oil/Water Mixture	4,763	2 weeks	None
ELC-99-002	Used Paint Rags and Debris	26	Monthly	None
ELC-99-028	Used Oil	1,208	2 weeks	Recycled
ELC-99-013	Waste Fuel Filters	1,504	2 weeks	None
ELC-99-017	Used Oil Filters	829	2 weeks	None
ELC-99-001	Safestep Contaminated w/POLs	1,993	2 weeks	Reissue, reuse to point of saturation.
ELC-99-004	Hydroblaster Cleaning Sludge	3,617	2 weeks	None
ELC-99-003	Oily Rags and Debris	225	2 weeks	Reissue, reuse to point of saturation.
ELC-99-018	Electrolyte	26	Monthly	None

**2001 Hazardous Waste Inventory
Building 512 (HAZMAT)**

ELC Number	Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
ELC-99-022	Waste Flammable Aerosols	1,083	2 weeks	None
ELC-99-044	Waste Fluorescent Light Tubes	444	2 weeks	None
ELC-99-018	Electrolyte	71	2 weeks	None
ELC-99-021	Waste Liquid Adhesive	369	One Time	None
ELC-99-017	Used Oil Filters	231	2 weeks	None
ELC-99-028	Used Oil	1,181	2 weeks	Recycled
ELC-99-019	Waste Grease	217	2 weeks	None
ELC-99-038	Waste Car Wax	4	2 weeks	None
ELC-99-015	Non-Rechargeable Batteries	156	2 weeks	None
ELC-99-002	Used Paint Rags Debris	285	One Time	None
ELC-99-001	Safestep contaminated with POLs	268	2 weeks	Reissue, Reuse to point of saturation.
ELC-99-003	Oily Rags and Debris	6,249	2 weeks	Reissue, Reuse to point of saturation.
ELC-99-020	Waste Housing Asbestos	179	2 weeks	None
ELC-99-057	Waste Latex Paint	660	2 weeks	None
ELC-99-013	Waste Fuel Filters	7	2 weeks	None
ELC-99-049	Waste Lead Acid Batteries	261	2 weeks	None
ELC-99-012	Waste Lithium Batteries	226	2 weeks	None
ELC-99-030	Waste Paint and Thinner	378	2 weeks	None

**2001 Hazardous Waste Inventory (cont.)
Building 512 (HAZMAT)**

ELC Number	Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
ELC-99-026	Runway Rubber	70	2 weeks	None
ELC-01-003	Waste Floor Stripper	344	One Time	None
ELC-01-001	Waste Soldering Paste	3	One Time	None
ELC-00-005	Waste Runway Rubber w/Zinc	438	One Time	None
ELC-99-031	Waste Paint Remover – Non Aerosol	36	2 weeks	None
ELC-99-033	PCB Containing Light Ballast	13	One Time	None
ELC-99062	Waste NICAD Batteries	1	One Time	None
ELC-99054	Waste Sodium/Mercury Light Bulbs	186	Monthly	None

**2001 Hazardous Waste Inventory
Building 519**

ELC Number	Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
ELC-99-015	Non-Rechargeable Batteries	30	2 weeks	None
ELC-99-003	Oily Rags and Debris	220	2 weeks	None
ELC-99-025	Used JP-5	464	2 weeks	Recycled
ELC-99-001	Safestep Contaminated w/POLs	32	Monthly	Reissue, Reuse to point of saturation.
ELC-99-028	Used Oil	71	2 weeks	Recycled
ELC-99-012	Waste Lithium Batteries	6	Monthly	None
ELC-00-005	Waste Runway Rubber w/Zinc	543	One Time	None

**2001 Hazardous Waste Inventory
Building 530 (HAZMAT)**

ELC Number	Waste Description	Amount (Pounds/year)	Current Frequency of HW Pickup	HW Minimization Techniques
ELC-99-001	Safestep Contaminated w/POLs	12,763	One Time	Reissue, Reuse to point of saturation.
ELC-99-044	Waste Flourescent Light Tubes	13,381	2 weeks	None

7.0 GENERATING ACTIVITY REQUIREMENTS

7.1 GENERAL REQUIREMENTS

The following HW management requirements apply to all departments and tenant commands. For the most part the requirements are mandated by law and/or Navy policy, and are therefore, not discretionary. Success of NAF El Centro in maintaining compliance is largely dependent on each generating department and command following the rules for identifying and containerizing wastes.

7.1.1 HAZMAT Center Turn-In Procedures

The Hazardous Waste Locker Area Weekly Inspection Checklist (Figure 7.4), Hazardous Waste Label (Figure 7.2), Form DD 1348-1/1348-1A (Figure 7.1), and DRMO Turn-In Procedures (Appendix C) are developed to provide guidance to hazardous waste handlers and coordinators. Additional guidance and information may be obtained from the HAZMAT Center, extension 2534.

7.1.2 Daily Accumulation of Hazardous Waste

HW must be collected and containerized immediately after it is generated. In general, this means that appropriate DOT approved containers, EPA labels, and associated paperwork must be provided on a daily basis.

The segregation of wastes by category ensures that incompatible chemicals are not mixed. Table 7.1 lists incompatible materials and the consequences of mixing them. Proper segregation of waste also enables HW minimization techniques to be practiced, such as waste oil reclamation. Waste should be categorized according to types of HW generated for possible alternatives to disposal and minimization techniques.

Types of waste created by this plan include:

7.1.2.1 Petroleum Products:

1. jet fuels
2. hydraulic oils (not chlorinated)
3. lubricating oils
4. diesel fuels (uncontaminated)
5. other petroleum-based products

Further segregation in this category can occur when alternatives to disposal are implemented.

7.1.2.2 Solvents – Non-halogenated:

1. toluene
2. naphtha
3. xylene
4. "clean" paint thinners
5. mineral spirits
6. other non-halogenated solvents

7.1.2.3 Mixed Paint Wastes:

1. paint sludge
2. paint scrapings
3. paint strippers
4. contaminated paint thinner

All other paint wastes should be placed in individual containers without mixing. A container smaller than a 55-gallon drum may be used if it is DOT approved and appropriate for that waste.

7.1.2.4 Acids:

1. Sulfuric Acid
2. Hydrochloric Acid
3. Phosphoric Acid
4. Other Acids

7.1.2.5 Bases:

1. Sodium Hydroxide
2. Potassium Hydroxide
3. Other Bases

To insure that HW is not indiscriminately placed in drums, secure the drums under lock and key. Segregation of HW is enforced by the HW Coordinator for each activity. Anyone needing to place waste in a locked drum must:

- (1) obtain a key from the HW Coordinator or the HW handler.

**TABLE 7.1
POTENTIALLY INCOMPATIBLE MATERIALS**

<u>Group 1A</u>	<u>Group 1B</u>
Acetylene sludge	Acid sludge
Alkaline caustic liquids	Acid and water
Alkaline cleaner	Battery acid
Alkaline corrosive liquids	Chemical cleaners
Alkaline corrosive battery fluid	Electrolyte, acid
Caustic wastewater	Etching acid liquid or solvent
Lime sludge and other	Pickling liquor and other corrosive acids
	corrosive alkalize
Lime wastewater	Spent acid
Lime and water	Spent mixed acid
Spent caustic	Spent sulfuric acid
Potential consequences: Heat generation; violent reaction.	
<u>Group 2A</u>	<u>Group 2B</u>
Aluminum	Any waste in Group 1A or 1B
Beryllium	
Calcium	
Lithium	
Magnesium	
Potassium	
Sodium	
Zinc Powder	
Other reactive metals and metal hydrides	
Potential consequences: Fire or explosion; generation of flammable hydrogen gas.	
<u>Group 3A</u>	<u>Group 3B</u>
Alcohols	Any concentrated waste
Water	in Groups 1A or 1B
	Calcium
	Lithium
	Metal hydrides
	Potassium
	Other water reactive waste
Potential consequences: Fire, explosion, or heat generation; generation of flammable or toxic gases.	

**TABLE 7.1 (Continued)
POTENTIALLY INCOMPATIBLE MATERIALS**

<u>Group 4A</u>	<u>Group 4B</u>
Alcohols Aldehydes Halogenated hydrocarbons Nitrated hydrocarbons Unsaturated hydrocarbons Other reactive organic compounds and solvents	Concentrated Group 1A or 1B wastes Group 2A wastes
Potential consequences: Fire, explosion, or violent reaction.	
<u>Group 5A</u>	<u>Group 5B</u>
Spent cyanide and sulfide Solutions	Group 1B wastes
Potential consequences: Generation of toxic hydrogen cyanide or hydrogen sulfide gas.	
<u>Group 6A</u>	<u>Group 6B</u>
Chlorates Chlorine Chlorites Chromic acid Hypochlorites Nitrates Nitric acid, fuming Perchlorates Permanganates Peroxides Other strong oxidizers	Acetic acid and other organic acids Concentrated mineral acids Group 2A wastes Group 4A wastes Other flammable and combustible wastes
Potential consequences: Fire, explosion, or violent reaction.	

The mixing of Group A materials with Group B materials may have the potential consequences noted.

7.1.3 Unopened, Unused Materials

Unopened containers of unused HM that are no longer needed by a generating activity shall be returned to HAZMAT.

7.1.4 Opened or Partially Used Materials

When HM containers have been opened or the material partially used and the remainder is not needed by the work center, the generating activity shall containerize the material and return it to HAZMAT.

7.2 CONTAINER MANAGEMENT

7.2.1 General Requirements

All containers used for HW collection must:

- Not previously contained an incompatible waste.
- Always closed except when necessary to add or remove waste.
- In good condition - without dents or corrosion. Closure rings must be tightly fitted.
- Should have no severe rusting, no sharp-edged creases or dents, no bulging heads caused by overpressuring a container, and no severe structural defects.
- Made of or lined with materials that will not react with and are otherwise compatible with the HW to be stored.
- Opened and closed and handled in a manner to prevent rupture or leakage of containers.
- Do not overfill the container, (i.e., only fill 90 percent of a 55-gallon drum.
- Properly labeled and marked in accordance with the applicable DOT regulations on hazardous material under title 49 CFR 172. (See Section 7.3 for marking and labeling procedures).
- Use a bonding wire and a ground wire when transferring flammable liquids into containers to prevent sparks caused by the buildup of static electricity during pouring operations.

7.2.2 Container Selection

Each activity will insure that an appropriate container is used for each HW. See Appendix E for container specifications.

7.2.3 Availability of Containers

Each generator shall maintain only containers containing hazardous waste. Empty containers shall be maintained at the HAZMAT Center. The HAZMAT Center will supply containers free of charge.

7.2.4 Reuse of Containers

A previously used non-bulk container may be reused for the shipment of hazardous waste, not subject to the reconditioning and reuse provisions specified in 49 CFR section 173.12(c), as long as the following conditions are observed.

- Transportation is performed by highway only
- A package is not offered for transportation less than 24 hours after it is finally closed for transportation, and each package is inspected for leakage and is found to be free from leaks immediately prior to being offered for transportation.
- Each package is loaded by the shipper and unloaded by the consignee, unless the motor carrier is a private or contract carrier.
- The packaging may be reused only once under this provision and may not be used again for shipment of hazardous waste materials except in accordance with 49 CFR section 173.28 for reuse, reconditioning and remanufacture of packaging.

7.3 LABELING AND MARKING OF CONTAINERS

Labels and markings are required to be placed on each container of HW in accordance with 40 CFR 262.34. Preprinted HW warning labels are available from HAZMAT to satisfy the marking requirements (Figure 7.2). DOT warning labels are not required by NAF El Centro Tenant activities since HW is not transported off base from these activities.

The HAZMAT Center shall label the hazardous waste for off-site transport in accordance with DOT regulations under 49 CFR 172.

7.3.1 General Marking Requirements

49 CFR 172.304 designates how the marking is to be applied to containers being prepared for shipment offsite. Generally, marking must meet the following requirements:

- Be durable, in English, and printed on or affixed to the surface of a package, or on a label, tag, or sign.
- Displayed on a background of sharply contrasting color.
- Unobscured by labels or attachments.

- Located away from other marking (such as advertising) that could substantially reduce its effectiveness.

7.3.2 Marking Non-Bulk Packages

Non-bulk packaging is defined by DOT as a packaging, which has:

- An internal volume of 450 liters (119 gallons) or less used as a receptacle for a liquid.
- A capacity of 400 kilograms (882 pounds) or less, or an internal volume of 450 liters (119 gallons) or less used as a receptacle for a solid.
- A water capacity of 453.6 kilograms (1000 pounds) or less as a receptacle for a gas (as defined in 49 CFR 173.115).

The DOT regulations covering non-bulk packaging used to ship HW shall meet the following requirements:

- The proper DOT shipping name from the HM table in 49 CFR 172.101 (note that the shipping name does not have to include the word "waste" if the requirements described in the following paragraph are met) and the "UN"(United Nations) or "NA" (North American) identification number.
- The technical name(s) for materials subject to 49 CFR 172.203(k).
- Previously marked packages that have been marked as required and remains legible need not be remarked.

7.3.3 Marking Bulk Packages

Bulk packaging is defined by DOT as packaging other than a vessel or barge, a transport vehicle, or freight container, in which HM are loaded with no intermediate form of containment and which has:

- An internal volume greater than 450 liters (119 gallons) as a receptacle for a liquid; or
- A capacity by weight greater than 400 kilograms (882 pounds) or internal volume greater than 450 liters (119 gallons) as a receptacle for a solid; or
- A water capacity greater than 453.6 kilograms (1000 pounds) as a receptacle for a gas as defined in 49 CFR 173.115.

General marking requirements for bulk packaging can be found in 49 CFR 172.302. Bulk packaging must be marked with the DOT identification number on each side and each end if the capacity is 3,785 liters (1,000 gallons) or more, or on two opposing sides if the

capacity is less than 3,785 liters. For cylinders permanently installed on a tube trailer motor vehicle, markings must be on each side and each end of the motor vehicle. 49 CFR 172.302(b) details the size of markings required.

7.4 HANDLING OF EMPTY CONTAINERS

Each generator shall make every reasonable effort to fully use the contents of containers to ensure that any residue left within the container cannot be removed by normal means and is less than 1 inch in depth. To the extent practicable, drums that contained a specific hazardous material shall be reused to package that material when it becomes a HW.

Containers that previously contained an acutely HW listed in 40 CFR 261.33(e) or HW containers that do not meet the criteria above are themselves a HW (40 CFR 261.7). They must be triple rinsed to clean and purge the residue from the container or be disposed of as a HW.

Triple rinsing requires the use of a solvent capable of removing the residue from the container. A quantity of solvent equal to 10 percent of the container capacity must be used for each of the three rinses. After rinsing, the solvent must be containerized for disposal as HW.

A container is considered “empty” if:

1. HM/HW cannot be poured or drained from the container when the container is held in any orientation.
2. HM/HW in or on the container cannot feasibly be removed by physical methods (excluding rinsing).

A container that held a HW under pressure may also be disposed of as nonhazardous waste if the spray nozzle remains on the container so it may be verified to be empty. (22 CCR 66261.7 (l)).

7.5 PLACEMENT OF CONTAINERS IN LESS THAN 90 DAY STORAGE YARD

The following procedures for the placement and inspection of hazardous waste containers in use should be followed whenever possible:

1) Activity Coordinators shall ensure that each container of HW is, at all times, positioned so that the HW label with accumulation start date is clearly visible for inspection.

2) Waste stored in Less Than 90 Day accumulation areas must be segregated in a fashion that will prevent incompatible wastes mixing in the event of a spill or leak. Containers of wastes must be separated from other incompatible HW containers by a curb or by a distance sufficient to ensure accidental mixing of container contents will not occur.

3) Containers of ignitable or reactive wastes must be located at all times at least 50 feet from the installation property line.

4) Sufficient aisle space (i.e. at least 30 inches) must be maintained to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area where HW is located as required under Title 22 CCR 66264.35.

5) All HW shall be recorded on the HW Consolidation and Storage Log Book (Figure 7.3). Entries on the record will include the Drum ID, Contents, Start Date, Size, Type Waste Consolidation From (old drums), Weight, Storage Location, and HSMS information.

6) When ignitable or reactive wastes are transferred between containers, adequate grounding and bonding shall be used to prevent the accumulation of static electricity.

7) Signs reading in English and Spanish, "Danger--Unauthorized Personnel Keep Out", shall be posted on the entrances of HW accumulation sites in a size legible from a distance of 25 feet. In addition, "No Smoking Within 50 Feet" signs shall be placed on all four sides of the building/fence where ignitable wastes are stored so that each is visible from a distance of 50 feet. "No Smoking or Open Flame" signs shall be placed in the container storage area.

8) Gates to all accumulation areas shall be kept locked except when personnel are in immediate area.

9) When possible, containers used for disposing HW should be placed out of direct sunlight to prevent over-heating.

7.6 INSPECTION OF HW ACCUMULATION AREAS

HAZMAT will inspect all HW accumulation areas weekly using the HW Locker Area Weekly Inspection Checklist (Figure 7.4). Checks should be made for leaks, container condition, compatibility/segregation of wastes, required labels, aisle space and the compliance with the Less Than 90 Day accumulation period.

HAZMAT will inspect the originator HW accumulation area weekly using the Hazardous Waste Accumulation Point Weekly Checklist (Figure 7.5) and the Staging Area (530 Compound) Weekly Checklist (Figure 7.6).

8.0 STORAGE REQUIREMENTS FOR HAZARDOUS WASTE

There are three types of storage areas that are mandated by the EPA. They are: (1) the generator accumulation points (sometimes referred to as satellite accumulation points); (2) less than 90 days on site accumulation areas; and (3) permitted treatment storage and disposal (TSD) facilities. NAF El Centro has one less than 90 days accumulation site and twenty-one 14-day ancillary sites throughout the installation.

8.1 GENERATOR ACCUMULATION POINTS

1) The waste is accumulated in containers, other than tanks, at the initial accumulation point that is at or near where the waste is generated and that is under the control of the operator of the process generating the waste.

2) The initial date of waste accumulation is clearly marked and visible for inspection on each container used for accumulation of hazardous waste.

3) The waste being placed in the container must be compatible with the container.

4) A container holding hazardous waste must always be kept closed during accumulation except when it is necessary to add or remove waste.

6) Each container used for on site accumulation of hazardous waste shall be labeled or marked clearly with the words, "Hazardous Waste". Additionally, all containers shall be labeled with the following:

- composition and physical state of the wastes;
- statement that call attention to the particular hazardous properties of the waste (i.e., flammable, reactive, etc.)
- name and address of the person producing the waste.

7) If not all of the waste streams generated by a single process or group of processes located within the same physical area are compatible, a separate 55 gallon or one quart limit shall apply to each group of wastes that are compatible.

8) If the generator determines that using only one 55 gallon or one quart container to initially accumulate specific compatible waste streams is not practical or safe, the generator may use a separate 55 gallon or one quart container for those specific compatible waste streams. The generator's determination shall be subject to review and approval by DTSC at any time.

8.2 SATELLITE ACCUMULATION POINTS:

A satellite accumulation point allows waste collection at or near the point of generation that is under the control of the operator of the process generating the waste.

If the 55 gallon limit is exceeded at a satellite accumulation point, you have 3 days to transfer the excess waste to either an accumulation point or to a permitted treatment, storage, or disposal facility.

Satellite accumulation points can accumulate up to 55 gallons of hazardous waste or 1 quart of acute hazardous waste for an unlimited amount of time. Less than 90 day accumulation points can store an unlimited volume of waste for up to 90 days.

8.3 LESS THAN 90 DAY ACCUMULATION AREAS

With a less than 90 day accumulation area, a generator may accumulate HW on site for 90 days or less without a RCRA HW storage permit. Regulatory requirements may be found in 22 CCR section 66262.34(a). Requirements applicable to Less Than 90 Day Accumulation Areas are covered in the following sections:

- Container Use and Management - Section 7
- Training - Section 10
- Reporting and Recordkeeping - Section 11
- Contingency Planning - Section 13

If hazardous waste is added to a container at the accumulation point, the 90-day limit for the container begins as soon as the waste is first added to the container.

Less Than 90 Day Storage Area facilities shall be maintained and operated to minimize the possibility of a fire, explosion or any unplanned release of hazardous waste to air, soil or surface water that could threaten human health or the environment.

Unless it can be demonstrated to the Department of Toxic Substances Control that none of the hazards posed by waste handled at the facility could require any of the particular kinds of equipment specified below, all facilities shall be equipped with the following:

- an internal communications or alarm system capable of providing immediate emergency instruction to facility personnel;
- a telephone, two-way radio or other device capable of summoning emergency assistance from local police departments, fire departments or State or local emergency response teams;

-- portable fire extinguishers, fire control equipment, spill control equipment and decontamination equipment; water at adequate volume and pressure to supply water hose streams, foam producing equipment, automatic sprinklers or spray systems.

All facility communications, alarm systems, fire protection equipment, spill control equipment and decontamination equipment, where required, shall be tested and maintained as necessary to assure its proper operation in time of emergency.

8.4 PERMITTED TREATMENT, STORAGE, AND DISPOSAL (TSD) FACILITY

Treatment, storage and disposal (TSD) facilities are strictly regulated by state and federal governments. Regulatory requirements for TSD facilities are found in 40 CFR 264 and 22 CFR section 66264.

Currently, NAF El Centro does not own or operate a permitted TSD facility. HW is handled through the Defense Reutilization Marketing Office (DRMO) at Imperial Beach, which has their own TSD facility. Therefore, requirements for TSD facilities will not be discussed further in this plan.

8.5 STORAGE OF HAZARDOUS WASTE IN TANKS

The storage of hazardous waste in tanks is regulated under 40 CFR section 264 subpart j and 22 CCR section 66264.190 to 66264.199. These regulations apply to permanent tank installations both above ground and underground and are also applicable to portable tanks in designated locations. The provisions of these regulations are summarized in the following subsections.

8.5.1 Aboveground Storage Tanks

Currently, NAF El Centro does not store hazardous waste in Aboveground Storage Tanks. JP-8 is stored in bulk and then taken off-site for recycling.

8.5.2 Underground Storage Tanks (USTs)

Within the past few years, regulatory requirements for USTs have drastically changed. USTs are regulated by RCRA Subtitle I. The goals of the regulations are to prevent, find, and correct leaks and spills due to USTs; to make sure operators of USTs can pay for correction problems; and to make sure states have regulatory programs. The regulations help to avoid the high cost of future clean up and legal costs associated with UST leaks and spills. The major points of UST regulations are listed below.

l) If a UST is installed after December 1988 it must meet requirements for new USTs including spill and overfill prevention, corrosion protection, correct installation, and leak detection.

- 2) USTs installed prior to December 1988 must provide:
 - a) corrosion protection
 - b) spill and overflow prevention
 - c) leak detection
- 3) Corrective action must be taken in response to leaks.
- 4) Closure procedures for USTs must be followed for temporary or permanent closure.
- 5) Owners/operators of USTs are financially responsible for clean up costs due to spills and leaks and for compensating persons who have suffered bodily injury and property damage caused by leaking USTs.

EPA published a booklet to help understand UST regulatory requirements, Musts for USTs, A Summary of the New Regulations for Underground Storage Tank Systems, September 1988.

9.0 DISPOSAL OF HAZARDOUS WASTE

The initial movement of hazardous waste towards ultimate disposal begins at the work station where it is generated and moved to a nearby generator accumulation point. From there, the hazardous waste is transferred to a less than 90 day storage area after 14 days from accumulation start date.

Containerized wastes may then be picked up at the less than 90 day storage area for disposal by DRMO or by a contractor providing recycling services.

HW from the tenant activities and work centers is centrally managed by the HAZMAT Center and stored at the less than 90 day storage area (commonly referred to as the waste yard). On-site waste collection is managed by an internal manifest, referred to as a Pickup Request Sheet (PRS). HAZMAT personnel collect the HW at the work centers upon request and transport the HW to the less than 90 day storage area.

9.1 TRANSFER OF HAZARDOUS WASTE FROM GENERATOR ACCUMULATION POINTS TO LESS THAN 90 DAY STORAGE AREAS

The generator fills out a HW profile sheet (Figure 9.2), if required, with an attached MSDS and the PRS (Figure 9.1) If a lab analysis is required, notify HAZMAT, they will fill out the request form for the PWC lab to perform an analysis.

The following procedures shall be the responsibility of the HAZMAT Center, designated as the central administrator for the coordination of HW management at NAF El Centro.

- 1) The container of hazardous waste shall be safely transported to the Less Than 90 Day Storage Area using appropriate equipment, such as dollies with restraining straps. And as necessary, using only certified drivers and vehicles.
- 2) Hazardous waste containers shall be handled by trained and qualified hazardous waste handlers only.
- 3) The container shall have a completed hazardous waste label indicating the start date of accumulation, the material it contains, and other related generator information. It is the responsibility of the HW Coordinator to ensure that the container has a properly completed label.
- 4) The hazardous waste handler will inspect the container upon its arrival to ensure that it is properly labeled and is in good condition before it may be stored in the less than 90 day storage area.
- 5) The hazardous waste handler will ensure that the Hazardous Substance Management System (HSMS) Waste Stream Classification is completed (Figure 9.3).

9.2 TRANSFER OF HAZARDOUS WASTE FROM LESS THAN 90 DAY STORAGE AREA TO DRMO FOR DISPOSAL

Hazardous waste generated by NAF El Centro is disposed of through a contract administered by the Defense Reutilization and Management Office (DRMO). Prior to 90 days from the date of accumulation (typically every 45 days), HAZMAT completes a Form DD 1348-1/1348-1A for each waste stream (Figure 7.1), and notifies the Environmental Division Hazardous Waste Media Manager, and DRMO for collection of the HW. NAF El Centro assumes the role of generator. The DRMO Contractor manages the transport of waste off site and the ultimate disposition of the waste whether it be recycled or appropriately disposed.

Prior to pick-up, HAZMAT Handler shall insure that the following tasks are completed:

- 1) Disposal procedures for hazardous waste shall be initiated typically within 45 days of the accumulation start date.
- 2) HW is packaged as follows:
 - a) HW must be segregated. Incompatible wastes are not to be placed next to each other, on the same pallet or in the same tri-wall box.
 - b) Use undamaged lids to close and secure containers. If no lids are available, two plastic bags (one inside the other) may be used to close the containers.
 - c) Containers are not to be stacked more than 2 high. Drums containing flammable liquids should not be stacked at all.
 - d) Compatible wastes may be placed in the same tri-wall box, but they must be separated by groups (i.e., paints with paints and oil with oil). The container that the material originally came in is preferred, if practical, for packaging the waste.
 - e) Contact DRMO to schedule acceptance of hazardous waste. After DRMO acceptance, HAZMAT will receive 2 signed copies. The hazardous waste handler must be present for the HW pick-up with the original HW Turn-in Form and one copy. Adequate room must be available for a forklift and truck to remove the HW. The HAZMAT Center will record the weight and price group for each line item. The hazardous waste handler and Site Hazardous Waste Coordinator representatives will both sign and date the Turn-in Forms. HAZMAT retains the original form.
- 3) Insure HW is properly labeled with a waterproof marker providing the following:
 - a) Generator information should include the name and address of the activity (Figure 7.2).
 - b) The contents of the container.

- c) The physical state of the HW (i.e., solid, liquid, slurry, or gas) is recorded.
 - d) Record the Hazard Class of the HW (i.e., ignitable, corrosive, reactive, toxic or listed waste).
 - e) The accumulation start date must be recorded. The accumulation start date is when the generated hazardous waste is first placed in the storage container and is written "Day - spell out month - year".
- 4) Obtain Supporting Documentation.
- a) Material Safety Data Sheets (MSDSs), profile sheets and lab analysis are supporting documentation needed for DRMO to accept certain HW.
 - b) Each profile sheet must be supported with either an MSDS or lab analysis. The "material composition" must be verified. If the contaminants and their approximate compositions are known from user knowledge, it must be stated as such and accompanied with MSDSs for each known contaminate.
 - c) Figure 9.2 shows a blank profile sheet.
 - d) If the processes and waste streams do not change, the lab analysis may be photocopied and reused for that waste for up to one year.
- 5) The Appropriate Turn-In Document
- a) Use the multi-part 1348-1/1348-1A form for HW Turn-in (Figure 7.1).
- 6) Appropriate Handling of Explosive Hazardous Waste
- a) See Appendix G (Explosive Hazardous Waste and Ordnance Derived Waste Management Plan)

10.0 TRAINING

10.1 GENERAL REQUIREMENTS

Personnel involved in hazardous waste management are required to be familiar with the regulations pertaining to hazardous waste management activities, including the handling of hazardous wastes in a safe manner. Regulations requiring training for employees at RCRA hazardous waste permitted facilities are codified in 40 CFR 264.16 and 265.16, 22 CCR 66264.16 and 66265.16, 29 CFR part 1910.120 and 8 CCR Chapter 3.2, Subchapter 1, Article 5).

Employees responsible for preparing HW for shipment off site require sufficient instruction to ensure compliance with 49 CFR 173.1(b).

The standards for appropriate training, with the exception of those required under 29 CFR 1910.120, the Occupational Safety and Health Administration (OSHA) Health and Communication Standard, are not based on hours, but on content applicable to a particular individual's job. Trained personnel must be able to effectively respond to emergencies, inspect and maintain HW facilities for which they are responsible, and properly operate unit equipment. Personnel must also be able to recognize hazards and adequately protect themselves from exposure to substances, which are toxic. Instructors must be knowledgeable in their area of HW management and have received appropriate training to qualify as instructors.

All personnel requiring training must successfully complete training within six months of their employment or assignment to an HW unit, or when assigned to a new position at a HW unit. Their training must also be reviewed with them at least annually. Training and reviews will be conducted by qualified instructors. An employee shall not be permitted to participate in or supervise field activities until they have been trained to a level required by their job function and responsibility.

10.2 TRAINING RECORDS

Records of training for current employees must be kept until the HW unit in which the employee works is formally and permanently closed. Training records on former employees must be kept for at least three years from the date the employee last worked at the facility. These records shall be made available to EPA or the California Department of Toxic Substances Control upon request.

At NAF El Centro, the HW Manager is responsible for the following information:

- 1) the HW unit(s) where the employee is authorized to work;
- 2) job title name, badge number and payroll shop of the employee filling the job;

- 3) position description including the requisite skills, education, other qualifications, and duties;
- 4) documentation that the employee has successfully completed all training (including on the job training);
- 5) any correspondence concerning training waivers.

NAF El Centro's Code 83 is responsible for reviewing these training files every six months to identify employees that have not received proper training.

10.3 TRAINING PLAN FORMAT

The following paragraphs list the job titles of personnel affiliated with HW management and handling. For each job title is a list of the required courses. The estimated number of hours to complete each training course is also given.

10.3.1 Public Works Environmental Division Media Managers

HW Facility Operations Course
Length of course: 32 hours
Frequency of training: one time
Source: off station contract
(may be split into two separate courses)

HW Annual Review and Refresher Course
Length of course: 8 hours minimum
Frequency of training: annually
Source: off station contract

Hazardous Substance Incident Response Management Course
Length of course: 40 hours
Frequency of training: one time
Source: off station contract

Hazardous Waste Manifest Training (required only for employees designated to sign HW Manifests)
Length of course: 2 hours
Frequency of training: one time
Source: in house

10.3.2 HAZMAT Site Manager

HW Facility Operations Course
Length of course: 40 hours
Frequency of training: one time

Source: off station contract

HW Annual Review and Refresher Course

Length of course: 8 hours minimum

Frequency of training: annually

Source: off station contract

Hazardous Substance Incident Response Management Course

Length of course: 40 hours

Frequency of training: one time

Source: off station contract

HW Training Program Development Course

Length of course: 24 hours

Frequency of training: one time

Source: off station contract

10.3.3 Hazardous Waste Handlers or Other Personnel Assigned to HW Operations

HW Facility Operations Course

Length of course: 40 hours

Frequency of training: one time

Source: CECOS or an off station contract

HW Annual Review and Refresher Course

Length of course: 8 hours minimum

Frequency of training: annually

Source: CECOS or an off station contract

HW Management Update/DOT Requirements

Length of course: 1 hour

Frequency: quarterly

Source: Environmental Coordinator

Operating and Emergency Procedures

Length of course: variable

Frequency of course: one time

Source: supervisory or co-worker with a minimum of one year experience

Hazardous Substance Incident Response Management Course

Length of course: 40 hours

Frequency of training: one time

Source: off station contract

Hazardous Waste Manifest Training (required only for employees designated to sign HW Manifests)

Length of course: 2 hours
Frequency of training: one time
Source: in house

10.3.4 Hazardous Waste Coordinators

HW Facility Operations Course

Length of course: 32 hours
Frequency of training: one time
Source: off station contract

HW Annual Review and Refresher Course

Length of course: 8 hours minimum
Frequency of training: annually
Source: off station contract

HW Management Procedures at NAF El Centro

Length of course: variable
Frequency of training: one time
Source : supervisor of individual

10.3.5 Users of Less Than 90 Day Accumulation Areas

HW Management Procedures at NAF El Centro

Length of course: on the job
Frequency of training: repeated as necessary
Source: supervisor of individual

10.4 TRAINING FOR EMERGENCY SPILL RESPONSE

The Naval On-Scene Commander is responsible for directing all phases of the On-Scene Operations Team (OSOT) training. The training should consist of classroom training and simulated spill exercises.

10.5 IMPLEMENTATION OF THE TRAINING PROGRAM

All new personnel will complete this training program within six months of assignment of HW storage management related assignments or within six months of their date of employment, whichever is later. No employee hired or assigned to work at this facility will work unsupervised prior to completion of the training program.

Records documenting the job title, job description, name of employees, and completed training programs will be maintained on site by the HW Manager and retained until closure of the facility.

11.0 REPORTING AND RECORDKEEPING

RCRA specifies certain reports and records that may be audited by federal or state officials and therefore need to be easily accessible. This information must be separated from purchasing, inventory and maintenance records.

Records will be permanent; consequently entries on the forms will be made with indelible ink.

Once made, these records must be carefully preserved and filed where they may be located rapidly. This requires establishing a filing system that will be used and understood by everyone concerned with making and using records. The key is that completed forms must be filed promptly and with care.

Results of laboratory analyses of waste streams will always be pertinent and should be kept indefinitely. For some types of records, official approval is required before they can be discarded or destroyed. The fact that old records are not consulted every day in no way lessens their potential value.

11.1 HAZARDOUS WASTE STORAGE RECORDS

The information that should be retained in the storage record includes the following:

- a. Generator's name
- b. Waste descriptions
- c. Waste quantities and containers
- d. Accumulation start date
- e. Date shipped to the TSD facility

11.2 INSPECTION RECORDS

Inspection of the 90 day accumulation areas will be conducted by the assigned HW Coordinator.

A copy of the completed inspection forms will be forwarded to and kept by the base HW Media Manager. All findings are retained as part of the operating record and will include the following:

- Work Center name
- Inspection date
- All Inspection Criteria
- Conditions found
- Corrective action, if necessary

Sample HW facility inspection record forms are provided in Section 7 and Section 8.

11.3 HAZARDOUS WASTE REPORTS

The HW Manager will file an annual report to the state describing its activities in the generation, storage, and processing of HW. This report is due each February for the preceding calendar year.

The section of the report on generation and off site disposal of HW will include the following information:

- Transporters used
- Facilities to which wastes were sent
- Waste descriptions
- DOT hazard classes
- EPA waste numbers
- Quantity of waste (weight)

The section of the report concerning storage of HW will include the following information:

- Facility EPA identification number, name, address
- Calendar year covered
- Description and quantity of wastes stored
- Types and dates of storage
- Signed certification

The annual report will be filed using standard state forms. Copies of these reports will be retained by the Environmental Coordinator for three years, then archived.

An annual report is also due to the Naval Facilities Engineering Service Center (NFESC). Details of the report and sample form can be found in the acquired software package.

11.4 TRAINING RECORDS

Training records for personnel will be kept by the HW Media Manager. These records refer to training in HW handling and management procedures that were described in Section 10.0. The Hazardous Waste Handler/Coordinator Appointment Letter and Job Description can be found in Appendix D. Records will be maintained for each individual employee and must include the following information:

- Job title
- Name of employee
- Job description
- Description of training

Pertinent training records on personnel currently involved in managing NAF El Centro HW will be kept until the facility is closed. The records of employees that leave the facility should be retained for three years from the date they last worked at the facility.

11.5 MEDICAL SURVEILLANCE PROGRAM RECORDS

Records will be kept by the Environmental Coordinator on the medical surveillance of the workers involved with HW management. These records will be maintained for each individual employee and must include the following information:

- Job Title
- Date of qualification physical examination
- Date of all check-up examinations
- All work restrictions based on individuals health
- Date of check-out examination

11.6 HAZARDOUS WASTE MANIFESTS

The RCRA manifest system is established to assure that HW designated for delivery to offsite treatment, storage or disposal facilities actually reaches its destination. The central element of the system is the "manifest", a control and transport document that accompanies the HW shipment from its point of generation to its point of disposal destination.

All shipments of HW over public highways must be accompanied by a RCRA Uniform HW Manifest (EPA Form 8700-22), and if necessary, the EPA continuation Form 8700-22A. If the command is responsible for shipping HW off base, ensure the waste is accompanied by a manifest. If a contractor is transporting the waste, confirm that the waste is manifested correctly. (Appendix F contains a copy of the manifest forms and instructions from 22 CCR 66262 Ch. 12)

Currently, manifesting is handled by the HW Media Manager (Code 83). HW disposal procedures prescribed by the HW Media Manager are outlined in section 9.

12.0 HAZARDOUS WASTE ANALYSIS PLAN AND LAND DISPOSAL RESTRICTION REQUIREMENTS

12.1 REQUIREMENTS FOR A WASTE ANALYSIS PLAN

The California Environmental Protection Agency (Cal/EPA) General Facility Standards for operators of hazardous waste facilities require a Waste Analysis Plan as stated in Title 22 CCR section 66264.13. This regulation requires owners and operators of all facilities that transfer, treat, store or dispose of any hazardous waste to develop and follow a written Waste Analysis Plan which describes the procedures that the owner or operator will carry out before transferring, treating, storing or disposing of any HW. In addition, Cal/EPA Standards Applicable to Generators of HW require anyone who generates a waste to determine if that waste is a HW as stated in 22 CCR 66262.11 (40 CFR 262.11). This regulation requires generators of wastes to determine if the waste is listed as a hazardous waste or if the waste is hazardous by testing the waste for hazardous characteristics. Finally, Cal/EPA Land Disposal Restrictions require generators of HW to test their waste or use knowledge of the waste to determine if the waste is restricted from land disposal as stated in 22 CCR 66268.7 (40 CFR 268.7).

12.2 WASTE ANALYSIS PLAN PROCEDURES

The composition of a waste must be known prior to its submittal to DRMO for disposal. Other information required include the determination of the wastes hazard class (ignitable, corrosive, reactive, toxic or listed waste) and physical state (solid, liquid or gas). DRMO does not handle radioactive waste, Otto fuel waste, explosive waste, classified waste, infectious/medical waste, gas cylinders (aerosols excepted), disposable refrigerant freon cylinders, sewage, or trash (See Appendix C). Contact HAZMAT for information on disposal of HW not handled by DRMO.

Material Safety Data Sheets (MSDSs), waste material profile sheets (Profiles) and laboratory analyses are the supporting documentation required by DRMO before waste may be accepted. See section 9.2 for disposal procedures.

12.3 LAND DISPOSAL RESTRICTION (LDR) ANALYSIS REQUIREMENTS

In accordance with 22 CCR 66268.7, generators must test a sample of the waste (using methods of 22 CCR 66268.41) or use production knowledge of the waste to determine if the HW is restricted from land disposal.

If a generator determines that the waste is a restricted waste and the waste does not meet the treatment standards, the generator must send a written notification to the facility for which the waste is being sent. The notice must include the following information:

- 1) EPA HW number or CWC and Non-RCRA HW listed in section 66268.29
- 2) Corresponding treatment standards and applicable prohibitions

- 3) Manifest number associated with the shipment of waste
- 4) Waste analysis data, where available

If a generator determines that the HW is a restricted waste and that waste can be land disposed without further treatment, a notice and certification statement must be sent with the waste to the disposal facility stating that the HW meets the treatment standard criteria. The notice must include the same information, (1) thru (4), listed above. The certification must be signed by authorized personnel and include the certification statement found in 22 CCR 66268.7 (a)(2)(B). "I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification, that the waste complies with the treatment standards specified in CCR Title 22, division 4.5 chapter 18, article 4 and article 11 and all applicable prohibitions set forth in CCR Title 22, section 66268.32 or RCRA section 3004(d) (42 U.S.C. section 6924(d)). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment."

If a generator's HW is subject to an exemption from a prohibition on the type of land disposal method utilized for the waste (such as, but not limited to, a case by case extension under 22 CCR 66268.5, a nationwide variance under article 3, or an extension to the implementation date under the Health and Safety Code section 25179.7), with each shipment of waste, the generator must submit a notice to the facility receiving the waste and must include information listed above in (1) thru (4) as well as the date the waste is subject to the prohibitions.

If a generator is determining that the waste is restricted solely on the knowledge of the waste stream, all supporting data used to make that determination must be maintained on site in the generator's files.

Hazardous Waste Coordinators shall retain on site a copy of all notices, certifications, waste analysis data and other documentation for at least five years from the date that the waste was sent to the TSD facility. The retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Department or USEPA Administrator.

13.0 HAZARDOUS WASTE CONTINGENCY PLAN

NAF El Centro has a separate HW contingency plan for the Less Than 90 Day accumulation areas. The NAF El Centro Hazardous Waste contingency Plan is implemented by NAFELCINST 5090.4B and is distributed to all users of hazardous materials and generators of hazardous waste. For more information contact the base HAZMAT Center or the Public Works Environmental Division.

14.0 CLOSURE PLAN

NAF El Centro does not own or operate a permitted TSD facility, and as such, does not require a closure plan.

15.0 HAZARDOUS WASTE (HW) MINIMIZATION TECHNIQUES AT NAF EL CENTRO

15.1 REGULATIONS

The EPA (RCRA), the Navy and the State require that each generator of HW develop a Hazardous Waste Minimization Program (HAZMIN Program). Techniques for HAZMIN include process changes, changes in process materials, operational improvements, administrative steps, recycling and treatment to reduce the quantity or hazardous properties of wastes.

15.1.1 RCRA Requirements

When a Uniform Hazardous Waste Manifest is prepared by generators, by signing the manifest as required in 40 CFR 262.23(a)(1), the generators also certifies that a program is in place to reduce the volume and toxicity of generated waste.

15.1.2 Navy Requirements (OPNAVINST 5090.1B)

Naval activities shall reduce hazardous waste generation and disposal by implementing a combination of the following:

- 1) Reduce or eliminate HW at the source by changing the process, requirement or material used
- 2) Recover, reuse or recycle hazardous material
- 3) Treat HW to reduce the volume or make it less toxic
- 4) Reduce waste generated from expired shelf-life materials
- 5) Dispose of waste as a last resort.

15.1.3 State of California Requirements

The Source Reduction and Hazardous Waste Management Review Act of 1989, more commonly referred to as Senate Bill 14 (SB 14), requires generators of HW to identify their major waste streams (waste streams that exceed 5% of the total waste generated in one year) and evaluate source reduction measures for those waste streams. The results are to be documented in two reports, the Source Reduction Evaluation Review and Plan Summary and Hazardous Waste Management Performance Report. The reports must be available on site for state and local regulators to review upon request. Reports are to be updated every four years.

Descriptions of specific waste minimization measures which have been successfully implemented at NAF El Centro and additional minimization techniques are outlined below. Of the five source reduction measures listed above, product reformulation and process change are not generally applicable to the Activity. However, input change, operational improvement, and administrative changes may be beneficial and are discussed in the following. Recycling and treatment are also discussed.

15.2 HAZMIN techniques implemented at NAF El Centro:

15.2.1 Aircraft Intermediate Maintenance Department (AIMD)

- PD-680 off site recycling (Safety Kleen contract)
- Use of High Volume Low Pressure (HVLP) spray gun

15.2.2 SQUADRONS

Segregation Techniques:

Segregation is vital to an adequate HAZMIN program. Without proper segregation of HW streams, recycling and reclamation of wastes are impossible.

Each squadron has properly labeled, specified 55-gallon drums for individual HW streams.

- JP-8 fuel waste - sold to recycling contractor. PD-680 - off site recycling (Safety Kleen contract).
- Hydraulic Fluid/Freon waste disposed as HW. Used Oil sold to recycling contractor.

It is important to note that in a segregation program, hydraulic fluid/Freon waste must be segregated from other oil wastes. If oil/petroleum products are contaminated with halogenated solvents they cannot be recycled; therefore, by adding the patch test waste to the uncontaminated waste oil limits the recycling capacity of the oil. In this case, oil is sold to an off site recycler which generates revenue for the Morale, Welfare, and Recreation (MWR) fund. If this oil is contaminated, NAF El Centro not only loses those funds, but must pay for disposal of the oil as HW.

Segregation of HW streams is enforced through the HW Coordinator of each generating unit. Anyone needing to dispose of waste in the locked 55 gallon drums at the accumulation sites must:

- 1) pick up the drum lock key from maintenance control or a supervisor;
- 2) record the information on the Daily HW Accumulation Site Log.

The locked waste drum system is significant for two important reasons:

- 1) it promotes proper segregation techniques;
- 2) it gives an accurate record of disposed HW.

15.2.3 Other Techniques

Recycling/Re-use: Numerous types of hazardous waste (e.g. oils, solvents) may be re-used or recycled at the process, command hazardous waste site, or by a contractor at an offsite location. Metal or plastic containers less than 5 gallons in capacity, holding hazardous material may also be recycled as scrap, pending *ALL* the material or residue has been removed. Solvents could be re-used in cleaning or degreasing process, which may only require surface preparation prior to another cleaning or stripping process.

Depending upon the application, oil-based paints may be replaced with low volatile organic compound (VOC) paints and latex- or water-based paints. In addition to reducing the amount of HW generated, this type of material substitution will reduce the amount of used thinner, may extend the life of paint brushes, and will reduce VOC emissions at the Activity. Cost to convert to water-based paint is minimal. NAF El Centro has evaluated and implemented this option for some applications.

Use of an epoxy primer and a polyurethane topcoat can be replaced with a unicoat paint, which is a self-priming topcoat for industrial applications. Unicoat is lead and chrome free. Unicoat reduces VOC emissions and hazardous waste generated and reduces cost of raw materials. This option applies to certain applications only.

Evaluating particular operations that generate significant amounts of HW can often result in innovative ways to minimize the waste streams. NAF El Centro designed a baffle system for the wash rack bays, which allowed for the segregation of the non-hazardous dirt (introduced by the street sweepers) from the other hazardous waste. This greatly reduced the amount of HW being generated and also reduced maintenance costs.

Confirming that a waste stream and/or all components of the waste stream meet the definition of a HW waste is a potential way to minimize HW. As previously discussed, the definition of HW, especially RCRA listed wastes are not always easily interpreted. One should make sure that a particular waste truly meets the precise HW definition before identifying it as such. In some cases, this may require additional and/or periodic analysis to document that the waste is and continues to be non-hazardous. An example of this at NAF El Centro was the determination that the paper in the paint spray booths, which was being disposed of as HW, did not contain enough paint residue to meet the definition of hazardous. The paper was then segregated out of the HW, thus minimizing the amount of HW being generated by the paint booths. Another example that is currently being implemented by NAF El Centro is to conduct further analysis on some of the potentially HW sludges to confirm whether or not they are actually hazardous.

Additional labeling of containers are operational improvements, which may help to further ensure the segregation of wastes at the area of operation and generation.

Coordinated scheduling of specific activities may help to reduce the generation of waste. For example, if painting of multiple devices is scheduled for the same day, the quantity of excess (unused) paint in cans may be reduced.

Purchasing in small quantities whenever possible (a Navy policy) also reduces waste because the entire container may be used, and unused materials are avoided. The HAZMAT Center generally issues a one-day supply of HM for the work center; therefore excess HM is not acquired and stored. When it is more economical to purchase certain supplies such as aircraft cleaner in bulk quantities, the HAZMAT Center minimizes waste by dispensing the materials to the individual commands and work centers in small containers on an as-needed basis.

Employees who are knowledgeable of the processes that generate HW are the best candidates for providing waste minimization suggestions that may add facility to the task and reduce waste generation. Therefore, a suggestions program is an administrative change, which will facilitate waste minimization.

Education of employees can reduce HW generation. Publishing the generation amounts and minimization measures for HW per command or work center is helpful in educating and in creating friendly competition among commands or work centers.

Training command personnel on basic material handling practices can result in immediate and direct reductions of waste generation and cost savings. This can involve taking steps as basic as compliance with existing hazardous material or waste management regulations, the operational capacity and capabilities of different types of work-centers equipment (presses, conveyers, forklifts etc.) to prevent spills or overfills during maintenance, to keeping containers closed to prevent the deterioration or spillage of the material.

In-house source reduction policies, such as the policy described in OPNAVINST 5090.1B, which is reiterated at the beginning of this section, are essential in promoting the reduction of waste.

15.3 MANAGERIAL ASPECTS

15.3.1 Hazardous Materials (HM) Ordering/Procurement-ordering of HMs generates large volumes of HW because of shelf life expiration. HW can be minimized by:

- 1) Ordering one particular kind of hazardous material with one stock number from Supply.
- 2) Educating squadrons about HM over ordering.

15.3.2 HM Tracking System

A tracking system is necessary to allow the generating units to calculate how much HM is being ordered, how much HM is being used to complete a task, and how much is being wasted.

NAF El Centro has established the Hazardous Substances Management System (HSMS) for cradle to grave tracking of Hazardous Materials/Hazardous Waste.

15.4 Command Support

NAF El Centro's HAZMIN Program is made up of contract (Pacific Environmental Services) employees who are dedicated to making the program work successfully.

Personnel Assignments:

HW Minimization Coordination – Environmental Department

HW Coordinators - Environmental Officers are assigned at each squadron and tenant activity

APPENDIX A

ACRONYMS

APPENDIX B

ENVIRONMENTAL DEFICIENCY FORM

APPENDIX C

DRMO TURN-IN PROCEDURES

APPENDIX D

**HAZARDOUS WASTE HANDLER/COORDINATOR APPOINTMENT
LETTER AND JOB DESCRIPTION**

APPENDIX E
CONTAINER SPECIFICATIONS

APPENDIX F

MANIFEST FORM AND INSTRUCTIONS

APPENDIX G

**EXPLOSIVE HAZARDOUS WASTE
AND ORDNANCE DERIVED WASTE MANAGEMENT PLAN**

APPENDIX H

HAZARDOUS WASTE TECHNICAL GUIDANCE DOCUMENTS

CONTAMINATED CONTAINERS

HAZARDOUS WASTE GUIDANCE DOCUMENT # 1

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

- All containers or liners that previously contained hazardous materials must be **empty** before being placed into recycling bins or the trash.
- Containers or liners include drums, bottles, buckets, plastic bags, boxes or similar items.
- Empty; means that **all** of the remaining material must be removed by chipping, scraping, pumping or draining. Rinsing is not acceptable for it creates more waste.
- Empty containers or liners less than 5 gallons may be placed into scrap metal or recyclable plastic bins.
- Containers or liners greater than 5 gallon must be marked **empty** and dated with the date that the container or liner became empty.
- For containers over 5 gallons a record must be maintained of the person or vender that the container was sent to, turn-in records will work when containers go to P.W.C.
- Porous containers such as cardboard, paper or fabric must be disposed of as hazardous waste if they come in contact with and absorb hazardous materials.
- Compressed gas cylinders are empty when they reach atmospheric pressure through normal operations, venting is not authorized.
- Household materials (cleaners or disinfectants) containers less than 5 gallons are exempt and empty when they are rinsed and the rinse water is used in the cleaning process.

Note: If all of the residual material can not be removed or the container or liner held acute or extremely hazardous material, then they must be disposed of as hazardous waste. For further information or questions contact the environmental office @ 524-6351.

HAZARDOUS MATERIAL MANAGEMENT

HAZARDOUS WASTE GUIDANCE DOCUMENT # 2

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

- Hazardous Material Business Plans are required for shops that store, handle or use any hazardous material in volumes greater than 200 cubic feet of a compressed gas, 500 pounds of solid or 55 gallons of a liquid.
- Business Plan refresher training must be conducted and documented annually.
- Newly assigned personnel must be trained on the Business Plan prior to the annual refresher review.
- Ensure all containers are identified with readable labels or markings, replace any labels that are unreadable, torn, faded or missing.
- Keep all containers closed with proper fitting lids, seals or gaskets.
- Replace or repack any containers that are leaking, in poor condition, or that have torn bags or boxes.
- Separate ignitable, corrosive, or oxidizing material in storage lockers or cabinets.
- Use only hazardous material that has been approved on your A.U.L.

LEAD PAINTED CONSTRUCTION DEBRIS

HAZARDOUS WASTE GUIDANCE DOCUMENT # 3

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

- Painted construction debris is not considered to be hazardous waste if the paint is not peeling, flaking or chipping and the total lead concentration is less than 1000 mg/kg.
- Construction debris may be transported to a landfill as solid waste in containers or bins that have covered or that have tarps.
- Any paint (chips or dust) that separates from the debris must be collected and evaluated to determine if the paint is a hazardous waste.
- Paint chips or dusts can be determined if they are hazardous waste by having a lab analyze a sample using a Title 22 metals test method.
- Most commonly, the metals lead, chromium, nickel and zinc cause paints to be considered hazardous waste.

Note: If paints or debris are hazardous waste they must be managed and disposed of accordingly and **not** sent to the landfill for disposal. If you are unable to determine if your painted debris is hazardous contact the Regional Environmental Department for assistance at 524-6351.

** California Health & Safety Code 25157.8 specifies that lead containing debris in excess of 350 mg/kg but less than 1000 mg/kg must be managed as a waste with special provisions and restrictions. However, lead-containing debris between these ranges are not hazardous wastes.

PCB MANAGEMENT

HAZARDOUS WASTE GUIDANCE DOCUMENT # 4

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

- PCBs become regulated as **hazardous waste** when the concentration is equal to or greater than 5 ppm (parts per million) in liquids and 50 ppm in non-liquids.
- PCB concentrations of 5,000 ppm or greater is considered extremely hazardous waste.
- Transformer cases or other similar items **must** be managed as hazardous waste if the material they contained had concentrations of PCBs greater than or equal to 5 ppm.
- PCB electrical equipment (capacitors, light ballast or fixtures) with a concentration of 5 ppm or greater of PCBs are to be managed as hazardous waste.
- Fluorescent light ballast that have **no** concentration level stated or are **not** marked "**PCB Free**" or "**NO PCB's**" are to be considered and managed as **hazardous waste**.

Note: These represent California standards only. For activities outside California refer to 40 CFR Part 761.

USED ABSORBENT MANAGEMENT

HAZARDOUS WASTE GUIDANCE DOCUMENT # 5

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

- Absorbent materials are considered only **contaminated** when it comes in contact and absorbs a hazardous material or substance.
- Contaminated absorbent may be re-used to clean up another mishap where a similar material or substance was spilled (i.e. POL's).
- Contaminated absorbent materials are classified as **hazardous waste** when.
 - It becomes unable to absorb the spilled substance or material.
 - Becomes saturated with a spilled substance or material.
 - Reaches the concentration level that exceeds the regulatory limit for that specific material or substance.
- Specific hazardous materials such as battery acid, hydrogen peroxide, or pesticides should be promptly disposed of as hazardous waste.
- Absorbent materials, which absorb a hazardous waste, **must** be managed as **hazardous waste**.

Note: If a shop consistently generates (produces) the same type of absorbent waste-streams (type of waste) the initial testing of a representative sample may be used as a basis in determining when or if the used absorbent reaches the concentration level and becomes hazardous waste.

SPENT ALKALINE DRY CELL BATTERIES

HAZARDOUS WASTE GUIDANCE DOCUMENT # 6

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

- Spent or discarded alkaline dry cell batteries are to be managed as a **hazardous waste** under the provisions of Section 4 (Universal Waste Management) of this plan.
- Spent or discarded alkaline batteries are not to be placed or disposed of into the trash.
- All batteries regardless of type shall be stored, accumulated or transferred in a manner that minimizes the possibility of fire, explosion or any release of hazardous substances into the environment.

Note: All other types of batteries (nickel-cadmium, lithium, mercury, zinc chloride etc..) with the exception of automotive type lead acid, shall similarly be managed and disposed of as hazardous waste, or sent to a authorized recycling facility.

USED OIL MANAGEMENT

HAZARDOUS WASTE GUIDANCE DOCUMENT # 7

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

- **USED OIL includes:** engine, transmission, gear/gearbox, hydraulic, turbine, bearing, refrigeration, compressor, transformer (electrical) or metal-working oils.
- **USED OIL does not include:** antifreeze, brake fluids, solvents, fuels, grease, tank bottoms, oily waste water or oils contaminated with halogens (1000ppm) or PCB's (5ppm), with flash points less than 100 degrees F or mixed with any hazardous waste.
- Used oil in any quantity shall be labeled, stored disposed or otherwise managed as **hazardous waste** in accordance with the provisions of Section 3 of this plan.
- Used oil should be tested annually to determine proper waste determine and profiling.
- Above ground tanks or containers accumulating used oil and fill pipes that transfer used oil to underground tanks shall be labeled "Used Oil - Hazardous Waste", initial accumulation start date and the name and address of the generator.
- Commands recycling used at their location must follow the hazardous waste recycling requirement of Section 3-9 of this plan.

Note: used oils may be managed as recyclable material provided that the provisions of the California Health and Safety Code, beginning with Section 25250.1 or 25143.2 for onsite recycling are followed, with all certification and record keeping requirements are met.

AUTOMOTIVE TYPE SPENT LEAD ACID BATTERIES

HAZARDOUS WASTE GUIDANCE DOCUMENT # 8

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

- Persons who generate, store or transport (at one time) 10 or fewer batteries in one year are exempt from hazardous waste generator, storage and transportation requirements for the management of automotive type lead acid batteries.
- Persons that accept batteries for exchange or partial exchange are exempt from hazardous waste generator, storage and transportation requirements for the management of lead acid batteries unless:
 - * More than one ton of batteries are stored at the same location for more than 180-days or;
 - * Less than one ton of batteries are stored at the same location for more than one year or;
 - * The person removes the electrolyte
- Generators shall use a "Bill of Lading" or "Manifest" to record shipments of 10 or more lead acid batteries to a person or persons who stores, reuses, recycles or reclaims batteries.
- Generators must retain copies of the manifests or bill of lading for shipments of lead acid batteries for a period of 3 years.
- Batteries are considered damaged if they are cracked, leaking acid or missing one or more caps.
- Damaged batteries must be stored in non-reactive, structurally secure, closed container.
- Containers holding one or more damaged batteries must be labeled with the date when the first battery was placed into that container.
- All container labels shall be written in indelible ink, paint or other weather resistant materials.
- Containers holding damaged batteries must be managed in a manner that prevents the container from tipping, spilling or leaking.

USED OIL FILTERS

HAZARDOUS WASTE GUIDANCE DOCUMENT # 9

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

- Disposal of used oil filters in the trash or at municipal landfills is **prohibited**.
- Used oil filters must be stored, labeled and managed as a hazardous waste **or** must be managed to meet **ALL** the following requirements.
- Used filters must not contain any free flowing oil - (free flowing means a continuous stream, not drop by drop)
- If the filter has a device that impedes drainage, that device must be manipulated to allow the oil to be removed.
- Containers must be labeled “**Drained Used Oil Filters**”, the initial accumulation start date **or** the date that the filters were first received.
- Filters must be stored in containers that are rain-proof, non-leaking and have tightly sealed lids.
- Maximum storage limit is up to 1 year for less than 1 ton of drained filters or up to 180 days for greater than 1 ton.
- If filters are transported off-base a “Bill of Lading” or Hazardous Waste Manifest must be used and retained for **3 years** at the generator location. If filters are turned-in to PWC turn-in documents must be maintain for 3 years.

PROCESS ASH RESIDUALS

HAZARDOUS WASTE GUIDANCE DOCUMENT # 10

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

- Combustion operations such as baking, or burning-off of paints or other coating that leaves residual ash may need to be managed as **hazardous waste**.
- Ash residuals may contain heavy metals from the burned-off coating (lead, chrome, and zinc) in concentrations that exceed regulatory limits for hazardous waste. In addition, dioxins or vinyl chlorides may be present if plastics (PVC) or other chlorinated compounds were placed in the incineration process.
- Residual ashes need to be analyzed to determine if regulatory thresholds have been exceeded.
- When analyzing samples, request Title 22 metals and corrosivity. If dioxins are believed to be present, check with the lab representative for the proper analysis.
- After the ash has been analyzed and determined not to be a hazardous waste it may be disposed of as solid waste (trash).
- Lab analysis should be retained for a minimum of 3 years.

Note: contact the Regional Environmental Department at 524-6351 or the local Regional Compliance Team for assistance in determining if your ash is hazardous waste.

EXPIRED CHEMICALS AND MATERIALS

HAZARDOUS WASTE GUIDANCE DOCUMENT # 11

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

- Hazardous materials or chemicals become regulated as **hazardous waste**:
 - When it is **discarded**, regardless of its expiration date, or
 - When the material poses a threat to human health or the environment, and the material is mislabeled or inadequate labeled (unless corrected within **10 days**) or the packaging or container is damaged (unless corrected within **4 days**) regardless of the expiration date.
- When the material or chemical is a “retrograde material” (will not be used or distributed for its original or intended purpose and has exceeded the specific or recommended shelf life after the following date:
 - **One year** after the date when the material becomes a retrograde material or chemical.
- After one year has passed, the material or chemical is a “recyclable material” which must be managed as a hazardous waste unless it falls into a provision of the health and safety code for reuse or recycling.
- See Section 3-9 of the Regional Hazardous Waste Management Plan (Recycling) and Guidance Document # 2 (Material Management).

Note: used or excess hazardous materials or chemicals, expired or not, must never be disposed of in any solid waste (trash) containers or receptacles.

SCRAP METAL PRODUCTS

HAZARDOUS WASTE GUIDANCE DOCUMENT # 12

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS AND POLICIES

- Scrap metal is defined as one or more of the following:
 - Manufactured solid metal objects and products.
 - Metal workings, including cuttings, trimmings, grindings, shavings or sandings.
 - Solid metal residues of metal products.
 - Empty paint cans or other empty containers meeting the requirements of Technical Guidance Document # 1

- Scrap metal does *NOT* include the following:
 - Spent lead-acid batteries, elemental mercury or water reactive metals such as sodium, potassium and lithium.
 - Magnesium or Beryllium borings, trimmings, grindings, shavings or sandings.
 - Metals contaminated with oil that is a hazardous waste and is free- flowing.
 - Waste metal products or byproducts that are sludge's, fine powders, semi-solids or in liquid solutions that are hazardous wastes.

Note: metals not meeting the definition of "scrap metal" must be managed and disposed of as hazardous waste.

NEW

CATHODE RAY TUBES (CRT's)

HAZARDOUS WASTE GUIDANCE DOCUMENT #13

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

- Spent, discarded or unserviceable CRT's not being recycled, computer monitors, vacuum tubes, television picture tubes and similar type CRT's are considered **hazardous waste** unless lab analysis or other documentation determines otherwise.
- Depending on the size and year manufactured, CRT's can contain between 1.5 and 6 pounds of lead, lead compounds (lead oxide) or lead containing materials (leaded glass).
- CRT's must be handled, stored or otherwise managed in a manner to reduce the liability of being broken or otherwise damaged.
- Broken CRT's shall be labeled and managed as hazardous waste and **not** discarded into the trash or other solid waste receptacles.
- Intact, spent or discarded CRT's shall be labeled "Waste CRT's", "Used CRT's" or "Universal Waste-CRT's" with the accumulation start date. (Note: a hazardous waste label is not required to be used for intact tubes.)
- CRT's being recycled or disposed of shall not be accumulated at the generator location for longer than 90-days.

LATEX PAINT AND DEBRIS

HAZARDOUS WASTE GUIDANCE DOCUMENT #14

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

- **Non-hazardous** debris contaminated with **dried latex paint** may be managed as solid waste and disposed of into trash receptacles.
- For the propose of this document non-hazardous debris would be cardboard, drop cloths, clothing, rags, tape, roller pad, brushes, paint trays and similar items not contaminated with any other non-latex paints, oils, solvents or hazardous waste.
- Paint brushes, roller pads or other painting equipment containing **latex paints** may be rinsed and cleaned with water into deep-sinks that discharge into industrial sewers.
- Rinsing out or cleaning paint brushes, roller pads or other painting equipment on the ground or into storm drains is strictly prohibited.
- Latex paint chips shall be managed as **hazardous waste**. These chips may have absorbed or come in contact with other contaminates that would cause them to be classified as hazardous.
- Discarded cans or containers of latex paints must be managed in accordance with **Guidance Document #1 (Contaminated Containers)**.
- Liquid or semi-solid latex paint or containers holding such paint **shall not** be placed, poured or otherwise discarded into trash containers or dumpsters.

NOTE: Check all latex paints MSDS, if the paint being applied contains fungicides or algacides this guidance does not apply. Manage all residual discarded paints, debris or contaminated items for these paints as hazardous waste.

FLUORESCENT & HIGH INTENSITY DISCHARGE LIGHTING WASTES

HAZARDOUS WASTE GUIDANCE DOCUMENT # 15

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

- Spent, intact fluorescent light tubes and high intensity discharge (HID) lamps (mercury, sodium or metal halide) not being recycled, shall be managed as **hazardous waste**.
- Broken spent fluorescent tubes and HID lighting wastes shall be managed as hazardous waste.
- Intact tubes or lamps shall be managed in a manner that minimizes the possibility of being broken or otherwise damaged.
- Intact tubes and lamps being recycled shall be labeled “Waste Lamps” or “Used Lamps” with an accumulation start date. Broken lamps shall be labeled “Hazardous Waste”.
- All lamps or tubes being recycled or disposed of as hazardous waste shall not be accumulated at the generator location for longer than 90-days.
- Fluorescent tubes or HID lamps broken or intact shall **NOT** be disposed of into trash containers, dumpsters or other solid waste receptacles unless specifically authorized by CNRSW Hazardous Waste Program Office.

NOTE: The long standing DTSC Policy governing the disposal of 25 fluorescent tubes per day in dumpsters **HAS BEEN REPEALED**. Any disposal of above mentioned light tubes or lamps, as solid waste is a violation of California Environmental Law.

ASBESTOS CONTAINING MATERIALS

HAZARDOUS WASTE GUIDANCE DOCUMENT # 16

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

- Asbestos Containing Materials (ACM) include but not limited to: floor tile, roofing materials, acoustic materials, pipe, boiler, and duct insulation, and ceiling panels.
- Materials containing “friable asbestos” in concentrations equal too or greater than 1% must be managed as hazardous waste.
- Friable means; any ACM that may be crumbled, crushed, pulverized or reduced to a powder or similar type debris by hand pressure.
- ACM’s containing friable asbestos in concentrations less than 1% may be sent to municipal solid waste landfills for disposal. (Pending landfill approval)
- Under CERCLA any person or operation that releases 1 pound or more of friable asbestos into the environment must submit to regulatory reporting requirements within 24 hours.
- For demolition & restoration operations, determine the quantity and type of ACM (friable/non-friable) before stating the project and retain the documentation for your records.

NOTE: All ACM (friable or non-friable) sent to municipal solid waste landfills must be accompanied by a special waste manifest, lab analysis or self certification (depending on the type of asbestos) and be pre-approved by landfill personnel before the shipment arrives. For further information regarding asbestos disposal at municipal landfills contact CNRSW Hazardous Waste Program Office at 524-6351

DUMPSTER & LANDFILL RESTRICTIONS

HAZARDOUS WASTE GUIDANCE DOCUMENT # 17

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

THE FOLLOWING IS A NON-INCLUSIVE LIST OF ITEMS, MATERIALS OR PRODUCTS THAT ARE PROHIBITED FROM BEING PLACED INTO DUMPSTERS DESTINED FOR LANDFILLS.

- Pesticides, Herbicides and Fertilizer.
- OBA's, EEBD's, Oxygen Candles or igniters.
- PCB contaminated or containing items or products.
- Non-empty containers having Paints, POL's or Adhesives.
- Aerosol Containers
- Paint Chips & Paint Contaminated Debris.
- Batteries (Dry Cell, Nickel-Cadmium, Mercury, Lead Acid etc...).
- Fluorescent, Mercury Vapor, Metal Halide and similar type lamps or tubes.
- Cathode Ray Tubes (CRT's).
- Wood that has been Treated, Painted or contains cresol.
- Oil, POL Contaminated Rags and Debris.
- Medical Wastes
- Asbestos and Asbestos Containing Materials.
- Abrasive Blast Media and Debris.
- Used Oil Filters
- Used Fuel Filters
- Terrazzo contaminated with paint. (pending analytical results)
- Scrap Metal (cuttings, borings, shavings & grindings)
- Construction & Demolition Debris
- Toner Cartridges
- Solvent Contaminated Rags & Debris
- Any wastes, materials or items that contain liquids

If you have any questions regarding whether the items or materials being placed into dumpsters are authorized for disposal at solid waste landfill, contact your CNRSW Base Compliance Team or CNRSW Hazardous Waste Program Office at 524-6351.

TREATED & PAINTED WOOD

HAZARDOUS WASTE GUIDANCE DOCUMENT # 18

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

TREATED WOOD

- Prior to disposal, treated wood (wood which is pressure / chemically treated or contains cresols such as pier pilings) must be analyzed (via core sample) to determine if it meets current landfill acceptance criteria or be managed as a “SPECIAL WASTE”.
- Analytical results from treated wood are required to be forwarded to CNRSW Hazardous Waste Program Office for review and submission to appropriate landfill personnel for approval.
- Once approved (3-5 days after submittal to the landfill authorities) treated wood may be transported for disposal using a “Special Waste Manifest” (provided by the landfill) and solid waste disposal coupons (obtained from CNRSW Solid Waste Program located at 32ND St., NAVSTA)
- Wood that is not designated as Special Waste or Hazardous Waste (from analytical results) may be disposed of as trash.

PAINTED WOODS

- Wood which has been painted, unless the type of paint applied is specifically known must be analyzed (via core sample) to determine if it needs to be managed as Special Waste, Hazardous Waste, or Solid Waste (trash).
- Wood coated with **leaded** paints with concentrations less than 1000 ppm but greater than 350 ppm must be disposed of as Special Waste at a Class 1 hazardous waste landfill, but not managed under hazardous waste requirements.
- Painted woods that are determined not to be Hazardous or Special Waste may be placed into the trash for disposal.

NOTE: For assistance in developing a sampling analysis plan or making a waste determination based on analytical results from treated or painted woods samples, contact CNRSW Hazardous Waste Program Office at 524-6351.

RESINS, URETHANES & EPOXY PAINTS

HAZARDOUS WASTE GUIDANCE DOCUMENT # 19

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

- Liquid, unhardened or uncured resins, two-part epoxy paints and urethane specialty coatings when disposed of, shall be containerized, labeled and otherwise managed as a hazardous waste.
- Resins, epoxy paints and urethanes may be managed as solid waste and placed into the trash, provided that:
 - Resins, urethanes and paints are **hardened and fully cured**.
 - Are not contaminated or mixed with other hazardous materials or wastes.
 - Do not contain other ingredients that would classify them as hazardous waste.
- Containers holding resins, epoxy paint and urethanes **must** be managed in-accordance with [Hazardous Waste Guidance Document # 1, “Contaminated Containers”](#).
- Non-hazardous debris (cardboard, rags, tarps, paintbrushes etc.) contaminated with resins, paint or urethane may also be managed as solid waste and placed into the trash when the material becomes completely dry.
- Resins, epoxy paints and urethanes **SHALL NOT** be intentionally mixed, spread, blended or otherwise dried for the sole purpose of disposal as solid waste.
- Epoxy paint chips should be managed as a hazardous waste. These paint chips may have absorbed or come in contact with other contaminants or substrates that would cause them to be classified as hazardous.

ABRASIVE BLAST MEDIA

HAZARDOUS WASTE GUIDANCE DOCUMENT # 20

SOUTHWEST REGIONAL ENVIRONMENTAL DEPARTMENT HAZARDOUS WASTE PROGRAMS & POLICIES

- Steel shot, aluminum oxide and similar types of abrasive blast grits may be collected, returned to the process, reused and managed as **material** until the grit becomes unable to be used for its intended purpose.
- Once blast grit becomes unusable or spent it must be managed as hazardous waste ~~or~~ excluded recycled material.
- All blast grit emitted from blast rooms or booths (usable or spent) must be immediately collected, containerized and labeled. Any grit not collected and containerized is considered discarded and presumed to be hazardous waste.
- Used blast media collected for reuse in the blasting process shall be labeled “Usable Blast Media”, “Blast Media” or in some other manner that identifies the grit as a usable material.
- Spent or otherwise non-useable blast media must be labeled as hazardous waste or excluded recycled material depending how it will be managed.
- Activities using blast grit such as plastic media being recycled at a off-site facility must review the hazardous waste recycling Section 3-9 of this plan for possible notification requirements.

APPENDIX I
REGIONAL HAZARDOUS WASTE POLICIES