U.S. Department of Transportation
United States Coast Guard

Commandant
United States Coast Guard

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COMDTNOTE 16478
Mar 21, 1997

COMMANDANT NOTICE 16478 CANCELLED: Mar 20, 1998

Subj: CH-3 TO COMDTINST M16478.1B, HAZARDOUS WASTE MANAGEMENT MANUAL

1. PURPOSE. This Notice publishes revisions to Commandant Instruction M16478.1B.

2. ACTION. Area and district commanders, commanders of maintenance and logistics commands, commanding officers of Headquarters units, assistant commandants for directors, Chief Counsel, and special staff offices at Headquarters shall ensure compliance with the provisions of this Notice.

3. PROCEDURES. Remove and insert the following pages:

Remove	Insert
Page i thru iii	Page i thru iii, CH-3
Page 1-11 thru 1-12	Page 1-11 thru 1-12, CH-3
Page 1-13	Page 1-13, CH-3
Page 2-3 thru 2-6	Page 2-3 thru 2-6, CH-3
Page 4-9 thru 4-10	Page 4-9 thru 4-10, CH-3
Page 4-19 thru 4-20	Page 4-19 thru 4-20, CH-3
Page 4-25 thru 4-26	Page 4-25 thru 4-26, CH-3
Page 4-31 thru 4-34	Page 4-31 thru 4-36, CH-3
Page 7-1 thru 7-2	Page 7-1 thru 7-2, CH-3
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Page 8-1 thru 8-4	Page 8-1 thru 8-4, CH-3
Page 9-1 thru 9-2	Page 9-1 thru 9-2, CH-3
Page 10-1 thru 10-2	Page 10-1 thru 10-2, CH-3
Page 11-1 thru 11-5	Page 11-1 thru 11-5, CH-3

Remove	Insert
Enclosure (1)	Enclosure (1), CH-3
Enclosure (2)	Enclosure (2), CH-3
Enclosure (3)	Enclosure (3), CH-3

4. SUMMARY OF CHANGES. New material is indicated with bold print. Revisions are summarized as follows:

   a. The Table of Contents shows changes to the manual's organization.

   b. Chapter 1 adds definitions for universal wave and a transfer facility.

   c. Chapter 2 identifies requirements for exposing hazardous waste and prescribes methods to prepare for audits and regulatory inspections.

   d. Chapter 4 updates liability issues and identifies new recycling, satellite storage, and universal waste requirements.

   e. Chapter 7 identifies new used oil requirements, and prescribes new procedures for disposal of Polychlorinated Biphenyls (PCBs).

   f. Chapter 8 identifies new container air emissions requirements, and prescribes new procedures for hazardous waste accumulation areas.

   g. Chapter 9 updates contingency plan requirements.

   h. Chapter 10 updates training requirements.

   i. Chapter 11 identifies new requirements for shipboard hazardous waste and used oil.

   j. Enclosure (1) revises the Environment Management Program Contacts.

   k. Enclosure (2) revises U.S. EPA Regional Office Contacts.

   l. Enclosure (3) revises State Hazardous Waste Management Agency Contacts.

/s/ E. J. BARRETT
Assistant Commandant for Systems

Encl: (1) CH-3 to COMDTINST M16478.1B

U.S. Department of Transportation
United States Coast Guard

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COMDTNOTE 16478
Nov 2 1995

COMMANDANT NOTICE 16478 CANCELLED: Nov 1 1996

Subj: CH-2 TO COMDTINST M16478.1B, HAZARDOUS WASTE MANAGEMENT MANUAL

1. PURPOSE. This notice publishes revisions to Commandant Instruction M16478. lB.

2. ACTION. Area and district commanders, commanders of maintenance and logistics commands, and commanding officers of headquarters units shall ensure compliance with the provisions of this Manual.

3. PROCEDURES. Remove and insert the following pages:

Remove	Insert
Page iii	Page iii CH-2
Page 4-21 thru 4-22	Page 4-21 thru 4-22, CH-2
Chapter 12	
Enclosure (6)	Enclosure (6) CH-2

4. SUMMARY OF CHANGES. Revised changes are summarized as follows:

a. The Table of Contents shows changes to the manual's organization.

b. Chapter 4 contains a change in the reporting requirements reference for underground storage tanks.

c. Chapter 12 has been removed.

/s/ J. F. MILBRAND
Acting Chief, Office of Engineering,
Logistics and Development

Encl: (1) CH-2 to COMDTINST M16478.1B

U.S. Department of Transportation
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COMDTNOTE 16478
APR 1 1994

COMMANDANT NOTICE 16478 CANCELLED: MAR 31 1995

Subj: CH-1 TO COMDTINST M16478.1B, HAZARDOUS WASTE MANAGEMENT MANUAL

1. PURPOSE. This notice publishes revisions to Commandant Instruction M16478. lB.

2. ACTION. Area, maintenance and logistics commands, district commanders, and unit commanding officers of headquarters units shall ensure that the provisions of this Manual for the management of hazardous waste are followed.

3. PROCEDURES. Remove and insert the following pages:

Remove	Insert
Pages i thru ii	Pages i thru ii, CH-1
Pages 1-5 thru 1-10	Pages 1-5 thru 1-10, CH-1
Pages 2-1 thru 2-2	Pages 2-1 thru 2-2, CH-1
Page 2-9	Page 2-9, CH-1
Pages 4-23 thru 4-24	Pages 4-23 thru 4-24, CH-1
Pages 4-27 thru 4-28	Pages 4-27 thru 4-28, CH-1
Pages 4-31 thru 4-32	Pages 4-31 thru 4-32, CH-1
Pages 5-1 thru 5-4	Pages 5-1 thru 5-4, CH-1
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Pages 7-1 thru 7-30	Pages 7-1 thru 7-29, CH-1
Pages 8-1 thru 8-5	Pages 8-1 thru 8-4, CH-1
Pages 10-1 thru 10-2	Pages 10-1 thru 10-2, CH-1
Pages 11-1 thru 11-2	Pages 11-1 thru 11-2, CH-1
Enclosure (3)	Enclosure (3), CH-1

4. SUMMARY OF CHANGES. Revised material is denoted by bold text. Revised changes to chapters are summarized as follows:

   a. The Table of Contents shows changes to the manual's organization.

   b. Chapter 1 reflects a change in reporting requirements, and updates the definitions of combustible and flammable liquids.

   c. Chapter 2 contains a change in the policy pertaining to Host/Tenant agreements, and updates the sample Host/Tenant Agreement.

   d. Chapter 4 describes a change in regulatory requirements pertaining to waste minimization, and updates hazardous waste characteristics and generator requirements.

   e. Chapter 5 has been rewritten to reflect new requirements pertaining to imports/exports of hazardous waste and the labeling and placarding of hazardous materials. Figure 5-1, the Uniform Hazardous Waste Manifest has been updated.

   f. Chapter 7 has been rewritten to reflect new requirements pertaining to the transportation of hazardous materials.

   g. Chapter 8 has been rewritten to reflect new requirements pertaining to hazardous material containers.

   h. Chapter 10 has been rewritten to reflect new requirements pertaining to the training of personnel involved in hazardous materials management, handling, storage and transportation.

   i. Chapter 11 contains a change in the policy pertaining to Host/Tenant agreements.

/s/ P. A. BUNCH
Chief, Office of Engineering,
Logistics and Development

Encl: (1) CH-1 to COMDTINST M16478.1B

U.S. Department of Transportation
United States Coast Guard

Commandant (G-ECV-1)
United States Coast Guard

MAILING ADDRESS:
2100 Second Street, S.W.
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COMDTINST M16478.1B
Mar 25 1992

COMMANDANT INSTRUCTION M16478.1B

Subj: Hazardous Waste Management

1. PURPOSE. This manual prescribes policies and procedures for compliance with Federal hazardous waste regulations, for all Coast Guard ships and shore activities.

2. DIRECTIVES AFFECTED. Commandant Instruction M16478.1A is cancelled.

3. DISCUSSION. The changes in this manual are extensive. Accordingly, a thorough reading is required. There are however, a few additions/changes of special interest.

   a. Chapter 1 establishes responsibilities for the Maintenance and Logistics Commands and the Civil Engineering Units.

   b. Chapter 2 prescribes the use of facility inspections and audits to ensure compliance with Federal and State regulations.

   c. Chapter 4 identifies the new land disposal restrictions and toxicity characteristic for hazardous wastes.

   d. Chapter 7 prescribes new procedures for the storage and disposal of batteries.

   e. Chapter 8 prescribes the use of a new weekly container inspection log sheet.

   f. Chapter 11 identifies special requirements for independently moored vessels.

3. g. Chapter 12 identifies the new underground-storage tank regulations.

4. ACTION. Area and district commanders, commanders of maintenance and logistic commands, and unit commanding officers of units that generate hazardous waste shall:

   a. Bring the provisions of this manual to the attention of appropriate personnel.

   b. Designate a central point of contact for all hazardous waste compliance matters within the command.

   c. Submit a copy of related district or unit instructions to Commandant (G-ECV).

5. REPORTS/FORMS REQUIRED. Area and District commanders and commanding officers of Headquarters units shall submit to EPA and/or state and local agencies, the Generator Biennial Hazardous Waste Report, form EPA-8?00-13A, and the Notification of Hazardous Waste Activity Report, form EPA-8700-12. Provide copies to cognizant MLC (s). EPA forms are available from the EPA regional offices listed in enclosure (2). Complete detail regarding reporting requirements may be found under Chapter 4, Section N of this manual.

/s/ J. H. DONAHUE
Acting Chief, Office of Engineering,
Logistics and Development

TABLE OF CONTENTS

CHAPTER 1. OVERVIEW

A. Overview.

1. Policy. This manual establishes policy and prescribes responsibilities and procedures for Coast Guard compliance with the Resource Conservation and Recovery Act (RCRA) and associated regulations found in 40 CFR 260-281, 40 CFR 122-124 and 49 CFR 171-177. This manual is designed to insure proper management and disposal of hazardous wastes generated by Coast Guard facilities. The responsibilities of conditionally exempt, small, and large quantity generators are addressed in detail. Requirements applicable to Treatment, Storage, and Disposal Facilities (TSDF) are briefly outlined under Chapter 6.

2. Identification of Wastes. All Coast Guard units shall examine their operations to identify any hazardous wastes being generated. Guidance concerning the determination of hazardous waste is provided in Section B of Chapter 4.

3. EPA Identification Numbers. A Coast Guard unit which generates any hazardous waste in excess of 100 kilograms (220 lbs.) in any calendar month shall obtain an EPA identification number, package the waste, label the waste, and arrange for transportation to an approved Treatment, Storage, and Disposal Facility (TSDF). Units must also manifest all shipments of Hazardous Waste (HW), and insure that personnel are adequately trained. These and other requirements are detailed in this manual.

4. Conditionally Exempt Small Quantity Generators. Units which generate less than 100 kilograms in any calendar month are generally exempt from most Federal regulations. Some states regulate all generators regardless of quantity, however. Acutely hazardous waste, although rarely generated by Coast Guard units, is regulated in any amount exceeding 1 kg. Chapter 4 of this manual details requirements applicable to the various generator classes.

5. Noncompliance. Noncompliance is subject to administrative, civil, and criminal penalties. Serious violations may result in fines up to $50,000 per day per violation. Deliberate and willful violations may results in fines, incarceration, or both.

6. State vs. Federal Requirements. It is important to remember that this manual addresses only the Federal requirements. While state regulations generally

1.A.6. parallel EPA's regulations, many are more stringent, especially those regulations concerning small and conditionally exempt small quantity generators. You should check with your MLC or CEU environmental specialist to determine state requirements. In those states with authorized hazardous waste management programs, unit commanding officers shall obtain copies of state regulations and other information as necessary to ensure compliance with state law. Enclosure (3) provides a list of state agencies authorized to manage their own programs.

B. Law.

1. Legal Advice. Sound legal advice requires a thorough understanding of the factual context of a question or problem and a careful and reasoned application of the law and regulations to the operative facts, always with a view to the practical problems presented and the legal alternatives available. Such an undertaking is necessarily beyond the scope of this manual. This manual is primarily designed to be useful to a variety of readers who face questions and problems unique to their particular circumstances. Accordingly, this manual should not be viewed as attempting to provide legal advice. Legal counsel should be consulted with respect to the application of the statutes and regulations to specific situations.

2. Federal Law. The Resource Conservation and Recovery Act (RCRA) as amended, and the resulting hazardous waste program are the first comprehensive Federal effort to deal with the problem of hazardous waste. The statute specifically directs that Federal agencies will comply with all aspects of the law as would any private corporation, company, or individual. Although RCRA was enacted in October 1976, the implementing regulations were not issued until 19 May 1980. The regulations became effective on 19 November 1980. Significant amendments were then enacted in November 1984, resulting in stricter and expanded regulation. Consult MLC or CEU environmental specialists or Commandant (G-ECV) for current changes and upcoming compliance dates.

3. State Law. Coast Guard units must comply with applicable state laws in all states. Many states have adopted hazardous waste laws equal to and, in some cases, more stringent than Federal law. Enclosure (3) lists states and their agencies responsible for operating their hazardous waste programs. In those states where state law has not been developed or where lesser standards are required, Federal regulations must be met. Although some states have stricter regulations

1.B.3. than those enforced by the EPA, all state programs are based on the Federal regulations and can be quickly grasped following an understanding of the Federal requirements.

C. Policy. Federal agencies shall exercise leadership in the attainment of the nation's environmental goals (Executive Order 12088). In doing so, the Coast Guard will comply with all applicable Federal and state hazardous waste regulations and laws. Specific matters of Coast Guard policy are pointed out as appropriate throughout the manual.

D. Sources of Waste. As a result of environmental auditing programs and surveys, we have learned that hazardous wastes are produced both ashore and afloat and by small units as well as large. Major categories of hazardous wastes being generated include batteries, spent thinners, paint slops, spent OBA canisters, and various solvents. Some waste items such as sandblast grit and bilge slops require analytical testing to confirm or deny classification as hazardous waste. A listing of hazardous wastes common to Coast Guard facilities is presented under Figure 4-3. Please note, however, that Figure 4-3 lists only common wastes. Other substances less common or unique to a particular unit may be hazardous and should be examined as directed by Section B of Chapter 4.

E. Hazardous Materials used by Aviation Unit. A listing of lubricants, fluids, and other materials used in the maintenance and operation of aircraft is available to aviation units. This listing identifies all materials as either hazardous or non-hazardous. Materials are referenced by Military Specification and National Stock Number (NSN) and covers those substances used by C-130, HU-25, HH-JF, HH-52, and HH-65A aircraft. If your command does not have this listing, copies may be obtained from Commandant (G-ECV).

F. Functions, Powers, and Responsibilities.

1. District commanders and commanding officers of Headquarters units shall:

a. Comply with those Federal, state, and local laws and regulations applicable to the management of hazardous wastes.

b. Identify resource requirements to comply with hazardous waste regulations in:

(1) Operating Guide Summaries of Budget Estimates CG Form 4144 (G-CBU-1263), per Manual of Budgetary Administration, COMDTINST M7100.3.

1.F.1.b. (2) Training Plan per Training and Education Manual, COMDTINST M1500.10B.

c. Limit mixtures of hazardous and non-hazardous waste and ensure proper packaging. Vessels collocated with a shore command capable of handling hazardous waste (i.e. possesses an EPA identification number) should have a formal written agreement between the two commands. Vessels are not considered generators, however they are still responsible for segregation, identification, handling, and packaging of their hazardous wastes. See Chapter 11 for specific guidance concerning hazardous waste generated aboard ship.

d. Include personnel exposed to hazardous wastes in medical monitoring programs required by the USCG Medical Manual, COMDTINST M6000.1, at least for those toxic substances designated by Commandant (G-K). Area Environmental Health officers are available to assist in medical monitoring programs and other related areas. Headquarters units should consult Commandant (G-KOM-4).

e. Require the use of personal protective clothing and equipment where necessary. The MLC Safety and Health Manager may be contacted concerning any requirements for protective clothing or equipment. Incorporate requirements in unit allowance lists in accordance with Comptroller Manual, Volume III, COMDTINST M4400.13.

f. Submit required reports and manifests to EPA and/or state and local agencies. Ensure that copies of all biennial reports (annual reports are required by many states) are submitted to Commander (s) of the cognizant MLC. Recordkeeping requirements are detailed under Section N of Chapter 4.

g. Wherever feasible, minimize quantities of hazardous wastes generated through resource recovery, recycling, source separation, and acquisition policies. Substitute less hazardous materials in unit allowance lists and otherwise seek alternative materials that will reduce or eliminate the production of hazardous waste.

1.F.1. h. Segregate, label, package, and manifest all hazardous wastes as directed under Chapters 4, and 5 of this instruction. Specific directions for labeling and marking are provided under Section E of Chapter 5.

2. Maintenance and Logistics Commands shall:

a. Manage the overall Coast Guard hazardous waste compliance program within their geographic area of responsibility;

b. Identify resource requirements to comply with hazardous waste regulations in:

(1) Federal Agency Pollution Abatement Plan, EPA Form 3500-7 (RCS G-ECV-3103). Form 3500-7 and instructions may be found in the Civil Engineering Manual, COMDTINST 11000.11A.

(2) Operating Guide Summaries of Budget Estimates CG Form 4144) (RCS G-CBU-1263), per Manual of Budgetary Administration, COMDTINST M7100.3.

(3) Training Plan per Training and Education Manual, COMDTINST M1500.10B.

c. **Submit required reports to COMDT (G-ECV) as outlined in Section N of Chapter 4 of this manual.**

d. Establish disposal contracts to serve unit needs for the disposal and/or recycling of hazardous waste. If desirable, arrange agreement with the nearest Defense Reutilization and Marketing Office for disposal of hazardous wastes Enclosure (4)). See Section O of Chapter 4 for a discussion of the Defense Reutilization Marketing Service (DRMS).

3. Civil Engineering Units CEU's: The Civil Engineering Unit (Formerly Shore Maintenance Detachment) is the primary focus of the Coast Guard's hazardous waste compliance effort. Environmental protection specialists located at these units provide guidance, training, and oversight for units within their geographical area. In support of this effort, CEU's shall:

a. Acquire knowledge and remain up to date with applicable Federal and state regulations.

1.F.3.a. (1) Acquire yearly updates of 40 CFR Parts 190 to 299 and 49 CFR Parts 100 to 177.

(2) Maintain current copies of applicable state regulations pertaining to the management and transportation of hazardous waste.

b. Provide guidance and instruction to unit managers and personnel.

c. Serve as a liaison between Coast Guard and the Regional EPA Office as well as other interested state and local officials.

d. Serve as a liaison with MLC and Headquarters staff providing information and coordinating various actions as needed.

4. Commandant (G-E) will:

a. Plan, develop, promulgate, and update procedures for; as well as implement, monitor, and direct the handling of hazardous wastes by Coast Guard units. This will include the development and issuance of instructions, notices, and other directives as necessary to inform MLC's, CEU's, district, and field units concerning Federal requirements and Coast Guard policy.

b. Provide assistance to program managers in determining whether new substances and products will result in the generation of a hazardous waste. Also, assist program managers in the identification of substitute materials which do not result in the generation of a hazardous waste.

c. Provide advice on proper waste sampling and analysis protocols.

d. Serve as the main point of contact Coast Guard wide concerning hazardous waste issues, violations, and overall management.

1.F.4. e. Serve as the Coast Guard's liaison with other Federal agencies (EPA, General Accounting Office, etc.) in matters relating to hazardous waste management.

5. Facilities Design and Construction Centers (FD&CC) shall:

a. Ensure that design proposals and/or projects are designed in accordance with applicable Federal, state, and local hazardous waste regulations and sound hazardous waste practice.

b. Immediately report the discovery of any contamination of soil, water or air at all construction sites to the National Response Center in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

G. Resources. Resources to comply with this manual shall be requested as directed in the Planning and Programming Manual, COMDTINST M16010.1A. Requests for emergency assistance should be made to Commandant (G-CBU-3), as directed in the Manual for Budgetary Administration, COMDTINST M7100.3.

H. Definitions. A listing of relevant definitions is presented below. In addition, a listing of commonly used acronyms is provided as Figure 1-1:

1. Acutely Hazardous Waste- includes certain products specifically listed under 40 CFR 261.33(e). These products are fully regulated for any amount in excess of 1 kilogram per month.

2. Administrator- means the Administrator of the Environmental Protection Agency, or his designee.

3. Authorized Representative- means the person responsible for the overall operation of a facility or an operational unit (i.e., part of a facility), e.g., the plant manager, superintendent or person of equivalent responsibility. For Coast Guard units, the authorized representative shall be the commanding officer.

4. Cathodic Protection- is a form of corrosion protection for steel tanks and piping systems that discharges the natural electrical current to a sacrificial anode or otherwise redirects current from damaging the tank body.

1.H.5. CEU- is the acronym for Civil Engineering Unit, formerly known as Shore maintenance Detachments or SMD's. The CEU's, located at three sites within each MLC, provide civil engineering support to the field.

6. Combustible Liquid- defined by DOT as any liquid having a flash point above 141 F and below 200 F.

7. Conditionally Exempt Small Quantity Generator- is any unit that generates less than 100 kg. in any calendar month.

8. Container- means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

9. Contingency Plan- means a document setting out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment. See Chapter 9 of this manual.

10. Corrosivity- a characteristic defined by the EPA which includes all aqueous wastes with a pH less than or equal to 2 or greater than or equal to 12.5.

11. Designated Facility- means a hazardous waste treatment, storage, or disposal facility which has received an EPA permit (or a facility with interim status) or a permit from an authorized state program that has been designated on the manifest by the generator.

12. Discharge or Hazardous Waste Discharge- means the accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of hazardous waste into or on any land or water.

13. Disposal- means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

1.H.14. Disposal Facility- means a facility or part of a facility at which hazardous waste is intentionally placed into or on any land or water, and at which waste will remain after closure.

15. EC&R- means Environmental Compliance and Restoration, a comprehensive program to identify, investigate, and clean up past Coast Guard contamination and prevent contamination from hazardous substances and pollutants at current Coast Guard facilities. See COMDTINST 11000.11A for further detail.

16. Facility- as defined by EPA, means any treatment, disposal, or storage entity authorized to handle hazardous waste (common acronym is TSDF). Note, however, that the term is used throughout this instruction when referring to Coast Guard shore facilities. This use of the term is necessary to recognize that multiple commands may be collocated at a single Coast Guard unit or "facility". It is our position that "facility" is the best term to describe the multiple commands which typically operate at a support center, base, or other location.

17. Federal Agency- means any department, agency, or other instrumentality of the Federal government, any independent agency or establishment of the Federal government, including any government corporation, and the Government Printing Office.

18. Flammable Liquid- **defined by DOT as any liquid having a flash point of not more than 141 F.**

19. Flash Point- is the minimum temperature at which the flammable vapors of a substance (in contact with a spark or flame) will ignite.

20. Generator- means any person, by site, whose act or process produces hazardous waste identified or listed in 40 CFR 261, or whose act first causes a hazardous waste to become subject to regulation. Generators are broken into three subgroups; conditionally exempt small quantity generators, small quantity generators, and large quantity generators. Conditionally exempt small quantity generators are defined as those units producing less than 100 kilograms (approx. half of a 55 gallon drum) per calendar month. Small quantity generators are those facilities producing less than 1000 kgs but more than 100 kgs per calendar month. Large quantity generators are those facilities producing 1000 kgs (2200 lbs) or more in any given calendar month.

1.H.21. Hazardous Waste- means a hazardous waste as defined in 40 CFR 261.3. A practical definition is provided through a series of steps outlined under Section B of Chapter 4. Also note that some states consider PCB's and other substances not regulated under RCRA as hazardous waste.

22. Ignitability- a characteristic defined by the EPA to include liquid wastes with a flash point less than 140F, thermally unstable solids, compressed gases as defined in 49CFR 173.115, and oxidizers as defined in 49CFR 173.127.

23. Landfill- means a disposal facility or part of a facility where hazardous waste is placed in or on land and which is not a land treatment facility, a surface impoundment, or an injection well.

24. Large Quantity Generator- is any facility producing 1000 kilograms (2200 lbs) or more in any given calendar month.

25. Management- or "Hazardous Waste Management" means the systematic control of the collection, source separation, storage, transportation, processing, minimization, hazardous waste treatment, recovery, and disposal of hazardous waste.

26. Manifest- is a shipping document required of all hazardous waste shipments initiated by both small (100-1000kg) and large quantity (1000kg) generators. A sample form is illustrated as Figure 5-1.

27. MLC- is the acronym for Maintenance and Logistic Command located in either New York (Atlantic) or Alameda (Pacific).

28. On-site- means the same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is a crossroads intersection and access is by crossing, as opposed to going along, the right-of-way. Non-contiguous properties owned by the same person but connected by a right-of-way which the person controls and to which the public does not have access is also considered on-site property.

1.H.29. Operator- means the person responsible for the overall operation of a facility. For Coast Guard applications, the operator is the unit Commanding Officer. Owner is the U.S. Coast Guard.

30. Person- means an individual, trust, firm, joint stock company, Federal agency, corporation (including a government corporation), partnership, association, state, municipality, commission, political subdivision or a state, or any interstate body.

31. Petroleum- means any crude oil or fraction thereof that is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 lbs. per square inch absolute).

32. pH- is a value taken to represent the acidity or alkalinity of an aqueous solution.

33. Reactivity- a characteristic defined by the EPA to include wastes which are normally unstable, react violently with water, and are capable of detonation at standard temperature.

34. Satellite Areas- are defined as those places where wastes are generated and where those wastes initially accumulate prior to removal to a central area. For example, a shop located within a Support Center may accumulate as much as 55 gallons of hazardous waste without concern for the normal time limitations. Once full, however, the wastes must be moved to the central accumulation area within 72 hours and become subject to the applicable provisions and time constraints. See Section M of Chapter 4 for further detail.

35. Small Quantity Generator- **is a facility producing more than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month.**

36. Spill- means the accidental spilling, leaking, pumping, pouring, emitting, or dumping of hazardous wastes or materials which, when spilled, become hazardous wastes into or on any land or water.

37. TCLP- means Toxicity Characteristic Leaching Procedure, a specific testing protocol established by EPA to determine the leaching potential for several specific waste products.

38. Toxicity- a characteristic defined by the EPA to include all wastes which fail the TCLP.

1.H.39. Transfer Facility- **means any transportation related facility including loading docks, storage areas, and other similiar areas where shipments of hazardous waste are held during the normal course of transportation for ten days or less.**

40. Transportation- means the movement of hazardous waste. by air, rail, highway, or water.

41. Transporter- means a person engaged in the offsite transportation of hazardous waste by air, rail, highway, or water.

42. Underground Storage Tank- means any one or combination of tanks including connected underground pipes, which is used to contain regulated substances (including petroleum) and which only 10% or more of the tank and piping need actually be located beneath the surface of the ground.

43. Universal Wastes- **means wastes which are subject to the streamlined management requirements of 40 CFR 273. At the present time only waste batteries, pesticides and mercury thermostats are considered universal wastes. The universal waste requirements are only allowed in states which do not have an authorized RCRA program (HI, AK, IA, and WY) or in RCRA authorized states which have adopted similiar regulations.**

I. Assistance and Advice on Hazardous Waste related questions.

1. Additional information. Additional information regarding compliance with this Instruction is available from MLC and CEU hazardous waste contacts (Enclosure 1) and Commandant (G-SEC) at 202-267-2345.

2. Federal Regulations. Interpretation of excerpts from the Code of Federal Regulations which appear unclear, as well as any questions concerning hazardous waste may also be directed to the EPA via its RCRA Hotline. The Hotline number is 1-800-424-9346 or, for the Washington, D.C. area, 703-412-9810. Additional information is available from the EPA regional offices listed in Enclosure (2).

3. State Regulations. Answers to questions concerning state regulations can be obtained from the agencies listed in Enclosure (3), State Hazardous Waste Agencies.

FIGURE 1-1

LISTING OF COMMON HAZARDOUS WASTE ACRONYMS

CESQG	Conditionally Exempt Small Quantity Generator
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEU	Civil Engineering Unit
CFR	Code of Federal Regulations
DOD	Department of Defense
DOT	Department of Transportation
DRMO	Defense Reutilization and Marketing Office
DRMS	Defense Reutilization and Marketing Service
DRMR	Defense Reutilization and Marketing Region
EP	Extraction Procedure
EPA	Environmental Protection Agency
HMIS	Hazardous Materials Information System
HSWA	Hazardous and Solid Waste Amendments of 1984
HW	Hazardous Waste
kg	Kilograms
LQG	**Large Quantity Generator**
LUST	Leaking Underground Storage Tank
MLC	Maintenance and Logistic Command
MSDS	**Material Safety Data Sheet**
NFPA	National Fire Protection Association
NRC	National Response Center
ORM	Other Regulated Material (DOT classification)
ppb	Parts per Billion.
ppm	Parts per Million
ppt	Parts per Trillion
RCRA	Resource Conservation Recovery Act
RQ	Reportable Quantity
SARA	Superfund Amendments and Reauthorization Act
SPCCP	**Spill Prevention, Control, and Countermeasure Plan**
SQG	Small Quantity Generator
TCLP	Toxicity Characteristic Leaching Procedure
TSCA	Toxic Substances Control Act
TSDF	Treatment, Storage, and Disposal Facility
UST	Underground Storage Tank

CHAPTER 2. CONTROL AND MANAGEMENT OF HAZARDOUS WASTES

A. Management.

1. The Hazardous Waste Manager. Units throughout the Coast Guard refer to the person responsible for compliance with the hazardous waste regulations at the unit level by various titles. These titles include hazardous waste manager, environmental compliance manager, environmental coordinator, hazardous chemical control officer an others. Although this manual refers to the "hazardous waste manager" individual units may use whatever title they wish to describe this individual so long as he or she performs the duties described below. Commanding Officers of units that handle hazardous waste shall designate an individual (the HW Manager) responsible for management and oversight of any wastes being handled at the unit. Such designation shall be in writing and a copy shall be submitted to the servicing CEU. Depending upon the size and scope of the command, subordinate "point managers" may be appointed with specialized areas of responsibility. Individual point managers may be assigned responsibility for a particular shop or waste stream. For example, an individual may be responsible for the handling and disposal of any batteries received and/or generated at a command. A second individual may be responsible for any hazardous waste generated within a given shop. These individuals will in turn be responsible to the unit HW manager.

2. Collocated Units. Parent commands such as support centers, bases, and groups which have tenant commands moored at, or collocated on the same facility will assume disposal responsibility and will possess the generator I.D. number for the overall facility. This policy will facilitate an efficient consolidation of waste disposal and will prevent tenant commands from assuming unnecessary duplicate paperwork requirements. This does not however, relieve tenant commands from responsibilities for labeling, packaging, training, and handling of waste items that are eventually turned over to the parent command. **Written Host/Tenant agreements specifying local practices and responsibilities shall be mandatory, and renewed annually.** See Figure 2-2 for a sample Host/Tenant Agreement.

3. Floating Units. Afloat units will appoint an individual accountable for the proper identification and packaging of wastes turned over to the shore command. At no time will any afloat unit or tenant command leave unidentified and unmarked waste items dockside.

2.A.4. HW Manager, Responsibilities and Duties. A sample outline of responsibilities and duties typical to a unit hazardous waste manager is provided in Figure 2-1 of this chapter. Figure 2-1 should be used as a reference when assigning the duties and responsibilities of the hazardous waste manager.

B. Procurement. When procuring potentially hazardous materials, consideration should be given to more than just initial cost and ease of procurement. Substitution of hazardous items with materials that do not result in hazardous waste saves not only disposal costs, but reduces paperwork and overall management and handling demands. Acquisition must be carefully controlled to ensure that the amount of hazardous material is kept to a minimum. The following items should be considered when procuring a potentially hazardous material.

1. Hazard Minimization. Materials selected should be non-hazardous if possible, or shall be the least hazardous while maintaining reasonable cost. The estimate of cost of a given material should include disposal costs as well as acquisition.

2. Containers. Materials are packaged in suitable containers upon receipt. Hazardous materials are normally received in approved DOT containers. Once a hazardous material is received, it is to be left in its original DOT-approved shipping container, or equivalent, and properly labeled. Use of the DOT-approved container will minimize the risks of container failure. Commands should strive to ensure that hazardous materials are received in approved containers and are properly labeled before accepting receipt of the material. Container specifications are detailed in length under 49 CFR and are generally much too technical for practical reference. General requirements are outlined under Section A of Chapter 8.

3. Delivery Conditions. Shipments arrive in good condition and are inspected by a designated individual prior to accepting delivery. Hazardous materials arriving in a leaking container will be immediately placed into a secure container

4. Material Safety Data Sheets. Material Safety Data Sheets must be provided for each material. Material Safety Data Sheets (MSDS) are discussed under Chapter 3.

2.C. Funding.

1. Routine, Recurring Activities. Transportation and disposal of hazardous materials and hazardous wastes that are generated in the course of performing the unit's normal missions are routine, recurring, easily estimable costs and are payable within the unit commander's yearly operating budget. Such costs will be included in the unit's AFC 30 operating budget (or other appropriate operations and maintenance budget for units that do not have AFC 30 accounts) request, which is submitted to the program manager.

2. Emergency Funding. Funding for emergency disposal of hazardous materials (e.g., spill cleanup) may be requested from the unit's servicing Civil Engineering Unit, or from Commandant (G-SEC) for Headquarters Units.

D. Hazardous Waste Disposal in Foreign Countries.

1. Applicable Standards. Coast Guard units disposing of hazardous waste in foreign countries cannot comply with the procedural requirements of RCRA since the use of manifests, generator identification numbers, etc. are meaningless outside the United States, unless using DRMO Services. Nonetheless, Coast Guard units must, at a minimum, comply with the environmental standards of general applicability in the host country or jurisdiction in accordance with Executive Order 12088, Federal Compliance with Pollution Control Standards.

2. Procedural Requirement. Continental U.S. Coast Guard units should avoid disposing of hazardous waste in foreign countries **as a general practice. Exports of hazardous waste are prohibited unless:**

   a. **EPA is notified of the intent to export (60) days before shipment off-site;**

   b. **The receiving country consents to accept the hazardous waste;**

   c. **A copy of the EPA Acknowledgment of Consent to the shipment accompanies the shipment; and**

   d. **The shipment conforms to the terms of the receiving country's written consent as reflected in the EPA Acknowledgment of Consent (40 CFR 262.52).**

2.E. Facility Inspections and Audits.

1. State and Federal inspections. States with EPA authorized hazardous waste programs and/or representatives of the Environmental Protection Agency may inspect Coast Guard facilities at any reasonable time to determine if we are in compliance with RCRA. The intensity of these inspections varies by region as well as the discretion of the individual inspector.

2. Coast Guard internal audits. As a result of Departmental guidance and as a sound practice, the Coast Guard has developed an internal environmental compliance auditing program. This program, provides an opportunity to analyze our compliance status under "friendly" audit conditions as a preparation for inspections by state and federal regulatory agencies as described above. **Refer to COMDTINST 16478.5, Environmental Compliance Evaluation (ECE) Program for more specific guidance.**

3. Preparation for audits and inspections. A good method to prepare for a visit from an auditor or inspector is to conduct your own self inspection. The following questions are provided as a basic check list to evaluate compliance at your unit.

   a. Do you have documentation of the AMOUNT and KINDS of hazardous wastes you generate and on how you made the determination that they are hazardous? **Do you know your generator status (LQG, SQG, CESQG)?**

   b. Do you have an EPA identification number?

   c. How are your hazardous wastes removed from the unit and where are they taken? Do you use a licensed transporter? What is his EPA ID number? Where does the waste ultimately go? What is the EPA ID number of the TSDF?

   d. Do you have copies of Manifests used to ship your hazardous wastes off-site? Are they filled out correctly? Are all the required signatures included?

   e. Have you filed any exception reports? If so, do you have copies and have the proper steps been taken to resolve the discrepancy?

2.E.3. f. **Are your containers inspected for leaks and corrosion every week?** Do you have copies of weekly container inspection logs on file? **Are your containers marked with the words "HAZARDOUS WASTE," contents if known, and the accumulation start date? Does your temporary storage area have secondary containment?**

g. Have a contingency plan (**LQG's only**), emergency response plan and waste minimization plan been prepared? Are the names and telephone numbers of the responsible parties up to date? Do you have copies of arrangements made with local emergency response agencies?

h. Have you designated an emergency coordinator to **ensure that emergency procedures are carried out in the event an emergency arises?**

i. Are the emergency telephone numbers and locations of emergency equipment posted near the telephone?

j. Are your personnel properly trained in accordance with 40 CFR 265.16, **40 CFR 262.34(d) (5), 49 CFR 172.704 and 29 CFR 1910.120(p)(8),** if required? Do you have a written record documenting that the required training has been carried out?

k. **Are containers closed except when you fill them? Are containers of incompatible waste separated? Are containers in good condition?**

l. **Are internal communications equipment, fire extinquishers and spill control equipment provided? Has your safety equipment been tested?**

m. **Have you removed your hazardous waste within the specified time periods (90 days for LQG's and 180 days for SQG's).**

2.F. Penalties and Genera] Liability.

1. **Federal, State, and Local Jurisdiction. Under the Federal Facility Compliance Act (FFCA), 42 USC Sec. 6961, the EPA, state and local jurisdictions all have authority to conduct inspections and enforce their hazardous waste management and disposal laws. The FFCA also requires Federal facilities to comply with these laws in jurisdictions with regulations that are more stringent than those promulgated by the EPA.**

2. **Fines and Penalties. The FFCA has empowered Federal, state and local hazardous waste management agencies to fine Federal facilities for noncompliance with their laws and regulations. Injunctive and administrative sanctions are also available as enforcement options. Many Federal agencies have been fined substantial sums for noncompliance with hazardous waste management laws since the passage of the FFCA.**

3. **Penalties Against Individuals. In some cases, Federal civilian employees and uniformed personnel have been prosecuted for criminal violations of hazardous waste management laws. These cases involved knowing violations of the law which resulted in damage to the environment or knowing endangerment to persons. While such cases are rare, it is important to note that heavy fines and jail terms can be the result of flagrant violations of hazardous waste laws.**

4. **Actions Required Upon Receipt of a Notice of Violation (NOV). When a unit receives a NOV, the chain of command must notify their servicing CEU and legal office. The Coast Guard must act quickly to appeal such findings, if appropriate. The unit must also act quickly to remedy any violations that are within its power to correct. When responding to an NOV, it is helpful to be able to note which violations have already been corrected. Prompt attention to these details presents the Coast Guard in the best light to regulators and reduces the likelihood of serious civil or criminal sanctions.**

2.F.5. Liability for cleanup costs and other environmental damage.

a. The "cradle to grave" system under both RCRA and CERCLA establishes generator liability for any hazardous waste generated at their facility. This includes wastes which were disposed of in a completely legal manner in the past but have now, as a result of regulatory changes or deterioration of the disposal facility itself, become a problem. The generator must retain interest in the proper management of hazardous waste generated at their facility even after it leaves their site. This is true since liability for any pollution or other damage associated with the waste, ultimately rests with the generator, should the transporter or TSDF become bankrupt.

b. CERCLA/SARA (commonly referred to as Superfund) authorizes the settlement of cleanup efforts under the principle of "joint and several" liability. Joint and several liability holds all contributing parties responsible for a given action. For example; the ChemSoup Corporation, the U.S. Coast Guard, the XYZ Company, and several other parties may had legally sent waste to a particular disposal facility. Some years later, groundwater pollution disposal may be discovered as a result of leaching from the disposal site. The EPA or state enforcement agency will then attempt to identify all potentially responsible parties (PRP's). Depending upon the financial condition of the other parties, the Coast Guard (or any other party) may find itself liable for a significant portion or all cleanup costs. This can happen when all of the remaining parties are found to be insolvent.

c. Liability for the generation of hazardous waste can be great even when wastes are properly managed on-site and when care has been taken to select a responsible transporter and TSDF. Nonetheless, it is in the best interest of the Coast Guard to select a transporter and TSDF as recommended under Chapter 5, Section F and Chapter 6, Section B.

FIGURE 2-1

RESPONSIBILITIES OF UNIT HAZARDOUS WASTE COORDINATOR

*Develop and maintain a basic understanding of state and federal hazardous waste regulations.

*Develop and maintain an understanding of those unit operations which generate hazardous waste and serve as a central point of inquiry and advice for other unit personnel concerning hazardous waste management.

*Identify specific waste streams generated by the unit.

*Serve as a liaison between the unit and the MLC/CEU hazardous waste contacts, as well as concerned federal, state, and local representatives.

*Ensure training of those individuals involved in the handling or management of hazardous waste (Chapter 10).

*Ensure the maintenance of necessary logs, files, and other hazardous waste records (Section M, Chapter 4).

*Ensure that hazardous waste manifests are completed and accompany all off-site shipments of hazardous waste, and that all transporters and designated treatment and disposal facilities are licensed to receive the waste (Chapter 5).

*For units that generate more than 100 kg/mo, develop a tracking system for hazardous waste manifests in order to ensure that the "comeback" copies are received on time.

*Develop a preparedness, prevention, and contingency plan. (Chapter 9)

*Create and maintain an inventory of any underground storage tanks and comply with any applicable state or federal requirements. (Chapter 12)

*Designate temporary storage areas (including satellites) for hazardous wastes generated at the unit (Chapter 8).

*Ensure that funding requests for disposal and training are submitted. (Chapter 2)

*Ensure proper labeling and marking of containers (Chapter 5).

*Direct disposal of wastes with the DRMO or contractor to accomplish removal of the wastes within the necessary time period (Reference, Section L, Chapter 4 for accumulation times).

*Identify and act to correct areas of regulatory noncompliance at the unit.

FIGURE 2-2

SAMPLE HOST/TENANT UNIT HAZARDOUS WASTE AGREEMENT

1. TENANT agrees to comply with all applicable host instructions concerning the proper handling and disposal of hazardous wastes. TENANT shall also comply with all applicable federal, state and local environmental rules and regulations.

2. HOST will assist TENANT in meeting its compliance responsibilities as follows:

   a. Provide environmental management support concerning the segregation, storage, transportation and disposal of hazardous wastes;

   b. Publish Spill Prevention, Control and Countermeasure (SPCC) Plans, Shore Facility Response Plans (SFRP), Waste Minimization Plans, and other Emergency Response Plans for all areas where required;

   c. Distribute information on local procedures; and

   d. Pay environmental permit fees.

3. TENANT will meet its compliance responsibilities as follows:

   a. Designate in writing a primary and alternate Hazardous Waste/Pollution Prevention Coordinator;

   b. Segregate, identify, package, and transfer hazardous wastes in accordance with all applicable instructions;

   c. Pay all expenses, including fines and penalties, incurred by HOST due to TENANT improperly packaging, not identifying or misidentifying hazardous waste;

   d. Report all spills/releases of hazardous materials/waste to the HOST Hazardous Waste Coordinator. If TENANT is a vessel, contact servicing legal office and make reports to regulatory agencies as required by state and federal law. TENANT shall fund emergency response clean ups of spills/releases of hazardous materials/waste caused by TENANT that are of a reasonable funding level. Funding for any spill beyond the ability of the TENANT to fund shall be addressed at the District or Area level as appropriate; and

   e. Provide necessary information to HOST for the development of environmental permit applications and renewals. TENANT shall comply with all permit conditions.

4. This agreement will be renewed annually.

Signature of Tenant Unit CO DATE

Signature of Host Unit CO DATE

CHAPTER 3. OCCUPATIONAL SAFETY AND HEALTH

A. General

1. The management of hazardous waste requires the same or similar considerations of worker safety as does the use of hazardous materials prior to disposal. Safety regulations for activities involving hazardous waste and emergency response are located in 29 CFR 1910.120. Worker protection "Right to Know" requirements and other Human Health issues are coordinated under the Safety and Health program, Commandant (G-KSE). The Safety and Environmental Health Manual, COMDTINST M5100.47 prescribes safety requirements and policy for the safe handling of hazardous materials.

2. Commandant (G-KSE) and MLC Safety and Occupational Health managers can provide information on questions concerning industrial hygiene, personal safety, sources of protective equipment, and other related concerns.

3. Concern is occasionally voiced over the overlap between Safety and Health management and the management of Hazardous Waste. In short, the Occupational Safety and Health Act (OSHA) requires certain efforts be made to protect personnel in the workplace. This includes not only workers who use hazardous materials in the workplace, but also those workers who handle hazardous wastes. Simply put, OSHA is designed to provide for worker protection and safety, while RCRA is designed to protect the physical environment.

B. Material Safety Data Sheets.

1. The purpose of the Material Safety Data Sheet(MSDS) is to provide sufficient information concerning the safety and health hazards associated with a given material. It explains the special precautions to be followed when using and handling a given material, and provides guidance for dealing with accidental spills or fires.

2. Whenever a hazardous material is requested through the normal supply channels or open purchase orders, the requester shall ensure that a Material Safety Data Sheet (OSHA-20 or DD Form 1813) is either on file with the receiving command or is prepared by the manufacturer and delivered with the order. A sample Material Safety Data Sheet (MSDS) is provided as Figure 3-1.

3.C. DOD & CG Hazardous Materials Information System (HMIS).

1. The DOD Hazardous Materials File (HMF) is a compilation of Material Safety Data Sheets available on microfiche, floppy disk, CD ROM or through telephone modem to the Headquarters mainframe computer. Sample printouts of the DOD HMF as well as the CG HMIS (described below) are provided in figures 3-2 and 3-3. Access to the DOD system is limited due to its high cost. The Coast Guard system described in the next paragraph is available 24 hours per day.

2. The Coast Guard HMIS is a brief reprint of select items copied from the DOD HMF. The Coast Guard Hazardous Materials Inventory (HMIN) is a simple inventory of materials at various Coast Guard units. More than 40 units have been surveyed by the Safety program to develop this database. If you have any questions concerning either the HMIS or HMIN you should contact your safety programs manager either at MLC or Headquarters (G-KSE).

3. If you wish to obtain access to either the DOD or Coast Guard HMIS/HMIN, you should contact your MLC/Area safety office. If the information you need is not in the Coast Guard system, the MLC safety office has additional information on microfiche. You should be as specific as possible when requesting information. Information available in the DOD and Coast Guard HMIS includes:

   a. General information: National Stock Number (NSN), manufacturer, Federal supply code for manufacturers, number of manufacturers of the item, part number/trade name, chemical name, and item name.

   b. Handling and storage instructions: Handling/storage requirements, storage compatibility, materials to avoid, and fire procedures.

   c. Major chemical components of the material.

   d. Health effects, protective equipment and first aid.

FIGURE 3-1

MATERIAL SAFETY DATA SHEET

SECTION I

MANUFACTURER'S NAME		EMERGENCY TELEPHONE NO
UNITED LABORATORIES, INC.		312-629-8550 Ext. 426
ADDRESS (Number, Street, City, State, and Zip Code) 155 South Route 53 Addison, IL 60101		312-682-0876 Evening
PRODUCT IDENTIFICATION	USE/DESCRIPTION	DATE OF MOST RECENT REVISION
UNITED 396	Tar Remover	March 26, 1988

SECTION II – HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS	0		BASE METAL	0	
CATALYST	0		ALLOYS	0	
VEHICLE	0		METALLIC COATINGS	0	
SOLVENTS	90	N Est.	FILLER METAL PLUS COATING OR CORE FLUX	0	
ADDITIVES	0		OTHERS		
OTHERS					

NOTE: TLVS Shown for guidance only. Follow applicable regulations

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)
In accordance with federal regulation 29 CFR 1910.1200		
All materials in this product are considered non-hazardous		

SECTION III – PHYSICAL DATA

BOILING POINT (°F)	350°F	SPECIFIC GRAVITY (H_2O = 1)	0.885
VAPOR PRESSURE (mm Hg)	2mm	PERCENT VOLATILE BY VOLUME (%)	90-100%
VAPOR DENSITY (AIR = 1)	4.7	EVAPORATION RATE (_____ = 1)	N.D.
SOLUBILITY IN WATER	Emulsifiable		
APPEARANCE AND ODOR	Light yellow liquid with strong citrus odor		

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Tag closed cup, unless otherwise noted)	FLAMMABLE LIMITS	LOWER	UPPER
115°F TTC	302°F	0.7%	6.1%

EXTINGUISHING MEDIA
Dry chemical, foam or CO_2

SPECIAL FIRE FIGHTING PROCEDURES
Water is unsuitable for the burning liquid but may be used to cool closed metal containers exposed to heat.

UNUSUAL FIRE AND EXPLOSION HAZARDS
Closed containers present possible explosion hazard due to pressure buildup.

PAGE (1) (CONTINUED ON REVERSE SIDE)

SECTION V – HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
Not established.

EFFECTS OF OVEREXPOSURE
SKIN OR EYES: Can cause severe irritation. INGESTION: Can cause gastric disturbance; may cause nausea, vomiting, dizziness, burning in mouth and throat.

EMERGENCY AND FIRST AID PROCEDURES
SKIN: Wash with soap and water. Apply vaseline. If irritation persists, see a physician. EYES: Flush with cool water, see a physician immediately. INGESTION: Induce vomiting if amount taken is over 1 ounce. Syrup of Ipecac is recommended to induce vomiting.

SECTION VI – REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		Strong oxidizers.
	STABLE	XXXX	

INCOMPATABILITY (Materials to avoid)
N.A.

HAZARDOUS DECOMPOSITION PRODUCTS
N.A.

HAZARDOUS POLYMERIZATION			CONDITIONS TO AVOID
	MAY OCCUR		N.A.
	WILL NOT OCCUR	XXXX	

SECTION VII – SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Pick up spillage with non-clay absorbent material. Remove possible sources of ignition. Mop up with detergent and water.

WASTE DISPOSAL METHOD
Dispose of contaminated material by burning, if allowable, under local, state and federal regulations.

SECTION VIII – SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)
Not normally required

VENTILATION		
	LOCAL EXHAUST: Recommended for long exposure.	SPECIAL: N.A.
	MECHANICAL (General): Recommended for long exposure.	OTHER: N.A.

PROTECTIVE GLOVES	EYE PROTECTION
Natural rubber	Safety goggles

OTHER PROTECTIVE EQUIPMENT
Not necessary for normal use

SECTION IX – SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Store in a cool dry place away from heat or open flame. Store away from strong oxidizing agents.

OTHER PRECAUTIONS
Keep container tightly closed

The information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control. All risks of use of the product are therefore assumed by the user and we expressly disclaim all warranties of every kind and nature, including warranties of merchantability and fitness for a particular purpose in respect to the use or suitability of the product. Nothing is intended as a recommendation for uses which infringe valid patents or as extending licenses under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.

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FIGURE 3-2

Sample printout of DOD HMF for Pentachlorophenol (Wood Preservative)

NSN
8030-00-282-0970 FPI: G DATE: 2/04/1980 FSCM: 23894

*** GENERAL INFORMATION ***

Trade Name: WOOD PRESERVATIVE
Item Name: WOOD PRESERVATIVE
Specification: MIL-W-18142 Storage Compatibility Code:
Mfg: CONTINENTAL CHEMICAL CORP Phone: 812-235-8035

*** HAZARDOUS COMPONENTS ***

NIOSH CODE	COMPONENT	%	TLV
SM63OOO00	PENTACHLOROPHENOL	5	S 0.5 MG/CUM
1000092SS	SOLVENTS	95	

*** PROPERTIES, FIRE PROCEDURES AND STORAGE ***

Flash Point: 140F, 60C TCC LEL%: UEL%:
Extinguish Media: C0^2, POLYMER FOAM
Spec Fire Proc: NONE
Unusual Fire or Expl Hazards:
Stable: YES
Conditions to Avoid: EXCESSIVE HEAT
Hazardous Polymerization: NO
Conditions to Avoid:
Incompatibility: OXIDIZING AGENTS
Decomposition;
Handling, Storage: KEEP AWAY FROM EXCESSIVE HEAT.

*** HEALTH EFFECTS, PROTECTIVE EQUIPMENT AND FIRST AID ***

Effects of Overexposure: CONTACT WITH SKIN OR EYES CAN PRODUCE IRRITATION.
Respirators: NORMAL FOR PAINTS AND SOLVENTS (ALIPHATIC).
Ventilation: LOCAL EXHAUST PREFERRED.
Gloves: RUBBER PLASTIC Eye Protection: GOGGLES
Other Protection:
Emergency 1st Aid: CLEAN EXPOSED SKIN WITH SOAP AND WATER. FLUSH EYES WITH WATER. IF IRRITATION PERSISTS-CALL PHYSICIAN.
Other Precautions:
Supplemental Data:
****

Figure 3-3

Sample printout of Coast Guard HHIS for
Epoxy Thinner (Ethylene Glycol Nonoethyl)

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*** U.S. COAST GUARD HAZARDOUS MATERIALS INFORMATION SYSTEM ***

COAST GUARD PRODUCT FILE HEALTH AND SAFETY DATA

PROD#: 420.0 PRODUCT CLASS: PAINT, THINNER
PRODUCT NAME: EPOXY THINNER, CELLOSOLVE, ETHYLENE GLYCOL MONOETHYL (OR MONOMETHYL) ETHER
FEDERAL SPEC TT-E-781
NSN: 6810-00-100-2570 6810-00-222-2751 6810-00-285-4309

TYPICAL CHEMICAL INGREDIENTS:	APPROX %:
ETHYLENE GLYCOL MONOMETHYL ETHER OR	100
ETHYLENE GLYCOL MONOETHYL ETHER	100

***** HAZARDS *****

CAUSE DAMAGE TO BRAIN, BLOOD & KIDNEYS. IRRITATION TO EYES & SKIN. HEADACHE, DROWSINESS & DIZZINESS. CELLOSOLVES HAVE BEEN IDENTIFIED AS SUBSTANCES HAVING THE POTENTIAL TO CAUSE ADVERSE REPRODUCTIVE EFFECTS IN HUMANS.

***** PROTECTIVE MEASURES *****

THIS PRODUCT IS NO LONGER AUTHORIZED FOR USE IN COAST GUARD. SEE COMDINST M10360.3 FOR ACCEPTABLE SUBSTITUTES.

***** EMERGENCY RESPONSE *****

FIRST AID: SKIN-REMOVE LIQUID WITH SOAP & WATER. EYE-FLUSH WITH WATER AT LEAST 15 MINUTES. INGESTION: GIVE LARGE AMOUNTS OF WATER OR MILK TO DRINK, INDUCE VOMITING. OBTAIN MEDICAL ATTENTION PROMPTLY. INHALATION: REMOVE TO FRESH AIR. USE ARTIFICIAL RESPIRATION IF REQ'D.
FIRE FIGHTING:
EXTINGUISH MEDIA- FOAM, CO^2, DRY CHEMICALS, WATER FOG, STEAM
SPECIAL PROCEDURES-
UNUSUAL HAZARDS- NONE. HANDLE AS COMBUSTIBLE LIQUID

***** HANDLING AND STORAGE *****

HANDLE AS COMBUSTIBLE LIQUID. AVOID ALL OPEN FLAMES & SPARK SOURCES. AVOID SPLASH-FILLING. STORE IN COOL WELL VENTILATED LOCATIONS. AVOID USE OF ALL EQUI
INCOMPATIBILITY: STRONG OXIDIZING AGENTS. ALUMINUM
ADDITIONAL INFORMATION on this product may be obtained from unit or district safety and health managers or COMMANDANT G-CSP (FTS 426-1883).
****

CHAPTER 4. GENERATION OF HAZARDOUS WASTE

A. General.

1. General. This chapter is designed to help those who are unfamiliar with the hazardous waste management program to determine with which, if any, of the regulations they must comply. It also serves as a quick reference for units subject to the requirements.

2. Regulations. The Federal regulations pertaining to generators of hazardous waste are found in 40 CFR 262. Yearly updates are available from: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Units which generate hazardous waste shall purchase the yearly updates. Volume 40 CFR 190 to 399 generally costs about $15.00. All MLC and CEU hazardous waste contacts must obtain yearly updates since these regulations are undergoing rapid change. Regulatory update services such as Environmental Reporter are also available.

3. HW Determination. Units must first determine whether they produce hazardous waste. Section B of this Chapter, Hazardous Waste Determination, provides direction and criteria so that you may make the necessary determinations.

4. EPA ID Numbers. Units which generate hazardous waste in excess of 100 kilograms(kg) total per calendar month (about 220 pounds) must obtain EPA Identification numbers or State Identification numbers before treating, storing, disposing of, or offering for transportation, any hazardous waste. An EPA identification number is generally not required for conditionally exempt small quantity generators (units producing less than 100 kilograms per calendar month). Some states however require generators of less than 100 kg/Mo to obtain I.D. numbers. If you are in doubt as to the requirement to obtain a number, consult the environmental specialist at the nearest CEU (see Enclosure 1). The process for obtaining an EPA Identification number is described under Section F of this Chapter.

5. Conditionally Exempt SQG's(CESQG). Units generating under 100 kg per calendar month generally do not have to obtain an EPA Identification number and are not subject to most EPA regulations. (state law or MLC policy may dictate otherwise) See Chapter 4, Section G for detail.

4.A.6. Generator Responsibilities. Small quantity (100-1000 Kg/mo) and large quantity generators (>1000 Kg/mo) must also prepare a uniform manifest, package, and label the hazardous waste, maintain records, and file reports. These requirements are presented in detail in subsequent sections of Chapters 4 and 5.

7. Generators. 40 CFR Part 262 which details requirements for generators will be dealt with in depth throughout the remainder of this Chapter. Part 263 which addresses requirements for transporters, and Parts 264-266 "Owners and Operators of Treatment, Storage, and Disposal Facilities (TSDF's)" are addressed in Chapters 5 and 6, respectively. There are three categories of generators, a summary of the various generation categories follows:
   - Conditionally Exempt Small Quantity Generator*: less than 100 kilograms per calendar month.
   - Small Quantity Generator(SQG): more than 100 kilograms, but less than 1000 kilograms per calendar month.
   - Large Quantity Generator(LQG): 1000 kilograms or more in any calendar month.

8. Acutely hazardous waste. Acutely hazardous waste (see Definitions, Chapter 1) is regulated to the full extent of the law for any amount in excess of 1 kilogram per month (40 CFR, Part 261.33 (e)).

B. Hazardous Waste Determination.

1. Definition. EPA considers a waste hazardous if: (1) it is listed in 40 CFR Subpart D Part 261, or (2) it has any one of four characteristics (ignitability, reactivity, corrosivity, or toxicity). The latter determination is made by either testing the waste, or by applying user knowledge of the waste properties, or ingredients. Definitions of the four characteristics are presented under Figure 4-2.

2. Waste Determination. If the composition of a waste is known through listing on the can, drum, or MSDS, the component makeup can be compared to the lists in 40 CFR Subpart D, Part 261. However, most hazardous wastes produced by the Coast Guard are characteristic wastes rather than listed wastes. For this reason the waste may still be hazardous even if no component is listed under 40 CFR 261. Figure 4-3 provides a listing of the most common waste items typical to Coast Guard facilities.

4.B.3. Characteristic Wastes. In cases where the waste or a component thereof is not listed, the chemical and physical properties of the material must then be compared to the criteria in 40 CFR Subpart C, Part 261 which defines the characteristics of ignitability, corrosivity, reactivity, and toxicity. This may be evaluated by applying knowledge of the hazardous characteristics of the waste with consideration given to the materials and/or processes used. Some types of zinc air primary ATON batteries (i.e. Edison, Power Plus and Saft America) are a good example. They are not a listed waste, but exhibit the characteristics of corrosivity (pH of the electrolyte is less than 2 or greater than 12.5) and toxicity (mercury concentrations exceed .2 mg/1) when tested and must be handled as a hazardous waste.

4. Obtaining Information about Unknowns. If you do not know the ingredients and/or characteristics of a product, a good source of information is the product's Material Safety Data Sheet (MSDS). If you do not have a MSDS for an individual product, the Hazardous Material Information System (HMIS) as described in Chapter 3. may contain helpful data. If none of these methods are successful, the waste must be tested to determine where it falls under the regulations. Unknown waste such as "mystery drums" must be managed as a hazardous waste from the discovery date, not the analysis date. Consult your environmental specialist at your servicing CEU prior to conducting any analytical testing.

5. Listed Waste. The wastes listed in 40 CFR 261.33 (the P and U wastes) refer only to the commercially pure grade of the chemical or formulations in which the chemical is the sole active ingredient. A substance fitting this description is a hazardous waste upon disposal. For example, a particular solvent (NSN #6810-00-079-9419) contains 99% methyl ethyl ketone (MEK), which is listed in 261.33 (EPA hazardous waste #U159). A lacquer thinner (NSN # 8010-00-160-5787) also contains MEK , but since it is not the only active ingredient, it would not be considered a "listed waste". This is true even though the thinner contains toluene (EPA hazardous waste # U220) and isobutyl

4.B.5. alcohol (EPA hazardous waste # U140). However, the fact that this particular product is not a "listed" waste does not mean that the product is not a hazardous waste. As discussed in paragraph 3 above, you must also check to see if it exhibits any of the Subpart C characteristics. In this case, the thinner is a highly ignitable substance (flash point =15F) and is classified as a hazardous waste (EPA #D0001) due to a flash point less than 140 F.

6. Testing. Units arranging for testing should check with their MLC/CEU environmental specialist prior to contracting for testing of a specific waste stream. This coordination is not necessary for testing of unidentified waste drums. Note: see figure 4-4 for a discussion of lab selection.

7. When Does a Material Become a Waste? A question that often arises is when does a hazardous material become a hazardous waste? Barring technicalities and exceptions, a hazardous material becomes a waste when the material has outlived its intended use. For example, a liquid which may be used several times is not considered a waste until set aside for disposal or recycling. Also note that unused materials such as paints and miscellaneous chemicals which have expired due to shelf life are also considered wastes once expired, if they are to be discarded. If however, these items are to be turned in for resale or reuse by the nearest DRMO, they are considered to be materials not wastes.

8. Mixing Wastes. Mixing a non-hazardous waste and a listed hazardous waste produces a hazardous waste regardless of the percentage involved. Mixing a non-hazardous waste with a characteristic hazardous waste produces a waste that must be tested to see if the material still fails the characteristic test. DILUTION OF ANY HAZARDOUS WASTE IN ORDER TO ELIMINATE ITS HAZARDOUS CHARACTERISTIC IS NOT PERMITTED AS A MATTER OF COAST GUARD POLICY.

9. Polychlorinated Biphenyls. Any transformers or other equipment suspected of containing PCB's must be checked to ascertain contents. The manufacturer, if known, may be contacted to identify contents and parts per million. The testing, disposal, or cleanup in the event of a spill of PCB's shall be coordinated through the CEU environmental specialist. Details regarding the procurement, handling, and disposal of PCB's are available in COMDTINST M16478.2.

4.C. Land Disposal Restrictions.

1. Background. In the 1984 amendments to RCRA, (The Hazardous and Solid Waste Amendments of 1984 or HSWA) Congress established as a matter of law that there would be a reduction in the land disposal of hazardous wastes both in total volume and in toxicity, in particular those wastes containing solvents, heavy metals, and cyanides. The first step in carrying out this process was to establish regulations outlining the methods of handling solvents and dioxins. The second step was regulating the "California List" and the third and final step is regulation of the remainder of the listed and characteristic hazardous wastes.

   a. Solvents and dioxins. The first step in implementing the RCRA/HSWA requirement to reduce land disposal of hazardous waste was a rule dated November 7, 1986 which restricted the land disposal of solvents in EPA hazardous waste categories F001-F005 and Waste containing dioxins in categories F020, F021, F022, F023, F026, F027, and F028.

   b. California List. The California List consists of liquid hazardous wastes containing certain metals, free cyanides, polychlorinated biphenyls (PCB's), corrosives with a pH of less than or equal to two (2.0), and both liquid and nonliquid hazardous wastes containing halogenated organic compounds. A detailed description is as follows:

      (1) Liquid hazardous wastes including any free liquids associated with any solid or sludge containing the following metals (or elements) or compounds of these metals (or elements) at concentrations greater than or equal to those shown below.
      - o Arsenic (As) 500 mg/1
      - o Cadmium (Cd) 100 mg/1
      - o Chromium (Cr+6) 500 mg/1
      - o Lead (Pb) 500 mg/1
      - o Mercury (Hg) 20 mg/1
      - o Nickel (Ni) 134 mg/1
      - o Selenium (Se) 100 mg/1
      - o Thallium (T1) 130 mg/1

      (2) Free Cyanides in amounts greater than 1000 mg/l(ppm)

      (3) Liquid hazardous waste having a pH less than or equal to two (2.0).

4.C.1.b. (4) Liquid hazardous wastes containing polychlorinated biphenyls (PCB' s) in concentrations greater than or equal to 50 mg/1 (ppm)

(5) Hazardous wastes containing halogenated organic compounds (HOC' s) in total concentration greater than or equal to 1,000 mg/1 (ppm)

c. Thirds. The remainder of the wastes are to be covered in a process which divides them into thirds based on their potential for harm. Regulations for the first third were published in August 1988. The regulations covering the second third were published in June 1989 and the remaining third including all characteristic wastes was published in May 1990. The ban became effective Jan 1991 upon publication of the Final Rule.

2. Testing requirements (California List): Requirements for testing waste streams to determine if they are subject to the California rules will be somewhat more complex than has previously been the case. The first step will be the same as we currently use to determine if a waste is regulated by RCRA (Is it "listed", or does it exhibit one of the four characteristics as outlined in 40 CFR 261 ?). If any of these tests indicate that a waste stream is RCRA regulated, it will then be necessary to determine if the California rules apply. If you have any indication that your waste qualifies as a "California Waste", it would be prudent to request the proper tests with the original request for testing. The proper additional testing requests are as follows:

a. Is the waste liquid, or, is it a solid or sludge containing free liquids? In order to make this determination, specify the paint filter liquids test (PFLT): method 9095 in EPA Publication SW-846, "Test Methods for Evaluating Solid Waste"

b. Is the Waste Stream acidic (pH less than or equal to 2.0)? The test to determine if the waste stream is corrosive (261.22(a)(1) will provide this information.

c. Does the waste stream (either solid or liquid) contain total concentrations of more than 1,000 mg/1 halogenated organic compounds? If so, are the HOC's included on the list on appendix III to 40 CFR 268.

4.C.2. d. Does the waste stream contain PCB's? If you suspect that it does, you should request that the sample submitted to the lab be tested for PCB's. Any level of PCB's in excess of 50 ppm will trigger the California restriction, if the sample as a whole meets the definition of hazardous waste. Note that any lab sample which contains PCB's in concentrations greater than or equal to 50 ppm must be incinerated in accordance with the provisions of TSCA.

e. Any sample which is a liquid or is suspected of containing free liquids should be tested for total amounts of the metals shown in paragraph 4.C.l.b.1 unless it is clear that the waste stream is free of metals contamination. (No specific test is currently being required but EPA recommends the use of appropriate methods in Chapter 3. of SW-846). Note that in addition to the metals which are characteristic as Toxic wastes, this rule adds Nickel (Ni) and Thallium (T1). For purposes of compliance with the prohibitions, only the filtrate from the PFLT (See paragraph 2.a. above) needs to be tested. Concentrations greater than those shown in paragraph 4.C.l.b.1. will require either solidification or incineration.

f. Any sample which is a liquid or is suspected of containing free liquids should be tested for total amounts of cyanide. EPA is not currently requiring the use of a particular test to determine free cyanide concentrations, but is recommending the use of Method 9010, "Cyanides Amenable to Chlorination" in EPA Publication SW-846. For purposes of compliance with the prohibitions, only the filtrate from the PFLT (See paragraph 2.a. above) needs to be tested.

3. Generator Requirements.

a. If you determine that you are generating a waste covered by the land disposal restrictions which does not meet the applicable treatment standards or does not comply with the prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d) you must notify the TSD facility in writing of the appropriate treatment standard as outlined Subpart D, Section 268.32, and RCRA Section 3004 (d) with each shipment.

4.C.3. b. If you determine that you are generating a waste covered by the land disposal restrictions which meets the applicable treatment standards and can be land disposed without further treatment, you must notify the TSD facility in writing with each shipment as follows:

> "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 40 CFR Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 and RCRA 3004(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."

You should be aware however, that it is very unlikely that you will ever have any waste products which meet this criteria without first conducting some form of treatment which will endanger your status as a generator. This statement therefore should only be used after consultation with your MLC/CEU environmental specialist.

D. Sampling Procedures.

1. Policy. Sampling of waste streams, even on a routine basis is very complex and demanding. In general, sampling by field unit personnel is discouraged. Consult with the environmental protection specialist at your servicing CEU prior to taking any samples of suspected hazardous wastes.

2. Laboratory Selection. The Coast Guard does not have the in-house laboratory capability to conduct routine hazardous waste testing. In most cases, therefore, testing is likely to be performed by a private laboratory under contract.

3. Testing Unknowns. Any unit needing to test unidentified material which is suspected of qualifying as a hazardous waste shall contact the CEU environmental protection specialist (Enclosure (1)).

4.D.3. The CEU contact will have a listing of available laboratories by state and can provide this information on request. Any contracts or procurement requests should specifically require conformance with EPA Publication SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (December 1987).

4. Sampling methods. The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Sampling methods as listed below for various material types may be used and will be acceptable to the EPA when properly executed.

a. Extremely viscous liquid - ASTM Standard D-140-70;

b. Crushed or powdered material - ASTM Standard D-346-75;

c. Soil or rock-like material - ASTM Standard D-420-69;

d. Soil-like material - ASTM Standard D-1452-65;

e. Fly ash-like material - ASTM Standard D-2234-76;

E. Used, Recycled, Reused or Reclaimed Commodities.

1. Recycled Wastes. Hazardous wastes that are recycled are subject to the same requirements as non-recycled waste except for materials identified in 40 CFR 261.6(a)(2)(a)(3), and (a)(4). The exceptions listed under 40 CFR 261.6 are quite limited. However, some exceptions applicable to many Coast Guard units are as follows:

a. **Recyclable materials from which precious metals are reclaimed (e.g., silver recovery);**

b. Spent lead-acid batteries that are being reclaimed;

c. Used batteries other than lead-acid batteries returned to a battery manufacturer for regeneration **(the exemption is for battery rebuilding not disposal);**

d. Scrap metal; and

e. Used oil that is recycled and exhibits one or more of the characteristics of hazardous waste (not valid in those states that regulate used oil as a hazardous waste, see Chapter 7, Section K).

4.E.2. Recycling Advantages. Recycling used oil, precious metals, solvents, or lead-acid batteries offers significant advantages to the unit. Some of these advantages include:

a. Local recyclers generally offer money for scrap metal, lead-acid batteries and **silver. Units that have been authorized and designated to operate a CG Qualified Recycling Program (QRP) in accordance with COMDTINST 16477.5, Coast Guard Qualified Recycling Program (QRP) Policy may retain the proceeds from the sale of materials. The proceeds may to be used for QRP operating cost, environmental and pollution prevention projects or Morale Welfare and Recreation.**

b. General conservation of resources.

c. Small quantity generators which recycle solvents under a solvent reclamation contract do not need to manifest exchange of the expended solvent **provided the type and frequency of shipments are specified in the reclamation agreement, the transport vehicle is owned and operated by the contractor, and you maintain a copy of the reclamation agreement in your files for three years after termination of the agreement (40 CFR 262.20(e)).**

d. Lead-acid batteries and used oil which are recycled as well as used batteries other than lead-acid batteries which are returned to a battery manufacturer for rebuilding do not need to be manifested or included in the calculation of hazardous waste generated per month.

3. Liability Reduction. As a result of recycling used oil, solvents, and/or batteries, paperwork requirements are reduced and disposal costs are avoided. Furthermore, disposal of batteries or used oil as waste, leaves the **United States** vulnerable to possible liabilities for the cleanup of disposal facilities in the event they should become subject to a Superfund or other cleanup in the future. Significant liability is possible even when only small amounts are involved. For example, when a unit disposes of only a small load of batteries, the **United States**, under certain circumstances, may end up liable for the cleanup of the entire disposal facility. Recycling the same batteries presents less opportunity for future liability. For this reason alone, Coast Guard units should make every effort to recycle.

4.E.4. Recycling Required. All Coast Guard units shall recycle lead-acid batteries, solvents, and waste oils unless the service is unavailable or cost prohibitive.

F. EPA Identification Numbers.

1. Who Must Obtain a Number? Units generating hazardous waste in quantities of 100 kilograms or more in any calendar month must obtain EPA and/or state identification numbers. Conditionally exempt small quantity generators generating less than 100 kg per month are not required to obtain EPA identification numbers (except in those states, such as California, where all quantities of hazardous waste are regulated). Any unit which generates any amount of hazardous waste must have an ID number to dispose of that waste. Contact your servicing CEU for assistance in obtaining a temporary number in the event one is required.

2. Collocated Units. Shore units which are collocated at a single facility do not require individual identification numbers. The I.D. number is assigned to the facility as a whole. For example, a Base facility that hosts an ATON team, a station, and a group office as tenant commands requires only one number. Guidelines for determining when vessels require separate I.D. numbers are outlined in detail under Chapter 11.

3. Requirement for Transporters and TSDF's to have ID Numbers. Coast Guard generated hazardous waste must be transported, treated, stored, or disposed of only at permitted facilities. CEU environmental specialists, MLCs, and Commandant (G-ECV) have a listing of transporters and TSDF's around the country and can provide this information upon request. The unit generating the hazardous waste must be sure that the transporters and TSDF have valid EPA identification numbers. Furthermore, the EPA identifications number of both the transporter and TSDF must be recorded on the manifest.

4. To obtain an EPA Identification number.

a. Contact your CEU environmental specialist to verify your need for a number. Depending upon MLC/CEU policy, CEU personnel may prepare the form for you or may ask the unit to be responsible for notification. The CEU should also retain a record of identification numbers which will enable units to check as to whether a number already exists for a given facility.

4.F.4. b. Should it be necessary to complete the notification yourself, call or write your state hazardous waste management agency or EPA Regional office (see Enclosures (2)&(3) and ask for a copy of EPA form 8700-12, "Notification of Hazardous Waste Activity". You will be sent a booklet containing the two page form and instructions for completion. Figure 4-1 provides a sample copy of a completed notification form. (Note: A few states use a form that is different from the form shown in Figure 4-1. In this case the state will send the appropriate form to complete.).

c. Fill in the form as directed. Most information required is self-explanatory. To complete Item X of the form, you need to identify your hazardous waste by the EPA code number. Chapter 7 and Section B of this Chapter should provide the necessary guidance for filling out this part of the form. Do, however, contact your CEU environmental protection specialist to ascertain that you have filled out the form correctly. Also note that only boxes 1a. and/or 1b. should be checked under Item VI of the form.

d. The form is to be sent to the state hazardous waste office with a copy to your CEU. The proper address will be listed in the booklet which accompanies the form. You will then be assigned a twelve-character identification number. This number is unique to your facility and must be used on all manifest papers.

G. Conditionally Exempt Small Quantity Generators.

1. Definition. A "conditionally exempt small quantity generator" is a unit that produces hazardous waste in quantities less than 100 kilograms (approximately 220 pounds or roughly half a 55-gallon drum) per calendar month and at no time accumulates more than 1000 kg of hazardous waste. Many Coast Guard stations are conditionally exempt small quantity generators.

2. Acutely hazardous Wastes. Special requirements apply to acutely hazardous waste and contaminated spill material. Only 1 kilogram of acutely hazardous waste may be accumulated per calendar month and only 100 kilograms of contaminated spill material. Some pesticides as well as other substances used by the Coast Guard may qualify as acutely hazardous waste. A listing of acutely hazardous wastes is contained in 40 CFR 261.33(e).

4.G.3. Conditionally exempt small quantity generators. Conditionally exempt small quantity generators producing less than 100 kilograms (220 pounds, or roughly half a 55-Gallon drum) per calendar month are presently exempt from most federal regulations. If not otherwise regulated by the applicable state, a conditionally exempt small quantity generator is required to:

a. Store any waste in suitable containers (as defined in 40 CFR 265, subpart I & J),

b. Segregate any incompatible wastes,

c. Dispose of wastes at an authorized facility as defined in 40 CFR 261.5.

d. All Coast Guard units shall mark and label containers as directed under Section E of Chapter 5.

e. Conditionally exempt small quantity generators may accumulate up to 1000 kilograms (2200 lbs) without any limitation on the accumulation time. If this weight limit is exceeded, the time and weight limits specified in 40 CFR Section 262.34(d) apply.

f. As a practical matter, CESQG's in most states will also have to prepare a manifest in order to ship any amount of hazardous waste off-site.

4. State Requirements. State requirements may be stricter than federal requirements for conditionally exempt small quantity generators. Many of the states which operate their own programs have set lower limits for waste generation or don't allow the exception at all. For this reason potential conditionally exempt small quantity generators should check with their CEU contact or appropriate state agency responsible for hazardous waste management. Four states (California, Louisiana, Minnesota, and Rhode Island) have no small quantity generator exemptions and, thereby regulate all generators of hazardous waste. Other states, have differing exclusion levels.

H. Small Quantity Generators (100 to 1000 kilograms).

1. Definition. Generators producing more than 100 kilograms but less than 1000 kilograms in a calendar month must comply with the basic provisions of Section G.3 above addressing requirements for conditionally exempt small quantity generators. Small quantity generators must also comply with requirements outlined in the following paragraphs.

4.H.2. Manifest Requirements. Small quantity generators shall manifest their waste in the same manner as required of large quantity generators and shall maintain copies of all manifests and test results for a period of at least 3 years. Complete recordkeeping and reporting requirements are detailed under Section N of this Chapter. The small quantity generator, however, does not need to submit biennial reports that are required of large quantity generators (note: This requirement varies by state. Some states require all regulated units to submit annual reports).

3. Accumulation Times. Small quantity generators are allowed to accumulate waste for a period of 180 days (270 days if the disposal facility is located more than 200 miles away) provided that total storage does not exceed 6000 kg.

I. Large Quantity Generators. Generators producing more than 1000 kg of hazardous waste per month must ship their waste within 90 days and must comply with all requirements outlined in this Instruction (excepting Chapter 6).

J. Changing Generator Categories.

1. I.D. Numbers. Whenever a unit generates more than 100 kg of hazardous waste in any given calendar month, they must obtain a generator I.D. number. The only possible exception to this is the rare case where a unit will be generating over 100 kg of hazardous waste as a onetime event. In this case, a onetime temporary I.D. number may be obtained from the appropriate EPA Region.

2. Small Quantity Generator. A small quantity generator (100-1000 kg) which no longer produces more than 100 kg per month may operate as a conditionally exempt small quantity generator provided that the appropriate state office or EPA region is notified in writing of the change in generator status (also notify your CEU).

3. Changing Categories. It is fairly common that a given unit may generate over 1000 kg/mo on occasion, but generate between 100-1000 kg during most months of the year. In this case, the generating unit must comply with the large quantity generator requirements for all hazardous waste generated in the month when 1000 kg was generated. Hazardous wastes generated in other months may be handled under the standards applicable to Small Quantity Generators. Changing generator categories under these circumstances requires that wastes be further segregated to ascertain which month a given amount was generated since some wastes will be subject to shipment within 90 days and others subject to longer accumulation periods (180 or 270 days). As can be

4.J.3. seen, this situation can become fairly complicated and a considerable management problem. For this reason, managing all wastes under the stricter generator requirements may prove to be the most practical policy. This decision is at the discretion of the unit commanding officer or as directed under Area/MLC/CEU policy. Figure 4-5 displays the requirements for the various classes of generators.

K. Segregation and Compatibility.

1. Segregation. Mixing hazardous and non-hazardous wastes is not permitted. Dilution may not relieve a mixture from regulation, but instead, the total volume becomes regulated as a hazardous waste greatly increasing the cost of transportation and disposal. In addition, the increased volume may require more frequent disposal, thereby creating the need for additional paperwork and further increasing transportation costs. Careful segregation and identification of both hazardous and non-hazardous waste will reduce the need for testing and will greatly reduce general disposal costs.

2. Mixing. Hazardous wastes of different DOT shipping descriptions may not be mixed by placing them into a single container unless a permit is held for the treatment of hazardous waste (neither generators nor transporters are permitted to do this). As pointed out earlier, mixing a non-hazardous waste and a listed hazardous waste produces a greater volume of hazardous waste regardless of the percentage involved. Mixing a non-hazardous waste with a characteristic hazardous waste produces a waste that must be tested to see if the material still fails the characteristic test.

3. Compatibility. Some chemical wastes are incompatible with other substances and should not be mixed or even stored in the same area. Figure 4-6 provides a guide on the compatibility of various wastes, and their possible reactions.

4. Large Waste Streams. If a unit produces large quantities of any one given waste, the waste should be segregated and disposed of separately.

L. Accumulation Time/Temporary Storage.

1. Conditionally Exempt Small Quantity Generators. Conditionally exempt Small Quantity Generators may accumulate up to 1000 kilograms without any limitation on accumulation time, unless otherwise regulated by state authority. If a conditionally exempt small quantity generator (<100 kg per month) anticipates accumulating 1000 or more kilograms, the generator must

4.L.1. (Cont'd) obtain an EPA Identification number and comply with all requirements applicable to small quantity or large quantity generators whichever is applicable.

2. Small Quantity Generators. A small quantity generator who generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in any calendar month may accumulate hazardous waste on-site for 180 days (or 270 days if transporting over 200 miles) without a storage permit provided that the following requirements are met:

a. The quantity of waste accumulated on-site never exceeds 6000 kg;

b. The generator complies with the container specification requirements of Section A of Chapter 8 of this Instruction. If the waste in question is stored in tanks one must comply with Section F of Chapter 12 (40 CFR 265, Subpart). Note that as a matter of policy, Coast Guard units will store hazardous waste in tanks only in unusual circumstances and then only with the express approval of MLC/CEU.

c. The generator complies with the following requirements

(1) At all times there must be at least one trained employee either on the premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures specified in this section. This employee is the emergency coordinator.

(2) The generator must post the following information next to the telephone: (For most Coast Guard units this phone would be located in the operations center).
- o The name and telephone number of the emergency coordinator;
- o Location of fire extinguishers and spill control material, and if present, fire alarm; and;
- o The telephone number of the fire department, unless the facility has a direct alarm.

(3) The generator must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures;

4. L. 2. c. (4) The emergency coordinator or designee must respond to any emergencies that arise. The applicable responses are as follows:

(a) In the event of a fire, call the fire department and, if appropriate, attempt to extinguish it using a fire extinguisher. Emergency response by unit personnel should be limited to protecting human life.

(b) In the event of a spill, contain the flow of hazardous waste to the extent possible, and as soon as practicable, clean up the hazardous waste and any contaminated materials or soil.

(c) In the event of a fire, explosion, or other release, which could threaten human health outside the facility, or when the generator has knowledge that a spill has reached surface water, the generator must immediately notify the National Response Center (using their 24-hour toll free number 800/424-8802)*. The report must include the following information:
- o The name, address, and U.S. EPA Identification Number of the generator;
- o Date, time, and type of incident (e.g., spill or fire)
- o Quantity and type of hazardous waste involved in the incident;
- o Extent of injuries, if any; and
- o Estimated quantity and disposition of recovered material, if any

*Note: there are many other circumstances which require notification of the NRC (leaking UST, release of more than a reportable quantity, etc.) Under these circumstances, a greater time may be allowed for reporting. The section above involves reporting in an emergency situation.

3. Generators. A (large quantity) generator may accumulate hazardous waste, on site, for 90 days or less without a TSDF permit or having interim status, provided that:

a. The waste is placed in containers or tanks meeting the requirement of Subpart I and J of 40 CFR 265. This requires use of containers compatible with the waste, in good condition, handled properly,

4.L.3.a. inspected for leaks weekly, and proper separation and segregation of incompatible wastes.

b. The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container. (for battery accumulation, each batch should be dated)

c. While being accumulated on-site, each container or tank is labeled or marked clearly with the words "Hazardous Waste" (for batteries, mark each pallet or drum, not each case); The generator maintains a Preparedness, Prevention, and Contingency Plan (Subparts C and D of 40 CFR 265) and Chapter 9 of this instruction.

e. The generator complies with training requirements in 40 CFR 265.16 and outlined in Chapter 10 of this Instruction.

4. Exceeding Time Limits. A large quantity generator who accumulates hazardous waste for more than 90 days (or a Small Quantity Generator who accumulates waste for more that 180 or 270 days as appropriate) is an operator of a storage facility and subject to the requirements of 40 CFR 264 and 265, as well as the permit requirements of 40 CFR 122. Accumulation for more than 90 days is to be strictly avoided. Two exceptions to this are (1) a "satellite area" as described in Section M of this Chapter, and (2) a Small Quantity Generator meeting the requirements outlined in paragraph 2 of this section.

5. Extensions of Time. An extension may be granted by EPA if hazardous wastes must remain on-site for longer than the specified period (90, 180, or 270 days as applicable) due to unforeseen, temporary, and uncontrollable circumstances. An extension up to 30 days may be granted at the discretion of the EPA Regional Administrator (or appropriate state official) on a case-by-case basis. Extensions must be requested by letter. Copies of any extension requests should be retained along with other HW records.

M. Satellite Areas.

1. Definition. Satellite areas are defined as those places where wastes are generated and where those wastes initially accumulate prior to removal to a central area. For example, a shop located within a Support Center may accumulate hazardous waste in a 55 gallon drum until full. Once full the drum must be marked with the appropriate hazardous waste label, dated, and moved to a temporary accumulation area within 3 days

4.M.1. 72 hours) and is subject to shipment within the specified period (90, 180, or 270 days as appropriate) commencing on the date it was moved from the satellite area, and all other requirements outlined under this Instruction. State regulations may differ on specific provisions for satellite areas.

2. Conditions for Use. Generators of hazardous waste may accumulate up to 55 gallons of hazardous waste, or one quart of acutely hazardous waste **listed in 40 CFR 261.33(e) in containers at or near any point of generation where wastes initially accumulate, without regard to the 90 day storage time limit** provided that:
   (a) The containers are in good condition;
   (b) The wastes are compatible with their containers;
   (c) The containers are marked with the words "Hazardous Waste" or **contents identity if known**; and
   (d) **The containers are under the control of the operator of the process generating the waste.**

3. Limitations. The satellite provision does not allow small quantity generators to accumulate more than 6000 kilograms without becoming subject to the additional requirements mandatory for large quantity generators. Likewise, this provision does not allow conditionally exempt small quantity generators to accumulate more than 1000 kilograms.

4. Locations. Note that a satellite area must be located within the physical boundaries of a given facility. Understanding this fact, a shop within a base or other unit may be considered a satellite. Individual units which are geographically separated, such as stations comprising a group, may not be considered satellites of the group command.

N. Recordkeeping and Reporting.

1. Regulatory Requirements. Subpart D of Part 262 provides detail regarding requirements outlined in paragraphs 2 through 6. If any doubt exists regarding a particular requirement, check with your CEU hazardous waste contact (Enclosure (1)).

4.N.2. Generations. Generators, other than conditionally exempt small quantity generators must keep a copy of each of the following for a period of three years (**40 CFR 262.40**):

a. A copy of all manifest documents.

b. Any test results, waste analysis or other determinations made in accordance with Section B of this chapter and 40 CFR 262.11.

c. A copy of any reclamation/recycling agreement (such as required by Safety-Kleen) for a period of at least three years from expiration of the agreement.

d. A copy of any exception report submitted..

e. Copy of any request for a storage extension.

f. Copies of biennial reports. Note that many states require these reports from all regulated facilities and in many cases, annual reporting is required. A large quantity generator who ships hazardous waste off-site must prepare and submit a biennial report, on EPA Form 8700-13A/B, to the State or Regional office by March 1 of each even numbered year (40 CFR 262.41) (State requirement may differ). As a result of the waste minimization clause of the 1984 RCRA Amendments, biennial reports must also indicate efforts to reduce waste volume and the reduction actually achieved.

Note: Due to the significant liability connected with disposal of hazardous wastes, all hazardous waste management records and **contracts** shall be **permanently** retained at the "generating unit".

3. Conditionally Exempt Small Quantity Generators. Conditionally Exempt Small Quantity Generators (less than 100 kg/mo) are not subject to the requirements of this section except for the retention of test results as specified under paragraph 2.b. of this Section.

4. Biennial Report Forms. Forms and instructions for completion are provided as Enclosure (8). Current forms must be obtained from the EPA regional offices listed in Enclosure (2). Note that most states require their own form.

4.N.5. Exceptions to Reporting. On-Scene Coordinators for spill cleanups who possess a Generator I.D. number are not subject to the biennial reporting requirements.

6. Underground Storage Tanks. Registration and reporting requirements for underground storage tanks (UST' s) are discussed in **the Storage Tank Management Manual, COMDTINST M5090.9.**

7. Exception Reports.

a. Generators who don't receive a copy of the signed manifest from the owner or operator of the designated TSDF within 35 days of the date of the shipment must contact the transporter and/or the owner or operator of the designated TSDF to determine the status of the hazardous waste. (Note that time limits for this requirement vary from state to state). This action (phone call) should be recorded in an appropriate log.

b. Large Quantity Generators must submit an Exception Report to the EPA Regional Administrator if they have not received a copy of the manifest with the signature of the owner or operator of the designated TSDF within 45 days (also varies by state) of the date of the shipment.

c. Small Quantity Generators must submit an Exception Report to the EPA Regional Administrator if they have not received a copy of the manifest with the signature of the owner or operator of the designated facility within 60 days (also may vary by state) of the date of the shipment.

d. The Exception Report must include:
(1) A legible copy of the manifest for which the generator does not have confirmation of delivery.
(2) A cover letter signed by the generator or his authorized representative explaining the effort he has taken to locate the hazardous waste and the results of those efforts.
(3) Copies of all exception reports shall be submitted to your servicing CEU.

8. Inspection Logs. Generators shall maintain a written log which records the findings of weekly container inspections. See Section D. of Chapter 8.

4.N.9. Training Records. Records documenting the training of all personnel handling or managing hazardous waste need to be maintained by generators. See Section C of Chapter 10 for detail (40 CFR 265.16).

O. Defense Reutilization and Marketing Service (DRMS).

1. The Coast Guard has an agreement with the Defense Reutilization and Marketing Service (formerly Defense Property Disposal Service (DPDS)), to provide hazardous waste disposal service to Coast Guard facilities on an identifiable cost basis. All CG units wishing to use DRMS must be on the local Defense Reutilization and Marketing Office (DRMO) pick up list.

2. Various Defense Reutilization and Marketing Offices (DRMO's) of the DRMS operate differently. It is however, a fairly uniform practice to require submission of DOD Form DD-1348-1 for each pickup/shipment of waste. A more detailed explanation of turn-in requirements is provided in the Property Management Manual, COMDTINST M4500.5.

3. All units are required to provide a Hazardous Waste Profile Sheet (HWPS) DRMS Form 1930 with all turn-ins of HW (see Figure 4-7). The profile sheets are required annually for each waste stream. Consult with your servicing CEU or DRMO if you have questions concerning completion of the HWPS.

4. DRMO practices and/or advice which appear inconsistent with Federal or state regulations shall be reported to Commandant (G-ECV) (202) 267-2345. For example, a local DRMO may request that a unit deliver hazardous wastes as hazardous material without manifesting the shipment. This practice is inconsistent with EPA regulations and should not be agreed to.

5. Consult with your servicing CEU prior to initiating use of DRMS contractors.

6. Each unit using DRMO for disposal is responsible for ensuring appropriate funds are available from unit funds (AFC-30).

4.P. Waste Minimization.

1. Requirements. **EPA requires that generators of 1000 kgs or more per month of hazardous waste implement a waste minimization program.** The elements of this program are described below.

   a. EPA Manifest. **A large quantity generator must certify on each manifest (Block 16) that the facility has a program in place to reduce the quantity and toxicity of hazardous waste. A small quantity generator is not subject to the same "program in place" certification requirement. Rather, they must certify on their manifest that they have made a good faith effort to minimize their waste generation.**

   b. Biennial Report. A large quantity generator must describe in his Biennial Report (see Chapter 4, Section N) actions taken to achieve waste minimization.

   c. **Program Elements. All waste minimization programs must include Top Management Support, Waste Tracking, Periodic Waste Minimization Assessments, Cost Allocation, Technology Sharing, and Program Implementation and Evaluation.**

2. Background. RCRA and EPA only require waste minimization efforts which are economically practicable and currently available. EPA will be enforcing these requirements. Projects for waste minimization are eligible for funding from the Environmental Compliance and Restoration (EC&R) Account via the cognizant CEU. Contact CEU for details.

3. Benefits of Waste Minimization. It is Coast Guard policy that waste minimization efforts be carried out by each unit to the greatest extent practicable (i.e., cost effective). Doing so offers several benefits to you, the Coast Guard, and others.

   a. Cost. Reducing the volume of hazardous waste reduces the cost of testing, transportation, and disposal.

   b. Liability. The less hazardous waste shipped off-site, the lower our immediate and long-term liability from improper off-site handling.

4.P.3. c. Lower Generator Category. Lowering the amount of hazardous waste generated and/or recycling hazardous wastes that are generated can reduce your compliance requirements. For example, recycling hazardous wastes such as lead-acid batteries allows you to exclude these items from the monthly generation total (see Chapter 4, Section D). Recycling certain categories of hazardous waste (i.e. lead acid batteries) in significant amounts can result in lowering a unit's generator level (from more than 1000 to less than 1000 kgs/mo for example, or more than 100 to less than 100 kgs/mo), thereby reducing the extent of regulation on the unit' s activities.

4. Methods of Minimizing Hazardous Waste Production and Disposal.

a. Source Reduction/Hazardous Material Substitutes. Substitution of non-hazardous products for materials now resulting in the production of a hazardous waste is the most effective means of reducing hazardous waste. Although this solution is limited in application, it is frequently overlooked as the most direct means of eliminating or reducing hazardous waste. Practical Coast Guard applications include solarization of ATON batteries, using non-chlorinated solvents in place of chlorinated solvents, and reducing or terminating use of toluene.

b. Procurement and Inventory Control. Minimize disposal of new or unused materials by reducing the hazardous material inventory to a minimum and ensure that old containers are rotated. Procure container sizes appropriate for the job to avoid disposal costs of unused portions.

c. Process Control. Establish work procedures and instructions for employees to insure that excessive waste is not being generated from a specific work process.

4.P.4. d. Recycling. The following Coast Guard waste items must be recycled whenever possible:
(1) lead-acid batteries
(2) nicad batteries
(3) mercury cell strobe light batteries
(4) solvents
(5) waste oils
In addition to minimizing waste quantities, recycling of the above items (or any other items capable of recycling) can save a unit significant disposal costs and paperwork requirements. Additional benefits are pointed out in paragraph 4.P.3.

e. Segregation. The easiest way to achieve waste minimization is to segregate hazardous from non-hazardous waste. Generally speaking, adding the two together creates a mixture which is regulated as hazardous waste. See Chapter 4, Section K for recommended segregation practices.

Q. Universal wastes.

1. Definition. Universal wastes are wastes which are subject to the streamlined management requirements of 40 CFR Part 273. At the present time only waste batteries, pesticides and mercury thermostats are considered universal wastes. The universal waste requirements are only allowed in states which do not have an authorized RCRA program (HI, AK, IA, and WY) or in RCRA authorized states which have adopted similar regulations.

2. Requirements. 40 CFR Part 273 provides a more detailed explanation of the universal waste management standards. All universal waste is excluded from monthly quantity determinations; a manifest is not required for shipment to a destination facility; universal waste must be marked with the initial accumulation date and the applicable words "universal waste-battery(ies), or pesticide(s) or mercury thermostat(s)"; and universal waste may be accumulated for no longer than one year from the date it is generated. Contact your servicing CEU for further assistance.

FIGURE 4-1a

SAMPLE "NOTIFICATION OF HAZARDOUS WASTE ACTIVITY" FORM*

Form Approved OMB No 2050-0028 Expires 9-30-88
GSA No 0246-EPA-OT

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

United States Environmental Protection Agency
Washington, DC 20460

EPA Notification of Hazardous Waste Activity

Please refer to the *Instructions for Filing Notification* before completing this form. The information requested here is required by law (*Section 3010 of the Resource Conservation and Recovery Act*).

For Official Use Only

Comments

Installation's EPA ID Number | Approved | Date Received (yr. mo. day) | T/A C 1

I. Name of Installation

U.S. COAST GUARD BASE SCRANTON

II. Installation Mailing Address

Street or P.O. Box: 35 MOOSIC STREET

City or Town: SCRANTON | State: PA | ZIP Code: 29044

III. Location of Installation

Street or Route Number: 35 MOOSIC STREET

City or Town: SCRANTON | State: PA | ZIP Code: 29044

IV. Installation Contact

Name and Title (*last, first, and job title*): SILBERMAN JAY LT | Phone Number (*area code and number*): 7075462862

V. Ownership

A. Name of Installation's Legal Owner: U.S. COAST GUARD | B. Type of Ownership (*enter code*): FF

VI. Type of Regulated Waste Activity (*Mark 'X' in the appropriate boxes. Refer to instructions.*)

A. Hazardous Waste Activity

- [X] 1a. Generator
- [X] 1b. Less than 1,000 kg/mo.
- [ ] 2. Transporter
- [ ] 3. Treater/Storer/Disposer
- [ ] 4. Underground Injection
- [ ] 5. Market or Burn Hazardous Waste Fuel (*enter 'X' and mark appropriate boxes below*)
  - [ ] a. Generator Marketing to Burner
  - [ ] b. Other Marketer
  - [ ] c. Burner

B. Used Oil Fuel Activities

- [ ] 6. Off-Specification Used Oil Fuel (*enter 'X' and mark appropriate boxes below*)
  - [ ] a. Generator Marketing to Burner
  - [ ] b. Other Marketer
  - [ ] c. Burner
- [ ] 7. Specification Used Oil Fuel Marketer (*or On site Burner*) Who First Claims the Oil Meets the Specification

VII. Waste Fuel Burning: Type of Combustion Device (*enter 'X' in all appropriate boxes to indicate type of combustion device(s) in which hazardous waste fuel or off-specification used oil fuel is burned. See instructions for definitions of combustion devices.*)

- [ ] A. Utility Boiler
- [ ] B. Industrial Boiler
- [ ] C. Industrial Furnace

VIII. Mode of Transportation (*transporters only — enter 'X' in the appropriate box(es)*)

- [ ] A. Air
- [ ] B. Rail
- [ ] C. Highway
- [ ] D. Water
- [ ] E. Other (*specify*)

IX. First or Subsequent Notification

Mark 'X' in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your installation's EPA ID Number in the space provided below.

- [X] A. First Notification
- [ ] B. Subsequent Notification (*complete item C*)

C. Installation's EPA ID Number

Continue on reverse

EPA Form 8700-12 (Rev. 11-85) Previous edition is obsolete

FIGURE 4-1b

SAMPLE "NOTIFICATION OF HAZARDOUS WASTE ACTIVITY" FORM*

(Continued)

NOTE: Figure 4-3 and Chapter 7 may be referenced to obtain the proper four-digit numbers for wastes handled at your facility.

ID — For Official Use Only

C													T/A	C
W														1

X. Description of Hazardous Wastes *(continued from front)*

A. Hazardous Wastes from Nonspecific Sources. Enter the four-digit number from 40 *CFR* Part 261.31 for each listed hazardous waste from nonspecific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
F001	F002	F005			
7	8	9	10	11	12

B. Hazardous Wastes from Specific Sources. Enter the four-digit number from 40 *CFR* Part 261.32 for each listed hazardous waste from specific sources your installation handles. Use additional sheets if necessary.

13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

C. Commercial Chemical Product Hazardous Wastes. Enter the four-digit number from 40 *CFR* Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
U226	U227				
37	38	39	40	41	42
43	44	45	46	47	48

D. Listed Infectious Wastes. Enter the four-digit number from 40 *CFR* Part 261.34 for each hazardous waste from hospitals, veterinary hospitals, or medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54

E. Characteristics of Nonlisted Hazardous Wastes. Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 — 261.24)*

- [X] 1. Ignitable *(D001)*
- [X] 2. Corrosive *(D002)*
- [ ] 3. Reactive *(D003)*
- [X] 4. Toxic *(D000)*

XI. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature	Name and Official Title *(type or print)*	Date Signed
Tom Bennett	T. BENNETT, CAPT, USCG	20 SEP 86

EPA Form 8700-12 (Rev. 11-85) Reverse

FIGURE 4-2

SUMMARY OF CHARACTERISTICS AND PROPERTIES OF HAZARDOUS WASTES UNDER 40 CFR, 261.

Ignitability:
- For liquid, flash point less than **140F** (261.21)
- For non-liquid, capable of causing fire through friction, absorption of moisture, or spontaneous chemical changes; persistent and vigorous burning
- Ignitable compressed gas as defined in 49 CFR 173.115
- Oxidizer as defined in 49 CFR 173.127

Corrosivity:
- For aqueous solution, pH less than or equal to 2 or greater than or equal to 12.5
- For liquid, corrodes steel at a rate greater than 0.250 inch/year under standard conditions

Reactivity:
- Normally unstable and undergoes violent change without detonating
- Reacts violently with water; forms potentially explosive mixture with water
- Can generate dangerous gases under certain conditions
- Capable of detonation or explosive reaction under certain conditions
- Explosive as defined in 49 CFR 173.50, or 49 CFR 173.54

Toxicity:
- After specified procedure is conducted (TCLP), contaminants are present at concentrations equal to or greater than those specified in Table 1 of 40 CFR Section 261.24.

FIGURE 4-3

COMMON HAZARDOUS WASTE ITEMS AT USCG UNITS

Waste	EPA Hazardous	Generating Characteristic	Unit (a)
Discharged ATON batteries	D002	Corrosivity	B, SC, V
	D009	toxicity mercury	
Engine coolant containing dichromate	D007	toxicity (chromium)	BS, SC, V
Spent sandblast grit (b)			BS, SC,
Bilge and waste oil (b,c)			BS, SC
Waste oil and fuel (c)			AS, SC, V
Lithium batteries	D003	reactivity	AS, SC
Nicad batteries	D002	corrosivity	AS, SC
	D006	toxicity (cadmium)	
Polyurethane foam kit			AS, SC
Part A: diphenylmethane disocyanate	D003	reactivity	
Part B: trichloro-fluoromethane	U121	toxicity	
Spent fixer solution (d)	D011	toxicity (silver)	AS, SC
Wheel strip compounds (e)			AS, SC
Spent thinners/ paint slops	D001	ignitability	BS, AS,
	D007	toxicity (chromium)	SC, V
	D008	toxicity (lead)	
Lead acid batteries (c)	D002	Corrosivity	BS, AS, SC
	D008	Toxicity (lead)	
Petroleum hydrocarbon solvents (c) (including PD-680 and Agitene)	D001	ignitability	BS, AS, SC
Chlorinated solvents, including Freon	F002	toxicity	BS, AS, SC
Trichloroethane	F001, U226, U227	toxicity	BS, AS; SC, V

a Generating units: BS = Base/Station; SC = Supt Center; AS = Air Sta; V = Vessel
b Analytical testing required to verify hazardous waste classification
c Not federally regulated when recycled, unless mixed with a listed waste or demonstrates a characteristic such as ignitability
d Unless silver recovery is practiced
e Classification dependent upon specific product and/or results of testing.

FIGURE 4-4

SELECTION OF AN ENVIRONMENTAL TESTING LABORATORY

SELECTION OF A LABORATORY TO CONDUCT TESTING OF SOIL AND/OR WASTE SAMPLES IS NOT SOMETHING DONE EVERY DAY. IN ORDER TO INSURE THAT SAMPLING AND SUBSEQUENT TESTING OF SAMPLES IS CONDUCTED IN A MANNER WHICH WILL PROVIDE VALID RESULTS, THE FOLLOWING ITEMS SHOULD BE CONSIDERED:

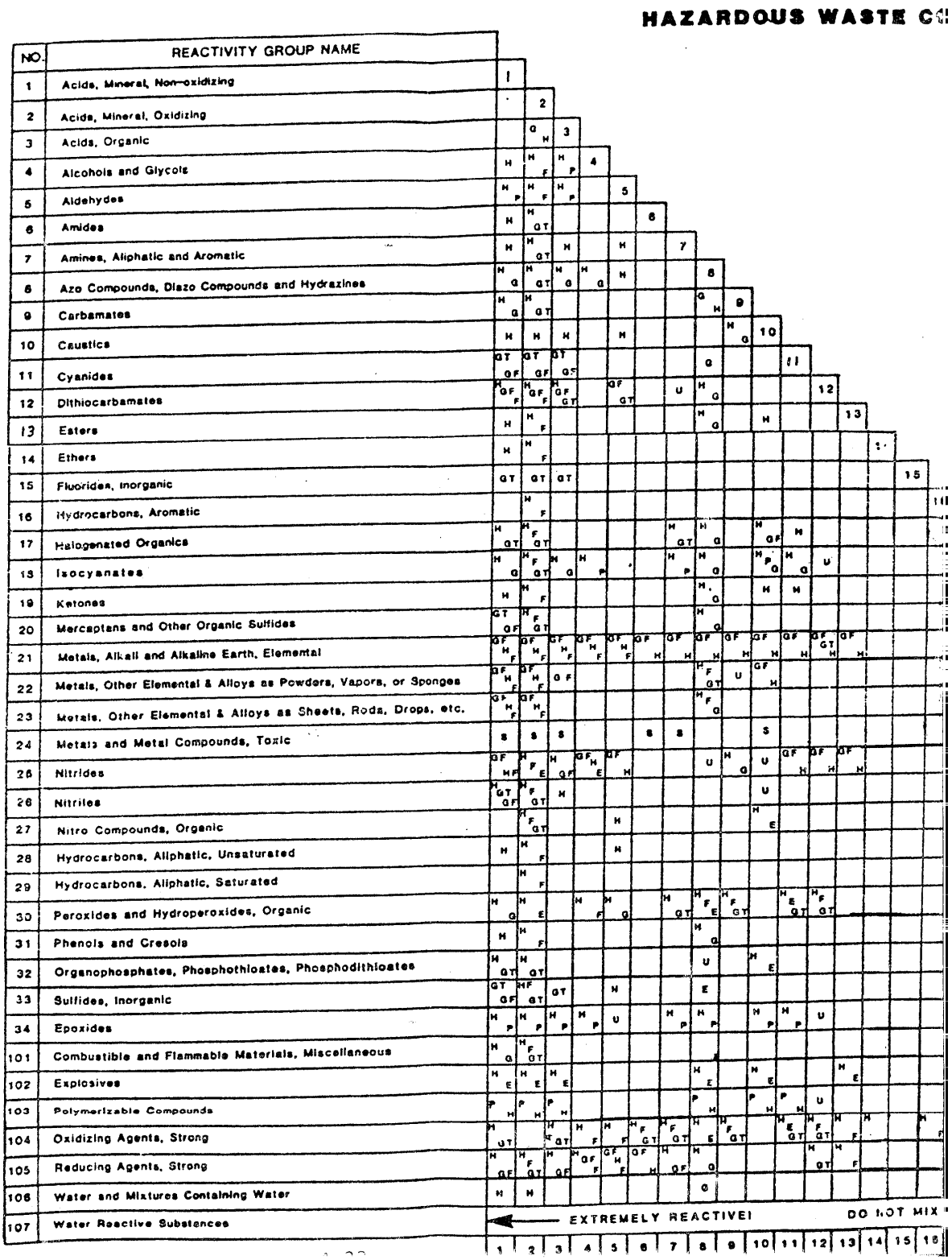
- Does the selected lab participate in EPA's certification program?
- What type of chain of custody controls are in effect?
- What are average sampling and hold times?
- What is the purpose of the sampling? Waste stream analysis? Soil samples? Water samples? or other.
- Does the selected lab have the capability to analyze your samples?
- What QA/QC measures are in effect?
- Is the lab willing to allow visits to their facility and review of records?
- Is the lab willing to provide references?

FIGURE 4-5

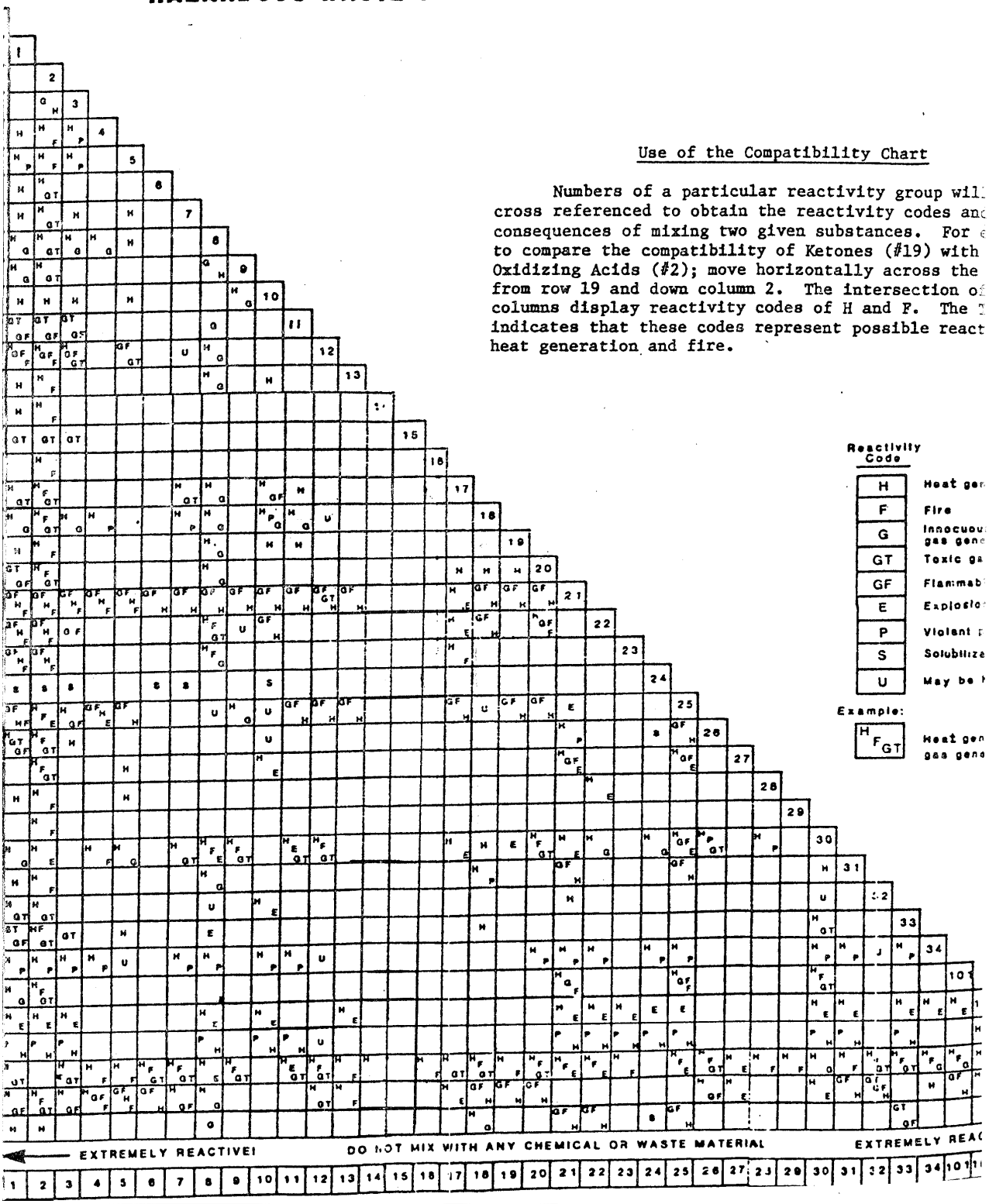
SUMMARY OF EPA GENERATOR REQUIREMENTS

REQUIREMENT	100 kg or less per mo.	>100 kg and <1000 kg or per mo.	1000 kg more per mo.
. EPA Generator ID#	No	Yes	Yes
. Manifest wastes	No	Yes	Yes
. Time limit for disposal (days)	None	180	90
. Accumulate on-site without permit (kg)	1000	6000	Unlimited
. Satellite accumulation	N/A	Yes	Yes
. Recordkeeping and reporting	No	Yes	Yes
. Preparedness and Prevention	No	Yes	Yes
. Contingency Plan	No	No	Yes
. Personnel Training	No	Yes	Yes
. Disposal in regulated facility	Yes	Yes	Yes
. Disposal in Sanitary landfill	Yes	No	No
. Waste minimization Program	No	No	Yes
. Exception Reports	No	Yes	Yes

HAZARDOUS WASTE COMPATIBILITY CHART



HAZARDOUS WASTE COMPATIBILITY CHART



Use of the Compatibility Chart

Numbers of a particular reactivity group wil
cross referenced to obtain the reactivity codes an
consequences of mixing two given substances. For
to compare the compatibility of Ketones (#19) with
Oxidizing Acids (#2); move horizontally across the
from row 19 and down column 2. The intersection o
columns display reactivity codes of H and F. The
indicates that these codes represent possible react
heat generation and fire.

Reactivity Code	
H	Heat ge
F	Fire
G	Innocuou gas gene
GT	Toxic ga
GF	Flammab
E	Explosio
P	Violent
S	Solubiliz
U	May be

Example: H F GT — Heat gen gas gene

EXTREMELY REACTIVE! DO NOT MIX WITH ANY CHEMICAL OR WASTE MATERIAL EXTREMELY REA

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 101

HAZARDOUS WASTE COMPATIBILITY CHART

FIGURE 4-6

Use of the Compatibility Chart

Numbers of a particular reactivity group will be cross referenced to obtain the reactivity codes and consequences of mixing two given substances. For example, to compare the compatibility of Ketones (#19) with Oxidizing Acids (#2); move horizontally across the page from row 19 and down column 2. The intersection of these columns display reactivity codes of H and F. The Table indicates that these codes represent possible reactions of heat generation and fire.

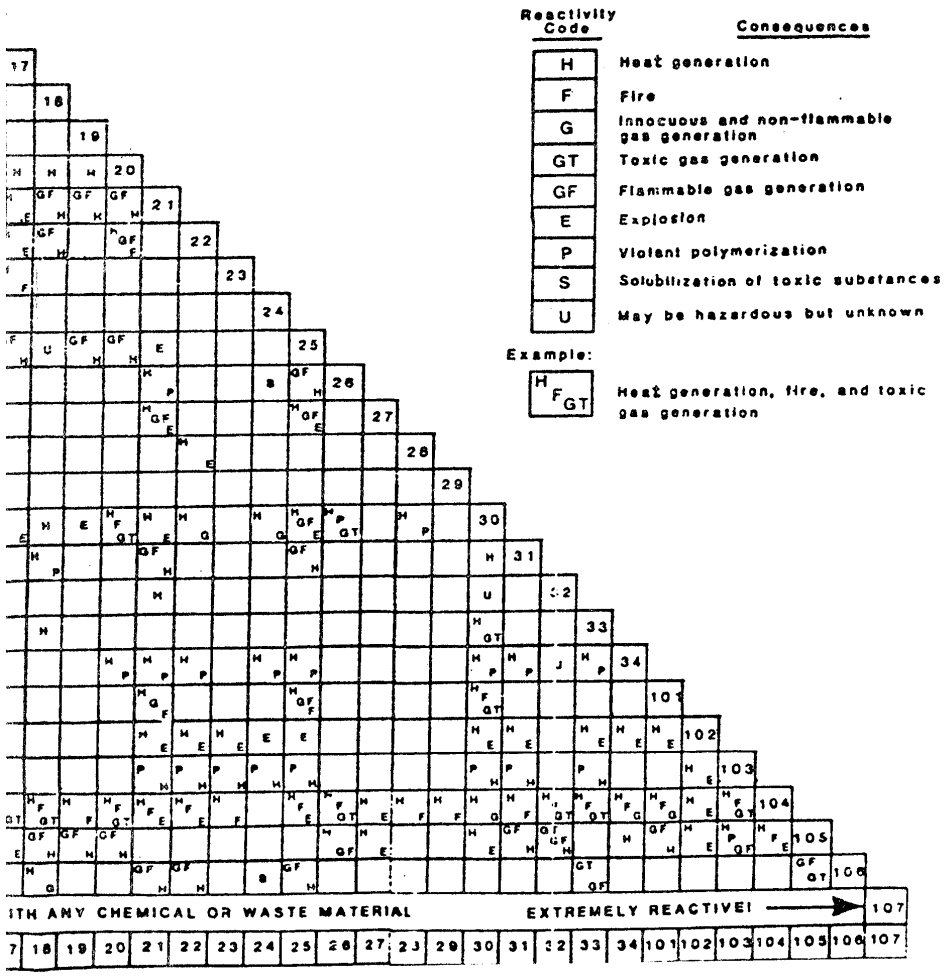


FIGURE 4-7a

HAZARDOUS WASTE PROFILE SHEET

PART I

A. GENERAL INFORMATION WASTE PROFILE NO. _____

1. GENERATOR NAME

2. FACILITY ADDRESS

3. GENERATOR USEPA ID

4. GENERATOR STATE ID

5. ZIP CODE

6. TECHNICAL CONTACT

7. TITLE

PHONE ( )

B. 1. NAME OF WASTE _____

2. USEPA/or/STATE WASTE CODE(S) _____

3. PROCESS GENERATING WASTE _____

4. PROJECTED ANNUAL VOLUME/UNITS _____ / _____ 5. MODE OF COLLECTION _____

6. IS THIS WASTE A DIOXIN LISTED WASTE AS DEFINED IN 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, OR F028)? ☐ YES ☐ NO

7. IS THIS WASTE RESTRICTED FROM LAND DISPOSAL (40 CFR 268)? ☐ YES ☐ NO
HAS AN EXEMPTION BEEN GRANTED? ☐ YES ☐ NO
DOES THE WASTE MEET APPLICABLE TREATMENT STANDARDS? ☐ YES ☐ NO REFERENCE STANDARDS _____

PART II

1. MATERIAL CHARACTERIZATION
(OPTIONAL-NOT REQUIRED DATA)

COLOR _____
DENSITY _____ BTU/LB _____
TOTAL SOLIDS _____ ASH CONTENT _____
LAYERING: ☐ MULTILAYERED ☐ BILAYERED ☐ SINGLE PHASE

2. RCRA CHARACTERISTICS

PHYSICAL STATE: ☐ SOLID ☐ LIQUID ☐ SEMI-SOLID ☐ GAS ☐ OTHER

TREATMENT GROUP: ☐ WASTEWATER ☐ NON-WASTEWATER

☐ IGNITABLE (D001)
FLASH POINT (F) _____
☐ HIGH TOC (> 10%)
☐ LOW TOC (< 10%)

☐ REACTIVE (D003)
☐ WATER REACTIVE
☐ CYANIDE REACTIVE
☐ SULFIDE REACTIVE

☐ CORROSIVE (D002)
pH _____
☐ CORRODES STEEL

☐ TOXICITY CHARACTERISTIC *(SEE REVERSE FOR LISTING)*

3. CHEMICAL COMPOSITION (ppm or mg/L)

COPPER _____ PHENOLICS _____
NICKEL _____ TOTAL HALOGENS _____
ZINC _____ VOLATILE ORGANICS _____
CHROMIUM-HEX _____ PCBs _____
(OTHER) _____

NOTE: EXPLOSIVES, SHOCK SENSITIVE, PYROPHORIC, RADIOACTIVE, ARB ETIOLOGICAL WASTE NORMALLY ARE NOT ACCEPTED BY THE DRMO.

4. MATERIAL COMPOSITION

COMPONENT	CONCENTRATION	RANGE

TOTAL _____ 100%

5. SHIPPING INFORMATION

DOT HAZARDOUS MATERIAL? ☐ YES ☐ NO

PROPER SHIPPING NAME _____

HAZARD CLASS _____ U.N. or N.A. NO. _____
ADDITIONAL DESCRIPTION _____
METHOD OF SHIPMENT ☐ BULK ☐ DRUM ☐ OTHER: _____
CERCLA REPORTABLE QUANTITY (RQ) _____
EMERGENCY RESPONSE GUIDE PAGE
DOT PUBLICATION 5800.4 PAGE NO. _____ EDITION (YR) _____
SPECIAL HANDLING INFORMATION _____

6. GENERATOR CERTIFICATION

BASIS FOR INFORMATION
☐ CHEMICAL ANALYSIS *(ATTACH TEST RESULTS)*
☐ USER KNOWLEDGE *(ATTACH SUPPORTING DOCUMENTS - Explain how and why these documents comply with RCRA requirements)* _____

I, _____ *(Print or Type Name)*, HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS TO THE BEST OF MY KNOWLEDGE AN ACCURATE REPRESENTATION OF THE WASTE TURNED IN TO THE DRMO. ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

SIGNATURE OF GENERATOR'S REPRESENTATIVE

DATE

DRMS Form 1930
Oct 90

FIGURE 4-7b

TOXICITY CHARACTERISTIC LIST

EFFECTIVE 29 SEP 90 - LARGE QUANTITY GENERATORS
29 MAR 91 - SMALL QUANTITY GENERATORS

CONTAMINANT	EPA HW No.	(mg/L)	CONTAMINANT	EPA HW No.	(mg/L)
☐ ARSENIC	D004		☐ HEXACHLORO-1,3,-BUTADIENE	D033	
☐ BARIUM	D005		☐ HEXACHLOROETHANE	D034	
☐ BENZENE	D018		☐ LEAD	D008	
☐ CADMIUM	D006		☐ LINDANE	D013	
☐ CARBON TETRACHLORIDE	D019		☐ MERCURY	D009	
☐ CHLORDANE	D020		☐ METHOXYCHLOR	D014	
☐ CHLOROBENZENE	D021		☐ METHYL ETHYL KETONE	D035	
☐ CHLOROFORM	D022		☐ NITROBENZENE	D036	
☐ CHROMIUM	D007		☐ PENTACHLOROPHENOL	D037	
☐ O-CRESOL	D023		☐ PYRIDINE	D038	
☐ M-CRESOL	D024		☐ SELENIUM	D010	
☐ P-CRESOL	D025		☐ SILVER	D011	
☐ CRESOL	D026		☐ TETRACHLOROETHYLENE	D039	
☐ 2,4-D	D016		☐ TOXOPHENE	D015	
☐ 1,4-DICHLOROBENZENE	D027		☐ TRICHLOROETHYLENE	D040	
☐ 1,2-DICHLOROETHANE	D028		☐ 2,4,5-TRICHLOROPHENOL	D041	
☐ 1,1-DICHLOROETHYLENE	D029		☐ 2,4,6-TRICHLOROPHENOL	D042	
☐ 2,4-DINITROTOLUENE	D030		☐ 2,4S-TP (SILVEX)	D017	
☐ ENDRIN	D012		☐ VINYL CHLORIDE	D043	
☐ HEPTACHLOR (AND ITS HYDROXIDE)	D031				
☐ HEXACHLOROBENZENE	D032				

PART III

FOR DRMO USE ONLY

DRMO VERIFICATION

1. DATE VERIFIED _____

2. RESULTS ☐ *ATTACHED*

pH _____ FLASH POINT _____ SPECIFIC GRAVITY _____ HALIDES (TOX) _____

REACTIVITY: WATER REACTIVITY _____ CYANIDES _____ SULFIDES _____

TCLP _____

CHAPTER 5. TRANSPORTATION AND LABELING OF HAZARDOUS WASTE

A. general.

1. Conditionally Exempt SQG's. Coast Guard units which are conditionally exempt small quantity generators (less than 100 kg in any calendar month) may transport their own hazardous waste in quantities under 1000 kg without possession of an EPA transporter number and without obligation to Federal transportation requirements. Note: This practice is strongly discouraged however since most states regulate the transportation of hazardous wastes without regard to quantity.

2. Small and Large Quantity Generators. Coast Guard units which are small or large quantity generators may transport their own hazardous wastes to a treatment, storage, or disposal facility (TSDF), provided they comply with the applicable requirements outlined in this Chapter and in 49 CFR. Units will usually find it easier to contract for transportation, than to try to meet all the legal requirements necessary to transport their own waste and as a matter of policy we do not encourage it. In addition to meeting federal requirements, transporters must also comply with state and local regulations. Because of the complexity of the DOT regulations, any unit transporting its own hazardous waste shall obtain a copy of the applicable DOT regulations (49 CFR, Parts 100-177) and fully comply with all requirements.

3. Transporter I.D. Numbers. Generators desiring to transport their own hazardous waste shall not do so until they have obtained an EPA Identification Number for transportation. Application for a transporter's number is made using EPA Form 8700-12. This is the same form used to request a generator number. Applications on EPA Form 8700-12 are made to the EPA Administrator. Forms are available from EPA Regional Offices (Enclosure (2)).

4. Managing Commercial Transporters. Even when using commercial transporters, units should make every practical effort to ensure that transporters handle waste material in a responsible manner, comply with all manifest requirements, and any applicable local regulations. This is important since irresponsible actions by a commercial transporter that result in an accident may result in partial or complete Coast Guard liability.

5.A. 5. Temporary Storage Enroute. Transporters may store shipments of hazardous waste in containers meeting the manifest requirements for up to ten days without having to become TSDF's.

6. Imports/Exports of Hazardous Waste. It is Coast Guard policy that the export of hazardous waste is prohibited, unless the general requirements in 40 CFR 262.52 are followed. Export of hazardous waste for reasons of disposal or recycling are highly discouraged. Any unit which imports a hazardous waste must follow the additional requirements of 40 CFR 262.60.

B. Transfer/Transportation of Hazardous Waste to Other Units. As a matter of Coast Guard policy, any unit which has an EPA Identification number will not transfer or transport hazardous waste to another Coast Guard facility. Certain limited exceptions to this policy may apply to vessels and remote shore stations. Contact the environmental specialist at your servicing CEU for guidance prior to transferring wastes from one unit to another.

C. Manifest System and Recordkeeping (Generator Requirements).

1. Manifests. A hazardous waste manifest is a multi-copy shipping document that accompanies your hazardous waste shipments. The manifest form is designed so that shipments of hazardous waste can be tracked from their point of generation to their final destination, the so-called "cradle-to-grave" system. The generator, the hauler, and the designated TSDF must each sign the manifest and keep a copy. The designated TSDF must then send the signed original back to the generator so that the generator can be sure that the shipment arrived.

2. Generator Requirements. Generators (other than Conditionally Exempt Small Quantity Generators) who transport or offer for transportation hazardous waste for off-site treatment, storage, recycling or disposal must prepare a manifest before transporting the waste off-site. The generator must also designate one approved TSDF on the manifest and may designate one alternate facility. If the transporter is unable to deliver the hazardous waste to either of these facilities, the generator must either designate another facility or instruct the transporter to return the waste.

5.C.3. Small Quantity Generator Recycling. Small quantity generators (less than 1000 kg per month) which have commercial agreements for the pickup and recycling of solvents (such as the Safety-Kleen Company) do not need to manifest exchange of the old and new solvents. Nor should they include the amount in the monthly generation total. This is a special exception allowed under 40 CFR 262.20(e). A copy of the reclamation agreement must however be retained for a period of at least 3 years after expiration of the agreement.

4. Large Quantity Generators Recycling Requirements. Large quantity generators which recycle solvents as described in paragraph 5.C.3 above must comply with the normal manifest requirements when recycling solvents or other hazardous waste. This is true even though the agreement is identical to that identified above (paragraphs 7.G.4.b, c, and d of this Instruction also address this matter).

5. Manifest Requirements.

a. Both small (SQG) and large quantity generators must use the uniform hazardous waste manifest, EPA Form 8700-22. A continuation sheet (EPA Form 8700-22Aa) is available if needed. EPA Forms 8700-22 and 22A are reprinted under Enclosure (7) along with step by step instructions for completion. Forms must be obtained as directed in paragraph 5.b of this section. A completed manifest form filled-in with common Coast Guard waste items is reprinted as Figure 5-1. This sample manifest clearly displays how the proper DOT shipping information is used in completing the manifest form.

b. Although the uniform hazardous waste manifest requires the same information nationwide, many states have modified the basic form to require additional data items. Manifests must be obtained from the state where the waste will be disposed of (the consignment state). If the consignment state does not supply the manifest, the generator must then contact the state where the waste was generated and attempt to obtain the form. If the generator's state does not supply the blank manifest, then camera-ready copies of the EPA form can be obtained from EPA regional offices or EPA headquarters. Also, blank forms can be purchased from private companies such as Lablemaster (Chicago, Illinois) and J.J. Keller (Neenab, Wisconsin). Addresses and phone numbers for these companies and others are provided as Figure 5-5.

5.C.5. c. Enclosure (3) provides the applicable state contacts for obtaining the required manifest forms. The listed offices are also available to answer any related questions.

d. Each manifest has a "comeback" copy which is returned to the generator after the waste reaches the designated TSDF. The generator must contact the transporter and/or the designated TSDF to determine the status of the hazardous waste whenever the "comeback" copy has not been received within 35 days (from the date when the waste was accepted by the initial transporter). If the generator does not receive the "comeback" copy within 45 days (60 days in the case of a small quantity generator), an Exception Report must be filed with either the state or EPA (40 CFR 262.42, Exception Reporting). The time limits may vary in some states.

e. A copy of each manifest **shall be retained permanently at the "generating unit". Exception Reports must also be kept permanently.**

f. The generator must:

(1) Fill in all the required information;
(2) Sign, by hand, the manifest certification;
(3) Obtain the handwritten signature of the initial transporter and date of acceptance of the manifest;
(4) Retain one copy and ensure receipt of the original copy once signed by the TSDF; and
(5) Give the remaining copies to the transporter.

g. Required statements: In addition to the information discussed above, each manifest must include the following:

5.C.5.g. (1) A statement that the waste either is or is not "land banned" If the land ban does apply, treatment standards manifest itself (see Chapter 4 Section C of this manual for a complete discussion of the Land Disposal Regulations.

(2) A burden statement must be included. The burden statement must read as follows: "Public reporting for this collection of information is estimated to average 37 minutes for generators, 15 minutes for transporters and 10 minutes for treatment, storage, and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments concerning the burden estimate, including suggestions for reducing this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401M Street SW, Washington, D.C. 20460; and, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503."
The burden statement may be attached to the manifest as a separate sheet until preprinted forms are available.

(3) The manifest shall include a 24 hour telephone number which will allow contact with a person who has direct knowledge of the material (waste) being shipped and, who has knowledge of the requirements of emergency response and accident mitigation.

6. Comeback copies. A generator (either small or large quantity) who does not receive a copy of the signed manifest from the owner or operator of the designated facility within 35 days of the date of the shipment must contact the transporter and/or the owner or operator of the designated facility to determine the status of the hazardous waste. Note that time limits for this requirement vary from state to state.

5.C.7. Exception Reports. If you fail to receive a copy of the manifest with the signature of the owner or operator of the designated facility within 45 days (60 days in the case of a small quantity generator) of the date of the shipment, the generator must submit an Exception Report to the EPA Regional Administrator. The Exception Report must include:

a. A legible copy of the manifest for which the generator does not have confirmation of delivery and;

b. A cover letter signed by the generator or authorized representative explaining the effort that has been taken to locate the hazardous waste and the results of those efforts.

8. Shipments by Water or Rail. Bulk shipments by water or rail have additional requirements detailed in 40 CFR Part 262.23

D. Manifest System (Transporter Requirements).

1. General Requirements. A transporter may not accept hazardous waste from a generator unless it is accompanied by a signed manifest. Before transporting the hazardous waste the transporter must sign and date the manifest acknowledging acceptance of the hazardous waste from the generator. The transporter must then return a signed copy of the manifest to the generator before leaving the generator's property. The transporter must also ensure that the manifest accompanies the hazardous waste.

2. Delivery of Shipment. A transporter who delivers a hazardous waste to another transporter or the designated facility must:

a. Obtain the date of delivery and handwritten signature of that transporter or of the owner or operator of the designated facility on the manifest;

b. Retain one copy of the manifest; and

c. Give the remaining copies of the manifest to the accepting transporter or designated facility.

3. Shipments by Water or Rail. Additional requirements for bulk shipment of hazardous waste delivered by water and rail shipments are detailed in 40 CFR 263.20(e) and (f).

5.D.4. Maintenance of Records. A transporter of hazardous waste must keep a copy of the manifest signed by the generator, and the next transporter or the owner or operator of the designated facility for a period of three years from the date the hazardous waste was accepted by the initial transporter.

E. Labeling and Placarding.

1. Responsibility for Proper Marking. Unit Hazardous Waste Coordinators are responsible for labeling all containers of hazardous wastes so that the specific or generic name, hazard, date of accumulation, and other requirements outlined in this section are clearly identified. Information contained in this section outlines the basic labeling requirements required by Federal EPA and DOT regulations. These requirements are supplemented by specific labeling directions for certain waste items found under Chapter 7. Requirements are simplified and necessarily general. Specific questions or applications not addressed should be directed to the CEU environmental protection specialist (Enclosure (1)) or referenced in 49 CFR 171-179.

2. Labeling and Marking. All labeling and marking requirements outlined in this section shall be strictly adhered to by all types of generators:

a. Any previous labels or markings must be removed or blocked out before applying the new hazardous waste label.

b. All containers shall be properly marked and labeled as soon as any amount of hazardous waste is placed in the container. Commands shall not wait until pick-up before labeling. Furthermore, no container will be transferred from it's point of accumulation to the designated temporary storage location without being properly labeled.

5.E.2. c. Containers shall be dated as soon as any hazardous waste is placed in the container. This is commonly referred to as the date of initial accumulation and serves as the beginning point for the 90, 180, or 270 day accumulation period. However, generators who maintain satellite drums as defined under Chapter 4, Section M will not date the container until filled. The accumulation period begins once filled.

3. Containers less than 110 Gallons. Any container of less than 110 Gallons must be marked with the following words and information as per 49 CFR 172.304:

Hazardous Waste - Federal law prohibits improper disposal. If found, contact nearest police or public safety authority or the U.S. Environmental Protection Agency.
Generator's Name and Address
Manifest Document Number

Commercially printed labels with this information are available from various sources (see Figure 5-5). Figure 5-2 provides an example of a commercial hazardous waste label and step by step instructions for completion.

4. DOT Hazard Labels. DOT hazard labels must be affixed to containers prior to transportation for any waste which exhibits a hazard included under Figure 5-3. The only DOT labels commonly needed for Coast Guard waste items are the "FLAMMABLE LIQUID" label and the "CORROSIVE" label. Both of these labels represent a hazard class defined by DOT. Definitions and labels for both classes are provided below:

a. The red "FLAMMABLE LIQUID" label must be placed on any material or waste having a flash point **of not more than 141 F**. Note that EPA's criteria for ignitability (D001) is any waste having a flash point less than 140 F.

b. The black and white "CORROSIVE" label must be affixed to any battery containing electrolyte or other corrosive material. ATON batteries, Nickel-Cadmium (NICAD), and lead-acid batteries are all corrosive and must be labeled before transportation and/or disposal. Batteries which

5.E.4.b. (Cont'd) are palletized shall display one label on each side of the pallet. Labeling each battery is unnecessary unless required by state or local inspectors. The above definitions are simplified versions of those found in 49 CFR 171.8 and should be cross-referenced to ascertain applicability when any reasonable doubt exists.

5. Label Information. Required labels, proper shipping names, and other important data are provided in Chapter 7 for each of the more common Coast Guard waste items.

6. Empty Containers. All empty drums and containers shall be clearly marked with the word "EMPTY". All other markings and labels shall be completely removed or painted over. You should note that the definition of empty in 49 CFR is not the same as that in 40 CFR. Consult with the environmental specialist at your servicing CEU for advice.

7. Exceptions. Labels required for materials or wastes not included in this instruction are specified under the DOT Hazardous Materials Table (49 CFR 172.101). Copies of this volume are available at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

8. Labeling Mixed Items. When two or more compatible hazardous materials or wastes having different hazard classes are packaged within the same container, the outside container must be labeled as required for each hazard class contained therein.

9. Placarding. Placards are large cardboard signs which are affixed to the outside of a tractor trailer, rail car, or other freight containers. Placards are basically enlarged versions of the various labels which are placed not on the container, but on the transporter's truck or rail car. The following requirements and information are applicable to the transportation of hazardous waste:

   a. Transporters must display the appropriate placards **specified in Tables 1 and 2 of 49 CFR 172.504.**

5.E.9. b. It is the responsibility of the generator to offer the appropriate placards to the transporter. Although most transporters have their own supply of placards, small and large quantity generators shall maintain a supply of any necessary placards and offer these to the transporter at time of pickup.

c. Placards which might be required for the more common Coast Guard waste items are as follows:

(1) The "FLAMMABLE" placard will be used for any shipment of a **1001** lbs or more of liquid hazardous waste that has a flash point **of not more than 141F.**

(2) The "COMBUSTIBLE" placard will be used for any shipment of a 1001 lbs or more of liquid hazardous waste that has a flash point **above 141 F and below 200F.**

(3) The "CORROSIVE" placard will be used for any shipment of a 1001 lbs or more of hazardous waste that may corrode steel or burn human skin. This includes almost all batteries disposed of by the Coast Guard.

10. Illustrations and Sources of Supply. Illustrations of the available placards are provided in Figure 5-4. Labels and placards are available from various commercial sources. A complet listing of these sources is provided in Figure -5.

F. Selection of Transportation Contractors.

1. Liability for Releases. Selection of a reliable and knowledgeable transporter is very important. Generator liability for spills or mismanagement of hazardous waste does not terminate once the waste is turned over to the transporter. Instead, liability extends indefinitely to include transportation accidents, groundwater contamination, and other environmental damage that may be caused by any release of the waste. This does not mean that the transporter is not responsible for spills or other failures to perform his task, but rather that the generator is also liable should the transporter become bankrupt or otherwise fail to meet damage and cleanup costs.

2. Transporter Advice. A transporter will often provide guidance to unit personnel on questions concerning labeling and packaging. Unfortunately, experience has shown that unqualified transporters (or at least those unfamiliar with the regulations) will frequently direct

5.F.2. (Cont'd) personnel to mislabel and ship waste items under improper shipping names and hazard classes. Since it is the unit's (generator's) responsibility to properly mark and label hazardous wastes, it is in the best interest of the unit to employ a transporter who's advice and knowledge will be an asset to the unit and not a liability. Furthermore, unscrupulous transporters may falsify manifests and illegally dump the wastes at unauthorized sites (commonly referred to as "midnight dumping").

3. Selection Guidelines. Although contracting rules and limited resources discourage a thorough examination of potential contractors, the following checklist is provided as a guide to transporter selection:

a. The transporter must have an EPA Identification number.

b. Verify that the transporter possesses spill/cleanup insurance.

c. Request some demonstration of the transporter's knowledge of 40 and 49 CFR.

d. A written contract should be entered into with those transporters used on a regular basis. The contract should specify the types of waste being handled and to what TSDF. The contract should also specify significant penalties for failure to comply with the specified pickup times.

e. Should any disagreement exist between the unit and transporter regarding selection of a TSDF, the unit's choice must stand since it is the generator's liability that follows the waste to the TSDF, not the transporter's

FIGURE 5-1

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: F. L. 1. 5. 2. 3. 3. 1. 0. 9. 1. 0
Manifest Document No.: 0. 1. 1. 0. 1
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

GENERATOR

3. Generator's Name and Mailing Address
U. S. COAST GUARD HEADQUARTERS - BUZZARD POINT
10 WATER STREET, SUNSHINE STATE, FL 00000-0000
4. Generator's Phone (301) 222-1234

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name: E-Z HAUL
6. US EPA ID Number: F L 0 0 0 0 0 0 0 0 0 0 0
C. State Transporter's ID
D. Transporter's Phone

7. Transporter 2 Company Name: None
8. US EPA ID Number:
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
WASTE BUSTERS
101 Removal Lane, Cleanup, VA
10. US EPA ID Number: V A 1 1 1 1 0 0 1 0 1 1
G. State Facility's ID
H. Facility's Phone

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Paint Related Material, 3, UN1263, II (D001, D008)		0 0 1	D M	0 0 4 3 0	P	D001 D008
b. Waste Battery, Wet, Filled with Alkali, 8, UN2795, III (D002, D009)		0 0 3	D F	0 1 2 0 0	P	D002 D009
c. Hazardous Waste, Liquid, N.O.S., 9, NA3082 III, (D007)		0 0 1	D M	0 0 3 7 5	P	D007
d. Hazardous Waste, Solid, N.O.S., 3, NA3077 II (D007, D008)		0 1 0	D M	0 5 0 0 0	P	D007 D008

J. Additional Descriptions for Materials Listed Above
11.a. Paint Slops containing lead
11.c. Bilgewater containing chromium
11.d Blasting Grit containing lead and chromium

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
"EMERGENCY CONTACT": 1-800-535-5053

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
I. M. CLEAN, LT, USCG	I M Clean	0 1	1 2	9 4

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Transporter's Driver's Name	Driver's Signature	0 1	1 2	9 4

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Second Transporter's, if applicable	Second Driver's Signature	0 1	1 2	9 4

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
TSDF Represenative	Representative's Signature	0 1	1 2	9 4

FIGURE 5-2

HAZARDOUS WASTE LABEL AND INSTRUCTIONS FOR COMPLETION

ITEMS 1 & 2 - The proper DOT shipping name and appropriate U.N. or N.A. number may be obtained from information provided under Chapter 7 or from the Hazardous Materials Table, 49 CFR Part 172.101. Do not use abbreviations.

ITEM 3, 4, & 5 - Name and address of unit generating the hazardous waste.

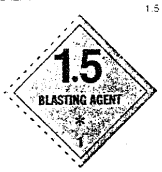
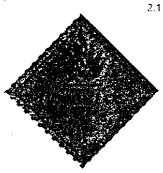
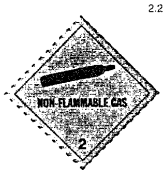
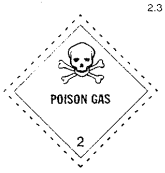
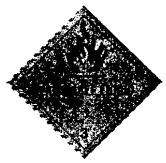
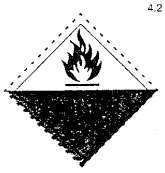
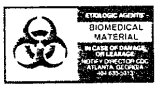
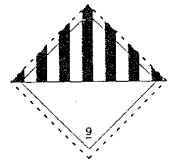
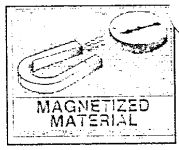
ITEM 6 Hazardous waste ID number assigned to the unit or supporting facility.

ITEM 7 See Chapter 5, Section E for directions on how to assign the proper date.

ITEN 8 Four digit EPA waste number{s) as indicated in Chapter 7. Note that multiple numbers may apply to a single waste.

ITEM 9 - Five Digit number assigned by unit to the accompanying hazardous waste manifest. For example, the first shipment in 1987 might be numbered 87001, the second 87002, etc. Since the manifest number will not be known when first labeling the drum, the number will be filled in just prior to pick-up by the transporter.

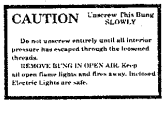
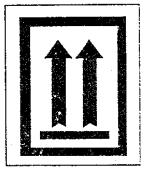
HM 181 HAZARDOUS MATERIALS LABELING CHART

CLASS 1 Explosive 1.1 1.2 1.3  *Include appropriate division number and compatibility group	CLASS 1 Explosive 1.4  *Include appropriate compatibility group	CLASS 1 Explosive 1.5  *Include appropriate compatibility group	CLASS 1 Explosive 1.6  *Include appropriate compatibility group	CLASS 2 Division 2.1  Flammable gas	CLASS 2 Division 2.2  Non-flammable gas	CLASS 2 Division 2.2  Oxygen
CLASS 2 Division 2.3  Poison gas	CLASS 3  Flammable liquid	CLASS 4 Division 4.1  Flammable solid	CLASS 4 Division 4.2  Spontaneously combustible	CLASS 4 Division 4.3  Dangerous when wet	CLASS 5 Division 5.1  Oxidizer	CLASS 5 Division 5.2  Organic peroxide
CLASS 6 Division 6.1  Poison-Packing Groups I and II	CLASS 6 Division 6.1  Poison - Packing Group III	CLASS 6 Division 6.2  Infectious substance	 The Etiologic Agent label may be required (42 CFR 72.3)	CLASS 7 I  Radioactive I	CLASS 7 II  Radioactive II	CLASS 7 III  Radioactive III
CLASS 8  Corrosive	CLASS 9  Miscellaneous	SUBSIDIARY RISK LABELS  Explosives Flammable Gas Flammable Liquid Flammable Solid Corrosive Oxidizer Poison Spontaneously Combustible Dangerous When Wet The hazard class or division number may not be displayed on a subsidiary label		EMPTY Empty	FOR AIRCRAFT  		

D.O.T. GENERAL GUIDLINES ON USE OF WARNING LABELS

1. Shipper must furnish and attach appropriate label(s) to each package of hazardous material offered for shipment unless exempted from labeling requirements.
2. If the material in a package has more than one hazard classification, the package must be labeled for each hazard. (Ref. Title 49, CFR, Sec. 172.402).
3. When two or more hazardous materials of different classes are packed within the same packaging or outer enclosure, the outside of the package must be labeled for each material involved. (Ref. Title 49, CFR, Sec. 172.404(a)).
4. Radioactive materials requiring labeling, must be labeled on two opposite sides of the package. (Ref. Title 49, CFR, Sec. 172.403(f)).
5. Labels must not be applied to a package containing only material which is not subject to Parts 170 - 189 of this subchapter or which is exempted therefrom. This does not prohibit the use of labels in conformance with U.N. recommendations ("Transport of Dangerous Goods"), or with the IMO requirements ("International Maritime Dangerous Goods Code") ICAO Technical Instructions, TDG Reguations (Ref. Title 49, CFR, Sec. 172.401).

HAZARDOUS MATERIALS PACKAGE MARKINGS

SAMPLE PACKAGING MARKING					
Proper Shipping Name.....ACETONE UN I.D. Number.....UN 1090 WARNING LABEL	CONSUMER COMMODITY ORM-D CONSUMER COMMODITY ORM-D-AIR		INHALATION HAZARD 		

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HM 181 HAZARDOUS MATERIALS PLACARDING CHART

CLASS 1

EXPLOSIVES 1.1, 1.2, & 1.3
*The Division number 1.1, 1.2 or 1.3 and compatibility group are in black ink.
Placard any quantity of Division number 1.1, 1.2 or 1.3 material.

CLASS 1

EXPLOSIVES 1.4
*The compatibility group is in black ink.
Placard 454 kg (1001 lbs.) or more of 1.4 Explosives.

CLASS 1

EXPLOSIVES 1.5
*The compatibility group is in black ink.
Placard 454 kg (1001 lbs.) or more of 1.5 Blasting Agents.

CLASS 1

EXPLOSIVES 1.6
*The compatibility group is in black ink.
Placard 454 kg (1001 lbs.) or more of 1.6 Explosives.

CLASS 2

OXYGEN
Placard 454 kg (1001 lbs.) or more aggregate gross weight of either oxygen compressed and oxygen, refrigerated liquid. See 172.504(f)(7).

CLASS 2 Division 2.1

FLAMMABLE GAS
Placard 454 kg (1001 lbs.) or more of flammable gas. See DANGEROUS.

CLASS 2 Division 2.2

NON-FLAMMABLE GAS
Placard 454 kg (1001 lbs.) or more aggregate gross weight of non-flammable gas. See DANGEROUS.

CLASS 2 Division 2.3

POISON GAS
Placard any quantity of Division 2.3 material.

CLASS 3

FLAMMABLE
Placard 454 kg (1001 lbs.) or more gross weight of flammable liquid. See DANGEROUS.

CLASS 3

GASOLINE
May be used in the place of FLAMMABLE placard displayed on a cargo tank or a portable tank being used to transport gasoline by highway. See 172.542(c).

CLASS 3

COMBUSTIBLE
Placard a combustible liquid when transported in bulk. A FLAMMABLE placard may be used in place of a Combustible placard on cargo tank or portable tank or a compartmented tank car which contains both flammable and combustible fluids. See 172.504(f)(2).

CLASS 3

FUEL OIL
May be used in place of COMBUSTIBLE on a placard displayed on a cargo tank or portable tank being used to transport by highway fuel oil not classed as a flammable liquid. See 172.544(c).

CLASS 4 Division 4.1

FLAMMABLE SOLID
Placard 454 kg (1001 lbs.) or more gross weight of flammable solid. See DANGERCUS

CLASS 4 Division 4.2

SPONTANEOUSLY COMBUSTIBLE
Placard 454 kg (1001 lbs.) or more gross weight of spontaneously combustible material See DANGEROUS.

CLASS 4 Division 4.3

DANGEROUS WHEN WET MATERIAL
Placard any quantity of Division 4.3 material.

CLASS 5 Division 5.1

OXIDIZER
Placard 454 kg (1001 lbs.) or more gross weight of oxidizing material. See DANGEROUS.

CLASS 5 Division 5.2

ORGANIC PEROXIDE
Placard 454 kg (1001 lbs.) or more gross weight of organic peroxide. See DANGEROUS.

CLASS 6 Division 6.1 Packing Group I & II

POISON
Placard 454 kg (1001 lbs.) or more gross weight of Packing Groups I & II. See DANGEROUS.
Placard any quantity of Inhalation Hazard 6.1, PGI.

CLASS 6 Division 6.1 Packing Group III

KEEP AWAY FROM FOOD
Placard 454 kg (1001 lbs.) or more gross weight of Packing Group III. See DANGEROUS.
A POISON placard may be used in place of a KEEP AWAY FROM FOOD placard.

CLASS 7

RADIOACTIVE
Placard any quantity of packages bearing the RADIOACTIVE YELLOW III label. Certain low specific activity radioactive materials in "exclusive use" will not bear the label but the RADIOACTIVE placard is required.

CLASS 8

CORROSIVE
Placard 454 kg (1001 lbs.) or more gross weight of corrosive material. See DANGEROUS.

CLASS 9

MISCELLANEOUS
A Class 9 placard is not required. However, you may placard 454 kg (1001 lbs.) or more gross weight of a material which presents a hazard during transport, but which is not included in any other hazard class. See DANGEROUS.

DANGEROUS
Placard 454 kg (1001 lbs.) gross weight of two or more categories of hazardous materials listed in Table 2. A freight container, unit load device, transport vehicle or rail car which contain non-bulk packagings with two or more categories of hazardous materials that require different placards specified in Table 2 may be placarded with DANGEROUS placards instead of the separate placarding specified for each of the materials in Table 2. However, when 2,368 kg (5000 lbs.) or more of one category of material is loaded therein at one loading facility, the placard specified in Table 2 for that category must be applied.

Division 1.4 (explosives)
Division 1.5 (blasting agents)
Division 1.6 (explosives)
Division 2.1 (flammable gas)
Division 2.2 (non-flammable gas)
Class 3 (flammable liquid)
Combustible liquid
Division 4.1 (flammable solid)
Division 4.2 (spontaneously combustible)
Division 5.1 (oxidizer)
Division 5.2 (organic peroxide)
Class 6 (poison)
Class 8 (corrosive)
Class 9 (miscellaneous)

SUBSIDIARY RISK PLACARD

Class numbers do not appear on subsidiary risk placards.

FUMIGATED
Placard motor vehicle, freight container or rail car on or near each door when fumigated with Division 6.1 (Poison) or Division 2.3 (Poison gas).

RAIL
Placard empty tank cars for residue of material last contained.

The square background is required for the following placards when on rail cars: EXPLOSIVES 1.1 or 1.2; POISON GAS or POISON GAS-RESIDUE (Division 2.3, Hazard Zone A); POISON or POISON-RESIDUE (Division 6.1, PGI, Hazard Zone A). The square background is required for placards on motor vehicles transporting highway route controlled quantities of radioactive materials (Class 7).

DISPLAY OF IDENTIFICATION NUMBER WHEN TRANSPORTING HAZARDOUS MATERIALS IN PORTABLE TANKS, CARGO TANKS AND TANK CARS.

ORANGE PANEL

PLACARD

39-FB REV. 12/92

FIGURE 5-5

SOURCES OF
HAZARDOUS MATERIALS
WARNING LABELS AND PLACARDS

In order to comply with the Hazardous Materials Regulations, you must use the correct labels and placards. This listing has been designed as a convenient reference for purchasing labels and placards. They must comply with the Code of Federal Regulations, Title 49, Parts 100-199, Subpart E - Labeling and Subpart F - Placarding, including Appendices A and B of part 172. It is the responsibility of the shipper and/or transporter to insure the labels and placards meet the specification requirements.
NOTE: The use of labels, placards and orange panels supplied by these sources or any other source by shippers and/or carriers does not relieve persons from complying with the Department of Transportation's Hazardous Materials Regulations.

CALIFORNIA

Avery Label Systems[1]
777 East Foothill Blvd.
Azusa, CA 91702
(213) 969-3311

Bee Line, Inc.[2]
26750 Wattis Way
San Francisco, CA 94080
(415) 871-4848

California Labels Inc.[1]
461 North H Street
P.O. Box 12284
Fresno, CA 93777
(209) 485-1091
(800) 742-1033 (N. Calif)

Imperial Marking Systems, Inc.[3]
P.O. Box 2337
990 Carden Street
San Leandro, CA 94577
(415) 562-4459

DIST. OF COLUMBIA

American Trucking Assoc., Inc.[3]
1616 P Street, N.W.
Washington, D.C. 20036
(202) 797-5384

FLORIDA

Creative Products International[2]
P.O. Box 14356
Tampa, FL 33690-0356
(813) 839-6356

GEORGIA

Southeastern Label Co.[3]
P.O. Box 80443
Chamblee, GA 30366
(404) 455-8816

HAWAII

Safety Systems Hawaii, Inc.[3]
302 Mokauea Street
Honolulu, HI 96819
(808) 847-4018

ILLINOIS

Bureau of Labels[3]
38 North Broadway Street
Des Plaines, IL 60016
(312) 635-7280

Labelmaster[3]
5724 N. Wolcott Avenue
Chicago, IL 60646
(800) 621-5808
(312) 973-5100

Legible Signs, Inc.[3]
2221 Nimitz Road
Rockford, IL 61110
(815) 654-0100

Related Products, Inc.[1]
3223 N. Western Avenue
Chicago, IL 60618
(312) 528-2900

MICHIGAN

Labeltape Inc.[1]
P.O. Box 8823
4275 Airwest Drive S.E.
Grand Rapids, MI 49508
(616) 698-8890

Quickway Staput, Inc.[3]
P.O. Box 1086
Muskegon, MI 49443
(616) 722-2044/739-8950

Whitlam Label Co. Inc.[3]
6000 Rinke
Warren, MI 40891
(313) 757-5100

MINNESOTA

Dawson Patterson Printing Inc.[3]
366 Wacouta Street
St. Paul, MN 55101
(612) 222-8445

Meyers Printing Company[1]
Change-A-Label Division
500 South Third Street
Minneapolis, MN 55415
1-800-328-4067

NEW JERSEY

Ever Ready Label Corp.[3]
357 Cortlandt Street
Belleville, NJ 07109
(201) 759-5500

FIGURE 5-5 (Continued)

NEW JERSEY

Lawrence Packaging Supply[3]
113 North 13th Street
Newark, NJ 07107
(201) 485-4400
(212) 962-4393 (NY)

Mar-Kal Products Corp.[3]
105 Walnut Street
Montclair, NJ 07042
(201) 783-7155

Prest-On Products Corp.[3]
870 Springfield Road
Union, NJ 07083
(201) 851-9777

UNZ & Co.[3]
190 Baldwin Avenue
Jersey City, NJ 07306
(800) 631-3098/(201) 795-5400
(212) 344-2270

NORTH CAROLINA

Soabar Graphics[3]
P.O. Box J
2305 Soabar Drive
Greensboro, NC 27402
(919) 275-9371

OHIO

MPI Label Systems[1]
P.O. Box 70
450 Courtney Road
Sebring, OH 44672
(216) 938-2134

Triangle Label Inc.[1]
60-A Novner Drive
Cincinnati, OH 45215
(513) 772-5649

TENNESSEE

Artcraft Converters, Inc.[1]
710 South Fourth Street
Memphis, TN 38101
(901) 525-1441

TEXAS

Carlton Label & Decal Inc.[3]
3150 Nasa Road One
Seabrook, TX 77586
(713) 334-1543
(800) 231-5988

Contact Products, Inc.[3]
P.O. Box 220063
Dallas, TX 75222
(214) 231-6367

WISCONSIN

W. H. Brady Co.[3]
727 W. Glendale Avenue
P.O. Box 571
Milwaukee, WI 53201
(414) 961-2233

J. J. Keller[3]
145 W. Wisconsin Avenue
Neenah, WI 54956
(414) 722-2848
1-800-558-5011

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1 - Labels Only
2 - Placards Only
3 - Labels and Placards

Note: Companies not listed but would like to be placed on this listing must submit samples of their labels, placards, or orange panels to the attention of the address listed below.

Information Services Division
Office of Operations and Enforcement
Materials Transportation Bureau
U.S. Department of Transportation
Washington, D.C. 20590

CHAPTER 6. TREATMENT, STORAGE, AND DISPOSAL FACILITIES

A. Applicability to Coast Guard Units.

1. General. Treatment, storage, and disposal facilities (TSDF'S) are subject to considerable regulation beyond those which affect generators. Title 40 CFR includes a host of regulations applicable exclusively to TSDF's. A generator who accumulates hazardous waste for more than 90 days (or 180/270 days in the case of small quantity generators) is an operator of a storage facility and is subject to the requirements of 40 CFR 264 and 265 and the permit requirements of 40 CFR 270 unless he has been granted an extension to the 90 day period. Such extension may be granted by EPA if hazardous wastes must remain on-site for longer than 90 days due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the Regional Administrator of the EPA on a case-by-case basis. Some State programs may allow extensions also. All units generating hazardous waste are to strictly adhere to those limits specified for accumulation of waste (see Section L, Chapter 4). This is extremely important, not only in context of maintaining compliance with the generator regulations under 40 CFR 262, but equally important so as to avoid those requirements of 40 CFR 264 and 265, which greatly increase the unit's regulatory and paperwork burden.

2. Application for a Permit. In those cases where it is operationally impossible for large quantity generators to ship their accumulated waste on a 90 day cycle, the unit must apply for a storage permit. This is a sizeable undertaking and expenditure requiring the application documents. Increased management and storage facility. Any unit which feels it necessary to apply for storage status shall notify the CEU environmental specialist who will in turn consult with MLC and Commandant (G-ECV) to determine the most appropriate solution.

3. Training. As required by the Superfund Amendment and Reauthorization Act (SARA) TSDF's are required to conduct more extensive training than are generators and small quantity generators. The requirements for this training are included in 29 CFR 1910.120, 40 CFR 311, and Chapter 10 of this manual.

6.B. Selection of Treatment, Storage, and Disposal Facilities (TSDF's).

1. Selection. Selection of a responsible TSDF is important as is the selection of a reliable and competent transporter. Responsible management of the disposal facility lessens the probability of future contamination at the site, which in turn decreases the likelihood of Coast Guard cleanup and litigation expenses.

2. EPA Listing. The RCRA program office of each EPA Region maintains a listing of all TSDF's operating within the region. The listing delineates which TSDF's are currently in a state of noncompliance and can serve as a basis to select a TSDF which will be the "best risk" based on the existing compliance record.

3. Minimum Qualifications. Should it prove impossible to use the TSDF as selected from the EPA listing, a TSDF should demonstrate the following minimum qualifications:

   a. Have an EPA Identification Number.

   b. Provide references who will attest to the facility's reliability in returning signed manifest documents as required by Federal law.

   c. Demonstrate willingness to allow a tour of their facility by Coast Guard personnel.

CHAPTER 7. MANAGEMENT/DISPOSAL PRACTICES FOR TYPICAL CG WASTE ITEMS

A. General.

1. Sources of Hazardous Waste. Sources of hazardous wastes at Coast Guard facilities include a variety of materials and range from used batteries to spent solvents and paints. Figure 7-1 presents a listing of the most common waste items and the EPA waste numbers applicable to each. The following Sections of this Chapter provide a brief summary of the most common waste sources and the disposal/storage methods which would typically be recommended for each.

2. Management/Disposal Procedures. This chapter is designed to provide a concise reference regarding the management and disposal of common waste items. This chapter shall be used in conjunction with other information provided throughout the instruction and is not intended to serve as an independent reference. **Units located in states which have adopted the universal waste management standards (40 CFR 273) are subject to less stringent management requirements for used batteries**. CESQG's may not be subject to all provisions of this chapter. Consult with your CEU environmental specialist for further advice.

3. Packaging Guidelines. While considerable detail is specified below for the proper packaging of Coast Guard generated hazardous waste, a good rule of thumb is to use the packaging that the product was received in providing it has not been damaged or contaminated. You should be aware that the regulations in 49 CFR impose significant duties on shippers of hazardous materials and waste. Recommended containers are 55-gallon or smaller drums to allow for overpacking in an 85-gallon salvage drum in the event of a leak.

B. Lead-Acid Batteries.

1. General.

   a. Lead-acid batteries, used mainly in cars, boats, motorized vehicles, and solar powered aids to navigation are wet, rechargeable, and usually six-celled. Each cell consists of sponge lead (anode) and lead dioxide (cathode) plates totally immersed in sulfuric acid electrolyte.

   b. The corrosive electrolyte contained within lead-acid batteries warrants the disposal of lead-acid

7.B.1.b. (Cont'd) batteries as hazardous wastes. The EPA Hazardous Waste Identification Numbers are D002 (corrosivity) and D008 (toxicity characteristic for lead). Lead-acid batteries which are reclaimed or exchanged (new-for-old) do not need to be disposed of as hazardous waste. Lead-acid batteries should only be disposed of as waste if their condition precludes recycling, or recycling is cost prohibitive.

2. DOT Specifications

a. Transportation of lead-acid batteries for disposal requires the following information:
   - o Proper Shipping Name: "Waste battery, wet, filled with acid"
   - o Hazard Class: 8
   - o Identification Number: UN2794
   - o Packing Group: III
   - o Label: CORROSIVE
   - o EPA Hazardous Waste Numbers: D002 and D008

b. Further Transportation requirements are the same as those specified under Section E.2. of this chapter.

3. Temporary Storage.

a. Lead-acid batteries and their containers should be stored in a well-ventilated, dry place. A general-purpose warehouse is an acceptable storage area. Wet-cell storage batteries awaiting disposal shall be stored either in nonleaking containers or double-wrapped in plastic bags, palletized and banded. When storing expended batteries which are to be disposed (batteries which will be recycled need not meet marking and inspection requirements), the date of initial accumulation shall be marked on each batch of batteries stored. Weekly inspection to detect leaking containers is required.

b. Lead-acid and Zinc-Air ATON batteries shall not be stored together in the same piles or pallets due to incompatibility of their respective acid and base contents.

c. Units located where freezing may occur should consider storage of discharged batteries inside to prevent freezing and cracking of the case.

7.B.4. Disposal.

a. Lead-acid batteries shall be recycled through a licensed recycling facility whenever such services are available. Manifest preparation and other requirements stipulated in this Manual are not required when recycling lead-acid batteries. Likewise, the following disposal practices for lead-acid batteries apply only when the unit is unable to recycle the batteries through a DRMO or licensed local recycler. In order to document what was done with the batteries, either a log or use of DD 1149 is recommended.

b. If recycling is unavailable, lead-acid batteries **shall be disposed of as hazardous waste. Lead-acid batteries shall be packaged for disposal as specified under Section E.2 of this chapter.**

c. For turn-in to Defense Reutilization and Marketing Office (DRMO):

(1) Complete DTID (disposal turn-in document) in four copies;

(2) Identify batteries by National Stock Number(NSN), local Stock Number (LSN), or Federal Supply Class (FSC): and

(3) Pack in nonleaking, safe-to-handle containers (DOT specification containers are not required for DRMO turn-in, however, transport off-site or over public highways requires DOT compliance).

7.C. Lithium Batteries.

1. General.

a. Lithium batteries should be regarded as hazardous at all times. They are used in the USCG as a power source for portable electronic equipment and emergency aviation equipment.

7.C.1. b. Due to the reactive nature of lithium, all lithium batteries must be disposed of as hazardous waste. The Environmental Protection Agency (EPA) Hazardous Waste Identification Number is D003.

c. Used batteries returned to a battery manufacturer for regeneration are exempt from hazardous waste disposal procedures. However, the transportation of these batteries must still be in compliance with DOT hazardous materials regulations.

2. DOT Specifications.

a. Transportation of lithium batteries for disposal requires the following information:
- Proper Shipping Name: "Waste lithium batteries, **liquid cathode**"
- Hazard Class: **9**
- Identification Number: **UN3090**
- Packing Group: **II**
- Label: **CLASS 9**
- EPA Hazardous Waste Number: D003

b. For disposal, lithium batteries comprised of one or more cells may be transported by motor vehicle under the following conditions. (49 CFR 173.185 (j))

(1) **When new, the battery contained not more than 12 grams of lithium per cell.**

(2) The battery is equipped with effective means of preventing external short circuits. For example, although lithium batteries have built in protection against internal short circuits, they also must be isolated from the next battery with plastic, cardboard, etc., to prevent external short circuits.

(3) **The battery is packed in a strong outer packaging conforming to the requirements of 49 CFR 173.24 and 173.24a**

c. **Lithium batteries and cells are not regulated by DOT if they meet the following requirements (49 CFR 173. 185 (i)):**

7.C.2.c.

- **(Cont'd) Each cell with a liquid cathode may contain no more than 0.5 grams of lithium or lithium alloy, and each cell with a solid cathode may contain no more than 1.0 gram of lithium or lithium alloy;**
- **Each battery with a solid cathode may contain an aggregate quantity of no more than 2.0 grams of lithium or lithium alloy, and each battery with a liquid cathode may contain an aggregate quantity of no more than 1.0 gram of lithium or lithium alloy;**
- **Each cell must be hermetically sealed;**
- **Cells must be separated so as to prevent short circuits;**
- **Batteries must be separated so as to prevent short circuits and must be packaged in strong packagings, except when installed in electronic devices; and**
- **If a liquid cathode battery contains more than 0.5 grams of lithium or lithium alloy, or a solid cathode battery contains more than 1.0 gram of lithium or lithium alloy it may not contain a liquid or gas that is a hazardous material unless the liquid or gas, if free, would be completely absorbed or neutralized by other materials in the battery.**

3. Temporary Storage.

a. **Lithium batteries require special storage facilities due to the reactivity of lithium. They should be in a cool, dry facility, segregated from flammables by at least 4 feet of aisle space, not stacked higher than 3 feet, and away from personnel and vehicular traffic for added safety. The buildings used for storage should be equipped with a Class D fire extinguisher or dry graphite-based compound for fire prevention. The storage area should have adequate ventilation to dissipate gases from venting batteries. It is recommended that lithium batteries be stored in an explosion-proof area, and the building be equipped with an automatic sprinkler system, detection alarms for fire, smoke, and/or dangerous concentrations of toxic and flammable gases.**

b. The date of initial accumulation shall be marked on each batch of expended batteries stored.

c. Containers should be frequently inspected to insure that they are not leaking. Inspections shall be carried out no less than weekly. A daily inspection of these containers is recommended.

7.D. Nickel-Cadmium (NICAD) Batteries.

1. General.

a. The NICAD battery functions throughout a wide range of temperatures, possesses minimum weight, and is powerful enough to assure non-assisted engine starting. They are usually rechargeable and contain potassium hydroxide (KOH, wet or dry form) as the electrolyte.

b. The electrolyte is corrosive with a pH of 13.6 to 14. NICAD batteries must be disposed of as hazardous wastes or recycled. When the electrolyte is changed, the expended electrolyte shall be considered a hazardous waste for disposal purposes also. The EPA Hazardous Waste Identification Numbers are D002 (corrosivity) and D006 (toxicity characteristic for cadmium). Batteries or cells which are recycled may not be subject to the full range of regulations. However, the transportation of these batteries or cells must still be in compliance with DOT hazardous materials regulations and a hazardous waste manifest must accompany the shipment.

2. DOT Specifications.

a. Transportation of "dry" NICAD batteries (if KOH is in dry, solid, flake, bead, or granular form) for disposal requires the following information:
- o Proper Shipping Name: **"Waste battery, dry, containing potassium hydroxide solid**
- o Hazard Class: **8**
- o Identification Number: **UN3028**
- o Packing Group: **III**
- o Label: CORROSIVE
- o EPA Hazardous Waste Numbers: D006

b. **Air Force Regulation 71-4, Preparation of Hazardous Materials for Military Shipment, shall apply to all shipments of batteries by air cargo.**

c. Dry NICAD batteries must be packaged as specified in 49 CFR 173.213.

7.D.2. d. Transportation of "wet" NICAD batteries requires the following information:

- o Proper Shipping Name: **"Waste battery, wet, filled with alkali"**
- o Hazard Class: **8**
- o Identification Number: UN2795
- o **Packing Group: III**
- o Label: CORROSIVE
- o EPA Hazardous Waste Numbers: D002 and D006

e. "Wet" NICAD batteries are to be packaged according to 49 CFR 173.159 which specifies the following requirements:

(1) Electric storage batteries, containing electrolyte acid or alkaline corrosive battery fluid, must be completely protected so that short circuits will be prevented, and the batteries must be packed in **the specification packagings listed in 49 CFR 173. 159(b).**

(2) Nonspillable wet electric storage batteries capable of withstanding the Vibration Test and the Pressure Differential Test (49 CFR 173.159(d) without leakage of battery fluid are excepted from shipping requirements provided that they are **protected against** short circuits and **securely** packaged.

(3) **Electric storage batteries double-wrapped in plastic bags, palletlzed, and banded are authorized for transportation by rail, highway, or water. Batteries shall be placed upright with layers separated by plywood or cardboard. The height of the banded unit must not exceed 1 1/2 times the width of the pallet. The banded unit must be capable of withstanding, without damage, a superimposed weight equal to two times the weight of the unit or, if the weight exceeds 2000 pounds, a superimposed weight of 4000 pounds. All cracked or leaking batteries shall be packed in a specification packaging.**

7.D.2.e. (4) Electric storage batteries containing electrolyte or corrosive battery fluid are not subject to packaging requirements for carriage by highway or rail if:
- o No other hazardous materials are transported in the same vehicle;
- o The batteries are loaded/braced to prevent damage and short circuits in transit;
- o Any other material in the same vehicle is blocked, braced, or secured to prevent contact with or damage to the batteries; and,
- o The vehicle is carrying no material shipped by any person other than the shipper of the batteries.

(5) If a motor vehicle, railcar, or freight container contains **Class 8** material, no placard is required when the gross weight of all hazardous material is less than **1,001** pounds. If the weight of all hazardous materials **is 1,001 pounds or more**, the motor vehicle, railcar, or freight container must be placarded on each side and each end: CORROSIVE.

3. Temporary Storage.

a. Batteries and their containers should be stored in a well-ventilated, dry place. A general-purpose warehouse is an acceptable storage area. NICAD batteries may be stored outdoors in drums if the drums are packed with an absorbent or adsorbent.

b. Batteries shall be double-wrapped in plastic bags, palletized, and banded. Further detail is the same as specified under paragraph 7.D.2.e.(3).

c. The date of initial accumulation shall be marked on each batch of batteries stored. Weekly inspection to detect leaking containers is required.

4. Disposal.

a. **If recycling is unavailable, "wet" NICAD batteries shall be disposed of as hazardous waste. "Wet" NICAD batteries shall be packaged for disposal as specified in paragraph 7.D.2.e.(1-3) which addresses DOT specifications.**

7.D.4. b. Certain NICAD batteries suitable for rebuild may be worth more than the value of the nickel components. To pursue this, the DRMO will screen and accumulate the batteries.

c. For turn-in to Defense Reutilization and Marketing Office (DRMO):
- o Complete DTID (disposal turn-in document) in four copies;
- o Identify batteries by National Stock Number (NSN), Local Stock Number (LSN), or Federal Supply Class (FSC); and
- o Pack in nonleaking, safe-to-handle containers (DOT specification containers are not required for DRMO turn-in, however, transport off-site or over public highways requires DOT compliance).

E. Zinc Air Primary Batteries.

1. General.

a. ATON batteries (Aids to Navigation) are nonrechargeable. The air-depolarized battery consists of an inert plastic or hard rubber case, potassium hydroxide liquid electrolyte, zinc-mercury alloy anode, carbon cathode, and an insoluble residue or lime bed in the bottom of the case. SAFT batteries will also contain a starch based electrolyte gelling agent.

b. The electrolyte has a pH of approximately 14 and remains at full strength throughout the battery life. These batteries must be disposed of as hazardous wastes or sent to a qualified reclamation facility. The EPA Hazardous Waste Identification Numbers are D002 (corrosivity) and D009 (Toxicity characteristic for mercury).

2. DOT Specifications.

a. Transportation of ATON batteries for disposal requires the following information:
- o Proper Shipping Name: **"Waste battery, wet, filled with alkali"**
- o Hazard Class: **8**
- o Identification Number: UN2795
- o **Packing Group: III**
- o Label: CORROSIVE
- o EPA Hazardous Waste Numbers: D002 and D009

7.E.2. b. **ATON batteries** are to be-packaged according to 49 CFR 173.159 which specifies the following requirements.

(1) Electric storage batteries, containing electrolyte acid or alkaline corrosive battery fluid, must be completely protected so that short circuits will be prevented, and the batteries must be packed in **the specification packagings listed in 49 CFR 173. 159 (b).**

(2) Nonspillable wet electric storage batteries capable of withstanding the Vibration Test and the Pressure Differential Test (49 CFR 173.159(d) without leakage of battery fluid are excepted from shipping requirements provided that they are **protected against** short circuits and **securely** packaged.

(3) **Electric storage batteries double-wrapped in plastic bags, palletized, and banded are authorized for transportation by rail, highway, or water. Batteries shall be placed upright with layers separated by plywood or cardboard. The height of the banded unit must not exceed 1 1/2 times the width of the pallet. The banded unit must be capable of withstanding, without damage, a superimposed weight equal to two times the weight of the unit or, if the weight exceeds 2000 pounds, a superimposed weight of 4000 pounds. All cracked or leaking batteries shall be packed in a specification packaging.**

(4) Electric storage batteries containing electrolyte or corrosive battery fluid are not subject to packaging requirements for carriage by highway or rail if:
- o No other hazardous materials are transported in the same vehicle;
- o The batteries are loaded/braced to prevent damage and short circuits in transit;
- o Any other material in the same vehicle is blocked, braced, or secured to prevent contact with or damage to the batteries; and,
- o The vehicle is carrying no material shipped by any person other than the shipper of the batteries.

7.E.2.b. (5) If a motor vehicle, railcar, or freight container contains **Class 8** material, no placard is required when the gross weight of all hazardous material is less than **1,001** pounds. If the weight of all hazardous materials is **1,001 pounds or more**, the motor vehicle, railcar, or freight container must be placarded on each side and each end: CORROSIVE.

3. Temporary Storage.

a. Except for those in buoy power units, batteries are shipped in heavy plastic bags furnished by the manufacturer. The batteries shall remain in the plastic bags during service life and during storage and transportation to the disposal site. Batteries properly palletized as directed under the disposal section may be stored outside. Units located in areas where temperatures below 32F are common should be aware that discharged batteries stored outside may crack, spilling their contents if exposed to temperatures below freezing

b. Upon removal of the expended power unit from a buoy, the steel or wooden pocket adapters should be removed from the base of the pack and the power assembly clamp removed from the top. The power unit should be draped with heavy gauge sheet polyethylene and the lifting eye replaced; it should then be placed bottom first into a heavy duty polyethylene drum liner. The draped sheet should be tucked into the liner and secured with several round turns of tape. Note: some disposal contractors require that individual cells be removed from buoy power racks prior to shipment

c. The date of initial accumulation shall be marked on each batch of batteries stored. Always store ATON batteries in the vertical position. Weekly inspection to detect leaking containers is required.

d. Lead-acid and ATON batteries shall not be stored together in the same piles or pallets due to incompatibility of their respective acid and base contents.

4. Disposal.

a. The Defense Reutilization and Marketing Office (NDRMO) will specify the turn-in requirements for ATON batteries on a case-by-case basis.

7.E.4. b. The following are approved disposal methods for air-depolarized batteries:
- o Recycling (if feasible)
- o Hazardous waste (chemical) disposal contractor, and;
- o Incineration

c. Any facility chosen must be approved by the EPA regional office and any State local authorities dealing with hazardous wastes. Facilities must also be in compliance with State and Federal regulations regarding hazardous waste disposal.

d. Batteries shall be packed as directed in paragraph **7.E.2.b.(1-3)** which addresses DOT specifications.

e. The following disposal methods are expressly forbidden:
- o Ocean or other water or wetland dumping;
- o Dumping in unpermitted landfills;
- o Open burning with other refuse or combustible materials;
- o Abandonment of batteries at or around the site of a fixed or floating aid; and
- o Use as ballast in a buoy pocket.

F. Paint Slops and Waste Paint.

1. General.

a. The hazardous waste classification of paints, thinnets, solvents and cleaners is dependent upon the item's heavy metal content, pH, and flash point, and in some cases, whether or not a regulated state classifies them as a hazardous waste. Under most situations, paint slops and/or spent thinners **should be managed as a hazardous waste because of their low flash point and heavy metal contamination unless proven otherwise.** A representative sample should be taken and submitted to a qualified lab for analysis **if the waste stream changes or if the contamination is unknown.** Consult with the environmental specialist at CEU to determine if other categories may apply.

b. Some paints might (in rare cases) also warrant consideration due to a very high or low pH and for this reason would be classified as a hazardous waste due to corrosivity (EPA Waste Code D002).

7. F. 1. c. The potential EPA Hazardous Waste Numbers/Characteristic for spent thinnets and paint slops are:
D001 - ignitability
D007 - toxicity (chromium)
D008 - toxicity (lead)
D002 - corrosivity (see 7.F.1.b. above)
D009 - toxicity (mercury)

2. DOT Specifications.

a. According to Department of Transportation (DOT) regulations (49 CFR 173.173), "Paint" is the proper shipping name for paint, lacquer, enamel, stain, shellac, varnish, liquid aluminum, liquid bronze, liquid gold, liquid wood filler and liquid lacquer base. The description "Paint related material" is the proper shipping name for paint thinning, reducing or removing compounds.

b. Transportation of paint slops for disposal **require a specific shipping description.** Requirements however, differ depending on the specific flash point, **contaminants** and type of paint.

c. Paint slops with a flash point of 140F or above and free of heavy metals such as chromium, lead or mercury need not be disposed of as a hazardous waste, provided that the regulating state does not classify it as an F-Series listed waste. Consult with CEU to determine applicable regulations.

d. **Paint with a flash point less than 140 F, will be described for shipping as follows:**
- Proper Shipping Name: "Waste paint"
- Hazard Class: **3**
- Identification Number: UN1263
- **Packing Group: II**
- Additional Information: (contains lead or chromium as appropriate)
- Label: **FLAMMABLE LIQUID**
- EPA Hazardous Waste Numbers: D001, D007 (only if paint contains chromium) and D008 (if paint contains lead).

7.F.2. e. **Paint related material with a flash point less than 140F will be described for shipping as follows:**

- Proper Shipping Name: **"Waste paint related material"**
- Hazard Class: **3**
- Identification Number: UN1263
- **Packing Group: II**
- Label: FLAMMABLE LIQUID
- Additional Information: (contains lead or chromium as appropriate)
- EPA Hazardous Waste Numbers: D001, D007 (only if paint contains chromium) and D008 (if paint contains lead).

f. **Paint and paint related material, must be packaged as follows:**

(1) **Packing Group II shall be assigned if the paint or paint related material has a flash point below 73 F. Authorized Group II packagings are prescribed in 49 CFR 173.202.**

(2) **Packing Group III shall be assigned if the paint or paint related material has a flash point of 73F or above. Authorized Group III packagings are prescribed in 49 CFR 173.203.**

(3) **Inner glass packagings of not over 0.3 gallon capacity each or inner metal packagings of not over 1 gallon each, packed in a strong outer packaging.**

(4) **Each packaging must also conform to the general packaging requirements of 49 CFR Part 173 Subpart B, and to the requirements of the special provisions of Column 7 of the 49 CFR 172.101 Table.**

7.F.3. Temporary Storage.

a. Safety requirements for storage of flammable and combustible liquids are found in the Flammable and Combustible Liquids Code, National Fire Protection Association (NFPA) 30. Requirements are given for indoor storage, outdoor storage, storage arrangements in protected racks, protective pallets, or solid piles, and design, construction, and operation of storage areas.

b. **The date of initial accumulation shall be marked on each container of paint waste or hatch of paint waste stored.**

c. **Containers should be frequently inspected to insure that they are not leaking. Inspections shall be carried out no less than weekly.**

4. Disposal. Paint wastes may be beneficially recycled, or destroyed by high temperature incineration. In either case, the chemical constituents of the materials must be disclosed before the waste is disposed. If the composition of the material to be disposed is unknown, extensive laboratory analysis is necessary to determine all chemical constituents.

G. Nonchlorinated and Chlorinated Solvents.

1. General.

a. Most nonchlorinated and chlorinated petroleum hydrocarbon solvents and solvent mixtures are likely to be classified as hazardous wastes by EPA due to ignitability (Hazardous Waste Number D001), or because they are specifically listed by EPA (Hazardous Waste Numbers F001, F003, F005) due to their toxicity.

b. The chlorinated solvents (common to USCG activities) have been identified as 1,1,1-trichloroethane, trichloroethylene, tetrachloroethylene, methylene chloride, freons (chlorofluorocarbons), and mixtures.

c. The most prevalent USCG nonchlorinated petroleum hydrocarbon solvents are PD-680, Agitene, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), methyl ethyl ketone/methyl isobutyl ketone (MEK/MIBK) mixture and other mixtures, and toluene.

7.G.1. d. The regulations covering the management and disposal of solvents are complex and in some cases conflicting. Consult with the environmental specialist at CEU relative to proper management and disposal.

2. DOT Specifications.

a. According to DOT regulations, a liquid with a flash point **of not more than 141F** is classified as a flammable liquid and a liquid with a flash point at or above **141 F** and below 200F is classified as a combustible liquid.

b. Transporting of PD-680 and Agitene requires the following information:
- Proper Shipping Name: "Waste **flammable** liquid, n.o.s."
- Hazard Class: **3**
- Identification Number: UN1993
- **Packing Group: III**
- Additional Information (insert technical names of at least two components that most contribute to the hazard of the mixture)
- Label: **FLAMMABLE LIQUID**
- EPA Hazardous Waste Number: D001

c. The spent nonchlorinated hydrocarbon solvent mixtures (e.g., MEK/MIBK) may be shipped using the following information:
- Proper Shipping Name: "Waste flammable liquid, n.o.s."
- Hazard Class: **3**
- Identification Number: UN1993
- **Packing Group: II**
- Additional Information: (insert technical names of at least two components that most contribute to the hazard of the mixture)
- Label: FLAMMABLE LIQUID
- EPA Hazardous Waste Number: D001 (NOTE: Waste code F003 may apply in certain circumstances.

7.G.2. d. Transporting of methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), and toluene requires the following information:

(1) Methyl ethyl ketone
- Proper Shipping Name: "Waste Methyl ethyl ketone"
- Hazard Class: **3**
- Identification Number: UNl193
- **Packing Group: II**
- Label: FLAMMABLE LIQUID
- EPA Hazardous Waste Number: F005

(2) Methyl isobutyl ketone
- Proper Shipping Name: **"Waste methyl isobutyl ketone"**
- Hazard Class: **3**
- Identification Number: **UN1245**
- **Packing Group: II**
- Label: FLAMMABLE LIQUID
- EPA Hazardous Waste Number: F003

(3) Toluene
- Proper Shipping Name: "Waste toluene"
- Hazard Class: **3**
- Identification Number: UN1294
- **Packing Group: II**
- Label: FLAMMABLE LIQUID
- EPA Hazardous Waste Number: F005

e. The following information is required for transportation and disposal of USCG chlorinated solvent wastes:

(1) 1,1,1-Trichloroethane
- Proper Shipping Name: "Waste 1,1,1-Trichloroethane"
- Hazard Class: **6.1**
- Identification Number: UN2831
- **Packing Group: III**
- Label: **KEEP AWAY FROM FOOD**
- EPA Hazardous Waste Number: F001

7.G.2.e. (2) Trichloroethylene

- Proper Shipping Name: "Waste Trichloroethylene"
- Hazard Class: **6.1**
- Identification Number: UN1710
- **Packing Group: III**
- Label: **KEEP AWAY FROM FOOD**
- EPA Hazardous Waste Number: F001, D040

(3) Tetrachloroethylene

- Proper Shipping Name: "Waste Tetrachloroethylene"
- Hazard Class: **6.1**
- Identification Number: UN1897
- **Packing Group: III**
- Label: **KEEP AWAY FROM FOOD**
- EPA Hazardous Waste Number: F001, F002, D039

(4) Methylene Chloride

- Proper Shipping Name: "Waste dichloromethane"
- Hazard Class: **6.1**
- Identification Number: UN1593
- **Packing Group: III**
- Label: **KEEP AWAY FROM FOOD**
- EPA Hazardous Waste Number: F001

(5) Freons (chlorofluorocarbon solvents) and Mixtures

- Proper Shipping Name: "Hazardous waste, liquid, n.o.s."
- Hazard Class: **9**
- Identification Number: **NA3082**
- **Packing Group: III**
- Additional Information: (contains Freon)
- Label: **CLASS 9**
- EPA Hazardous Waste Number: **F002**

7.G.2. f. The packaging requirements for transporting nonchlorinated and chlorinated solvents are as follows:

- o **Packing Group II shall be assigned if the solvent has a flash point below 73F. Authorized Group II packagings are prescribed in 49 CFR 173.202.**
- o **Packing Group III shall be assigned if the solvent has a flash point of 73F or above. Authorized Group III packagings are prescribed in 49 CFR 173.203.**
- o **Each packaging must also conform to the general packaging requirements of 49 CFR Part 173 Subpart B, and to the requirements of the special provisions of Column 7 of the 49 CFR 172.101 Table.**

3. Temporary Storage.

a. Spent nonchlorinated and chlorinated petroleum hydrocarbon solvents and solvent mixtures may be stored in a general purpose facility which provides normal security, fire, and weather protection. **Engineering standards for temporary storage areas are specified in Section C of Chapter 8.**

b. **The date of initial accumulation shall be marked on each container of solvent.**

c. **Containers should be frequently inspected to insure that they are not leaking. Inspections shall be carried out no less than weekly.**

4. Disposal.

a. Spent nonchlorinated and chlorinated petroleum hydrocarbon solvent wastes may be beneficially recycled or destroyed by high temperature incineration. Coast Guard policy requires that all solvents will be recycled or incinerated. Solvents will be recycled when practical. When recycling is not available or impractical, waste solvents shall be incinerated by commercial contract. Note that the chemical constituents of any solvents need to be identified when contracting for incineration. Also note that most solvents are covered under the land ban restrictions. See Chapter 4 of this manual for general guidance concerning the land ban.

7.G.4. b. Recycling of solvents is available INCONUS through commercial firms such as Safety-Kleen or other firms similar in nature. Under this system, the company will provide a solvent wash tank(s) and clean solvent. The company will then periodically replace the dirty solvent with clean solvent. The frequency of pick-up may be adjusted to the level of use at your facility. A certain fee is then charged for each pick-up/replacement of solvent.

c. Conditionally exempt and small quantity generators that recycle solvents (or other wastes) as described in paragraph 4.b. above do not need to manifest pick-ups for the recycled material or include the amount in calculating a monthly generation total. They will however retain a copy of the reclamation agreement for a period of at least three years after termination of the agreement.

d. Large quantity generators who arrange for waste recovery as outlined in the above paragraph do need to manifest pick-ups of any recovered solvents or wastes. Manifests will be completed as directed under Enclosure (7). Specific DOT information (manifest item 11) should be provided by the reclamation company.

H. OBA Canisters.

1. Disposal. Spent and unused Oxygen Breathing Apparatus (OBA)canisters must be disposed of as a hazardous waste due to their ignitable and corrosive nature and their barium content.

2. Discharge Overboard. The discharge overboard of spent OBA canisters which have been generated underway is not approved.

3. On-shore Generation. All canisters generated in shore-side drills will be disposed of as a hazardous waste. Transfer of spent canisters to a vessel for disposal underway is a violation of the Ocean Dumping Act and is strictly forbidden.

7.H.4. Manifest information. Manifest information for disposal and transportation of OBA canisters is as follows:

- o Proper Shipping Name: **"Waste oxidizing substance, solid, n.o.s."**
- o Hazard Class: **5.1**
- o Identification number: **UN1479**
- o **Packing Group: II**
- o Additional Information: (contains potassium superoxide, sodium chlorate, and barium peroxide)
- o Label: **OXIDIZER**
- o EPA Hazardous Waste Number: D001, D005

5. Pretreatment by Submersion. It has been a common practice for some units to neutralize the reactive state of spent canisters by puncturing the canisters and submerging the canisters in water. Even though this process has been executed, the canisters must still be disposed of as a hazardous waste due to their barium content (D005). In addition, the water bath is now caustic (corrosive) and requires special disposal. For these reasons, canisters shall not be treated through submersion.

I. Strobe Light Battery Cells.

1. Description. Small 14 volt strobe light battery cells used for powering hand held strobe lights (commonly used in emergency life vests) must be returned to the manufacturer for regeneration or disposed of as a hazardous waste due to mercury content (D009). The battery under discussion here is provided through the DOD and is presently manufactured by Duracell as a 14 volt battery, dry, BA-1568/U. You may find other types of strobe light batteries as well. Contact CEU for advice if this occurs.

2. Turn-in. Used mercury cell batteries turned into the Defense Reutilization and Marketing Office (DRMO) must be managed as a hazardous waste including manifesting unless the DRMO has a contract with a battery manufacturer for regeneration.

3. Disposal. If it is impossible or impractical to return these batteries to the DRMO, the batteries will be disposed of as a hazardous waste. Manifest information for disposal and transportation of mercury strobe light

7.I.3. (Cont'd) battery cells is as follows:

- Proper Shipping Name: **"Hazardous waste, solid, n.o.s."**
- Hazard Class: **9**
- Identification number: **NA3077**
- Packing Group: **III**
- **Additional Information: (contains mercury)**
- Label: **CLASS 9**
- EPA Hazardous Waste Number: D009

J. Blasting Grit.

1. Characterization. The blasting of buoys, boat hulls, channel markers, and other items protected with paints containing heavy metal may result in a hazardous waste. Lead or chromium based paints are commonly used throughout the Coast Guard. In some blasting operations the concentration of heavy metals such as lead and chromium in the blasting waste may be enough to fail the EPA standard for toxicity. For this reason, a representative sample of grit or sludge should be periodically tested.

2. Disposal Information. Blasting grit mixtures found to fail for metal content must be properly containerized, marked, dated and managed as a hazardous waste. The contaminated grit cannot be disposed of in a landfill. Either pretreatment to recover the metal or render the material immobile are the only acceptable methods of disposal. Manifest information is as follows:

a. Mixtures containing lead

- Proper Shipping Name: "Hazardous waste, solid, n.o.s."
- Hazard Class: **9**
- Identification Number: **NA3077**
- **Packing Group: III**
- Additional Information: (contains lead)
- Label: **CLASS 9**
- EPA Hazardous Waste Number: D008

b. Mixtures containing chromium

- Proper Shipping Name: "Hazardous waste, solid, n.o.s."
- Hazard Class: **9**
- Identification Number: **NA3077**
- **Packing Group: III**
- Additional Information: (contains chromium)
- Label: **CLASS 9**
- EPA Hazardous Waste Number: D007

7.J.3. Land Ban Notification. Note that manifests for either paragraphs 2 or 3 above must include the appropriate Land Ban notation as discussed in Chapter 4.

K. Used Oils and Fuels.

1. General.

a. USCG used oils and used oil mixtures identified as consisting of small quantities of gasolines and diesel fuels, hydraulic oils, and other similar materials destined for recycling are subject to the used oil management standards (40 CFR 279). EPA presumes that used oil is to be recycled.

b. In general, mixtures of used oil and hazardous waste must be managed as a hazardous waste and not used oil. Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste and thus must be managed as hazardous waste unless the presumption is rebutted. Mixtures of used oil and hazardous waste that are listed in subpart D of 40 CFR 261 are subject to regulation as hazardous waste. Mixtures of used oil and characteristic hazardous waste are subject to regulation as hazardous waste if the resultant mixture exhibits any characteristics of hazardous waste identified in subpart C of 40 CFR 261. Used oil mixed with a waste which is hazardous solely because it exhibits the characteristic of ignitability (e.g., ignltable-only mineral spirits) may be managed under the used oil standards, provided that the resultant mixture does not exhibit the characteristic of ignitability (despite exhibiting any of the other characteristics).

c. Several states regulate used oil either as a hazardous waste or under their solid waste regulations. In those states where used oil is regulated, unit hazardous waste managers must ensure that state and local requirements are met. Requirements may include the manifesting of any used oil as a hazardous waste. Questions concerning state requirements should be initiated through your servicing CEU see enclosure (1).

d. Aviation fuel from testing for water contamination can be mixed with fuel oil and burned for energy recovery. (See Sec. E Chapter 4)

7.K.2. DOT Specifications.

a. Manifest information for transportation of used oils and waste oil mixtures is as follows:

- Proper Shipping Name: "Waste flammable liquid, n.o.s."
- Hazard Class: 3
- Identification Number: UN1993
- Packing Group: III
- Label: FLAMMABLE LIQUID
- Additional Information: (insert technical names of at least two components that most contribute to the hazard of the mixture)

b. Selection of the appropriate DOT hazard class is dependent upon the material's flash point (not more than 141F for flammable, and above 141 F, and below 200F for combustible).

3. Temporary Storage. Used oil shall be stored in containers or aboveground tanks which are in good condition (no severe rusting, apparent structural defects or deterioration), and not leaking. Containers and aboveground tanks used to store used oil must be marked clearly with the words "Used Oil".

4. Disposal. Coast Guard policy dictates that used oil will be recycled whenever possible. Used oil that is identified as a hazardous waste and cannot be recycled in accordance with 40 CFR 279 must be managed as a hazardous waste. Used oils that are not hazardous wastes and cannot be recycled must be disposed in accordance with 40 CFR 257 and 258 and applicable state laws. In either case, the chemical constituents of the materials must be disclosed prior to disposal. If the composition of the material to be disposed is unknown, extensive laboratory analysis is necessary to determine all chemical constituents.

5. Use as a Dust Suppressant. No Coast Guard unit shall use used oil or any other hazardous waste as a dust suppressant.

L. Asbestos.

1. Disposal Requirements. The disposal of asbestos-containing material (ACM) is not regulated under RCRA, but rather, under the Clean Air Act (CAA). As is frequently the case, individual states may list asbestos as the hazardous waste. Detailed regulatory

7.L.1. (Cont'd) requirements for the disposal of asbestos are found under 40 CFR 61.150. Basic disposal guidelines are outlined below: (The following guidelines are provided to allow individuals to gain a quick and brief understanding of the basic requirements. 40 CFR 61.150 must be referenced to fully understand the applicable requirements)

a. Asbestos-containing Waste material should be formed into nonfriable (friable is defined as readily crumbled; brittle) pellets or other shapes.

b. Demolition, renovation, and other actions resulting in the collection of asbestos must use methods which will prevent the discharge of visible emissions to the outside air such as wetting down or plastic cover.

c. Waste material containing friable asbestos should be treated with water to form a slurry and then be sealed in leak-tight containers while wet. The containers shall be labeled as follows: "Contains Asbestos, Avoid Opening or Breaking Container. Breathing Asbestos is hazardous to your Health."

d. Asbestos material must be disposed in a landfill approved for asbestos material.

2. Policy Guidance. Requirements applicable to Coast Guard personnel involved in the handling of asbestos containing material may be found in COMDTINST M6260.16, Asbestos Exposure Control Manual.

M. Polychlorinated Biphenyls (PCB's).

1. The disposal of PCB's and equipment containing PCB's is regulated under the Toxic Substances Control Act (TSCA). Requirements are detailed under COMDTINST M16478.2, The Procurement, Handling, and Disposal of Polychlorinated Biphenyls.

2. Any piece of electrical equipment containing 50 ppm or greater of PCB's must be transported and disposed in accordance with 40 CFR 761 and COMDTINST M16478.2. Units considering transportation or disposal of PCBs shall request assistance from their servicing CEU. Under no circumstances shall a Coast Guard unit ship PCB's to another Coast Cuard unit without coordinating, before the fact, with the receiving unit.

7.M.3. Requirements of the Resource Conservation Recovery Act (RCRA) do not normally apply to the management and disposal of PCB's. If the PCB's meet one of the other definitions as hazardous waste as a result of mixing with either a listed of characteristic waste, they are fully regulated by RCRA, are covered by the land ban, and must be specially handled. Note: some states do regulate PCB's as a hazardous waste and may therefore require management/disposal practices similar to those specified in this Manual. Contact your CEU environmental protection specialist (enclosure (1)) to ascertain state requirements.

FIGURE 7-1
HAZARDOUS WASTE MARKING AND LABELING INFORMATION
FOR COMMON COAST GUARD WASTE ITEMS

WASTE ITEM	HW ID#	PROPER SHIPPING NAME	UN/NA	HAZARD CLASS	PACKING GROUP	LABEL
Adhesives[1]	D001	waste, adhesive	UN1133	3	II	FLAMMABLE LIQUID
Asbestos[2]	none	white asbestos	UN2590	9	III	CLASS 9
Batteries						
Air-depolarized (ATON)	D002,D009	waste battery, wet, filled with alkali	UN2795	8	III	CORROSIVE
Lead acid[3]	D002,D008	waste battery, wet, filled with acid	UN2794	8	III	CORROSIVE
Lithium	D003	waste lithium battery, liquid cathode	UN3090	9	II	CLASS 9
Nickel-cadmium						
(1) dry	D006	waste battery, dry, containing potassium hydroxide solid	UN3028	8	III	CORROSIVE
(2) wet	D002,D006	waste battery, wet, filled with alkali	UN2795	8	III	CORROSIVE
Engine coolant with dichromate additive	D007	hazardous waste, liquid n.o.s. (D007)	NA3082	9	III	CLASS 9
OBA cannisters	D001,D005	waste, oxidizing substance, solid n.o.s. (contains potassium superoxide, sodium chlorate and barium peroxide)	UN1479	5.1	II	OXIDIZER

1 Disposal of these items as hazardous waste is necessary only if the waste has a flashpoint of less than 140°F.

2 Regulated under TSCA and CAA. See Chapter 7, Section L.

3 Recycling of lead-acid batteries does not require manifesting and reduces disposal costs. See Chapter 7, Section B for further detail.

FIGURE 7-1 (Continued)
HAZARDOUS WASTE MARKING AND LABELING INFORMATION
FOR COMMON COAST GUARD WASTE ITEMS

WASTE ITEM	HW ID#	PROPER SHIPPING NAME	UN/NA	HAZARD CLASS	PACKING GROUP	LABEL
Paint						
Oil based paint, stain varnish	D001	waste paint	UN1263	3	II	FLAMMABLE LIQUID
Lead based	D001,D008	"	"	"	"	"
Chromium based	D001,D007	"	"	"	"	"
Paint slops, thinners	D001	Waste paint related material	"	"	"	"
PCB's[1]	none	polychlorinated biphenyls	UN2315	9	II	Class 9
Petroleum Products						
gasoline	D001	waste gasoline	UN1203	3	II	FLAMMABLE LIQUID
JP-4	D001	waste fuel, aviation, turbine engine	UN1863	3	II	FLAMMABLE LIQUID
Photo chemicals[2] fixer solution	D011	hazardous waste, liquid n.o.s. (D011)	NA3082	9	III	CLASS 9
Preservatives						
Creosote	U051	hazardous waste, liquid, n.o.s. (contains creosote)	NA3082	9	III	CLASS 9
Pentachlorophenol	D037,F027	waste chlorophenol, liquid	UN2021	6.1	III	KEEP AWAY FROM FOOD

1 PCB's are regulated under TSCA. See Chapter 7 Section M

2 Only fixer containing silver must be treated as a hazardous waste. Use of a silver recovery unit will negate the need to dispose of fixer as hazardous waste.

FIGURE 7-1 (Continued)
HAZARDOUS WASTE MARKING AND LABELING INFORMATION
FOR COMMON COAST GUARD WASTE ITEMS

WASTE ITEM	HW ID#	PROPER SHIPPING NAME	UN/NA	HAZARD CLASS	PACKING GROUP	LABEL
Copper Napthenate	D001	waste flammable liquid, n.o.s. (D001)	UN1993	3	II	FLAMMABLE LIQUID
Sandblast grit paint chips	D006,D007 D008	hazardous waste, solid, n.o.s. (EPA Toxicity)	NA3077	9	III	Class 9
Solvents						
Sodium hydroxide	D002	waste sodium hydroxide solution	UN1824	8	II	CORROSIVE
1,1,1-trichloro-ethane	F001	waste 1,1,1-trichloroethane	UN2831	6.1	III	KEEP AWAY FROM FOOD
Trichloroethylene	F001,D040	waste trichloroethylene	UN1710	6.1	III	KEEP AWAY FROM FOOD
Methylene chloride	F001	waste dichloromethane	UN1593	6.1	III	KEEP AWAY FROM FOOD
Freon	F002	hazardous waste, liquid, n.o.s. (F002)	NA3082	9	III	CLASS 9
Methyl Isobutyl ketone (MIBK)	F003	waste methyl isobutyl ketone	UN1245	3	II	FLAMMABLE LIQUID
PD 680, Agitane	D001	waste flammable liquid, n.o.s. (D001)	UN1993	3	II	FLAMMABLE LIQUID
Methyl ethyl ketone (MEK)	F005	waste methyl ethyl ketone	UN1193	3	II	FLAMMABLE LIQUID

CHAPTER 8. STORAGE AND CONTAINER REQUIREMENTS

A. Container Specifications.

1. Condition of Containers. If a container holding hazardous waste (HW) is damaged, defective or if it begins to leak, the owner or operator must transfer the hazardous waste into an approved container, or place the defective container into a metal or plastic removable head salvage drum which meets all the conditions specified in 49 CFR Part 173.3 (c).

2. Compatibility **and Testing** of Containers.

a. Containers must be made of or lined with materials which will not react with, and are otherwise compatible with the hazardous wastes to be stored. Steel drums are generally sufficient for most known Coast Guard wastes, except liquid corrosives.

b. Procurement of new drums is not required. **Previously used drums may be reused for accumulation and shipment of HW by highway only (49 CFR 173.12(c)). These drums may not be offered for transportation less than 24 hours after finally closed for transportation (to check for leakage) and must be inspected for leakage immediately prior to being offered for transportation. It is not recommended that LQGs use reused containers. The new RCRA volatile organic compound (VOC) emissions rule requires that LQGs accumulate VOC hazardous waste in containers that meet the applicable DOT packaging specifications of 49 CFR 178, or in containers equipped with a cover and closure devices that form a continuous barrier over the container opening. VOC measurements and monitoring activities are not required for units which store VOC hazardous waste in containers with a capacity of 119 gallons or less. SQGs are excluded from the new VOC regulations. Contact the environmental protection specialist at your servicing CEU or ISC for further guidance concerning VOC issues.**

c. Title 49 CFR, Part 178 prescribes the manufacturing and testing specifications for packaging and containers used for transportation of hazardous materials.

8.A.3. Handling and Closure. A container holding hazardous waste must always be closed during storage except when necessary to add or remove waste. The bung should be wrench tight (Note that the difference between hand and wrench tight is often a matter of the personal opinion of the inspector). In addition, a container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or otherwise cause it to leak.

4. Labeling of containers. Labeling requirements are specified in Section E of Chapter 5. Supplemental information (specific labeling requirements for common Coast Guard waste items) is also provided by waste type in Chapter 7.

B. Empty Containers.

1. Definition. Empty containers or container liners are not regulated as hazardous waste if all wastes have been removed and no more than 2.5 centimeters (one inch) of residue remains. If the containers are compressed gas cylinders or aerosol cans the pressure within the empty containers must approach atmospheric. For acutely hazardous wastes listed in 40 CFR 261.33(e), the container or liner must be triple rinsed with a solvent capable of removing the waste. You should note that the definition of "empty" under RCRA is not necessarily the same as that for transportation under 49 CFR. Contact your servicing CEU for further advice.

2. Marking. All empty drums and containers shall be clearly marked with the word "EMPTY". All other markings shall be removed or painted over. This is important since emergency response teams commonly encounter empty drums with old markings. Response personnel are unaware that such a container is empty, thereby causing lengthy and avoidable delays. Furthermore, in an old landfill it may be impossible to determine which drums may have been empty versus those drums whose contents have leaked into the surrounding landfill.

3. Triple Rinsing. Empty containers **of acutely hazardous waste** shall be triple rinsed with a solvent capable of removing the residue. The quantity of solvent used for each of the three rinses must equal ten percent of the container capacity. If the rinsate can't be re-used it must be managed as a hazardous waste.

8.C. Engineering Standards for Temporary Storage Areas.

1. Temporary Storage. Temporary storage (Accumulation) areas must be designed as follows:

   a. Locate on a well-drained site to prevent accumulation of precipitation and locate as far as practical from any floor drain, storm sewer or body of water. Minimize the possibility of any unplanned release of hazardous waste by providing spill pans, "poly spill containment pallets", "poly dual-drum storage containers" or an impermeable bermed storage pad designed to contain 110% of the volume of the largest container or 10% of the total volume of all containers whichever is greater.

   b. Containers need to be elevated so as to avoid standing water and allow easy inspection. The use of shipping pallets, preferably plastic will generally prove a practical means of satisfying this requirement.

2. Security. Security fencing or drum locks may be necessary in some circumstances where the responsible command seeks to protect against tampering or trespassers to the accumulation area. Note however that in situations where the accumulation area needs to be frequently opened for purposes of adding small amounts of waste to a drum, such controlled access may encourage indiscriminate dumping. This situation should not be a problem at units which handle small amounts through satellite drums (or 5 gallon cans) and the accumulation area is used solely for the storage of filled containers.

3. Roofing. Enclosed or roof covered enclosures are not required, but may be desirable at those locations subject to extreme weather conditions.

D. Inspections. All units which generate greater than 100 kilograms of hazardous waste per month shall conduct weekly inspections of all areas where hazardous wastes are temporarily stored. CESQGs should check with their state regulatory agency to determine if any state inspection requirements are applicable. A written inspection log describing the condition of the stored materials and their containers will be maintained by the designated HW manager. Copies of the logs shall be kept for at least three years. A sample format for inspection logs is provided as Figure 8-2.

FIGURE 8-2

WEEKLY CONTAINER INSPECTION LOG SHEET

STATUS LEGEND

Satisfactory _____

Unsatisfactory _____

Not Applicable _____

LOCATION:_____

DATE:_____ TIME:_____

INSPECTOR'S NAME:_____ SIGNATURE:_____

CHECKLIST ITEM	POSSIBLE PROBLEM	STATUS	OBSERVATIONS	DATE AND NATURE OF REMAIRS/REMEDIAL ACTION
Security:	Fence unlocked/opened.			
Signs:	Missing/Incorrect/Not/ Readable.			
Structural Equipment:	Foundation/Walls/Roof/ Containment System.			
Container Storage:	Aisle Space... Drums without pallets... Incompatible Storage...			
Condition of Containers:	Open to atmosphere... Deteriorating/damaged... Missing lid/bolt/ring... Container bulged...			
Compatability of Container with Waste:	Improper container/No liner.			
Packaging/Marking:	No Marking... Improper Packaging..			
Waste Accumulation:	Absence of recordkeeping... Accumulation Date...			

CHAPTER 9. CONTINGENCY PLANS AND EMERGENCY PROCEDURES

A. General.

1. Regulations. Regulations located at 40 CFR 265, require that large quantity generators (1000kg/mo or more) maintain and operate their facilities in a manner that minimizes the potential for unplanned releases of hazardous waste. Requirements call for an emergency communication system, for fire and spill prevention/control equipment, and for arrangements with local police, fire and emergency response teams. Furthermore, it is required to formalize one's preparation through a written contingency plan designed to minimize hazards from fires, explosions, or any unplanned release of hazardous waste. Although separate management and contingency plans are allowed, we strongly recommend that there be one management plan for hazardous waste which is sufficient to meet both requirements.

2. Plan Implementation. The provisions of the contingency plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment. A simplified summary of these requirements is contained in figures 9-1 and 9-2. Full details regarding these requirements is spelled out under 40 CFR 265, Subparts C & D. A sample preparedness and prevention plan is provided as Enclosure (9) and a detailed outline of contingency plan requirements is provided as Enclosure (10).

3. Plan Format. A format for a unit contingency plan is provided as Enclosure (11). Units which generate 1000 kg per month or more shall use the format presented under Enclosure (11), filling in the various blocks using guidance from this Chapter and Enclosure (10). Completion of the contingency plan combined with preparedness and prevention information outlined in Enclosure (9) will satisfy EPA and many State and local requirements. Although emergency/preparedness plans and contingency plans are described as separate requirements under Federal regulations, it is reasonable to combine the required information into a single document. An elaborate and lengthy plan is not necessary. A brief plan using the format outlined under Enclosure (11) will be sufficient for most Coast Guard units. The size and complexity of a unit will dictate what length and detail is appropriate for the plan.

9.A.4. Training. All units which handle hazardous waste shall train personnel and otherwise prepare for possible emergencies as appropriate to the scale and danger of hazardous waste handled or released. Most important here is the awareness of personnel regarding possible injury to skin, eyes, etc. if a given waste is improperly handled or released. Knowledge of the medical steps immediately recommended for such a possibility is also a basic training need. (NOTE: See Chapter 10 of this manual for a complete description of training requirements.

B. Hazardous Waste Discharges (Spills) and Clean-Up.

1. Immediate Action. In the event of a discharge of hazardous waste the generator or transporter must take appropriate action to "protect human health and the environment". This may require diking the spill area, notifying local authorities, and, if necessary (a spill has exceeded the reportable quantity for example), notifying the National Response Center (800-424-8802). In general, common sense should dictate that serious spills will require some form of notification. WHEN IN DOUBT, REPORT THE SPILL.

2. Notification. Notification is generally required when:
   a. A spill reaches a water body or water system,
   b. Human safety might be endangered
   c. When environmental contamination is possible
   d. When the amount released exceeds the reportable quantity for that substance as established by EPA

3. Small Spills. Small spills may in fact be significant. For example, spilling only a small amount of solvent on a highly porous soil (without cleanup) may allow the solvent to leach down to a shallow aquifer, which then may contaminate an entire drinking water supply.

4. Reporting Requirements. Federal, state, and local reporting requirements are complex, confusing, and sometimes overlap or conflict. As a result it is prudent that when in doubt, report the spill. If a spill has gone down drains or into sewers call the sewer authority and/or wastewater treatment plant in addition to the NRC. Furthermore, if a spill has entered a reservoir or other drinking water supply, call the water authority.

9.B.5. Reporting Standards. Different laws and regulations set specific standards for reporting spills. Standards outlined under RCRA and those outlined for transporters under the Hazardous Materials Transportation Act are listed as Figure 9-3. Other relevant information is provided in Enclosures (9), (10), and (11).

6. Internal Reporting. Any spill on a Coast Guard unit which is reported to the National Response Center (NRC) or state emergency response contact, shall be reported to the cognizant MLC (with Commandant G-ECV-1 as info) by message (See Figure 9-3).

Figure 9-1

SUMMARY REQUIREMENTS FOR PREPAREDNESS AND PREVENTION (see 40 CFR 265 Subpart C for detailed requirements)

1. Equipment. The following equipment is required of large quantity generators unless a determination is made that the hazards posed by his waste streams do not justify the particular equipment need:
   - o Internal communications or alarm system to provide immediate emergency instruction to unit personnel;
   - o A telephone, a hand-held two-way radio or similar device immediately available at the scene of operations, capable of summoning emergency assistance from state or local officials (police, fire, and emergency response teams);
   - o Portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment;
   - o Sufficient water and pressure to supply water hose streams or foam producing equipment, or automatic sprinklers, or water spray systems.

2. Testing and Maintenanc. All the above equipment must be tested and maintained as necessary to assure its proper operation in time of emergency.

3. Aisle Space. Aisle space must be maintained to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of the unit in an emergency, unless a determination is made that aisle space is not needed for any of these purposes.

Figure 9-1 (cont'd)

4. Arrangements with Local Authorities. An attempt must be made to make the following arrangements, as appropriate for the type of waste handled and the potential need for the services of these organizations (refusal of State or local authorities to enter into such agreements should be documented):
   - o Familiarization of police and fire departments, hospitals, and emergency response teams with layout of the unit, properties and associated hazards of waste at the unit, places where unit personnel would be working, and possible evacuation routes;
   - o Where more than one police or fire department might respond to an emergency, agreements designating'primary authority;
   - o Agreements with State emergency response teams, emergency response contractors, and equipment suppliers.

Figure 9-2

SUMMARY OF CONTINGENCY PLAN REQUIREMENTS (see 40 CFR 265 Subpart D for detailed requirements)*

1. Purpose and Implementation. The contingency plan is to be designed and implemented to minimize hazards to human health and the environment from fires, explosions, and any unplanned sudden or nonsudden release of hazardous wastes to air, soil or surface water.

2. Requirements. Contents of the contingency plan must describe:
   - o Actions to be taken by unit personnel to implement the plan when a release of hazardous waste is detected;
   - o Arrangements agreed to by local and State officials (police and fire departments, hospitals, contractors, emergency response teams, etc.) in providing emergency services;
   - o Persons qualified to act as emergency coordinator (including addresses and office and home phone numbers), including primary and alternate designees;
   - o Emergency equipment descriptions (fire extinguishing systems, spill control equipment, communications and alarm systems, if required) including equipment location and capabilities;
   - o Evacuation plans, in cases where there is a possibility that evacuation could be necessary.

* Note: Contingency plans in this format are only required for TSDF's and Large Quantity Generators. As a matter of Coast Guard policy, contingency plans are required of all units. Format for those units not required by regulation to have such plans is optional.

FIGURE 9-3
SPILL REPORTING

Hazardous Waste GENERATORS under 40 CFR 262.34a4 and TREATMENT, STORAGE AND/OR DISPOSAL FACILITIES (TSDFs) under 40 CFR 265.56 "Emergency Procedures" are subject to the following reporting requirements.

A. If the incident "could threaten human health, or the enviroment, outside the facility":

(a) Call the appropriate authorities if off-site evacuation is advisable.

City Emergency Phone Number
( ) _____
County Emergency Phone Number
( ) _____
State Emergency Phone Number
( ) _____

(b) Call the National Response Center **(NRC) at (800) 424-8802**

Include:
(i) Name and telephone number of reporter.
(ii) Name and address of facility.
(iii) Time and type of incident
(iv) Name and Quantity of materials involved.
(v) Extent of any injuries.
(vi) Hazards to human health and the environment off-site.

B. For all incidents requiring implementation of the contingency plan:

(a) Send a written report to the EPA Regional Administrator and the State within 15 days after the accident.

Include:

(i) Name, address and phone number of the facility. owner or operator.
(ii) Name, address and phone number of the facility.
(iii) Date, time and type of incident.
(iv) Name and quantity of materials involved.
(v) Extent of any injuries.
(vi) Assessment of potential or actual hazards to human health or the environment.
(vii) Estimated quantity and disposition of recovered material.

(b) Clean emergency equipment and ready for use.

(c) Notify the EPA Regional Administrator, State and local authorities that cleanup is completed and emergency equipment is ready for use before operations are resumed.

Hazardous Materials TRANSPORTERS under 49 CFR 171.15-171.17 and Hazardous Waste TRANSPORTERS under 40 CFR 263.30 are subject to the following spill reporting requirements.

A. If, during the course of a hazardous waste or hazardous material, (1) a person is killed, (2) injuries occur requiring hospitalization. (3) estimated property damage exceeds $50,000, (4) radioactive or etiologic agents are involved or (5) in the judgement of the transporter, a continuing danger to life exists, the transporter must call the **NRC at (800) 424-8802.**

Include:
(i) Name of reporter.
(ii) Name and address of transporter.
(iii) Phone number where reporter can be contacted.
(iv) Date, time and location of incident.
(v) Extent of any injuries.
(vi) Classification, name and quantity of materials involved.
(vii) Type of incident.
(viii) Whether a continuing danger to life exists.

B. If NRC must be called, or any quantity of a hazardous waste or hazardous material is discharged a written report on DOT Form F5800.1 must be sent to DOT within 15 days after the incident.

The report must be addressed to Chief, Information Systems Division, Transportation Programs Bureau, Department of Transportation, Washington, DC 20590. For an incident involving hazardous waste the report must include:

(i) A copy of the hazardous waste manifest.
(ii) An estimate of the quantity of waste removed from the schene, the name and address of the facility to which it was taken and the disposition of any unremoved hazardous waste - entered in Part H of Form F5800.1.

NOTE:
The above column lists reporting requirements for accidents during transportation. The left column provides requirements covering other circumstances.

CHAPTER 10. PERSONNEL TRAINING

A. Required Training.

1. Regulations. **The EPA training regulations applicable to LQG facility personnel are found in 40 CFR 265.16, and the regulations for SQG personnel are found in 40 CFR 262.34 (d) (5)(iii). DOT training regulations 49 CFR 172.704 are applicable to personnel who certify hazardous waste manifests. OSHA training regulations 29 CFR 1910.120(p) (8) (iii) are applicable to LQG and SQG facility personnel who are required to respond to emergencies within hazardous waste related areas.** CESQG's should check with their state regulatory agency to determine if any state training requirements are applicable.

2. Requirements. All personnel **with the exception of CESQG personnel** who manage hazardous wastes are required to receive mandatory training to perform the tasks assigned, including responding to emergencies such as spills, fires, or explosions. Resident, computer-based, and on-the-job (OJT) training can all be used as delivery methods depending on the availability of mandatory training'funds. The training program must be directed by a person trained in hazardous waste management procedures. **Unit hazardous waste coordinators shall provide training to other unit personnel who perform hazardous waste tasks at the unit that meets federal and state requirements. Every effort shall be made to appoint unit hazardous waste coordinators from the large pool of Coast Guard personnel who have already received task related training.**

B. Frequency of Training. **Initial EPA training must be completed by LQG personnel within six months after assignment followed by annual refresher training. SQG personnel must be familiar with waste handling and emergency procedures relevant to their responsibilities. EPA regulations do not specify the frequency or scope of SQG training. Annual refresher training is not required for SQG personnel. Initial DOT training must be completed by personnel assigned to certify manifests within 90 days after assignment followed by triennial refresher training. One time OSHA emergency response training must be completed by LQG and SQG emergency coordinators before they are called upon in a real emergency.**

C. Recordkeeping. Initial and refresher training must be documented in a log or other suitable record which records the employee's name, job title and description, and the dates and subject of training. Training records must be maintained for all current personnel both military and civilian handling or managing hazardous waste. Training records on former employees or transferred personnel must be kept for at least three years from the date the person last worked at the facility. The training log shall be maintained by a supervisor responsible for the handling of hazardous materials/waste or the unit hazardous waste coordinator in the case of large units, and shall reflect annual training updates as well as initial training sessions. Copies of training records documenting completion of training shall be provided to all personnel departing the unit for their records.

D. Purpose of the Training Program. In addition to compliance with the regulatory requirements, the purpose of the training program is to teach facility personnel the following basic principles:

1. The Coast Guard Approach to Sound Management of Hazardous Wastes.
2. Performance of Required Tasks Safely Without Causing a Spill or Other HM/HW Incident.
3. **Respond Effectively to Emergencies.**
4. **Avoid Unnecessary Testing, and Disposal Costs.**

E. Contents of training program. Each training program should be tailored to the specific unit (or group of units). All training programs should include at least some discussion of each of the following topics:

1. **RCRA Introduction and Overview.**
2. **Standards Applicable to Generators (LQG's, SQG's, and CESQG' s).**
3. **Identifying Hazardous Waste.**
4. **DOT Classification of Hazardous Wastes.**
5. **Hazardous Waste Manifest Preparation.**

E. 4. Specific Elements of the HM/HW Management System. A discussion of specific elements of the HM/HW management system which are relevant to the trainee's specific job (This function may best be accomplished as OJT rather than in a classroom situation).

5. Contingency Plan Issues. Site specific discussion of the Hazardous Substance Spill Contingency Plan. The responsibilities will vary for each 3ob category but there are several areas common to all as follows:

a. Procedures for selection, use, maintenance, and replacement of personal protective equipment and facility emergency and monitoring equipment

b. Communications and alarm systems.

c. Response to fire or explosion.

d. Response to spills, including a discussion of potential groundwater impacts.

e. Shutdown of operations as a result of an incident involving hazardous waste.

f. Proper use of Material Safety Data Sheets (MSDS) and use of Hazardous Material Information Sheets (HMIS).

g. Procedures for reporting spills and other HM/HW incidents.

6. Special Requirements for Units Operating as Treatment, Storage and Disposal Facilities (TSDF's):

F. Sources of Training.

1. Annual HW Training is provided by each MLC's and CEU's. Contact your nearest CEU for information regarding training schedules. Headquarters units should also seek HW training via MLC/CEU.

2. At the present time, there is no single approved source for training. Information on commercial sources of hazardous waste training may be obtained from the Environmental Protection Specialist located at the nearest CEU (see Encl.1), at each MLC and Headquarters, G-ECV.

CHAPTER 11. SHIPBOARD HAZARDOUS WASTE

A. General Information.

1. Policy. **The Federal Facility Compliance Act exempts public vessels from the storage, manifest, inspection and recordkeeping requirements of hazardous waste regulations.** Therefore, for purposes of Federal and State RCRA requirements ships are not generators. Written Host/Tenant agreements establishing the responsibilities of the tenant vessel with regard to proper management and handling of hazardous wastes shall be mandatory and renewed annually. See Figure 2-2 for a sample Host/Tenant Agreement. The HOST is responsible for preparation of the Host/Tenant Agreement. Visiting vessels shall be provided with a copy of the local HW Management Instruction. Except in an emergency involving the safety of the ship or its crew, no hazardous wastes will be discharged while underway.

2. Waste Generated Aboard Ship. Hazardous wastes generated aboard ship shall be properly managed in accordance with the **applicable sections** of this Instruction. The wastes will then be turned over for disposal to a supporting shore facility which has an EPA generator identification number. The turn over will be accompanied by a completed DD-1348 and Hazardous Waste Profile Sheet. The vessel shall be responsible for insuring that the DD-1348 is completed, the waste is properly identified, packaged, and marked. All manifests and records will be prepared and maintained by the host shore facility.

3. Packaging and Marking. It is very important that all hazardous wastes be properly packaged and marked. Failure to mark drums and other containers will cause considerable confusion, expense, and possible danger to shore facility personnel. Unidentified waste must be tested before disposal and typically costs hundreds of dollars for even small quantities. Costs for testing are generally the responsibility of the generating unit. Contact your servicing CEU for technical advice on proper testing. The importance of proper marking and handling cannot be overemphasized. LIABILITY FOR IMPROPER MANAGEMENT OF HAZARDOUS WASTE RESTS WITH THE UNIT (VESSEL) COMMANDING OFFICER.

4. Typical Wastes Generated Aboard Ship. Typical hazardous wastes from vessels and their operations include ATON batteries, spent OBA canisters, paints, and solvents, bilge slops, and waste fuels and oil.

11.A.5. Shipboard HW/HM Coordinator. Commanding officers and officers in Charge of vessels shall appoint an individual responsible for the proper management and transfer of any hazardous wastes generated on board. This individual will (1) ensure the proper packaging, marking, and handling of any hazardous wastes, and (2) coordinate transfer of the waste to the appropriate shore command in a responsible manner. SPECIAL NOTE: If independently moored, the hazardous waste coordinator shall coordinate the disposal of wastes with the DRMO or waste disposal contractor. Information pertaining to hazardous waste contracts effective in your operating area may be obtained from the designated CEU or MLC hazardous waste contact listed under Encl. (1).

6. Dichromate Rust Inhibitor. Should any vessel still use or retain old supplies of dichromate corrosion inhibitor, the corrosion inhibitor is to be disposed of as a hazardous waste. Use of corrosion inhibitors is addressed under the Naval Engineering Manual, COMDTINST M9000.6B. Disposal data is as follows:
   - o Proper Shipping Name: "Hazardous waste, liquid, n.o.s."
   - o Hazard Class: 9
   - o Identification Number: NA3082
   - o Label: Class 9
   - o Additional Information: (contains chromium)
   - o EPA Hazardous Waste Number: D007

7. Spent OBA Canisters. Spent OBA canisters must be disposed of as a hazardous waste due to their ignitable characteristic and barium content. Spent canisters will be disposed of and manifested as directed under Section H of Chapter 7.

B. Special Circumstances (Independently moored vessels):

1. Definition. **Independently Moored Vessel: For the purposes of this Instruction, an independently moored vessel is a vessel which has its own EPA identification number. There exist some cases where a CG facility serves as a homeport, and is a CESQS (generates no more than 100 kg of hazardous waste per month). In such cases, if the vessel causes the facility to generate over 100 kg per month it shall function as an independently moored vessel and the CESQG homeport shall function only as a transfer facility (40 CFR 263.2) unless a written host/tenant agreement states otherwise.**

2. Management of Shipboard Generated Wastes.

a. Vessel Waste Exemption. **Coast Guard shipboard generated waste is not subject to the RCRA storage, manifest, inspection, or recordkeeping requirements until the waste is removed from the vessel. Once shipboard generated waste is removed from a vessel and transferred ashore it is subject to the same requirements as any other waste, even if the waste should be subsequently picked up by another public vessel. If the waste is transferred to another public vessel without being placed ashore, it becomes subject to RCRA regulation 90 days from the date the transfer took place.**

b. Host/Tenant Agreements. **At Coast Guard or DOD supporting shore facilities, a host/tenant agreement shall be executed whereby the host facility agrees to be responsible for the management and disposal of waste unloaded from a tenant vessel. Such an agreement clarifies the hazardous waste management duties of the host facility and tenant vessel and also avoids the need for the vessel to obtain an EPA identification number. See Figure 2-2 for a sample host/tenant agreement.**

c. EPA Generator ID Numbers. **Any independently moored vessel generating more than 100 kg (220 lbs) of hazardous waste in a calendar month and which also brings its hazardous waste ashore at any location other than a Coast Guard or DOD supporting shore facility must obtain a temporary generator identification number from EPA or the appropriate state. Independently moored vessels which use mooring sheds for temporary hazardous waste storage shall obtain an EPA ID number for the mooring shed and ensure that all vessel generated hazardous waste is managed in accordance with the applicable federal and state regulations. Mooring sheds are discouraged but not prohibited. It is recommended that independently moored vessels off-load hazardous waste directly to a pier-side waste disposal contractor to avoid the possibility of having their mooring shed regulated as a hazardous waste storage facility.**

11.B.3. States Which Regulate Regardless of Quantity Generate. An independently moored vessel which produces hazardous waste in any quantity, and which is homeported in the states of California, Louisiana, Maine, Massachusetts (20kg), Minnesota, Ohio, or Rhode Island must obtain a temporary EPA ID number. This is necessary since the above states regulate all hazardous waste regardless of quantity.

C. Used Oils.

1. Federal Regulation. **Used oil produced on vessels from normal shipboard operations is not subject to the used oil management standards of 40 CFR 279 until it is transported ashore. Once shipboard generated used oil is removed from a vessel and transferred ashore it looses its exemption from regulation, even if the used oil should be subsequently picked up by another public vessel. The vessel and the shore facility which accepts the used oil from the vessel are co-generators of the used oil and are both responsible for managing the oil in compliance with 40 CFR 279 once the oil is transported ashore. The host/tenant agreement must address who will be responsible for storage and off-site shipment of the used oil. See Section K of Chapter 7 which addresses the management of used oils in greater detail.**

2. State Regulation. Some states such as California, South Carolina, and New Jersey presently regulate all used oil as a hazardous waste. Your CEU hazardous waste contact and/or appropriate state office should be consulted for any unique requirements.

D. Shipyard Disposal.

1. Contract Provisions. When a vessel is undergoing repair at a commercial shipyard, the repair contract shall specifically state that disposal of all hazardous wastes generated as a result of the contract will be performed by the contractor. Furthermore, the contractor shall meet all federal and state requirements including the possession of a state or EPA generator number.

2. Items Not Associated with Ship Repair. Bilge water, slop tanks, and other material which may be removed by contractor, but not associated with ship repair shall be tested to ascertain whether any of the materials qualify as a hazardous waste. Testing and disposal (if required) of this material should also be stipulated in the repair contract.

11.D. 3. Generator Responsibility. For purposes of identifying generator responsibility at private shipyards, there are two general situations that may involve the generation of hazardous waste. The following provides guidance for each situation:

a. When hazardous waste is generated as a result of work performed by the contractor, the contractor bears sole legal responsibility for proper management of wastes generated in the course of the contractor's activities. Specifically, any "material" which becomes a waste during the course of contractor activity will then be considered contractor generated hazardous waste. The contractor must use his generator number and assume all associated responsibilities. Not all contractors understand this responsibility. Accordingly, any contract shall specify generator responsibility under RCRA.

b. In rare instances when hazardous waste is generated as a result of continuing operation of ship systems (operational HW), the contract shall stipulate that the contractor will perform generator responsibilities on behalf of the Coast Guard (the contract should also stipulate that copies of manifests for any wastes generated under this paragraph will be provided to the vessel for its records). Note however, that this contractual arrangement does not relieve the Coast Guard of any long term liability associated with generation of the waste. In addition, contractual responsibility for Coast Guard operational HW is only applicable to work performed in a private shipyard. Operational HW generated by vessels at the Coast Guard Yard or any Navy yard will be managed by the shore facility.

CHAPTER 12. UNDERGROUND AND ABOVEGROUND STORAGE TANKS

A. Background and Overview.

1. Regulations. As part of the 1984 RCRA Amendments, new regulations have been set forth establishing federal and state regulation of underground storage tanks. EPA published a final rule governing the installation, maintenance, and operation of underground storage tanks on September 23, 1988 at 53 Federal Register 37081 with regulations codified in 40 CFR Parts 280 and 281. As with other parts of RCRA, State Governments may develop UST programs which parallel the federal regulations. These state rules may then be used to replace the federal regulations provided that they are no less stringent. Many states have established regulations for both aboveground and underground tanks. Contact the environmental specialist at your servicing CEU for specific advice. In addition to the RCRA requirements, many units are subject to the requirements of the Clean Water Act to prepare Spill Prevention, Control, and Countermeasures (SPCC) plans. See paragraph H of this Chapter for guidance.

2. Engineering Standards. General engineering standards and guidelines for underground tank systems including monitoring and testing are detailed in the regulations at 40 CFR 280.

3. Applicability. It is important to note that the regulations discussed in sections B through D of this Chapter pertain to underground storage tanks only, and only those containing petroleum products and other regulated substances as specified under Section B of this Chapter.

4. Hazardous Waste Storage Tanks. Storage tanks containing hazardous waste are regulated under separate regulations which impose numerous and stringent engineering requirements. For this reason, it is very important that all Coast Guard units containerize any hazardous waste in 55 gallon drums and that the use of any stationary tanks (either above or below ground) for the temporary storage of hazardous wastes is to be strictly limited to only those situations where no other practical alternative exists. Section E of this Chapter addresses the requirements applicable to the storage and/or accumulation of hazardous wastes in tanks.

12.B. Definitions.

1. Underground Storage Tank. Any tank or combination of tanks that are used to contain regulated substances whose volume (including underground pipes which are connected to such tanks) is ten percent (10%) or more beneath the surface of the ground. As can be seen in the above definition, a storage tank may in fact be largely above ground, yet still be regulated as an underground storage tank if only 10% of it's volume (including pipes) is located underground (40 CFR 280.12).

2. Regulated Substance. As used in the definition of an underground storage tank includes (for practical purposes) petroleum, any petroleum/fuel product, solvents, pesticides, or any manufactured chemical substance.

C. Exemptions.

1. Heating Oil. Tanks used for storing heating oil for consumptive use on the premises where stored. Such tanks are not presently subject to regulation by EPA (NOTE: some states regulate UST's containing home heating oil based on the total amount stored on the premises). Note that many states regulate home heating oil tanks which meet certain size criteria. As a matter of Coast Guard policy, new home heating oil tanks are subject to the same engineering standards as EPA regulated tanks as discussed above in Paragraph 12.A.2, and both new and existing home heating oil tanks are subject to the release reporting and corrective action requirements outlined in 40 CFR 280.50 through 280.67 and paragraphs 12.C.3. and 4. of this manual.

2. Other exemptions.

   a. Farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes,

   b. Septic tank,

   c. Pipeline facility (including gathering lines) regulated under:

      (1) The Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. App. 1671, et seq.),

      (2) The Hazardous Liquid Pipeline Safety Act of 1979 (49 U.S.C. App. 2001, et seq.), or

12.C.2.c. (3) Any state law comparable to those laws referred to in parts (1) or (2) of this subparagraph;

d. Surface impoundment, pit, pond, or lagoon,

e. Liquid trap or associated gathering lines directly related to oil or gas production and gathering operations, or

f. Storage tank situated in an underground area (such as a basement, cellar, vault, or tunnel) if the storage tank is situated on or above the surface of the floor.

D. Regulatory Requirements for Underground Storage Tanks.

1. Notification Requirements.

a. On May 8, 1986 each unit which possessed a regulated underground storage tank was required to notify the designated state or local agency of the existence of such tank(s). Required information included the age, size, type, location, and use of each underground tank. Some states required earlier notification (California required registration by January 1985).

b. If you should discover a previously unregistered tank, you must provide notice of the existence of the tank (unless you know that the tank was subsequently removed from the ground) and the date the tank was taken out of operation. The notice must also specify to the extent known; the age of the tank when it was taken out of operation, the size, type and location of the tank, and the type and quantity of any substances left in the tank. "To the extent known" is interpreted by EPA to mean information that is readily available. Owners of tanks taken out of service, therefore, are not expected to expend extensive time and resources to retrieve the necessary data. This notification must be provided to your servicing CEU who will submit the required notification to the state or MLC.

c. A notification form must be submitted to the state within 30 days of installation for any underground tank brought into operation after May 8, 1986. The notification must specify the size, type, location, and use of each tank.

12.D.1. d. Notification is to be made on EPA Form 7530-1. A sample form is provided as Enclosure (6).

e. The Governor of each state has designated and agency which is to receive the required notification forms. Note that the appropriate state or local agency is to receive the notification forms and not the Environmental Protection Agency. See Enclosure (4) for state agency names and addresses.

2. Internal reporting.

a. Commandant (G-ECV-1) maintains a database including all regulated underground tanks at Coast Guard installations. Contact G-ECV for additional information.

b. CEU Commanding Officers shall inform Commandant (ECV-1) via the appropriate MLC concerning any underground tank put in service, taken out of service, or removed. In addition, any tank (above or below ground) used for the storage of hazardous waste will be reported to Commandant (ECV-1) when put in service, taken out of service, or removed. Reports may be made by phone (FTS 267-2345), followed up by rapidraft letter, message, or any other means convenient to the reporting command. This report shall include sufficient information to update the UST database.

3. Inventory Control.

a. Commanding Officers and Officers in Charge of units where underground storage tanks are located which do not have automatic leak detection devices installed shall develop and maintain an inventory control system for each metered tank in accordance with 40 CFR 280.43(a). Figure 12-1 is a suggested format. In addition, API Publication 1621 "Recommended Practice for Bulk Liquid Control at Retail Outlets" may also be used as guidance. Manual tank gauging may be performed in place of manual inventory control for unmetered tanks with 2,000 gallons or less capacity in accordance with 40 CFR 280.43(b)

b. The inventory control must be conducted on a monthly basis as specified in 40 CFR 280.43(a) or (b). Inventory records should be maintained for at least three years (Note: as with other records covered by this manual, we suggest that records be kept for longer than the required period of time).

12.D.3. c. In the event the inventory cannot be reconciled, (1.0% of throughput plus 130 gallons in any 30 day period) notify the Environmental Protection Specialist at your servicing CEU (see Enclosure 1) the next business day.

d. All personnel shall exercise proper care when filling fuel tanks (both underground and aboveground) to insure that fuel is not released into the environment either by improper filling or overfilling.

4. Reporting and Recordkeeping.

a. Reporting: Units must submit the following reports to the responsible agency. All reports submitted shall be routed through the cognizant CEU unless otherwise directed by MLC guidance.

(1) Notification of UST systems including certification of new systems.

(2) Reports of releases. If one of your tanks has leaked or a reportable spill (25 gallons of product or more) has occurred, notify the nearest CEU Environmental Protection Specialist (see Encl 1) and the appropriate state agency contact. This should be done immediately using the most expeditious means possible i.e. telephone call or message. MLC(s) and Commandant (G-ECV-1) should be notified by CEU of any reports of leaking tanks. Note: some states have lower thresholds for reporting. Consult with the Environmental Protection Specialist at your servicing CEU for advice.

(3) Reports of corrective actions.

a. Within 20 days (or other reasonable time as established by the state), a report summarizing initial efforts to control the release as described in 40 CFR 280.62 must be submitted to the state (or Regional Administrator of EPA if the state does not administer its own program). Within 45 days (or other reasonable time as established by the state) a report must be submitted to the state (or Regional Administrator of EPA if the state does not administer it own program) outlining the cleanup efforts taken in accordance with the requirements of 40 CFR 280.63(a).

12.D.4.a. (3) b. Within 45 days (or other reasonable time as established by the state) a report must be submitted to the state (or regional Adminitrator of EPA if the state does not administer its own program) a free product removal report including the information outlined in 40 CFR 280.64(d).

(4) Notification prior to permanent closure.

(5) Those units required to maintain a SPCC plan shall submit the information required under 40 CFR 112.4 whenever a release of 1,000 gallons or more of oil has occurred or whenever there have been two reportable releases from the facility within a 12 month period. The report shall include the informaiton required by 40 CFR 112.4 and copies of any such report shall be submitted to MLC via CEU.

b. Recordkeeping: The following records shall be maintained at the unit and made available to the responsible agency (EPA or authorized state) at any reasonable time.

(1) Analysis of corrosion potential (if corrosion protection is not installed).

(2) Documentation of operation of corrosion protection (40 CFR 280.31).

(3) Inventory records.

(4) Copies of any of the release and corrective action reports submitted in accordance with paragraphs 12.C.a.3 and 5.

5. Release response and corrective action.

a. A release of petroleum products or other regulated materials other than small spills or overfills generally requires more resources than are available at the unit level. In the event a reportable spill or release (more than 25 gallons) occurs, take the following action:

(1) Report the release to the nearest CEU Environmental Protection Specialist (see Encl 1) and the appropriate state agency contact. This should be done immediately using the most expeditious means possible i.e. telephone call or message.

12.D.5.a. (2) Implement the unit contingency or SPCC plan and take immediate action, using appropriate safety precautions, to prevent further release of product into the environment.

(3) Identify and mitigate fire, explosion, and vapor hazards.

(4) CEU shall submit information regarding any reportable spill to Commandant (G-ECV-1) by letter, rapidraft or message.

E. General Requirements for Underground Tanks.

1. State and Local Requirements. Ensure that the appropriate state or local agencies are contacted to determine state and local technical requirements on underground storage tanks. Advise Commandant (G-ECV-1) of requirements which exceed EPA standards.

2. Abandoned Tanks. Abandoned tanks should be removed for disposal. Filling tanks with sand or inert material is not recommended unless removal will affect the structural integrity of adjacent structures.

3. Tank closure. Closure of tanks no longer in service is regulated by 40 CFR Part 280.70-74. The following procedures shall be followed when permanently closing a tank:

a. Surrounding soils shall be tested and contaminated soils shall be properly disposed of.

b. Tank removal shall be well documented including written and photographic materials. This action provides factual evidence in the event a regulatory agency requires confirmation that contamination has not occurred or has been removed. This documentation must be retained by the servicing CEU or MLC for a period of at least three years (40 CFR 280.74). Retention of these records permanently is considered a sound practice.

4. Aboveground vs. Underground Tanks. The decision to place a tank aboveground or underground is a function of several considerations including environmental risk, site constraints, safety, security, and costs. It is difficult therefore to make a categorical determination as to which installation is best for a given situation. The following general requirements are being established. These requirements may be waived or

12.E.4. (Cont'd) altered by the cognizant MLC. MLC shall notify Commandant G-ECV of any waivers granted on a case by case basis.

a. Gasoline tanks shall be underground

b. Waste oil tanks shall be aboveground.

c. Chemicals other than petroleum fuels (including hazardous wastes) shall be aboveground.

d. All other tanks shall be designed based on the results of the tank design assessment (See Figure 12-2 for outline of assessment)

5. Technical Requirements. If an underground tank is selected, it must be meet the technical requirements outlined in 40 CFR 280.

6. Testing. Tank systems shall be tested after installation and inspected on a routine basis in accordance with applicable laws and regulations.

7. Maintenance. Tank systems shall be properly maintained in accordance with the Civil Engineering Manual, COMDTINST M11000.11, Chapter 8, Shore Station Maintenance Program.

F. Hazardous Waste Storage Tanks.

1. Regulations. On July 14, 1986 EPA finalized regulations for the storage of hazardous waste in tanks (both above and below ground). The regulations are applicable not only to long term storage by permitted TSDF's, but to temporary storage (accumulation) by generators. EPA requires extensive retrofitting or replacement of any tanks used for the placement of hazardous waste. In short, the requirements are complicated and numerous. For this reason, no Coast Guard unit will place hazardous waste in any tank unless unusual quantities and circumstance necessitate such use.

2. Mobile Tanks. A mobile tank (e.g. a bowset or buffalo) does not qualify as a regulated tank as defined by EPA. However, hazardous wastes shall not be mixed with waste oil in a bowser or any other container. Secondly, bowsets shall not be used for the transport or temporary storage of hazardous waste.

12.F. 3. Policy. Coast Guard units shall containerize any hazardous wastes in 55 gallon drums or smaller containers as appropriate. Those units which, out of operational necessity, find it unavoidable to use a tank, either above or underground, for accumulating hazardous waste must comply with the applicable sections of 40 CFR Part 265. Since these regulations are lengthy, detailed, and unlikely to be used by most Coast Guard units it is impractical to spell out the various requirements.

4. New Tank standards. New hazardous waste tanks will require secondary containment (liner, double-wall, or vault) a leak detection system, daily inspections, and cathodic protection. The time frame for bringing existing tanks into compliance depends upon the substance being stored and the age of the tanks. The time frame and requirements for secondary containment are promulgated under 40 CFR 265.193.

5. Used Oil. This section does not apply to used oil that is regulated as a hazardous waste under state law and which is not subject to the requirements under Subpart I of.40 CFR 265. Also, a limited number of units may have sufficient quantities or other circumstances to warrant use of tanks.

G. Aboveground Storage Tanks.

1. Regulations. At, this time, RCRA does not apply to the operation of aboveground petroleum storage tank systems as it does to underground systems. There are however other federal (40 CFR 112), state, and local rules which apply. Contact the Environmental Protection Specialist at your servicing CEU to determine the applicibility of local regulations to your installation.

2. Policy. All Coast Guard units shall provide containment systems such as dikes, berms or retaining walls which are impervious to petroleum for 72 hours, and designed to contain 110 percent of the capacity of the largest tank within its boundary including double walled tanks.

12.H. Spill Prevention Control and Countermeasure (SPCC) Plan.

1. Introduction. An SPCC plan describes the procedures and equipment used at a unit's oil facilities to prevent or minimize the occurrence and impact of an oil spill. Development and implementation of a SPCC plan consists of four major steps.

   a. Identification of applicable facilities.

   b. Evaluation of the units compliance with SPCC requirements.

   c. Preparation of the SPCC plan, incorporating the results of site evaluations with recommended procedures and corrective action.

   d. Implementation of the SPCC plan's recommendations and procedures and reviwing its effectiveness.

2. SPCC Plan Requirements.

   a. The requirement to develop a formal SPCC plan is found at 40 CFR 112. Simply stated, any unit which has more than 42,000 gallons of underground storage capacity or, more than 1320 gallons (total) aboveground storage or, any single aboveground tank with a capacity greater than 660 gallons is required to have a written SPCC plan. In addition, any unit which has the potential to discharge oil into navigable waters is also required to have a SPCC plan. As you can see, the requirements apply to nearly all Coast Guard facilities.

   b. Plan Development. If your unit is required by the regulations to have a SPCC plan, you should contact your servicing CEU for assistance in developing the plan. Complexity of these plans vary with the complexity of the unit and for larger units considerable resources may be necessary.

   c. Engineering Certification. SPCC plans must be reviewed and signed by a registered professional engineer (PE). Usually, this will be done at the servicing CEU. For those units large enough to have a Facilities Engineer assigned, the FE or a member of his staff may make the required certification provided that he/she meets the minimum qualifications.

12.H.2. d. Command Involvement. The SPCC plan is required to have the full approval of management at a level which has the authority to commit all necessary resources. For this reason, we recommend that the SPCC plan be issued as or incorporated into an existing unit instruction over the signature of the CO or OinC.

e. Plan Availability. Once the SPCC plan has been prepared and approved, it shall be available to unit personnel (OD, MAA etc.) at all times. In addition, the plan shall be made available to representatives of the Environmental Protection Agency or corresponding state agency upon request, at any reasonable time. (Note: reasonable time is defined as normal duty hours)

3. Preparation of the SPCC Plan. In order to avoid duplication of effort, the SPCC plan should be incorporated into other unit contingency plans to the greatest degree possible. If you do not currently have a SPCC plan or if your plan needs to be updated, contact the Environmental Protection Specialist at your servicing CEU for advice.

4. Contents of a SPCC Plan. Required contents of SPCC plans are described only in general terms in the regulations themselves. Figure 12-3 provides a suggested outline and contents. Figure 12-4 is a questionnaire which you may use to assist you in developing a plan.

FIGURE 12-1

TANK INVENTORY

Gallons on hand at beginning of day by sounding _____

Gallons received during the day by sounding, invoice, and meter +_____

Total gallons available by addition _____

Gallons issued by meter, sounding, and invoice (fuel log) -_____

Gallons (predicted) to be on hand at end of the day (by addition/subtraction) _____

Gallons actually on hand at end of the day _____

Gallons discrepancy _____

_____
Date

_____Signature

FIGURE 12-2

TANK DESIGN ASSESSMENT

The purpose of the tank design assessment is to provide a consistent method of evaluating tank installations and to include in the official record the rationale used in making the decision to install tanks containing "regulated substances" either above or below ground. A signed copy of the assessment shall be included in the official record for the project and shall be maintained for the life of the installation.

I. DESCRIPTION OF THE PROJECT

A. Location

B. Proposed Tank Size

C. Justification for tank size

C. Estimated monthly throughput

D. Description of physical surroundings

1. Distance to nearest surface water

2. Depth to ground water (in meters.)

3. Is ground and/or surface water an actual or potential drinking water source?

4. Conductivity of soil (measured in ohms/cm)

5. Are there any other sensitive environmental areas in the vicinity? If so, describe the nature of the sensitive area (wetlands, wildlife area, public park, historic/archeological site, etc.) and describe how far from the proposed project (in. meters) they are.

6. Are there any security issues connected with the proposed tank installation?

II. Alternatives: The alternatives section of the assessment shall include an evaluation of both underground and aboveground tank installations. This evaluation shall include comparative costs, based on equivalent life cycles and shall include but not be limited to costs for long term monitoring, maintenance of monitoring and protective systems, and consideration of risk in the event each system should fail. The alternatives discussion should include any waiver granted by the cognizant MLC in accordance with paragraph 12.E.4. of this chapter.

FIGURE 12-3

SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN

I. DESCRIPTION OF THE FACILITY:

This section should include a general description of the facility, location of the various tanks, fueling facilities, drainage, containment, and emergency equipment. A drawing showing these sites should be included.

II. DESCRIPTION OF NORMAL OIL AND FUEL PRACTICES

III. DESCRIPTION OF EMERGENCY PROCEDURES:

A. Reporting- Post the National Response Center (NRC) telephone # (1-800 424-8802) in prominant locations including in the OD's notebook (Note: you may prefer to post the telephone # of the nearest MSO rather than the NRC)

B. Response Personnel
   1. Names
   2. Current home and business telephone numbers
   3. Qualifications/training status

C. Emergency Equipment

   1. Type of equipment

   2. Location (Recommend a plot plan showing location of tanks and other fueling facilities along with locations of emergency equipment)

   3. Evaluation of capacity

D. Procedure for requesting assistance from off-site (MSO, strike team, CEU)

IV. SECURITY:

Provide a description of the measures taken to insure that fuel and oil tanks are properly protected from external threat.

V. RECORDKEEPING

In this section, you should describe the system of records you intend to use in order to monitor your fuel/oil activities and meet the reporting and recordkeeping requirements of the various environmental regulations. Here again, one should incorporate by reference other required documents such as RCRA contingency/management plans, fire bill, etc. There is no need

FIGURE 12-3 (cont'd)

V. RECORDKEEPING (Cont'd) to duplicate effort but there is a need to integrate all levels of preparedness.

A. Inventory records

B. Inspection records

C. Reports of releases or incidents

VI. TRAINING:

The regulations do not provide specific guidelines for training in spill prevention or countermeasures. Training should be provided for all personnel who have a need to implement any part of this plan. Records should be kept concerning training provided. These records may be included with and considered as a part of the RCRA training requirement.

FIGURE 12-4

SPCC QUESTIONNAIRE

1. Describe each tank: tank#, contents, material, estimated monthly throughput, type (above or below ground).

2. Describe corrosion protection method.

3. Describe any testing conducted on each tank including date of most recent test.

4. Describe overfill protection systems or practices.

5. Describe piping system; location, contents, corrosion protection, testing method, date, etc.

6. In what direction is a spill likely to travel? (probably best shown on a plot plan)

7. Describe spill containment (by tank)

   A. Capacity of each containment area.

   B. Material of construction for each including description of how each is made impermeable.

   C. Condition of each containment area.

   D. Are valves normally closed and locked?

8. Describe emergency spill containment equipment (booms, sorbents, etc.)

9. Describe stormwater system (use drawings as appropriate)

10. Describe security methods.

11. Who is responsible for carrying out the SPCC plan?

12. Describe unit level training in SPCC procedures, frequency, content, how are new members briefed?

13. Are there written procedures covering both standard and emergency operations for loading, unloading, spills, fire, etc.?

14. Do unit personnel maintain a log of inspections?

15. What preventative maintenance is conducted? are written logs kept?

16. Are records of required maintenance and inspections maintained for the minimum time (usually 3 years)?

ENVIRONMENTAL MANAGEMENT PROGRAM CONTACTS
Environmental Management Division
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U.S. Coast Guard Headquarters
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Larry King	(907) 463-2405
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JFK Federal Building
Boston, MA 02203
(617) 565-3400

EPA REGION II
Waste Mgmt. Division
290 Broadway, 28th floor
New York, N.Y. 10007
(212) 637-3000

EPA REGION III
Waste Mgmt. Division
Philadelphia, PA 19107
(404) 597-8131

EPA REGION IV
Waste Mgmt. Division
100 Alabama St., S.W.
Atlanta, GA 30303
(404) 562-9590

EPA REGION V
Waste Mgmt. Division
77 West Jackson Blvd.
Chicago, IL 60604
(312) 886-7579

EPA REGION VI
Waste Mgmt. Division
1445 Ross Ave.
Dallas, TX 75202
(214) 655-6700

EPA REGION VII
Waste Mgmt. Division
726 Minnesota Ave.
Kansas City, KS 66101
(913) 551-7051

EPA REGION VIII
Waste Mgmt. Division
Denver, CO 80202
(303) 293-7450

EPA REGION IX
Waste Mgmt. Division
75 Hawthorne St.
San Francisco, CA
(415) 744-1305

EPA REGION X
Waste Mgmt. Division
1200 Sixth Ave.
Seattle, WA 98101
(206) 553-1200

WHERE TO GET MORE HELP

For further assistance in understanding the hazardous waste regulations applicable to you, contact your state hazardous waste agency. Other assistance resources include the EPA Resource Centers (including the RCRA Hotline) or your EPA Regional office.

STATE HAZARDOUS WASTE MANAGEMENT AGENCIES

One of the best ways to ensure compliance with hazardous waste regulations is to set up a visit by an inspector from your state or local hazardous waste agency. These visits can help you indentify and correct problems. During the visit, you can ask the inspectors questions and receive advice on effective ways to manage your hazardous waste. The best way to prepare for a visit from an inspector is to conduct your own self inspection.

Alabama
Land Division
Alabama Department of Environmental Management
1751 Cong. William L. Dickinson Drive
Montgomery, AL 36130
334 271-7730

Alaska
Division of Air and Water
Hazardous Waste Section
Alaska Department of Environmental Conservation
410 Willoughby Avenue, Suite 105
Juneau, AK 99801
907 465-5158

American Samoa
American Somoa Environmental Protection Agency
Government of American Samoa
Pago Pago, American Samoa 96799
Overseas Operator: 684 663-2304

Arizona
Hazardous Waste Compliance Unit
Arizona Department of Environmental Quality
3033 N. Central Avenue
Phoenix, AZ 85012
602 207-4108

Arkansas
Hazardous Waste Division
Arkansas Department of Pollution Control and Ecology
8001 National Drive
Little Rock, AR 72219
501 562-6533

California
Hazardous Waste Management Program
Department of Toxic Substances Control
P. O. Box 806
Sacramento, CA 95812
916 324-1781
800 61-TOXIC (CA only)

Colorado
Hazardous Materials and Waste Management Division
Colorado Department of Health
4300 Cherry Creek Drive South
Denver, CO 80222
303 692-3320

Connecticut
Bureau of Waste Management
Department of Environment Protection
79 Elm Street
Hartford, CT 06106
203 424-3023

Delaware
Hazardous Waste Management Branch
Department of Natural Resources and Environmental Control
P.O. Box 1401
89 Kings Highway
Dover, DE 19903
302 739-3689

District of Columbia
Hazardous Waste Management Branch
Pesticides and Hazardous Materials Division
Environmental Regulatory Administration
2100 Martin Luther King Avenue, S.E.
Suite #203
Washington, DC 20020
202 645-6080

Florida
Bureau of Solid and Hazardous Waste MS4560
Division of Waste Management
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400
904 488-0300

Georgia
Hazardous Waste Management Branch
Environmental Protection Division
Department of Natural Resources
Floyd Towers East/Room 1154
205 Butler Street, S.E.
Atlanta, GA 30334
404 656-7802

Guam
Solid and Hazardous Waste Management Program
Guam Environmental Protection Agency
130 Rajas Steret, D107 Harmon Plaza
Harmon, Guam 96911
Overseas Operator: 671 646-8863

Hawaii
Solid and Hazardous Waste Branch
Office of Solid Waste Management
Department of Health
919 Ala Moana, 2nd Floor
Honolulu, HI 96814
808 586-4226

Idaho
Hazardous Materials Bureau
Division of Environmental Quality
Department of Health and Welfare
1410 North Hilton Street
Boise, ID 83706
208 334-5898

Illinois
Division of Land Pollution Control
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, IL 62794-9276
217 785-8604

Indiana
Hazardous Waste Management Branch
Office of Solid and Hazardous Waste
Indiana Department of Environmental Management
105 N. Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015
317 232-4417

Iowa
Environmental Protection Division
Department of Natural Resources
900 East Grand Avenue
Des Moines, IA 50319-0034
515 281-4968

Kansas
Bureau of Waste Management
Department of Health and Environment
Forbes Field, Building 740
Topeka, KS 66620-0001
913 296-1608

Kentucky
Hazardous Waste Branch
Division of Waste Management
Department of Environment Protection
18 Reilly Road, Frankfort Office Park
Frankfort, KY 40601
502 564-6716

Louisiana
Office of Solid and Hazardous Waste
Hazardous Waste Division
Louisiana Deparment of Environmental Quality
P. O. Box 82178
7290 Bluebonner Drive
Baton Rouge, LA 70884-2178
504 765-0249

Maine
Division of Oil and Hazardous Materials Facilities
Bureau of Hazardous Materials Control and Solid Waste Control
Department of Environment Protection
State House, Station #17
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207 287-2651

Maryland
Hazardous Waste Program
Hazardous and Solid Waste
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Maryland Department of the Environment
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617 292-5574

Michigan
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Waste Management Division
Department of Natural Resources
608 West Allegan, 1st Floor
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Minnesota Pollution Control Agency
520 North Lafayette Road
St. Paul, MN 55155
612 297-8512

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1200 N Street, The Attrium
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Resources
333 West Nye Lane
Carson City, NV 89710
702 784-1717
800 882-3233 (NV only)

New Hampshire
Waste Management Compliance Bureau
Waste Management Division
Department of Environmental Services
6 Hazen Drive
Concord, NH 03301-6509
603 271-2942

New Jersey
Bureau of Advisement and Manifest
Department of Environmental Protection
401 East State St./CN-421
Trenton, NJ 08625
609 292-8341

New Mexico
Hazardous and Radioactive Waste Bureau
Environmental Department
P. O. Box 26110
Santa Fe, NM 87502
505 827-4308

New York
Division of Hazardous Substances
Regulation
Department of Environmental
Conservation
50 Wolfe Road
Albany, NY 12233
518 485-8988

North Carolina
Hazardous Waste Section
Division of Solid Waste Management
Department of Environment, Health, and
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P. O. Box 27687
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North Dakota
Division of Hazardous Waste Management
Department of Health Management and Special Studies
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701 328-5166

Ohio
Division of Hazardous Waste Management
Ohio Environment Protection Agency
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Division of Hazardous Waste Management
Department of Environmental Quality
1000 Northeast 10th Street
Oklahoma City, OK 73117-1212
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Oregon
Hazardous Waste Program
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811 Southwest 6th Avenue
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Pennsylvania Department of Environmental Resources
400 Market Street
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Puerto Rico
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Rhode Island
Division of Waste Management
Department of Environment Management
291 Promenade Street
Providence, RI 02908
401 277-2797

South Carolina
Division of Hazardous and Infectious Waste Management
Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201
803 896-4000

South Dakota
Division of Environmental Regulation
Department of Environment and Natural Resources
523 E. Capitol Avenue, Foss Building
Pierre, SD 57501-3181
605 733-3153

Tennessee
Division of Solid Waste Management
Tennessee Department of Environment Conservation
401 Church Street
L&C Tower, 5th Floor
Nashville, TN 37243
615 532-0780

Texas
Industrial and Hazardous Waste Division
Texas Natural Resources Conservation Commission
P. O. Box 13087
Austin, TX 78711-3087
512 239-6592

Utah
Hazardous Waste Compliance Section
Division of Solid and Hazardous Waste Management
Department of Environment Quality
P. O. Box 144880
Salt Lake City, UT 84114-4880
801 538-6170

Vermont
Hazardous Waste Management Division
Department of Environmental Conservation
Agency of Natural Resources
103 South Main Street, West Building
Waterbury, VT 05671
802 241-3888

Virgin Islands
Division of Environment Protection
Department of Planning and Natural Resources
Government of the Virgin Islands
1118 Watergut Homes,
Christiansred Project
St. Croix, VI 00820
809 773-0565

Virginia
Office of Waste Resource Management
Waste Division
Department of Environmental Quality
P. O. Box 10009
Richmond, VA 23240-0009
804 527-5145

Washington
Division of Hazardous Waste and Toxics
Program
Department of Ecology
P. O. Box 47600
Olympia, WA 98504-7600
206 407-6758

West Virginia
Hazardous Waste Management Section
Division of Environmental Protection
Bureau of Environment
State Complex Building 3, Room 732
1356 Hansford Street
Charleston, WV 25301
304-558-5929

Wisconsin
Hazardous Waste Management Section
Division of Environmental Quality
Department of Natural Resources
101 S. Webster Street
Madison, WI 53702
304 558-5929

Wyoming
Solid and Hazardous Waste Division
State of Wyoming Department of
Environmental Regulation
122 West 25th Street
Herschler Building
Cheyenne, WY 82002
307 777-7752

List of Agencies Designated to Receive Notifications

Alabama (EPA Form)
Alabama Department of Environmental Mgmt.
Ground Water Section/Water Division
1751 Federal Drive
Montgomery, Alabama 36130

Alaska (EPA Form)
Department of Environmental Conservation
Pouch O
Juneau, Alaska 99811
907/465-2653

American Samoa (EPA Form)
Executive Secretary
Environmental Quality Commission
Office of the Governor
Amerian Samoan Government
Pago Pago, America Samoa 96799
Attention: UST Notification

Arizona (EPA Form)
Attention: UST Coordinator
Arizona Department of Health Services
Environmental Health Services
2005 N. Central
Phoenix, Arizona 85004

Arkansas (EPA Form)
Arkansas Department of Pollution Control and Ecology
P. O. Box 9583
Little Rock, Arkansas 72219
501/562-7444

California (State Form)
Ed Anton
California Water Resources Control Board
P. O. Box 100
Sacramento, California 95801
916/445-9552

Colorado (EPA Form)
Kenneth Mesch, Section Chief
Colorado Department of Health
Waste Management Division
Underground Tank Program
4210 East 11th Avenue
Denver, Colorado 80220
303/320-8333 Ext. 4364

Connecticut (State Farm)
Hazardous Materials Management Unit
Department of Environmental Protection
State Office Building
165 Capitol Avenue
Hartford, Connecticut 06106

Deleware (State Form)
Division of Air and Waste Management
Department of Natural Resources and Environmental Control
P. O. Box 1401
89 Kings Highway
Dover, Delaware 19903
302/736-5409

District of Columbia (EPA Form)
Attention: UST Notification Form
Department of Consumer and Regulatory Affairs
Pesticides and Hazardous Waste Management Branch
Room 114
5010 Overlook Avenue, S.W.
Washington, D.C. 20032

Florida (State Form)
Florida Department of Environmental Regulation
Solid Waste Section
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301
904/487-4398

Georgia (EPA Form)
Georgia Department of Natural Resources
Environmental Protection Division
Undergrownd Storage Tank Program
3420 Norman Berry Drive
Hapeville, Georgia 30354

Guam (State Form)
James B. Branch Administrator
Guam Environmental Protection Agency
P. O. Box 2999
Agana, Guam 96910
Overseas Operator (Commercial Call 646-8863)

Hawaii (EPA Form)
Chief, Noise and Radiation Branch
Hawaii Department of Health
591 Ala Moana Boulevard
Honolulu, Hawaii 96801

Idaho (EPA Form)
Underground Storage Tank Coordinator
Water Quality Bureau
Idaho Department of Health & Welfare
Division of Environment
450 W. State Street
Boise, Idaho 83720
208/334-4251

Illinois (EPA Form)
Underground Storage Tank Coordinator
Devision of Fire Prevention
Office of State Fire Marshal
3150 Executive Park Drive
Springfield, Illinois 62703-4599

Indiana (EPA Form)
Division of Land Pollution Control, US Program
Indiana State Board of Health
P. O. Box 7015
Indianapolis, Indiana 46207
317/243-5060

Iowa (State Form)
Iowa Department of Water, Air and Waste Management
900 East Grand
Des Moines, Iowa 50319
515/281-8692

Kansas (EPA Form)
Office of Enviromental Geology
Kansas Department of Health & Environment
Forbes Field, Building 740
Topeka, KS 9360 Ext 221

Kentucky (State Form)
Natural Resources Cabinet
Division of Waste Management
Attention: Vicki Pettus
18 Reilly Road
Frankfort, Kentucky 40601
502/564-6716

Louisiana (State Form)
Patricia L. Norton, Secretary
Louisiana Department of Environmental Quality
P. O. Box 44066
Baton Rouge, Louisiana 70804
504/342-1265

Maine (State Form)
Attention: Underground Tanks Programs
Bureau of Oil & Hazardous Material Control
Department of Environmental Protection - Station 17
Augusta, Maine 04333
207/289-2651

Maryland (EPA Form)
Science and Health Advisory Group
Office and Environmental Programs
201 West Preston Street
Baltimore, Maryland 21201

Massachusetts (EPA Form)
UST Registry, Department of Public Safety
1010 Commonwealth Avenue
Boston, Massachusetts 02215
617/566-4500

Michigan (EPA Form)
Ground Water Quality Division
Department of Natural Resources
Box 30157
Lansing, Michigan 48909

Minnesota (State Form)
Underground Storage Tank Program
Division of Solid and Hazardous Wastes
Minnesota Pollution Control Agency
1935 West County Road, B-2
Roseville, Minnesota 55113

Mississippi (EPA Form)
Department of Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209

Missouri (EPA Form)
Gordon Ackley, UST Coordinator
Missouri Department of Natural Resources
P. O. Box 176
Jefferson City, Missouri 65102

Montana (EPA Form)
Solid and Hazardous Waste Bureau
Department of Health and Enviromental Science
Cogswell Building, Room B201
Helena, Montana 59620

Nebraska (EPA Form)
Nebraska State Fire Marshal
P. O. Box 94677
Lincoln, Nebraska 68509-4677

Nevada (EPA Form)
Attention: Underground Storage Tanks
Division of Environmental Protection
Department of Conservation and Natural Resources
Capitol Complex
201 S. Fall Street
Carson City, Nevada 89710
800/992-0900 Ext. 4670

New Hampshire (EPA Form)
Water Supply and Pollution Control Comission
Hagen Drive
P. O. Box 95
Concord, New Hampshire 03301
Attention: UST Registration
603/271-3503

New Jersey (State Form)
Underground Storage Tank Coordinator
Department of Environmental Protection
Division of Water Resources (CN-029)
Trenton, New Jersey 08625
609/292-0424

New Mexico (EPA Form)
New Mexico Environmental Improvement Division
Ground Water/Hazardous Waste Bureau
P. O. Box 968
Sante Fe, New Mexico 87504
505/827-2933 or 505/827-2918

New York (EPA Form)
Bulk Storage Section
Division of Water
Department of Environmental Conservation
50 Wolf Road, Room 326
Albany, New York 12233-0001
518/457-4351

North Carolina (EPA Form)
Division of Environmental Mgmt./Ground Water Section
Dept. of Natural Resources & Community Development
P. O. Box 27687
Raleigh, North Carolina 27611
919/733-5083

North Dakota (State Form)
Division of Hazardous Waste Mgmt. and Special Studies
North Dakota Department of Health
Box 5520
Bismark, North Dakota 58502-5520

Northern Mariana Islands (EPA Form)
Chief
Division of Environmental Quality
P. O. Box 1304
Commonwealth of Northern Mariana Islands
Saipan, CM 96950
Overseas Operator: 6984
Cable Address: GOV. NMI Saipan

Ohio (State Form)
State Fire Marshal's Office.UTN
Department of Commerce
8895 E. Main Street
Reynoldsburg, Ohio 43068
State Hotline 800/282-1927

Oklahoma (EPA Form)
Underground Storage Tank Program
Oklahoma Corporation Comm.
Jim Thorpe Building
Oklahoma City, Oklahoma 73105

Oregon
Underground Storage Tank Program
Hazardous and Solid Waste Division
Department of Environmental Quality
P. O. Box 1760
Portland, Oregan 97207
503/229-5788

Pennsylvania (EPA Form)
Pennsylvania Department of Environmental Resources
Bureau of Water Quality Management/Ground Water Unit
9th Floor, Fulton Building
P. O. Box 2063
Harrisburg, Pennsylvania 17120

Puerto Rico (EPA Form)
Director, Water Quality Control Area
Environmental Quality Board
Commonwealth of Puerto Rico
P. O. Box 11488
Santurce, Puerto Rico 00910
809/725-0717

Rhode Island (EPA Form)
UST Registration
Department of Environmental Management
204 Cannon Building
75 Davis Street
Providence, Rhode Island 02908
401/277-2234

South Carolina (State Form)
Attention: Susana Workman
Groundwater Protection Division
South Carolina Dept. of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201
803/758-5213

South Dakota (EPA Form)
Office of Water Quality
Department of Water and Natural Resources
Joe Foss Building
Pierre, South Dakota 57501

Tennessee (EPA Form)
Terry K. Cothron, Director
Division of Ground Water Protection
Tennessee Department of Health and Environment
150 Ninth Avenue, North
Nashville, Tennessee 37219-5404
615/741-7206

Texas (EPA Form)
Underground Storage Tank Program
Texas Water Commission
P. O. Box 13087
Austin, Texas 78711

Utah (EPA Form)
Kenneth L. Alkema
Division of Environmental Health
P. O. Box 45500
Salt Lake City, Utah 84145-0500

Vermont (State Form)
Underground Storage Tank Program
Vermont AEC/Waste Management Division
State Office Building
Montpelier, vermont 05602
802/257-6685

Virginia (EPA Form)
Russell P. Ellison, III, P.G.
Virginia Water Control Board
P. O. Box 11143
Richmond, Virginia 23230-1143
804/257-6685

Virgin Islands (EPA Form)
205(J) Coordinator
Division of Natural Resources Management
14 F Building 111, Watergut Homes
Christianstead, St. Croix, Virgin Islands 00820

Washington (State Form)
Earl W. Tower, Supervisor
Department of Ecology, M/S PV-11
Management Division, Solid and Hazardous Waste
Olympia, Washington 98504-8711
206/459-6316

West Virginia (EPA Form)
Attention: UST Notification
Solid and Hazardous Waste/Ground Water Branch
West Virginia Department of Natural Resources
1201 Greenbriar Street
Charleston, West Virginia 25311

Wisconsin (State Form)
Bureau of Petroleum Inspection
P. O. Box 7969
Madison, Wisconsin 53707
608/266-7605

Wyoming (EPA Form)
Water Quality Division
Department of Environmental Quality
Herschier Building, 4th Floor West
122 West 25th Street
Cheyenne, Wyoming 82002
307/777-7781

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

GSA No. 0246-EPA-OT

Please refer to the *Instructions for Filing Notification* before completing this form. The information requested here is required by law *(Section 3010 of the Resource Conservation and Recovery Act).*

EPA Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received (For Official Use Only)

I. Installation's EPA ID Number *(Mark 'X' in the appropriate box)*

☐ A. First Notification ☐ B. Subsequent Notification *(complete item C)*

C. Installation's EPA ID Number

II. Name of Installation *(Include company and specific site name)*

III. Location of Installation *(Physical address not P.O. Box or Route Number)*

Street

Street (continued)

City or Town | State | ZIP Code

County Code | County Name

IV. Installation Mailing Address *(See instructions)*

Street or P.O. Box

City or Town | State | ZIP Code

V. Installation Contact *(Person to be contacted regarding waste activities at site)*

Name *(last)* | *(first)*

Job Title | Phone Number *(area code and number)*

VI. Installation Contact Address *(See instructions)*

A. Contact Address Location ☐ Mailing ☐ | B. Street or P.O. Box

City or Town | State | ZIP Code

VII. Ownership *(See instructions)*

A. Name of Installation's Legal Owner

Street, P.O. Box, or Route Number

City or Town | State | ZIP Code

Phone Number *(area code and number)* | B. Land Type | C. Owner Type | D. Change of Owner Indicator Yes ☐ No ☐ | (Date Changed) Month Day Year

EPA Form 8700-12 (01-90) Previous edition is obsolete.

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0028. Expires 10-31-91
GSA No. 0246-EPA-OT

ID - For Official Use Only

VIII. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes. Refer to instructions.)*

A. Hazardous Waste Activity

1. Generator (See Instructions)
   - ☐ a. Greater than 1000kg/mo (2,200 lbs.)
   - ☐ b. 100 to 1000 kg/mo (220 - 2,200 lbs.)
   - ☐ c. Less than 100 kg/mo (220 lbs.)
2. Transporter (Indicate Mode in boxes 1-5 below)
   - ☐ a. For own waste only
   - ☐ b. For commercial purposes

   Mode of Transportation
   - ☐ 1. Air
   - ☐ 2. Rail
   - ☐ 3. Highway
   - ☐ 4. Water
   - ☐ 5. Other - specify
3. ☐ Treater, Storer, Disposer (at installation) Note: A permit is required for this activity; see instructions.
4. Hazardous Waste Fuel
   - ☐ a. Generator Marketing to Burner
   - ☐ b. Other Marketers
   - ☐ c. Burner - indicate device(s) - Type of Combustion Device
     - ☐ 1. Utility Boiler
     - ☐ 2. Industrial Boiler
     - ☐ 3. Industrial Furnace
5. ☐ Underground Injection Control

B. Used Oil Fuel Activities

1. Off-Specification Used Oil Fuel
   - ☐ a. Generator Marketing to Burner
   - ☐ b. Other Markerer
   - ☐ c. Burner - indicate device(s) - Type of Combustion Device
     - ☐ 1. Utility Boiler
     - ☐ 2. Industrial Boiler
     - ☐ 3. Industrial Furnace
2. ☐ Specification Used Oil Fuel Marketer (or On-site Burner) Who First Claims the Oil Meets the Specification

IX. Description of Regulated Wastes *(Use additional sheets if necessary)*

A. Characteristics of Nonlisted Hazardous Wastes. Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles. *(See 40 CFR Parts 261.20 - 261.24)*

1. Ignitable *(D001)*	2. Corrosive *(D002)*	3. Reactive *(D003)*	4. EP Toxic *(D000)*	(List specific EPA hazardous waste number(s) for the EP Toxic contaminant(s))
☐	☐	☐	☐	

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33. See instructions if you need to list more than 12 waste codes.)

1	2	3	4	5	6
7	8	9	10	11	12

C. Other Wastes. (State or other wastes requiring an I.D. number. See instructions.)

1	2	3	4	5	6

X. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature	Name and Official Title *(type or print)*	Date Signed

XI. Comments

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)

How to Notify U.S. EPA of Your Waste Activities

I. How to determine if You Handle a Regulated Hazardous Waste

Persons who generate, transport, treat, store, or dispose of solid wastes are responsible for determining if their solid waste is a hazardous waste regulated under the *Resource Conservation and Recovery Act (RCRA)*. In addition, persons who recycle secondary materials must also determine whether those materials are solid and hazardous wastes under the provisions of RCRA. If you need help making this determination after reading these instructions, contact the addressee listed for your State in Section III.C. of these instructions.

You will need to refer to 40 CFR Part 261 of the *Code of Federal Regulations* (copy enclosed, see Section VII) to help you decide if the waste you handle is regulated under RCRA.*

To determine if you are regulated under RCRA, ask yourself the following questions:

A) Do I handle A Solid Waste?

Section 261.2 of the *Code of Federal Regulations* (hereafter referred to as CFR) defines "solid waste" as any discarded material that is not excluded by variance granted uner Sections 260.30 and 260.31. A discarded material is any material which is:

1) abandoned, as explained in 261.2(b); or
2) recycled, as explained in 261.2(c); or
3) considered inherently waste-like as explained in 261.2(c).

B) Has My Solid Waste Been Excluded From The Regulations Under Section 261.4?

The list of general exclusions can be found in Section 261.4 of the CFR. If the solid waste that you handle has been excluded, either by rule or special variance, then you do not need to notify U.S. EPA for that waste. If your solid waste was not excluded from regulation, you need to determine if it is a hazardous waste that U.S. EPA regulates. The U.S. EPA regulates hazardous waste two ways:

1) by specifically listing the waste and assigning it a unique EPA waste and assigning it a unique EPA Waste Code Number; or
2) by regulating it because it possesses any of four hazardous characteristics and assigning it a generic EPA Waste Code Number.

C) Is My Solid Waste Specifically Listed as a Hazardous Waste?

Sections 261.31 - 261.33 of the CFR identify certain solid wastes that U.S. EPA has specifically listed as hazardous. Persons who handle listed hazardous waste are subject to regulation and must notify U.S. EPA of their activities unless they are exempted as discussed below. Refer to this section of the CFR (enclosed as Section VII) to see if your waste is included as a "listed waste."

D) Does My Solid Waste Possess a Hazardous Characteristic?

Even if your waste is not specifically listed as a hazardous waste, it may still be hazardous because it exhibits certain hazardous characteristics. These characteristics are -

1) Ignitability;
2) Corrosivity;
3) Reactivity; and
4) Toxicity Characteristic.

Sections 261.20 through 261.24 of the CFR explain what each of the characteristic is and outlines the testing procedures you should use to determine if your waste meets these characteristics. Persons who handle characteristic waste that is regulated must notify U.S. EPA of their activities unless they are exempted, as discussed below. If you are handling a newly regulated waste (see Toxicity Characteristics Rule in Section VIII) and have already notified EPA prior to that activity **and already have an EPA Identification Number**, no re-notification is required.

E) Has My Hazardous Waste Been Exepted From The Regulations?

The list of exemptions can be found in 261.5 and 261.6(a)(3) of the CFR. If the hazardous waste that you handle has been exempted, then you do not need to notify U.S. EPA for that waste.

* *Many States have requirements that vary from the Federal regulations. These State regulations may be more strict than the Federal requirements by identifying additional wastes as hazardous, or may not yet include all wastes currently regulated under RCRA. It is your responsibility to comply with all regulations that apply to you. For more information on state requirements, you are stronly urged to contact the appropriate addressee listed for your State in Section III of these instructions.*

II. How To Determine if You Must Notify of Your Waste-as-Fuel Activities
Persons who market or burn hazardous waste or used oil (and any material produced from or otherwise containing hazardous waste or used oil) for energy recovery are required to notify U.S. EPA (or their State agency if the State is authorized to operate its own hazardous waste program) and obtain a U.S. EPA Identification Number unless they are exempt as outlined below (see Subparts D and E of 40 CFR Part 266). Hazardous waste and used oil are considered to be burned for energy recovery if they are burned in a boiler or industrial furnace that is not regulated as a hazardous waste incinerator under Subpart O of 40 CFR Parts 264 or 265.

Even if you have previously notified U.S. EPA of hazardous waste activities and have a U.S. EPA Identification Number, you must renotify to identify your waste-as-fuel activities. (You do not have to renotify for those activities you previously notified for, only for any newly regulated activities.) If you have previously notified, be sure to complete Item I "First or Subsequent Notification," by marking an "X" in the box for subsequent notification. Fill in your U.S. EPA Identification Number in the spaces provided. (Your U.S. EPA Identification Number will not change.)

Who is Exempt From Waste-As-Fuel Notification Requirements?

1) *Ordinary Generators (and initial transporters)*: Generators (and initial transporters who pick up used oil or hazardous waste from generators) are not marketers subject to the notification requirement *if they do not market hazardous waste fuel or used oil fuel directly to a burner*. In such situations, it is the recipient of that fuel who makes the decision to market the materials as a fuel, (typically after processing or blending), and it is the recipient who must notify.

   In addition, used oil generators or initial transporters who send their oil to a person who processes or blends it to produce used oil fuel and who incidently burns used oil to provide energy for the processing or blending are also exempt from the notification requirement. This is because such persons are generally considered to be primarily fuel processors and marketers, but only incidental burners.

2) *Persons who Market or Burn Specification Used Oil Fuel*: Used oil fuel that meets the specification provided under 40 CFR 266.40(e) is essentially exempt from the regulations. *However, the person who first claims that the used oil meets the specification is subject to the notification and certain other requirements*. The burner (or any subsequent marketer) is not required to notify.

3) *Used Oil Generators Operating Used-Oil Fired Space Heaters*: Persons who burn their used oil (and used oil received from individuals who are do-it yourself oil changers) in used-oil-fired space heaters are exempt from the notification requirement provided that the device is vented to the outdoors.

4) *Specific Exemptions Provided by 40 CFR 261.6*: The rules provide conditional exemptions for several specific waste-derived fuels under 261.6(a)(3), including fuels produced by petroleum refineries that recycle refinery hazardous waste, and coke and coal tar derived from coal coking wastes by the iron and steel industry. Marketers and burners of these exempted fuels are not subject to the notification requirement.

III How to File EPA Form 8700-12, "Notification of Regulated Waste Activity?"
If your waste activity is regulated under RCRA, you must notify the U.S. EPA of your activities and obtain a U.S. EPA Identification Number. You can satisfy both of these requirements by completing and signing the enclosed notification form and mailing it to the appropriate address listed in Part C of this section.

Per the Hazardous Waste Import Regulations, 40 CFR 262.60, *foreign generators should* 1355not|&end_TA&| *apply for a Federal I.D. number.* These regulations state that when filling out a U.S. manifest, you must include the name and address of the foreign generator, and the name and address and EPA I.D. number of the importer. Please contact U.S. firms involved with your shipments and determine which firm will serve as importer.

If this is a subsequent notification, you need to complete Items I, II, III, VI, VII, VIII, and X and any other sections that are being added to (ie., newly regulated activities) or altered (i.e., installation contact). All other sections may be left blank.

A) How Many Forms Should I File?
A person who is subject to the hazardous waste regulations and/or the waste-as-fuel regulations under RCRA should submit one notification form per site or location. If you conduct hazardous waste activities at more than one location, you must submit a separate form for each location. (If you previously notified for hazardous waste activities and are now notifying for waste-as-fuel activities at the same location, you must submit a second form, but your U.S. EPA Identification Number will remain the same.)

If you only transport hazardous waste and do not generate, market, burn, treat, store, or dispose of these wastes, you may submit one form which covers all transportation activities your company conducts. This form should be sent to the appropriate address (listed in Part C) that serves the State where your company has its headquarters or principal place of business. However, if you are a transporter who also generates, treats, stores, or disposes of hazardous wastes, you must complete and submit separate notification forms to cover each location.

B) Can I Request That This Information Be Kept Confidential?
All information you submit in a notification can be released to the public, according to the Freedom of Information Act, unless it is determined to be confidential by U.S. EPA pursuant to 40 CFR Part 2. Since notification information is very general, the U.S. EPA belives it is unlikely that ny information in your notification could qualify to be protected from release. However, you may make a claim of confidentiality by printing the word "CONFIDENTIAL" on both sides of the Notification Form and on any attachments.

EPA will take action on the confidentiality claims in accordance with 40 CFR Part 2.

C) Where Should I Send my Completed Form?
Listed alphabetically, on the following pages, are the addresses and phone numbers of the proper contacts in each State where you can get additional information and more forms, and where you should mail your completed forms. As shown here, the U.S. EPA and may States have arranged for the States to answer your questions and receive completed forms. In a few instances, the workload is shared between U.S. EPA and the State, or handled by U.S. EPA alone. *To avoid delay and confusion, follow the directions for you State very carefully.*

Estimated burden: Public reporting burden for this collection of information is estimated to be 3.5 hours, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, M St., S.W., Washington, DC 20460; and to the Paperwork Reduction Project (2050-0028), Office of Management and Budget, Washington, D.C. 20503.

IV. Line-by-Line Instructions for Completing EPA Form 8700-12
Type or print in black ink all items except Item X, "Signature" leaving a blank box between words. The boxes are spaced at 1/4" intervals which accommodate elite type (12 characters per inch). When typing, hit the space bar twice between characters. If you print, place each character in a box. Abbreviate if necessary to stay within the number of boxes allowed for each Item. If you must use additional sheets, indicate clearly the number of the Item on the form to which the information on the separate sheet applies.
(NOTE: *When submitting a subsequent notification form, notifiers must complete in the entirety Items I, II, III, VI, VII, VIII and X. Other sections that are being added to (ie, newly regulated activities) or altered (i.e., installation contact) must also be completed. All other sections may be left blank.*

Item I -- Installation's EPA ID Number:
Place an "X" in the appropriate box to indicate whether this is your first or a subsequent notification for this site. If you have filed a previous notification, enter the EPA Identification Number assigned to this site in the boxes provided. Leave EPA ID Number blank if this is your first notification for this site.
Note: When the owner of a facility changes, the new owner must notify U.S. EPA of the change even if the previous owner already received a U.S. EPA Identification Number. Because the U.S. EPA ID Number is "site-specified" the new owner will keep the existing ID number. If the facility moves to another location, the owner/operator must notify EPA of this change. In this instance a new U.S. EPA Identification Number will be assigned, since the facility has changed locations.

Items II and III - Name and Location of Installations:
Complete Items II and III. Please note that the address you give for Item III, "Location of Installation," must be a physical address, not a post office box or route number.
County Name and Code: Give the country code, if known. If you do not know the country code, enter the country name, from which EPA can automatically generate the county code. If the county name is unknown contact the local Post Office. To obtain a list of county codes, contact the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia, 22161 or at (703) 487-4650. The list of codes is contained in the Federal Information Processing Standards Publication (FIPS PUB) number 6-3.

Item IV - Installation Mailing Address:
Please enter the Installation Mailing Address. If the Mailing Address and the Location of Installation (Item III) are the same, you can print "Same" in box for Item IV.

Item V - Installation Contact:
Enter the name, title, and business telephone number of the person who should be contacted regarding information submitted on this form.

Item VI - Installation Contact Address:
A) Code: If the contact address is the same as the location of installing address listed in Item III or the installation mailing address listen in Item IV. place an "X" in the appropriate box to indicate where the contact may be reached. If the locations of installation address, the installation mailing address, and the installation address, the installation mailing address, and the address, the installation contract address are all the same, mark the "Location" box. If an "X"'s entered in either the locations or mailing box, Item Vi.B should be left blank.

B) Address: Enter the contact address only if the contact address is differently from either the

location of installation address (Item III) or the installation mailing address (Item IV), and Item VI.A. was left blank.

Item VII- Ownership:

A) Name: Enter the name of the legal owner(s) of the installation, including the property owner. Also enter the address and phone number where this individual can be reached. Use the comment section in XI or additional sheets if necessary to list more than one owner.

B) Land Type: Using the codes listed below, indicate in VII.B. the code which best describes the current legal status of the land on which the facility is located:

F = Federal
S = State
I = Indian
P = Private
C = County
M = Municipal*
D = District
O = Other

**Note: If the Land Type is* best described *as Indian, County, or District, please use those codes. Otherwise, use Municipal.*

C) Owner Type: Using the codes listed below, indicates in VII.C. the code which best describes the legal status of the current owner of the facility:

F = Federal
S = State
I = Indian
P = Private
C = County
M = Municipal*
D = District
O = Other

**Note: If the Owner Type is* best described *as Indian, County, or Disrict, please use those codes. Otherwise, use Municipal.*

D) Change of Owner Indicator: (If this is your installation's first notification, leave Item VII.D. blank and skip to Item VIII. If this is a subsequent notification, complete Item VII.D. as directed below.) If the owner of this facility has changed since the facility's original notification, place an "X" in the box marked "YES" and enter the date the owner changed.

If the owner of this facility has not changed since the facility's original notification, place an "X" in the box market "NO" and skip to Item VIII.

If an additional owner(s) has been added or replaced since the facility's original notification, place an "X" in teh box market "YES". Use the comment section in XI to list any additional owners, the dates they became owners, and which owner(s) (if any) they replaced. If necessary attach a separate sheet of paper.

Item VIII - Type of Regulated Waste Activity:

A) Hazardous Waste Activity: Mark an "X" in the appropriate box(ex) to show which hazardous waste activities are going on at this installation.

1) **Generator:** If you generate a hazardous waste that is identified by characteristic or listed in 40 CFR Part 261, mark an "X" in the appropriate box for the quantity of non-acutely hazardous waste that is generated per calendar month. If you generate acutely hazardous waste please refer to 40 CFR Part 262 for further information.
2) **Transporter:** If you transport hazardous waste, indicate if it is your own waste, for commercial purposes, or mark both boxes if both classifications apply. Mark an "X" in each appropriate box to indicate the method(s) of transportation you use. Transporters do not have to complete Item IX of this form, but must sign the certification in Item X. The Federal regulations for hazardous waste transporters are found in 40 CFR Part 263.
3) **Treater/Storer/Disposer:** If you treat, store, or dispose of regulated hazardous waste, then mark an "X" in this box. You are reminded to contact the appropriate addressee listed for your State in Section III.C. of this package to request Part A of the RCRA Permit Application. The Federal regulations for hazardous waste facility owners/operators are found in 40 CFR Parts 264 and 265.
4) **Hazardous Waste Fuel:** If you market hazardous waste fuel, place an "X" in the appropriate box(es). If you burn hazardous waste fuel on-site, place an "X" in the appropriate box and indicate the type(s) of combustion devices in which hazardous waste fuel is burned. (Refer to definition section for complete description of each device).

Note: Generators are required to notify for waste-as-fuel activities only if they market directly to the burner.

"Other marketer" is defined as any person, other than a generator marketing hazardous waste, who markets hazardous waste fuel.

5) **Underground Injection Control:** If you generate and/or treat, store or dispose of hazardous waste, place an "X" in the box if an injection well is located at your installation. "Underground Injection" means the subsurface emplacement of fluids through a bored, drilled or driven well; or through a dug well, where the depth of the dug well is greater than the largest surface dimension.

B) Used Oil Fuel Activities

Mark an "X" in the appropriate box(es) to indicate which used oil fuel activities are taking place at this installation.

1) **Off-Specification Used Oil Fuel:** If you market off-specification used oil, place an "X" in the appropriate box(es). If you burn used oil fuel place an "X" in the box(es) below to indicate type(s) of combustion devices in which off-specification used oil fuel is burned. (Refer to definition section for complete description of each device).
Note: Used oil generators are required to notify only if marketing directly to the burner.
"Other Marketer" is defined as any person, other than a generator marketing his or her used oil, who markets used oil fuel.

2) **Specifications Used Oil Fuel:** If you are the first to claim that the used oil meets the specification established in 40 CFR 266.40(e) and is exempt from further regulation, you must mark an "X" in this box.

Item IX - Description of Regulated Wastes:

(only persons involved in hazardous waste activity (Item VIII.A.) need to complete this item. Transporters requesting a U.S. EPA Identification Number do not need to complete this item, but must sign the "Certification" in Item X.)

You will need to refer to 40 CFR Part 261 (enclosed as Section VII) in order to complete this section. Part 261 identifies those wastes that EPA defines as hazardous. If you need help completing this section, please contact the appropriate addressee for your State as listed in Section III.C. of this package.

A) Characteristics of Nonlisted Hazardous Wastes: If you handle hazardous wastes which are not listed in 40 CFR Part 261, Subpart D but do exhibit a characteristic of hazardous waste as defined in 40 CFR Part 261, Subpart C, you should describe these wastes by the EPA hazardous waste number for the characteristic. Place an "X" in the box next to the characteristic of the wastes that you handle. If you mark "4. Toxicity Characteristic," please list the specific EPA hazardous waste number for the specific contaminant(s) in the box(es) provided. Refer to Section VIII to determine the appropriate hazardous waste number.

B) Listed Hazardous Wastes: If you handle hazardous wastes that are listed in 40 CFR Part 261, Subpart D, enter the appropriate 4-digit numbers in the boxes provided.

Note - *If you handle more than 12 listed hazardous wastes, please continue listing the waste coldes on the extra sheet provided at the end of this booklet. If it is used, attach the additional page to the rest of the form before mailing it to the appropriate EPA Regional or State Office.*

C) Other Wastes: If you handle other wastes or State regulated wastes that have a waste code, enter the appropriate code number in the boxes provided.

Iten X - Certification:

This certification must be signed by the owner, operator, or an authorized representative of your installation. An "authorized representative" is a person responsible for the overall operation of the facility (i.e., a plant manager or superintendent, or a person of equal responsibility). *All notifications must include this certificate to be complete.*

Item XI - Comments:

Use this space for any additional comments.

V. Definitions

The following definitions are included to help you to understand and complete the Notification Form:

ACT or RCRA means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. Section 6901 et seq.

Authorized Representative means the person responsible for the overall operation of the facility or an operational unit (i.e., part of a facility), e.g., superintendent or plant manager, or person of equivalent responsibility.

Boiler means an enclosed device using controlled flame combustion and having the following characteristics:

(1) the unit has physical provisions for recovering and exporting energy in the form of steam, heated fluids, or heated gases;
(2) the unit's combustion chamber and primary energy recovery section(s) are of integral design (i.e., they are physically formed into one manufactured or assembled unit);
(3) the unit continuously maintains an energy recovery efficiency of at least 60 percent, calculated in terms of the recovered energy compared with the thermal value of the fuel;
(4) the unit exports and utilizes at least 75 percent of the recovered energy, calculated on an annual basis (excluding recovered heat used internally in the same unit, for example, to preheat fuel or combustion air or drive fans or feedwater pumps); and
(5) the unit is one which the Regional Administrator has determined on a case-by-case basis, to be a boiler after considering the standards in 40 CFR 260.32.

Burner means the owner or operator of any boiler or industrial furnace that burns hazardous waste fuel for energy recovery and that is not regulated as a RCRA hazardous waste incinerator.

Disposal means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

Disposal Facility means a facility or part of a facility at which hazardous waste is intentionally placed into or on any land or water, and at which waste will remain after closure.

EPA Identification (I.D.) Number means the number assigned by EPA to each generator, transporter, and treatment, storage, or disposal facility.

Facility means all contiguous land, structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations of them).

Generator means any person, by site, whose act or process produces hazardous waste identified or listed in 40 CFR Part 261.

Hazardous Waste means a hazardous waste as defined in 40 CFR 261.3.

Hazardous Waste Fuel means hazardous waste and any fuel that contains hazardous waste that is burned for energy recovery in a boiler or industrial furnace that is not subject to regulation as a RCRA hazardous waste incinerator. However, the following hazardous waste fuels are subject to regulation as used oil fuels.

(1) Used oil fuel burned for energy recovery that is also a hazardous waste solely because it exhibits a characteristic of hazardous waste identified in Subpart C of 40 CFR Part 261; and
(2) Used oil fuel mixed with hazardous wastes generated by a small quantity generator subject to 40 CFR 261.5.

Industrial Boiler means a boiler located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes.

Industrial Furnace means any of the following enclosed devices that are integral components of manufacturing processes and that use controlled flame combustion to accomplish recovery of materials or energy: cement kilns, lime kilns, aggregate kilns (including asphalt kilns), phosphate kilns, coke ovens, blast furnaces, smelting furnaces, refining furnaces, titanium dioxide chloride process oxidation reactors,

methane reforming furnaces, pulping liquor recovery furnaces, combustion devices used in the recovery of sulfer values from spent sulfuric acid, and other devices as the Administrator may add to this list.

Marketer means a perso who markets hazardous waste fuel or used oil fuel. However, the following marketers are not subject to waste-as-fuel requirements (including notification) under Subparts D and E of 40 CFR Part 266:

(1) Generators and initial transporters (i.e., transporters who receive hazardous waste or used oil directly from generators including initial transporters who operate transfer stations) who do not market directly to persons who burn the fuels; and

(2) Persons who market used oil fuel that meets the specification provided under 40 CFR 266.40(e) and who are not the first to claim the oil meets the specification.

Municipality means a city, village, town, borough, county, parish, district, association. Indian tribe or authorized Indian tribal organization, designated and approved management agency under Section 208 of the Clean Water Act, or any other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes.

Off-Specification Used Oil Fuel means used oil fuel that does not meet the specification provided under 40 CFR 266.40(e).

Operator means the person responsible for the overall operation of a facility.

Owner means a person who owns a facility or part of a facility, including landowner.

Specification Used Oil Fuel means used oil fuel that meets the specification provided under 40 CFR 266.40(e).

Storage means the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or shored elsewhere.

Transportation means the movement of hazardous waste by air, rail, highway, or water.

Transporter means a person engaged in the off-site transportation of hazardous waste by air, rail, highway, or water.

Treatment means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste nonhazardous, or less hazardous; safer to transport, store or dispose of; or amenable for recovery, amenable for storage, or reduced in volume. Such term includes any activity or processing designed to change the physical form or composition of hazardous waste so as to render it nonhazardous.

Used Oil means any oil that has been refined from crude oil, used, and as a result of such use, is contaminated by physical or chemical impurities. Wastes that contain oils that have not been used (e.g., fuel oil storage tank bottom clean-out wastes) are not used oil unless they are mixed with used oil.

Used Oil Fuel means any used oil burned (or destined to be burned) for energy recovery including any fuel produced from used oil by processing, blending or other treatment, and that does not contain hazardous waste (other than that generated by a small quantity generator and exempt from regulation as hazardous waste under provisions of 40 CFR 261.5). Used oil fuel may itself exhibit a characteristic of hazardous waste and remain subject to regulation as used oil fuel provided it is not mixed with hazardous waste.

Utility Boiler means a boiler that is used to produce electricity, steam or heated or cooled ail or other gases or fluids for sale.

Waste Fuel means hazardous waste fuel or off-specification used oil fuel.

VI. EPA Hazardous Waste Numbers for Waste Streams Commonly Generated by Small Quantity Generators

The Environmental Protection Agency recognizes that generators of small quantities of hazardous waste, many of which are small businesses, may not be familiar with the manner in which hazardous waste materials are identified in the Code of Federal Regulations. This insert has been assembled in order to aid small quantity generators in determining for their wastes the EPA -Hazardous Waste Numbers that are needed to complete the "Notification of Regulated Waste Activity," Form 8700-12.

This insert is composed of two tables. Table 1 lists eighteen general industry categories that contain small quantity generators. For each of these categories, commonly generated hazardous waste streams are identified. Table 2 lists EPA Hazardous Waste Numbers for each waste stream identified in Table 1.

To use this insert:

1. Locate your industry in Table 1 to identify the waste streams common to your activities.
2. Find each of your waste streams in Table 2, and review the more detailed description of typical wastes to determine which waste streams actually result from your activities.
3. If you determine that a waste stream does apply to you, report the 4-digit EPA Hazardous Waste Number in Item IX.B. of Form 8700-12, "Notification of Regulated Waste Activity."

The industries and waste streams described here do not provide a comprehensive list but rather serve as a guide to potential small quantity generators in determining which of their wastes, if any, are hazardous. Except for the pesticide category, this insert does not include EPA Hazardous Waste Numbers for commercial chemical products that are hazardous when discarded unused. These chemicals and their EPA Hazardous Waste Number are listed in 40 CFR 261.33.

If the specific Hazardous Waste Number that should be applied to your waste stream is unclear, please refer to 40 CFR Part 261, reprinted in Section VII of this notification package. In those cases where more than one Hazardous Waste Number is applicable, all are unable to determine the proper EPA Hazardous Waste Numbers for your wastes, contact your state hazardous waste management agency as listed in Section III of this notification package, or the RCRA/Superfund Hotline at 1-800-424-9346.

UNIFORM HAZARDOUS WASTE MANIFEST AND INSTRUCTIONS

NOTE: Read all instructions before completing this form.
This form has been designed for use on a 12-pitch (elite) typewriter: a firm point pen may also be used -- press down hard.
Federal regulations require generators and transporters of hazardous waste and owners or operators of hazardous waste treatment, storage, and disposal facilities to use this form (8700-22) and, if necessary, the continuation sheet (Form 8700-22A) for both inter- and lntrastate transportation.
Federal regulations also require generators and transporters of hazardous waste and owners or operators of hazardous waste treatment, storage and disposal facilities to complete the following information:

GENERATORS

Item 1. *Generator's U.S. EPA ID Number - Manifest Document Number*
Enter the generator's U.S. EPA twelve digit identification number and the unique five digit number assigned to this Manifest (e.g., 00001) by the generator.

Item 2. *Page 1 of*
Enter the total number of pages used to complete this Manifest, i.e., the first page (EPA Form 8700-22) plus the number of Continuation Sheets (EPA Form 8700-22A), if any.

Item 3. *Generator's Name and Mailing Address*
Enter the name and mailing address of the generator. The address should be the location that will manage the returned Manifest forms.

Item 4. *Generator's Phone Number*
Enter a telephone number where an authorized agent of the generator may be reached in the event of an emergency.

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)* *Form Approved. OMB No. 2050-0039. Expires 9-30-88*

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No.

2. Page 1 of | Information in the shaded areas is not required by Federal law.

GENERATOR

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name | 6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address | 10. US EPA ID Number

G. State Facility's ID

H. Facility's Phone

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.					
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name | Signature | *Month Day Year*

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | *Month Day Year*

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | *Month Day Year*

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name | Signature | *Month Day Year*

EPA Form 8700-22 (Rev. 9-86) Previous editions are obsolete.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST
(Continuation Sheet)

21. Generator's US EPA ID No. | Manifest Document No.

22. Page | Information in the shaded areas is not required by Federal law.

23. Generator's Name

L. State Manifest Document Number

M. State Generator's ID

24. Transporter ____ Company Name | 25. US EPA ID Number

N. State Transporter's ID

O. Transporter's Phone

26. Transporter ____ Company Name | 27. US EPA ID Number

P. State Transporter's ID

Q. Transporter's Phone

28. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.					
b.					
c.					
d.					
e.					
f.					
g.					
h.					
i.					

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information

GENERATOR

TRANSPORTER

33. Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date (Month Day Year)

34. Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date (Month Day Year)

FACILITY

35. Discrepancy Indication Space

EPA Form 8700-22A (Rev. 9-86) Previous edition is obsolete.

Item 5. *Transporter 1 Company Name*
Enter the company name of the first transporter who will transport the waste.

Item 6. *U.S. EPA ID Number*
Enter the U.S. EPA twelve digit identification number of the first transporter identified in item 5.

Item 7. *Transporter 2 Company Name*
If applicable, enter the company name of the second transporter who will transport the waste. If more than two transporters are used to transport the waste, use a Continuation Sheet(s) (EPA Form 8700-22A) and list teh transporters in the order they will be transporting the waste.

Item 8. *U.S. EPA ID Number*
If applicable, enter the U.S. EPA twelve digit identification number of the second transporter identified in item 7.
Note. -- If more than two transporters are used, enter each additional transporter's company name and U.S. EPA twelve digit identification number in items 24-27 on the Continuation Sheet (EPA Form 8700-22A). Each Continuation Sheet has space to record two additional transporters. Every transporter used between the generator and the designated facility must be listed.

Item 9. *Designated Facility Name and Site Address*
Enter the company name and site address of the facility designated to receive the waste listed on this Manifest. The address must be the site address, which may differ from the company mailing address.

Item 10. *U.S. EPA ID Number*
Enter the U.S. EPA twelve digit identification number of the designated facility identified in item 9.

Item 11. U.S. DOT Description (Including Proper Shipping Name, Hazard class, and ID Number (UN/NA)).

Enter the U.S. DOT Proper Shipping Name, Hazard Class, and ID Number (UN/NA) for each waste as identified in 49 CFR 171 through 177.

Note.--If additional space is needed for waste descriptions, enter these additional descriptions in item 28 on the Continuation Sheet (EPA Form 8700-22A).

Item 12. Containers (No. and Type)

Enter the number of containers for each waste and the appropriate abbreviation from Table I (below) for the type of container.

Table I -- Types of Containers

DM = Metal drums, barrels, kegs
DW = Wooden drums, barrels, kegs
DF = Fiberboard or plastic drums, barrels, kegs
TP = Tanks portable
TT = Cargo tanks (tank trucks)
TC = Tank cars
DT = Dump trucks
CY = Cylinders
CM = Metal boxes, cartons, cases (including roll-offs)
CW = Wooden boxes, cartons, cases
CF = Fiber or plastic boxes, cartons, cases
BA = Burlap, cloth, paper or plastic bags

Item 13. Total Quantity

Enter the total quantity of waste described on each line.

Item 14. Unit (Wt./Vol.)

Enter the appropriate abbreviation from Table II (below) for the unit measure.

Table II -- Units of Measure

G = Gallons (liquids only)
P = Pounds
T = Tons (2000 lbs)
Y = Cubic yards
L = Liters (liquids only)
K = Kilograms

M = Metric tons (1000 kg)
N = Cubic meters

Item 15. Special Handling Instructions and Additional Information
Generators may use this space to indicate special transportation, treatment, storage, or disposal information or Bill of Lading information. States may not require additional, new, or different information in this space. For international shipments, generators must enter in this space the point of departure (City and State) for those shipments destined for treatment, storage, or disposal outside the jurisdiction of the United States.

Item 16. Generator's Certification
The generator must read, sign (by hand), and date the certification statement. If a mode other than highway is used, the word "highway" should be lined out and the appropriate mode (rail, water, or air) inserted in the space below. If another mode is used, enter the appropriate additional mode (e.g., and rail) in the space below. Individuals may also sign "on behalf of" the generator when necessary.

NOTE: All of the above information except the handwritten signature required in item 26 may be preprinted.

TRANSPORTERS:

Item 17. Transporter 1 Acknowledgement of Receipt of Materials
Enter the name of the person accepting the waste on behalf of the first transporter. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

Item 18. Transporter 2 Acknowledgement of Receipt of Materials
Enter, if applicable, the name of the person accepting the waste on behalf of the second transporter. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

NOTE: International Shipments--Transporter Responsibilities.
Exports--Transporters must sign and enter the date the waste left the United States in item 15 of Form 8700-22.

Imports--Shipments of hazardous waste regulated by RCRA and transported into the United States from another country must upon entry be accompanied by the U.S. EPA Uniform Hazardous Waste Manifest. Transporters who transport hazardous waste into the United States from another country are responsible for completing the Manifest (40 CFR 263.10(c)(1)).

OWNERS AND OPERATORS OF TREATMENT, STORAGE, OR DISPOSAL FACILITIES

Item 19. Discrepancy Indication Space

The authorized representative of the designated (or alternate) facility's owner or operator must note in this space any significant discrepancy between the waste described on the Manifest and the waste actually received at the facility.

Owners and operators of facilities located in unauthorized States (i.e., the U.S. EPA administers the hazardous waste management program) who cannot resolve significant discrepancies within 15 days of receiving the waste must submit to their Regional Administrator (see list below) a letter with a copy of the Manifest at issue describing the discrepancy and attempts to reconcile it (40 CFR 264.72 and 265.72).

Owners and operators of facilites located in authorized States (i.e., those States that have received authorization from the U.S. EPA to administer the hazardous waste program) should contact their State agency for information o State Discrepancy Report requirements.

EPA Regional Administrators

Regional Administrator, U.S. EPA
Region I, J.F. Kennedy Fed. Bldg.,,Boston, MA 02203

Regional Administrator, U.S. EPA
Region II, 26 Federal Plaza, New York, NY 10278

Regional Administrator, U.S. EPA
Region III, 6th and Walnut Sts., Philadelphia, PA 19106

Regional Administrator, U.S. EPA
Region IV, 345 Courtland St. NE, Atlanta, GA 30365

Regional Administrator, U.S. EPA
Region V, 230 S. Dearborn St., Chicago, IL 60604

Regional Administrator, U.S. EPA
Region VI, 1201 Elm Street, Dallas, TX 75270

Regional Administrator, U.S. EPA
Region VII, 324 East 11th Street, Kansas City, MO 64106
Regional Administrator, U.S. EPA
Region VIII, 1860 Lincoln Street, Denver, CO 80205
Regional Administrator, U.S. EPA
Region IX, 215 Freemont Street, San Francisco, CA 94105
Regional Administrator, U.S. EPA
Region X, 1200 Sixth Avenue, Seattle, WA 98101

Item 20. Facility Owner or Operator. Certification of Receipt of Hazardous Materials Covered by This Manifest Except as Noted in Item 19.

Print or type the name of the person accepting the waste on behalf of the owner or operator of the facility. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

Items A-K are not required by Federal regulations for intra- or interstate transportation. However, States may require generators and owners or operators of treatment, storage, or disposal facilities to complete some or all of items A-K as part of State manifest reporting requirements. Generators and owners and operators of treatment, storage, or disposal facilities are advised to contact State oficials for guidance on completing the shaded areas of the Manifest.

INSTRUCTIONS -- CONTINUATION SHEET, U.S. EPA FORM 8700-12A

Read all instructions before completing this form.

This form has been designed for use on a 12-pitch (elite) typewriter, a firm point pen may also be used--press down hard.

This form must be used as a continuation sheet to U.S. EPA Form 8700-22 if:

- More than two transporters are to be used to transport the waste;
- More space is required for the U.S. DOT description and related information in item 11 of U.S. EPA Form 8700-22.

Federal regulations require generators and transporters of hazardous waste and owners or operators of hazardous waste treatment, storage, or disposal facilities to use the uniform hazardous waste manifest (EPA Form 8700-22) and if necessary, this continuation sheet (EPA Form 8700-22A for both inter- and intrastate transportation.

GENERATORS

Item 21. Generator's U.S. EPA ID Number -- Manifest Document Number
Enter the generator's U.S. EPA twelve digit identification number and the unique five digit number assigned to this Manifest (e.g. 00001) as it appears in item 1 on the first page of the Manifest.

Item 22. Page_____
Enter the page number of this Continuation Sheet

Item 23. Generator's Name
Enter the generator's name as it appears in item 3 on the first page of the Manifest.

Item 24. Transporter -- Company Name
If additional transporters are used to transport the waste described on this Manifest, enter the company name of each additional transporter in the order in which they will transport the waste. Enter after the word "Transporter" and order of the transporter. For example, Transporter 3 Company Name. Each Continuation Sheet will record the names of two additional transporters.

Item 25. U.S. EPA ID Number
Enter the U.S. EPA twelve digit identification number of the transporter described in item 24.

Item 26. Transporter -- Company Name
If additional transporters are used to transport the waste described on this Manifest, enter the company name of each additional transporter in the order in which they will transport the waste. Enter after the word "Transporter" the order of the transporter. For example, Transporter 4 Company Name. Each Continuation Sheet will record the names of two additional transporters.

Item 27. U.S. EPA ID Number
Enter the U.S. EPA twelve digit identification number of the transporter described in item 26.

Item 28. U.S. DOT Description Including Proper Shipping Name, Hazardous class, and ID Number (UN/NA)
Refer to item 11.
Item 29. Containers (No. and Type)
Refer to item 12.
Item 30. Total Quantity
Refer to item 13.
Item 31. Unit (wt./vol.)
Refer to item 14.
Item 32. Special Handling Instructions
Generators may use this space to indicate special transportation, treatment, storage, or disposal information or Bill of Lading information. States are not authorized to require additional, new, or different information in this space.

TRANSPORTERS
Item 33. Transporter -- Acknowledgement of Receipt of Materials
Enter the same number of the Transporter as identified in item 24. Enter also the name of the person accepting the waste on behalf of the Transporter (Company Name) identified in item 24. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.
Item 34. Transporter -- Acknowledgement of Receipt of Materials
Enter the same number as identified in item 26. Enter also the name of the person accepting teh waste on behalf of the Transporter (Company Name) identified in item 26. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

OWNERS AND OPERATORS OF TREATMENT, STORAGE, OR DISPOSAL FACILITIES

Item 35. Refer to item 19.

Items L-R are not required by Federal regulations for intra- or interstate transportation. However, States may require generators and owners or operators of treatment, storage, or disposal facilities to complete some or all of items L-R as part of State manifest reporting requirements. Generators and owners and operators of treatment, storage, or disposal facilities are advised to contact State officials for guidance on completing the shaded areas of the manifest.

BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL OR ENTER:

SITE NAME _____

_____

EPA ID NO. |_|_|_|_|_|_|_|_|_|_|_|_|

U.S. ENVIRONMENTAL PROTECTION AGENCY

Hazardous Waste Report

FORM IC

IDENTIFICATION AND CERTIFICATION

INSTRUCTIONS: Read the detailed instructions beginning on page 7 of the 1989 Hazardous Waste Report booklet before completing this form.

SEC. I Site name and location address. Complete items A through H. Check the box ☒ in items A, B, D, E, F, G, and H if same as label; if different, enter corrections. If label is absent, enter information. Instruction page 7.

A. EPA ID No.
Same as label ☐ or → |_|_|_|_|_|_|_|_|_|_|_|_|

B. Site/company name
Same as label ☐ or →

C. Has the site name associated with this EPA ID changed since 1987? ☐ 1 Yes ☐ 2 No

D. Street name and number. If not applicable, enter industrial park, building name or other physical location description.
Same as label ☐ or →

E. City, town, village, etc.
Same as label ☐ or →

F. County

G. State
Same as label ☐ |_|_|

H. Zip Code
Same as label ☐ |_|_|_|_|_| – |_|_|_|_|

SEC. II Mailing address of site. Instruction page 7.

A. Is the mailing address the same as the location address? ☐ 1 Yes (SKIP TO SEC. III) ☐ 2 No (COMPLETE SEC. II)

B. Number and street name of mailing address

C. City, town, village, etc.

D. State |_|_|

E. Zip Code |_|_|_|_|_| – |_|_|_|_|

SEC. III Name, title, and telephone number of th person who should be contacted if questions arise regarding this report. Instruction page 7.

A. Please print: Last name First name M.I.

B. Title

C. Telephone |_|_|_| |_|_|_| – |_|_|_|_|
Extension |_|_|_|_|

SEC. IV Enter the Standard Industrial Classification (SIC) Code that describes the principal products, group of products, produced or distributed, or the services rendered at the site's physical location. Enter more than one SIC Code only if no one industry description includes the combined activities of the site. Instruction page 8.

A. _____

B. |_|_|_|_|

C. |_|_|_|_|

D. |_|_|_|_|

SEC. V I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. Number of form pages submitted
Form IC |_|_|2| Form GM |_|_|_| Form WR |_|_|_| Form PS |_|_|_|

B. Please print: Last name First name M.I.

C. Title

D. Signature

E. Date of signature |_|_| MO. |_|_| DAY |_|_| YR.

EPA Form 8700-13A/B (5-80) (Revised 11-85) (Revised 12-87) (Revised 11-89)

Sec. VI Generator Status

A. 1989 generation (CHECK ONE BOX BELOW)
Instruction page 8

- ☐ 1 No (CONTINUE TO BOX B)
- ☐ 2 LQG
- ☐ 3 SQG (SKIP TO SEC. VII)
- ☐ 4 CESQG

B. Reason for not generating (CHECK ALL THAT APPLY)
Page 10

- ☐ 1 Never generated
- ☐ 2 Out of business
- ☐ 3 Only excluded or delisted waste
- ☐ 4 Only non-hazardous waste
- ☐ 5 Periodic or occasional generator
- ☐ 6 Waste minimization activity
- ☐ 7 Other (SPECIFY IN COMMENTS)

Sec. VII On-Site Waste Management Status

A. Storage
Instruction page 11 ☐

B. RCRA treatment, recycling, or disposal
Page 11 ☐

C. RCRA-exempt treatment, recycling, or disposal
Page 12 ☐

Sec. VIII Waste Minimization Activity during 1988 or 1989

A. Did this site begin or expand a source reduction activity during 1988 or 1989?
Instruction page 12

- ☐ 1 Yes
- ☐ 2 No

B. Did this site begin or expand a recycling activity during 1988 or 1989?
Page 13

- ☐ 1 Yes
- ☐ 2 No

C. Did this site conduct a source reduction or recycling opportunity assessment during 1988 or 1989?
Page 13

- ☐ 1 Yes
- ☐ 2 No

D. What factors have limited this site from initiating new source reduction activities during 1988 or 1989?
(CHECK ALL THAT APPLY)
Page 13

- ☐ 01 No factors have limited new source reduction activities.
- ☐ 02 Insufficient capital to install new source reduction equipment or implement new source reduction practices.
- ☐ 03 Lack of technical information on source reduction techniques applicable to the specific production processes.
- ☐ 04 Source reduction is not economically feasible: cost savings in waste management or production will not recover the capital investment.
- ☐ 05 Concern that product quality may decline as a result of source reduction.
- ☐ 06 Technical limitations of the production processes.
- ☐ 07 Permitting burdens.
- ☐ 08 Other (SPECIFY IN COMMENTS)

E. What factors have limited this site from initiating new on-site or off-site recycling activities during 1988 or 1989?
(CHECK ALL THAT APPLY)
Page 13

- ☐ 01 No factors have limited new recycling activities.
- ☐ 02 Insufficient capital to install new recycling equipment or implement new recycling practices.
- ☐ 03 Lack of technical information on recycling techniques applicable to this site's specific production processes.
- ☐ 04 Recycling not economically feasible: cost savings in waste management or production will not recover the capital investment.
- ☐ 05 Concern that product quality may decline as a result of recycling.
- ☐ 06 Requirements to manifest wastes inhibit shipments off site for recycling.
- ☐ 07 Financial liability provisions inhibit shipments off site for recycling.
- ☐ 08 Technical limitations of product processes inhibit shipments off site for recycling.
- ☐ 09 Techical limitations of production processes inhibit on-site recycling.
- ☐ 10 Permitting burdens inhibit recycling.
- ☐ 11 Lack of permitted off-site recycling facilities.
- ☐ 12 Unable to identify a market for recyclable materials.
- ☐ 13 Other (SPECIFY IN COMMENTS)

Comments:

BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL OR ENTER:

SITE NAME _____

_____

EPA ID NO. |_|_|_|_|_|_|_|_|_|_|_|_|

U.S. ENVIRONMENTAL PROTECTION AGENCY

Hazardous Waste Report

FORM **GM**

WASTE GENERATION AND MANAGEMENT

INSTRUCTIONS: Read the detailed instructions beginning on page 14 of the 1989 Hazardous Waste Report booklet before completing this form.

Sec. I

A. Waste description — Instruction Page 15

B. EPA hazardous waste code — Page 15 |_|_|_|_| |_|_|_|_| |_|_|_|_| |_|_|_|_|

C. State hazardous waste code — Page 16 |_|_|_|_|_|_| |_|_|_|_|_|_|

D. SIC code — Page 16 |_|_|_|_|

E. Source code — Page 16 |A|_|_|

F. Form code — Page 16 |B|_|_|

G. Origin — Page 16 Code |_| System type |M|_|_|

H. TRI constituent — Page 17 |_|

I. CAS numbers — Page 17 1. |_|_|_|_|_|-|_|_|-|_| 2. |_|_|_|_|_|-|_|_|-|_| 3. |_|_|_|_|_|-|_|_|-|_| 4. |_|_|_|_|_|-|_|_|-|_| 5. |_|_|_|_|_|-|_|_|-|_|

Sec. II

A. Quantity generated in 1988 — Instruction Page 17 |_|_|_|_|_|_|_|_|_|

B. Quantity generated in 1989 — Page 17 |_|_|_|_|_|_|_|_|_|

C. UOM — Page 18 |_|

D. Density — Page 18 |_|_| . |_|_| ☐ 1 lbs/gal ☐ 2 sg

E. Was this waste treated, disposed or recycled on site or discharged to a sewer/POTW? — Page 18
☐ 1 Yes (CONTINUE TO SYSTEM 1)
☐ 2 No (SKIP TO SEC. III)

SYSTEM 1

System type — Page 18 |M|_|_|

Quantity treated, disposed or recycled in 1989 — Page 18 |_|_|_|_|_|_|_|_|_|

SYSTEM 2

System type — Page 18 |M|_|_|

Quantity treated, disposed or recycled in 1989 — Page 18 |_|_|_|_|_|_|_|_|_|

Sec. III

A. Was this waste shipped off site? — Instruction Page 19
☐ 1 Yes (CONTINUE TO BOX B)
☐ 2 No (SKIP TO SEC. IV)

	B. EPA ID No. of facility to which waste was shipped — Instruction Page 19	C. System type — Page 19	D. Total quantity shipped in 1989 — Page 19
Site 1	|_|_|_|_|_|_|_|_|_|_|_|_|	|M|_|_|	|_|_|_|_|_|_|_|_|_|
Site 2	|_|_|_|_|_|_|_|_|_|_|_|_|	|M|_|_|	|_|_|_|_|_|_|_|_|_|

Sec. IV

A. Waste minimization results in 1989 — Instruction Page 20
☐ 1 Yes (CONTINUE TO BOX B)
☐ 2 No (THIS FORM IS COMPLETE)

B. Activity — Page 21 |W|_|_| |W|_|_| |W|_|_| |W|_|_|

C. Other effects — Page 21
☐ 1 Yes
☐ 2 No

D. Quantity recycled in 1989 due to new activities — Page 21 |_|_|_|_|_|_|_|_|_|

E. Activity/Production Index — Page 21 |_|_| . |_|

F. Source Reduction Quantity — Page 22 |_|_|_|_|_|_|_|_|_|

Comments:

Page ____ of ____

INSTRUCTIONS FOR COMPLETING
FORM IC - IDENTIFICATION AND CERTIFICATION

WHO MUST COMPLETE THIS FORM?
All sites required to submit the 1989 Hazardous Waste Report must complete Form IC.

PURPOSE OF THIS FORM
Form IC is divided into eight sections. Sections I through IV identify the site. Section V certifies that the information reported throughout is truthful, accurate, and complete. Sections VI and VII update the site's EPA notification of hazardous waste activities. Finally, Section VIII records information on waste minimization activities during 1988 and 1989.

HOW TO COMPLETE THIS FORM
You must complete all eight sections. Please print or type (12 pitch) all information. Throughout the form, enter "DK" if the information requested is not known or not available; enter "NA" of the information is not applicable. Use the Comments section at the end of the form to clarify or continue any entry. Preceding the comment, reference the section number and box letter to which it refers.

ITEM-BY-ITEM INSTRUCTIONS

Section I: Site Name and Location Address
Complete Boxes A through H. Check the box "Same as label" if the address information provided on a pre-printed label is correct. In Box C, check "Yes" or "No" to indicate whether the site/company name associated with this EPA ID has changed since 1987. The EPA ID is address specific and cannot be transferred to a new location.

Section II: Mailing Address of Site
Check "Yes" or "No" to indicate if the site's mailing address is the same as the location address listed in Section I. If you checked "No," enter the site's mailing address in Boxes B through E.

Section Ill: Contact Information
Enter the full name, title, and phone number of the person who should be contacted if questions arise regarding the information provided in the 1989 Hazardous Waste Report submitted by your site.

FORM IC

Section IV: SIC Code Information
Enter the Standard Industrial Classification (SIC) Code(s) that best describe the principal product or group of products produced or distributed or the services rendered at the site. Enter more than one SIC Code only if no one industry description includes the combined activities of the site. A complete list of SIC Codes begins on page 53. SIC Codes are organized by major industrial sectors, listed below. Space is provided for four SIC Codes. If you do not require four codes, enter "NA" in the unused fields.

SIC Code Major Industrial Sector

SIC Codes, page 53.

Section V: Certification
Do not complete Section V until all forms required for submission are present, complete, and accurate. The 1989 EPA Hazardous Waste Report Submissions Checklist on page 3 is provided to assist you. After you have completed all required forms, enter the number of pages submitted for each form, your full name and title, and the date. Read the certification statement, and sign the form. Refer to page 3 of this booklet for mailing instructions.

Section VI: Generator Status
Complete Box A and follow the instructions to complete Box B or skip to Section VII.

Box A: 1989 generation
Check one box to indicate the site's RCRA hazardous waste generation status in 1989.
If your site idd not generate RCRA hazardous waste during 1989, check "No" and proceed to Box B.
If your site did generate any RCRA hazardous waste during 1989, review the definitions of LQG, SQG, and CESQG below to determine your generator status and check the appropriate box.

Continue to Box B, if you checked "No."

Skip to Section VII if you check LQG, SQG, or CESQG

FORM IC

Section VI (Continued)

A site that generates solid waste must determine if that waste is hazardous waste or if that waste is excluded from regulations under 40 CFR 261.4(b). Only if a waste is subject to RCRA regulation, or is not treated in an exept treatment units, is the quantity to be counted in determining the site's generator category. However, quantities of hazardous waste treated in exept units must be reported by LQG's along with all other hazardous waste quantities. If a waste is excluded, or if it is regulated only by your State, its quantity need nto be counted.

Excluded Wastes, page 59.

Code Generator Status

1. No, this site did not generate RCRA hazardous waste during 1989.
2. LOG: Large Quantity Generator

   This site is a Large Quantity Generator if, in 1989, the site met any of the following criteria:

   a) The site generated in any single month 1,000 kg (2,200 lbs) or more of RCRA hazardous waste; or
   b) The site generated in any single month, or accumulated at any time 1 kg (2.2 lbs) of RCRA acute hazardous waste; or
   c) The site generated or accumulated at any time more than 100 kg (220 lbs) of spill cleanup material contaminated with RCRA acute hazardous waste.
3. SQG: Small Quantity Generator

   This site is a Small Quantity Generator if, in 1989, it met all the following criteria:

   a) In one or more months the site generated more than 100 kg (220 lb) of hazardous waste, but in no month did the site:
      (1) generate 1000 kg (2200 lbs) or more of hazardous waste, or;
      (2) generate 1 kg (2.2 lbs) or more of acute hazardous waste, or;
      (3) generate 100 kg (220 lbs) or more of material from the cleanup of a spillage of acute hazardous waste.
   b) The site accumulated no more than I kg (2.2 lbs) of acute hazardous waste, and no more than 100 kg (220 lbs) of material from the cleanup of a spillage of acute hazardous waste; and
   c) The site stored it's wastes in tanks or containers in a manner consistent with regulatory provisions.

(Codes continued on next page.)

FORM IC

Section VI (Continued)

4. CESOG: Conditionally Exempt Small Quantity Generator
This site's hazardous waste activities met the definition of a RCRA CESQG every month during 1989. A RCRA CESQG is defined by the following criteria.
   a) the site generated no more than 100 kg (200 lbs) of hazardous waste, and no more than 1kg (2.2 lbs) of acute hazardous waste, and no more than 100 kg (220 lbs) of material from the cleanup of a spillage of acute hazardous wastes; **and**
   b) the site accumulated no more than 1,000 kg (2200 lbs) of hazardous waste, and no more than 1 kg (2.2 lbs) of acute hazardous waste, and no more than 100 kg (220 lbs) of material from the cleanup of a spillage of acute hazardous wastes; **and**
   c) the site treated or disposed of the hazardous wastes in a manner consistent with regulatory provisions (40 CFR 261.5(f)(3) and 261.5(g)(3)

Box B: Reason
If your site did not generate RCRA hazardous waste during 1989, check as many boxes as necessary to explain the reason. The alternatives are:

Code	Reason
1	Never generated: This indicated that the site has never generated RCRA hazardous waste and did not do so during 1989.
2	Out of business: The site has gone out of business and did not generate hazardous waste at this location during 1989.
3	Only excluded or delisted waste: The site generated only wastes not subject to RCRA regulation during 1989. Wastes not subject to RCRA regulation are delisted wastes, excluded wastes, and wastes regulated regulated only by your State government. A list of excluded wastes is provided on page 59.
4	Only non-hazardous waste: This site generates no wastes that are subject to RCRA regulation.
5	Periodic or occasional generator: This site generates hazardous waste only occasionally, and generated none during 1989.
6	Waste minimization activity: This site was previously a generator of hazardous waste, but did not generate any during the report year due to an effective waste minimizatin program. See the definition of Waste Minimization on page 52.
7	Other: This site has other reasons for not generating in 1989. Specify in the Comments section and reference Section VI, Box B.

FORM IC

Section VII: On-site Waste Management Status

Box A: Storage

Did the site have any RCRA permitted storage on site during 1989? Select one code from the list below and record in the response space in Box A.

NOTE: RCRA Storage does not include short term accumulation exempt under the 90, 180, or 270 day rules. If the ONLY type of storage at your site was accumulation of wastes under these rules prior to shipment, answer "1-No RCRA permitted storage."

Code	Explanation
1	No RCRA permitted storage
2	RCRA permitted storage--TANKS
3	RCRA permitted storage--CONTAINERS
4	RCRA permitted storage--OTHER
5	RCRA permitted storage--COMBINATION
8	Don't know

Box B: RCRA treatment, recycling, or disposal

During 1989, was treatment, recycling, or disposal of hazardous wastes conducted on site in units requiring a RCRA permit? Select one code from the list below and record in the response space in Box B.

Code	Explanation
1	No, hazardous waste was not treated, recycled, or disposed on site during 1989 in a unit requiring a RCRA permit **and** the site does not plan to develop any on-site RCRA permitted treatment, recycling, or disposal capacity.
2	No, hazardous waste was not treated, recycled, or disposed on site during 1989 in a unit requiring a RCRA permit **but** the site **does** plan to develop on-site RCRA permitted treatment, recycling, or disposal capacity.
3	Yes, hazardous waste was treated, recycled, or disposed on site during 1989 in a unit requiring a RCRA permit.

FORM IC

Section VII (Continued)

Box C: RCRA-exempt treatment, recycling, or disposal
During 1989, was treated, recycling, or disposal of hazardous wastes conducted on site in units exempt from RCRA permitting requirements? Select one code from the list below and record in the response space in Box C.

Code	Explanation
1	No, hazardous waste was not treated, recycled, or disposed on site during 1989 in a unit exempt from RCRA permitting requirements **and** the site does not plan to develop any on-site RCRA-exempt treatment, recycling, or disposal capacity.
2	No, hazardous waste was not treated, recycled, or disposed on site during 1989 in a unit exempt from RCRA permitting requirements **but** the site **does** plan to develop on-site RCRA-exempt treatment, recycling, or disposal capacity.
3	Yes, hazardous waste was treated, recycled, or disposed on site during 1989 in a unit exempt from RCRA permitting requirements.

Section VIII: Waste Minimization Activity During 1988 or 1989

Waste minimization means the reduction, to the extent feasible, of hazardous waste that is generated or subsequently treated, stored, or disposed. Waste minimization includes any source reduction or recycling activity undertaken by a generator that results in: (1) the reduction of total volume or quantity of hazardous waste; (2) the reduction of toxicity of hazardous waste; or (3) both, as long as the reduction is consistent with the goal of minimizing present and future threats to human health and the environment.

Box A: Did this site begin or expand a source reduction activity during 1988 or 1989?

Source reduction means the reduction of elimination of waste at the source, usually within a process. Source reduction measures include process modifications, feedstock substitutions, improvements in feedstock purity, housekeeping and management practices, increases in the efficiency of machinery, and recycling within a process. Source reduction implies any action that reduces the toxicity or the amount of waste exiting a process.

Check "Yes" or "No" in Box A.

FORM IC

Section VIII (Continued)

Box B: Did this site begin or expand a recycling activity during 1988 or 1989?

Recycling means the use or reuse of waste as an effective substitute for a commercial product, or as an ingredient or feedstock in an industrial process. It also refers to the reclamation of useful constituent fractions within a waste material or removal of contaminants from a waste to allow it to be reused. As used in this report, recycling implies use, reuse, or reclamation of a waste, either on site or off site, after it has been generated.

Check "Yes" or "No" in Box B.

Box C: Did this site conduct a source reduction or recycling opportunity assessment during 1988 or 1989?

Opportunity Assessment is a procedure that identifies practices that can be implemented to reduce the generation of hazardous waste or the quantity that must subsequently be treated, stored, or disposed.

Check "Yes" or "No" in Box C.

Box D: What factors have limited this site from initiating new source reduction activities during 1988 or 1989?

Check as many boxes as are applicable to your site.

Box E: What factors have limited this site from initiating new on-site or off-site recycling activities during 1988-1989?

Check as many boxes as are applicable to your site.

INSTRUCTIONS FOR COMPLETING
FORM GM - WASTE GENERATION AND MANAGEMENT

WHO MUST COMPLETE THIS FORM?
A site required to submit the 1989 Hazardous Waste Report must complete Form GM if the site generated or shipped any quantity of RCRA hazardous waste during 1989.
A complete, separate, and independent Form GM must be submitted for each RCRA hazardous waste:

generated on site during 1989 from production processes or service activities;
shipped off site during 1989, that was received from off site and not recycled, blended, or otherwise treated on site; or,
residual generated during 1989 from the on-site treatment, disposal, or recycling of hazardous wastes.

PURPOSE OF THIS FORM
Form GM is divided into four sections that together document: the source, characteristics, and quantity of hazardous waste generated on site; the quantity of hazardous waste managed on site and the management methods; the quantity of hazardous waste shipped off site and the off-site management methods; and the waste minimization activities related to the hazardous waste stream.

HOW TO COMPLETE THIS FORM
Make and complete a photocopy of Form GM for each hazardous waste that was generated on site; treated, recycled, or disposed on site; or shipped off site during 1989. Throughout the form, enter the specified code for "don't know" if the information requested is not known or not available; enter "NA" in the information requested is not applicable. Use the Comments section at the bottom of the form to clarify or continue any entry. Reference the comment by entering the section number and box letter.

WASTES TO BE REPORTED
All RCRA hazardous wastes generated on site need to be reported including those generated from production processes, from the treatment of nonhazardous waste, and hazardous waste residuals generated from the management of a hazardous waste.

NOTE: RCRA HAZARDOUS WASTES TREATED IN EXEMPT UNITS ARE TO BE REPORTED ON THIS FORM.

Example 1:
A plant's on-site degreasing operations generate a hazardous waste solvent (F001), and the plant therefore completes a Form GM for this waste stream. The plant manages this stream by recovering solvents through a batch distillation system. The still bottoms

generated as residuals from batch distillation are, by the "derived from" rule, RCRA hazardous waste (F001).

Complete Form GM for hazardous waste solvent, F001

Complete a separate Form GM for still bottoms, F001

Example 2:

A pretreatment operation for nonhazardous wastewaters generates a sludge that fails the EP Toxic test for metals. A Form GM is required for the sludge, but not for the nonhazardous wastewaters entering the pretreatement process.

Complete Form GM for the sludge

Do not complete Form GM for the nonhazardous wastewaters

Example 3:

Rinse waters from an electroplating operation contain chromium above the characteristic limit and are therefore reported on a Form GM as D007. They are treated in an on-site wastewater treatment sludge (F006); this sludge must be reported on a separate Form GM, as a residual from hazardous waste management.

Section I

Section I requests information one each hazardous waste generated on site; treated, recycled or disposed on site; or shipped off site during 1989.

Box A: Waste Description

Provide a short narrative description of the waste, citing:

General type;

Source;

Type of hazard; and

Generic chemical name or primary hazardous constituents.

In the example below, note that the general type (spent solvent), source (degreasing operation in tool production), type of hazard (ignitability), and generic chemical names (mineral spirits and kerosene) have all been cited.

Example:

"Ignitable spent solvent from degreasing operation in tool production; mixtrue of mineral spirits and kerosene."

Box B: EPA Hazardous Waste Code

Enter the EPA Hazardous Waste Code(s) that applies to the waste reported in Box A. EPA Hazardous Waste Codes are listed beginning on page 61. If you need space for additional codes, use the Comments section to continue and reference the comment by entering Section Number I and Box Letter B. If fewer than four codes are applicable, enter "NA" in the remaining fields. If the waste is regulated only by the State, enter "NA" in all fields.

EPA Hazardous Waste Codes, page 61.

FORM GM

Section I (Continued)

Box C: State Hazardous Waste Code
Complete this box if your State requires it. Otherwise, leave this box blank. If you need space for additional codes, use the Comments section to continue and reference Section I, Box C.

Box D: SIC Code
Enter the 4-digit Standard Industrial Classification (SIC) Code for the product or service associated with generation of the waste.
SIC Codes, page 53.

Box E: Source Code
Enter the Source Code that best describes the production, service, or waste management process that was the source associated with generation of the waste.
Source Codes, page 78.

Box F: Form Code
Review the Form Codes on page 80 and enter the code that best corresponds to the physical/chemical state of the hazardous waste reported in Box A.
Form Codes, page 80.

Box G: Origin and System Type
Review the origin codes below. Enter the code that best describes the process or activity that was the source of the hazardous waste reported in Box A. If the waste stream being reported is a residual, the system type that generated the residual should be reported in the space provided.

Code	Origin
1	The hazardous waste was generated on site from the production process, service activity, or management of nonhazardous waste.
2	The hazardous waste was received from off site and has not been recycled, blended, or otherwise treated on site.
3	The hazardous waste was a residual from the on-site treatment or recycling of previously existing hazardous waste.

If you enter code 3, you must also enter the System Type that best describes the operation from which the waste is a residual. If you enter code 1 or 2, enter "NA" in sysem type.
System Type Codes, page 83.

Example:
The hazardous waste is incinerator ash generated as a result of on-site thermal treatment in a fixed hearth, of a hazardous waste sludge.
The Origin Code is 3. The System Type is M042.

FORM GM

Section I (Continued)

Box H: TRI Constituent
Review the codes listed below and enter the code that best describes the relationship of the waste stream and the facility's requirement to submit the Toxic Chemical Release Inventory (TRI) Reporting Form in 1988 (Form R).

Code	TRI Reporting Note
1	The facility was not required to file a TRI report.
2	The facility was required to file a TRI report but the waste described in Section I contains no TRI constituents for which a Form R was completed.
3	The facility was required to file a TRI report and the waste described in Section I contians one or more TRI constituents for which a Form R was completed.
8	Don't know

Skip to Section II if you entered code 1, 2, or 8.
Continue to Box I if you entered code 3.

Box I: CAS Numbers
Complete Box I only if you entered code 3 in Box H. Enter the Chemical Abstract System (CAS) numbers, exactly as they appear on your 1988 Form R submission, for as many as five TRI constituents present in the waste. List the CAS numbers representing the TRI constituents in descending order of concentration. (The CAS number representing the TRI constituent of highest concentration would be placed in Box I, 1., the CAS number representing the second most concentrated TRI constituent in the waste would be placed in Box I, 2., and so on up to five TRI constituents, if applicable.) If fewer than five TRI constituents are present, enter "NA" in the remaining fields. If there is no CAS number for the TRI constituents, write the chemical category in the Comments section and references Sec. I, Box I.

Section II
Section II requests information on the quantities of hazardous waste generated during 1988 and 1989.

Box A: Quantity Generated in 1988.
Enter the total quantity of the hazardous waste that was generated during 1988. If the waste was not generated in 1988, enter "NA." Right justify the quantity entry. The unit of measure (UOM) will be reported in Box C.

Box B: Quantity Generated in 1989
Enter the total quantity of the hazardous waste that was generated during 1989. Right justify the quantity entry. The unit of measure (UOM) will be reported in Box C.

FORM GM

Section II (Continued)

Box C: UOM
Enter the UOM (unit of measure) Code for the quantity generated reported in Boxes A and B. Quantities must be reported in one of the units of measure listed below. If a volumetric measure (gallons, liters, or cubic yards) is selected, the density of the waste must be reported in Box D.

Code	Unit of Measure
1	Pounds
2	Short tons (2,000 pounds)
3	Kilograms
4	Metric tonnes (1,000 kilograms)
5	Gallons
6	Liters
7	Cubic yards

Skip to Box E if you entered code 1, 2, 3, or 4.
Continue to Box D if you entered code 5, 6, or 7.

Box D: Density
Complete Box D only if you entered code 5, 6, or 7 in Box C. Provide the density in either pounds per gallon (lbs/gal) or specific gravity (sg) and check the appropriate box. If density is unknown, enter "DK" in the density field.

Box E: Was This Waste Treated, Disposed, or Recycled On-site or Discharged to a Sewer/POTW?
Check "Yes" or "No" to indicate whether the waste was treated, disposed, or recycled on site or discharged to a sewer/POTW. If this question is answered "Yes", the following boxes must be completed.

Skip to Section III if you checked "No".
Continue to System 1 if you checked "Yes".
System 1 and System 2
System Type
Enter the system type (from page 83) that this waste stream enters. Space is provided to report the on-site treatment, disposal, discharge, and/or recycling of the waste by as many as two different system types. The space provided for the second on-site system should be used only in the special case of the management of the same waste stream on site by more than one syste during 1989. The extra space should not be used to report the on-site management of the treatment residual generated from management of the waste by the first system type. If more than two systems manage the same waste on site, you need not complete the entire form again. Simply attach a second copy of Form GM leaving blank all entries except Section II, System Type. Note in the Comments section of each page "Sec. II, System type continued on supplemental page." If you do not have a second system, enter "NA" in teh first field of System 2.
Example:
A firm generates 100 tons of F002 solvent waste. Eighty (80) tons are recycled for reuse in a batch distillation system generating 5 tons of still bottoms. The remaining 20 tons were burned in an industrial boiler.

FORM GM

Section II (Continued)

System 1 would be a distillation system (M021) with a quantity of 80 tons. System 2 would be an energy recovery - liquids (M051) with a quantity of 20 tons. NOTE: The 5 tons of still bottoms should be reported on a separate Form GM.

Quantity Treated, Disposed, or Recycled

Enter the quantity of hazardous wate described in Section I that was treated, disposed, discharged, or recycled on site during 1989. Report the quantity in the same unit of measure reported in Section II, Box C.

System Type Codes, page 83.

Section III

This section requests information on off-site shipment of hazardous waste. Information requested includes the EPA Identification Number of the facility to which the waste was shipped, the System Type in which the waste was managed at that facility, and the total quantity of the waste shipped during the report year. Report the quantity in the same unit of measure as Section II, Box C.

Space is provided to report shipments of the waste to two different facilities. If the waste was shipped to only one facility during 1989, enter "NA" in the EPA Identification field for Site 2 and leave the rest of the row blank. If the waste you reported in Section I was shipped to more than two facilities during 1989, you need not complete the entire form again. Simply attach a second copy of Form GM leaving blank all entries except Section III, Box B, C, and D. Note in the Comments section of each page "Sec. III, Box B continued on supplemental page."

Box A: Was the Waste Shipped Off Site?

Check "Yes" or "No" to indicate if any of the waste described in Section I was shipped off site during 1989.

Continue to Box B if you checked "Yes".
Skip to Section IV if you checked "No".

Box B: EPA ID No. of Facility to Which Waste Shipped

Enter the 12-digit EPA Identification Number (EPA ID No.) of the facility to which the waste was shipped. If the facility does not have an EPA ID Number, enter "NA" and note the reason in the Comments section. Reference Section III, Box B.

Box C: System Type

Enter the system type code for the off-site management of this waste stream.

Review the System Type codes that begin on page 83. Enter the one code that best describes the way in which teh waste was managed during 1989.

System Type Codes, page 83.

Box D: Total Quantity Shipped

Enter the total quantity of the waste shipped to the facility during 1989. The quantity must be reported in the unit of measure entered in Section III, Box C. Shipment quantities should equal the total quantity recorded on Uniform Hazardous Waste Manifests for this site during 1989, unless there were rejections or other complications.

FORM GM

Section IV

Section IV requests information on any new activities undertaken during the report year that resulted in waste minimization. Detailed definitions of waste minimization and its component parts, source reduction and recycling, are provided below.

Source reduction means the reduction or elimination of hazardous waste at the source, usually within a process. Source reduction measures include process modification, feedstock substitutions, improvements in feedstock purity, housekeeping and management practices, increases in the efficiency of machinery, and recycling within a process. Source reduction implies any action that reduces the toxicity or the amount of waste exiting a process.

Recyling means the use or reuse of waste as an effective substitute for a commercial product, or as an ingredient or feedstock in an industrial process. It also refers to the reclamation of useful constituent fractions within a waste material or the removal of contaminants from a waste to allow it to be reused. As used in this report, recycling implies use, reuse, or reclamation of a waste, either on site or off site, after it has been generated.

Waste minimization means the reduction, to the extent feasible, of waste that is generated or subsequently treated, stored, or disposed. Waste minimization includes any source reduction or recycling activity undertaken by a generator that results in: (1) the reduction of total volume or quantity of hazardous waste; (2) the reduction of toxicity of hazardous waste; or (3) both, as long as the reduction is consistent with the goal of minimizing present and future threats to human health and the environment.

Box A: Waste Minimization Results

During 1989, did you implement any new activities that resulted in minimization of the waste described in Section I, Box A.

In the past, sites have reported activities not meeting this definition. The following are examples of activities that should not be reported here as waste minimization:

- Sending waste off site for management (other than recycling)
- Incineratin of other thermal treatment
- Treatment to reduce volume (after the waste exits the process in which it was generated)
- Bankruptcy
- Installation of filter press to reduce water content and volume
- Installation of equipment to comply with Clean Water Act
- Delisting of a hazardous waste
- Energy recovery (e.g., burning in boilers)

Continue with Box B if you checked "Yes".

This form is complete if you checked "No".

FORM GM

Section IV (Continued)

Box B: Activity
What activities were implemented in 1989 to achieve the waste minimization results for the waste described in Section I? Review the list on page 85 and select the codes representing activities undertaken for this waste. Response spaces are provided for up to four activities. If more than four codes are required, continue the entry in Comments, referencing Section IV, Box B. If fewer than four codes are applicable enter "NA" in the remaining fields. See definitions of waste minimization, source reduction, and recycling on page 20.
Activity Codes, page 85.

Box C: Other Effects:
Check "Yes" if the activities that resulted in minimization of the waste either:
Increased the toxicity of the waste; or
Increased the quantity or toxicity of emissions into air, water, or land.

Box D: Quantity Recycled in 1989 Due to New Activities
Enter the quantity of hazardous waste that was recycled during 1989 because of new recycling activities. Count both on-site recycling, but do not include quantities recycled in recycling systems operational before 1989. Do not include closed-loop recycling as that is to be reported as a source reduction activity. Enter "NA" if no hazardous was recycled because of new recycling activities.

Box E: Activity/Production Index
The activity/Production index is a measure of changes in economic and other factors that affect the quantity of hazardous waste generated in 1989, compared to 1988. The index is used to distinguish inter-year quantity changes that resulted from waste minimization activity from those that are attributable to economic or other factors.
EPA understands that some sites may find it impractical or impossible to calculate a meaningful activity/production index. If it is impossible to calculate an activity/production index for your site, enter "NA" in Box E.
Use the worksheet on page 22 to calculate the activity/production index. Determine the most appropriate measure of production or activity, using product manufactured, raw materials used, number of hours the plant was in operation, the total number of employee hours worked, sales, budget, or any other factor that is appropriate for the waste stream. Divide the value of that measure for 1989 by the compariable value for 1988.
Example 1:
If the firm manufactures tools using a process which generated a hazardous waste, the activity/production index would indicate the change in the number of tools produced in 1989 compared to the preceding year, 1988.
1,200 tools were produced in 1989 and 1,000 tools were produced in 1988. The activity/production index would equal 1,200 divided by 1,000.

$$\frac{\text{(1989 production)}}{\text{(1989 production)}} \quad \frac{1{,}200}{1{,}000} = 1.2 \text{ (activity/production index)}$$

The number "1.2" would be entered in Box E.

Section IV (Continued)

Example 2:

If a firm that manufactures stainless steel food containers is losing market share to competitors making plastic containers, its production might have declined between 1988 and 1989.

88,000 containers were produced in 1989 and 110,000 containers were produced in 1988. The activity/production index would equal 88,000 divided by 110,000.

(1989 production) 88,000 = 0.8 (activity/production
(1989 production) 110,000 index)

The number "0.8" would be entered in Box E.

Example 3:

If a firm is a dry cleaner that cleaned 2,200 garments in 1989 and 2,000 garments in 1988. The activity/production index would indicate the change in the number of garments cleaned. The activity/production index would equal 2,200 divided by 2,000.

(1989 production) 2,200 = 1.1 (activity/production
(1988 production) 2,000 index)

The number "1.1" would be entered in Box E.

Activity/Production Index Worksheet

Units produced or units of service provided in 1989 (_____)

divided by .-.

Units produced or units of service provided in 1988 (_____)

Enter activity/production index in Box E. = |__|__|.|__|

Box F: Source Reduction Quantity

If you reported a source reduction activity in Box B (codes W01 through W99), enter your best estimate of the reduction in 1989 quantity generated that resulted from the source reduction activities. Report the quantity is the unit of measure reported in Section II, Box C. Enter "NA" in this field if:

You did not report a source reduction activity; or

The source reduction activity you reported resulted only in a reduction in toxicity and not a reduction in quantity of waste.

If you have completed Section II, Boxes A and B, and Section IV, Box E, you can calculate "Source Reduction Quantity" using the method described below.

FORM GM

Section IV (Continued)

If you do not know the information requested in SEction II, Boxes A and B, and Section IV, Box E, you may estimate the quantity of hazardous waste prevented in 1989 using another method. Review the three examples that follow to consider which approach your site might utilize. However, if you do not use this method, you must describe your computation in the Comments section at the end of the form. Reference Section IV, Box F. A blank Source Reduction Quantity Worksheet is included on page 26.

Example 1:

A firm manufactures tools using a process that generates hazardous waste. In 1988, 1,000 tools were produced and 2,000 gallons of waste were generated. In 1989, 1,200 tools were produced and 1,800 gallons of waste were generated. The activity/production index for the firm is 1.2 In 1989, the firm introduced a new process to minimize the quantity of hazardous waste it generated.

(1989 production) 1,200 = 1.2 (activity/production
(1989 production) 1,000 index)

Source Reduction Quantity Worksheet

Step 1: Multiply the quantity generated in 1988 by the activity/ production index.

	2,000	Quantity generated in 1988 (from Sec. II, Box A)
X	1.2	Times activity/production
=	2,400	Equals quantity that would have been generated without source reduction

Step 2: Subtract the 1989 quantity (Sec. II, Box B from the quantity generated without the waste minimization project or activity (step 1 above).

	2,400	Quantity without source reduction
-	1,800	Minus quantity generated in 1989 (from Sec. II, Box A)
=	600	Equals quantity of generation prevented by source reduction (enter in Box F)

Step 3: Enter source reduction quantity in Box F.

Sec. II	A. Quantity generated in 1988 Instruction Page 17	B. Quantity generated in 1989 Page 17	C. UOM Page 18	D. Density Page 18	E. Was this waste treated, disposed or recycled on site? Page 18
	2000	1800	5	8.34 [X] 1 lbs/gal [ ] 2 sg	[ ] 1 Yes (CONTINUE) [X] 2 No (SKIP TO SEC. III)

Sec. IV	A. Waste minimization results in 1989 Instruction Page 20	[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (THIS FORM IS COMPLETE)			
B. Activity Page 21	C. Other effects Page 21	D. Quantity recycled in 1989 due to new activities Page 21	E. Activity/Production Index Page 21	F. Source Reduction Quantity Page 22	
52 W / W W	[ ] 1 Yes [X] 2 No	NA	1.2	600	

FORM GM

Section IV (Continued)

Example 2:

A firm manufactures tools using a process that generates hazardous waste. In 1988 the firm produced 2,000 tools, generating 3,000 gallons of hazardous waste in the process. In 1989, the firm produced 1,400 tools, and 2,000 gallons of waste. The activity/ production index for the firm is 0.7. In 1989, the firm, wishing to reduce costs for waste management, introduced a new process to minimize the quantity of hazardous waste it generated. The firm calculated its waste minimization results as follows.

(1989 production) 1,400 = 0.7 (activity/production
(1989 production) 2,000 index)

Source Reduction Quantity Worksheet

Step 1: Multiply the quantity generated in 1988 by the activity/ production index.

	3,000	Quantity generated in 1988 (from Sec. II, Box B)
X	0.7	Times activity/production index (from Sec. IV, Box E)
=	2,100	Equals quantity that would have been generated without source reduction

Step 2: Subtract the 1989 quantity (Sec. II, Box B) from the quantity generated without the waste minimization project or activity (step 1 above).

	2,100	Quantity without source reduction
-	2,000	Minus quantity generated in 1989 (from Sec. II, Box B)
=	100	Equals quantity of generation prevented by source reduction (enter in Sec. IV, Box F)

Step 3: Enter source reduction quantity in Box F.

Sec. II	A. Quantity generated in 1988 Instruction Page 17	B. Quantity generated in 1989 Page 17	C. UOM Page 18	D. Density Page 18	E. Was this waste treated, disposed or recycled on site? Page 18
	3,000	2,000	5	8.34	☐ 1 Yes (CONTINUE)
				☒ 1 lbs/gal ☐ 2 sg	☒ 2 No (SKIP TO SEC. III)

Sec. IV	A. Waste minimization results in 1989 Instruction Page 20	☒ 1 Yes (CONTINUE TO BOX B) ☐ 2 No (THIS FORM IS COMPLETE)			
B. Activity Page 21		C. Other effects Page 21	D. Quantity recycled in 1989 due to new activities Page 21	E. Activity/Production Index Page 21	F. Source Reduction Quantity Page 22
WI512	WI514	☐ 1 Yes	NIA	0.7	100
WINIA	WINIA	☒ 2 No			

FORM GM

Section IV (Continued)

Example 3:
A firm uses a solvent bath to clean continous filament wire in a batch process. Since the firm has no record of how much wire passes through the bath before the solvent is changed, the activity/ production index is "NA". The firm does have a record of the number of times the solvent is changed in the year. To reduce the amount of waste exiting the process, in 1989 the firm replaced the original bath container with a new container that holds 20 gallons less solvent per changing.
The quantity of waste generated from the solvent bath in 1988, before the container was replaced, was 2,000 gallons. Note that this number was known through a recordkeeping system that tracked waste generation by process.
The number of times the bath was changed was 10, generating 200 gallons of hazardous waste per changing. Thus, the total quantity of waste generated from the solvent bath in 1989 was 1,800 gallons. By replacing the bath container the firm prevented 200 gallons (Sec. II, Box A minus Box B quantities) of hazardous waste from being generated. (Entered in Sec. IV, Box F, source reduction quantity.)

Sec. II	A. Quantity generated in 1988 Instruction Page 17	B. Quantity generated in 1989 Page 17	C. UOM Page 18	D. Density Page 18	E. Was this waste treated, disposed or recycled on site? Page 18
	2000	1800	5	8.34 ☒ 1 lbs/gal ☐ 2 sg	☐ 1 Yes (CONTINUE) ☒ 2 No (SKIP TO SEC. III)

Sec. IV	A. Waste minimization results in 1989 Instruction Page 20	☒ 1 Yes (CONTINUE TO BOX B) ☐ 2 No (THIS FORM IS COMPLETE)			
B. Activity Page 21		C. Other effects Page 21	D. Quantity recycled in 1989 due to new activities Page 21	E. Activity/Production Index Page 21	F. Source Reduction Quantity Page 22
W52	WNA	☐ 1 Yes	NA	NA.	2000
WNA	WNA	☒ 2 No			

The firm would complete the Comments Section as follows:

Comments:
Section IV Box F: Quantity prevented calculated by comparing volume of solvent bath in original container to the volume using new container which holds 20 gallons less.

FORM GM

Source Reduction Quantity Worksheet

Step 1: Multiply the quantity generated in 1988 by the activity/ production index.

	_____	Quantity generated in 1988 (from Sec. II, Box B)
X	_____	Times activity/production index (from Sec. IV, Box E)
=	_____	Equals quantity that would have been generated without source reduction

Step 2: Subtract the 1989 quantity (Sec. II, Box B) from the quantity generated without the waste minimization project or activity (step 1 above).

	_____	Quantity without source reduction
X	_____	Minus quantity generated in 1989 (from Sec. II, Box B)
=	_____	Equals quantity of generation prevented by source reduction (enter in Sec. IV, Box F)

Step 3: Enter source reduction quantity in Box F.

SAMPLE PREPAREDNESS AND PREVENTION PLAN.

1. Maintenance and Operation (40 CFR 264.31).

   a. All safety, emergency and operational equipment will be periodically inspected to ensure their service ability. All defects discovered as a result of these inspections will be repaired as soon as possible.

   b. Inspections of the drum accumulation areas are designed to prevent any unplanned release of any hazardous waste to the environment.

2. Required Equipment.

   a. Internal Communications (40 CFR 264.32 (a))

      (1) The facility is equipped with a telephone system which allows internal communications between base personnel. This system would be the primary means of notifying site personnel in the initial stages of an emergency.

      (2) Augmenting the telephone system are several different radio networks which allow communication not only between on-site personnel but also other _____ personnel off-site.

      (3) Of importance for this submission is the radio network employed by the Base Fire Department. During an emergency this network would be used to summon the equipment and manpower needed to respond.

   b. External Communications (40 CFR 264.32 (b))

      (1) Should outside assistance be required, the base telephone system would serve as the primary means of extenal communications with off-site response groups.

   c. Fire Extinguisher, Spill Control, and Decontamination Equipment (40 CFR 264.32 (c))

      (1) Fire extinguishers shall be provided as needed by location and proper type. These extinguishers are to be inspected to ensure they are fully charged and operational at all times.

      (2) To contain, absorb, and clean-up and potential spill, each drum storage area site will maintain an inventory of absorbents, shovels, brooms, and open top drums. This equipment will be kept in a specially marked open top drum and will be readily accessable.

FIGURE 9-A

CONTINGENCY PLANNING CHECK LIST

Specific Item	Types of Problems	Remedial Action	Frequency/Type of inspection
Telephone/Radio System	out of order, power failure battery failure	contact repair service, replace batteries	daily/operations check
Water Supply	low pressure	contact Water Department	daily/operations check
Showers/Emergency Eye Wash sations	water pressure, leakage, corrosion	contact Base Engineer, repair	weekly/operational check
Respirators- in use	damage to facepiece spent cartridge	replace	weekly/visual check
Respirators -stock	out of stock	order	weekly/visual check
Supply of Personnel	out of stock	replace or	montly/visual
Safety Equipment: gloves, paper suits safety glasses	deterioration cracks, holes	repair	
Self contained breathing apparatus	deterioration of hoses, face pieces, air supply low	replace or repair	monthly or after each use/visual and operational
Fire extinguishers	need recharging	recharge	monthly or after each use/visual
Absorbents	out of stock, inventory low	replace	monthly or after each use/visual
Emergency telephone list	missing, incorect phone numbers	correct	monthly/visual
Warning signs	damaged, missing place	repair or	weekly/operational
Fence, Gates, locks	corrosion, General damage or improper use	repair or take management action	monthly visual
Access	equipment blocking access	move containers	daily/visual
Containers	not sealed, labels not visible, leakage	seal, label, transfer to new drum	daily/visual

d. Water and Foam Supplies (40 CFR 264.32 (d))

(1) The facility is supplied with water from both the City of _____ and the Town of _____. The City of _____ is the primary source of water, but to ensure an adequate supply of water at all times, a contingency line is in place which will allow the base to be served by the Town of _____ by simply opening the valve. In addition, the base has an on-site supply of _____ gallons of water in storage at all times should both these sources become interrupted for an extended period.

(2) For fighting oil or solvent fed fires, the Base Fire Department inventories fire fighting foam and is equipped to use this material. The Department staff is specially trained in the use of this fire fighting agent.

3. Testing and Maintenace. The facility communications sytem, alarms, fire protection equipment, spill control equipment, and decontamination equipment will be routinely inspected and tested to ensure it is in proper working order should it be required in an emergency. See the Contingency Planning Checklist.

4. Access to Communications (40 CFR 264.34). In all areas where waste is handled, or stored, employees will have direct access to either a telephone or fire alarm box.

5. Aisle Space (40 CFR 264.35). All facility roads will be kept clear of obstruction (i.e. spotted trailers, parked heavy equipment, etc.) to allow access for emergency vehicles. Drum accumulation areas will be located and maintained so as to allow access by fire equipment or any other emergency vehicles.

6. Special Handling for Ignitable or Reactive Wastes (40 CFR 264.36).

a. Ignitable Wastes

(1) Among the wastes generated and stored by the facility are a number of wastes which meet the characteristic of ignitability. These wastes include:

(2) To prevent ignition of these materials, several procedures are employed.

(a) All containers of ignitable or combustible waste are kept closed except when adding or removing material.

(b) No welding is allowed in an area where ignitable or combustible materials are stored or accumulated unless a "Hot Work" permit is issued by the Base Fire Department Inspectors.

(c) The hazardous waste storage area is segregated away from mainstream activity. The accumulatin areas are also segregated as much as possible away from each shop's work area.

(d) No smoking is allowed in the hazardous waste storage area nor within 20 feet of the shop accumulation areas.

(e) All ignitable or combustible wastes are stored in U.S. Department of Transportation (US DOT) approved containers.

b. Reactive Wastes

(1) The _____ does store _____ which are highly corrosive and can meet definition of reactive.

7. Coordination agreements (40 CFR 264.37). Arrangements must be made with the local Fire Department and Emergency Response Team, to plan for possible emergencies. This will include providing the Fire Department with information regarding those Hazardous Materials & Wastes handled at the site and common storage areas.

NOTE: It is recommended that agreements with the local fire and rescue services be noted or attached.

SAMPLE CONTINGENCY PLAN.

1. Purpose and Implemetation.

   a. The Preparedness and Prevention Plan is designed to prevent a serious incident from happening. However, accidents do happen and to prepare for this, the RCRA regulations require that every hazardous waste facility must develop a contingency plan. The contingency plan must be designed to "Minimize hazards to human health or the environment from fire, explosions or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents which could threaten human health or the environment".

   b. The contingency plan must be implemented immediately whenever there is a fire, explosion, or release of hazardous waste constituents which could threaten human health or the environment. The plan was developed to comply with Subpart D of 40 CFR 264 and identifies the facility's response to:
   - o fires and explosions
   - o spills
   - o leaks

2. General Waste Information.

   a. The overall facility is the home of the _____ and the _____. Both these commands are assigned numerous _____ and vehicles which must be repaired and maintained.

   b. During the course of these maintenance activities, each unit generates relatively small quantities (_____ per month) of waste lubricating oils, machine oils, hydraulic oils, and solvents used in degreasing parts, as well as spent lead-acid battery casings (approximately ____ to ____ per month).

3. Revisions to the Plan. (40 CFR 264.54)

   a. The unit hazardous waste manager, _____, who has the basic responsibility for the management of the temporary accumulation area, is responsible for the implementation and administration of the various plans, and is also responsible for the revision of this contingency plan if:

      (1) It is found inadequate for any reason,

      (2) The applicable state or federal regulations are revised,

      (3) The facility permit is revised,

      (4) The plan fails in an emergency

      (5) The facility changes in its design, construction, operation,

3.A.(5) (cont'd) maintenance or other circumstances in a manner that materially increases the potential for fires, explosions or releases in toxic or hazardous constituents; or which changes the response in the case of an emergency,

(6) The list of Emergency Coordinators changes,

(7) The list and/or telephone numbers of those to be notified changes, or

(8) The list of key emergency equipment changes.

b. All revisions will be sent to the parties identified in paragraph 4. In general, the Contingency plan will be reviewed at least once a year (in December) and updated if necessary.

4. Distribution (40 CFR 264.53(b)). Copies of the contingency plan will be distributed to at least the following:

_____
_____
_____
_____
_____

5. Designated Emergency Coordinators(s) (40 CFR 264.52. (d)).

a. The contingency plan requires that in the event of a fire, explosion or release of hazardous wastes, facility personnel undertake specific emergency procedures that have been developed in the plan. The responsibility for ensuring that the plan is carried out lies with the designated Emergency Coordinator.

b. If an emergency situation develops at the facility, the shop supervisor or other Base personnel substituting for the supervisor, shall contact the Emergency Coordinator listed in Figure 10-A. The _____ is the primary Emergency Coordinator and should be contacted first. If the Emergency Coordinator is not available, the alternates should be called in the order provided. The primary Emergency Coordinator and alternates have authority to commit the resources of their unit in the event of an emergency. In the event off-site contractors and/or equipment are required, the Emergency Coordinator must receive the approval of the government Contracting Officer in making any committment for the government.

6. Responsibilities of the Emergency Coordinator (40 CFR 264.56 (a)).

a. In general, the Emergency Coordinator will:

(1) Ensure the internal alarms have been activated to notify site personnel.

(2) Identify any materials and/or wastes released by fire or explosion.

FIGURE 10-A

EMERGENCY COORDINATORS

1. Primary Coordinator:

Name: _____
(Title)
Work phone: _____
Home phone: _____

2. Alternative Coordinator:

Name: _____
(Title)
Work phone: _____
Home phone: _____

3. Alternate Coordinator:

Name: _____
(Title)
Work phone: _____
Home phone: _____

6.a. (3) Assess possible hazard to human health or environment from released materials.

(4) Notify the Fire Department in case of fire or explosion.

(5) Notify the Base Commander of the situation.

(6) Notify Base security if evacuation of local base areas may be advisable or the Sheriff's Office if evacuation of off-site areas is advisable.

(7) Notify the _____ County Health Department (_____) and the _____ State Department of Environmental Quality in the event of a spill which could have a potential adverse effect on air, surface water, or groundwater quality (generally any spill over ____ gallons), as well as in the event of a fire and/or explosion.

(8) Arrange for proper storage of recovered waste.

(9) Submit "after incident" reports, if required.

7. Staff Assistance for the Coordinator. The coordinator may need considerable assistance and advice (technical and otherwise) depending on the circumstances. This will be given by one or more of the staff members. To activate the assistance and advice program, he need only report an emergency as soon as possible to the _____ who will assemble the support staff.

8. Emergency Procedures Personnel.

a. The emergency procedures covered in this plan are to be used in the event of a fire, spill, explosion or other incident that threatens life, property or the environment. The personnel responsible for responding in an emergency and their roles are as follows:

b: Site Personnel will be trained to respond to emergencies. They will be the first line of defense in an emergency situation. Often the manner of the initial response to an incident determines the ultimate severity of that incident. In the case of an emergency at the facility, base personnel will immediately:

(1) notify their Supervisor and/or Emergency Coordinator,

(2) take the requisite action to shut down equipment that is contributing or could contribute to the incident, and,

8.b. (3) contain the emergency incident as the situation dictates.

c. Shop Supervisors will take action to mitigate the incident, evaluate the situation and call for assistance if needed. The Shop Supervisors, like the other site personnel, will be trained to respond to emergency situations at the site.

d. In the event of an emergency incident the Shop Supervisors will immediately:
- o evacuate the area except for emergency personnel,
- o notify the Emergency Coordinator or designated alternate,
- o direct the personnel involved in performing emergency functions until the arrival of the Emergency Coordinator.

9. Implementation of the Contingency Plan (40 CFR 264.51(b)).

a. The decision to implement the contingency plan depends upon whether or not an impending or actual incident could threaten human health or the environment. The purpose of this section is to provide guidance to the Emergency Coordinator in making this decision by providing decision-making criteria.

b. The contingency plan will be implemented in the following situations:

(1) Fire and/or Explosion:

(a) A fire causes the release of toxic fumes.

(b) The fire spreads and could possibly ignite materials at other locations on-site or could cause heat-induced explosions.

(c) The fire could possibly spread to off-site areas.

(d) Use of water and chemical fire suppressant could result in contaminated runoff.

(e) An imminent danger exists that an explosion could occur, causing a safety hazard because of flying fragments or shock waves.

(f) An imminent danger exists that an explosion could ignite other hazardous waste at the facility.

(g) An imminent danger exists that an explosion could result in release of toxic material.

RCRA
EMERGENCY/CONTINGENCY PLAN

COPY FOR: (NAME) _____
(TITLE) _____
(ORG.) _____
(ADDRESS) _____
(CITY)_____ (STATE) _____(ZIP) _____
(PHONE) ( ) _____-_____

RCRA EMERGENCY/CONTINGENCY PLAN

Company _____
Address _____
Location of Facility _____
City _____ State _____ Zip _____
Telephone _____ EPA # _____
Primary Emergency Coordinator _____ Address _____
Telephone (Office) _____ (Home) _____
Secondary Emer. Coordinator _____ Address _____
Telephone (Office) _____ (Home) _____
Secondary Emr. Coordinator _____ Address _____
Telephone (Office) _____ (Home) _____

Description of Waste Handled

DOT CLASSIFICATION	VOLUME ON SITE	MONTHLY VOLUME	DOT I.D. NUMBER	DOT EMERGENCY GUIDE #	EPA WASTE CODE
(ADDITIONAL LISTINGS ON PAGE 12)					

Federal, State & Local Emergency Response Contacts

Organization	Contact & Location	Phone
LOCAL		
Primary Fire Dept.		
Secondary Fire Dept.		
Secondary Fire Dept.		
Ambulance Service		
Emergency Response Team		
Sheriff's Dept.		
Local State Police		
Primary Hospital		
Secondary Hospital		
Secondary Hospital		
STATE		
State Police Hdqrs.		
State Environmental Hdqrs.		
State Emergency Response		
FEDERAL		
Nearest EPA Office		
Nearest BMCS Office		

U.S. COAST GUARD NATIONAL RESPONSE CENTER 800-424-8802	CHEMTREC—EMERGENCY RESPONSE 800-424-9300	POISON CENTER ( ) _____

Arrangements with Local Police (Describe)	
Arrangements with Local Fire Departments (Describe)	
Arrangements with Local Hospitals (Describe)	
Arrangements with Local or State Emergency Response Services (Describe)	
Hospital Emergency Info:	Hospital Equipment Requirements
Fire Police Emergency Information	Emergency Equipment & Service Required

PRIMARY EMERGENCY COORDINATOR (if on duty)
Name _____ Title _____ Office Phone _____
Home Phone _____
Address _____
Functions/Activities during Emergency (Describe in detail):

SECONDARY EMERGENCY COORDINATOR (if on duty)
Name _____ Title _____ Office Phone _____
Home Phone _____
Address _____
Functions/Activities during Emergency (Describe in detail):

SECONDARY EMERGENCY COORDINATOR:
Name _____ Title _____ Office Phone _____
Home Phone _____
Address _____
Functions/Activities during Emergency (Describe in detail):

JOB DESCRIPTION/FUNCTION EMERGENCY RESPONSIBILITIES | PAGE 5

Job Function: _____ Name _____
Emergency Responsibilities/Activities (Describe in Detail)

Job Function: _____ Name _____
Emergency Responsibilities/Activities (Describe in Detail):

Job Function: _____ Name _____
Emergency Responsibilities/Activities (Describe in Detail):

Job Function: _____ Name _____
Emergency Responsibilities/Activities (Describe in Detail)

Job Function: _____ Name _____
Emergency Responsibilities/Activities (Describe in Detail):

Job Function: _____ Name _____
Emergency Responsibilities/Activities (Describe in Detail):

Job Function: _____ Name _____
Emergency Responsibilities/Activities (Describe in Detail)

Job Function: _____ Name _____
Emergency Responsibilities/Activities (Describe in Detail):

Job Function: _____ Name _____
Emergency Responsibilities/Activities (Describe in Detail):

Facility Location	Facility #

Facility Description

Facility Diagram (Identify location of individual emergency equipment, etc.)

Legend:

a. Entrances
b. Emergency Exits
c. Fire Extinguishing Systems
d. Spill Control Equipment
e. Communication Systems/Speakers
f. Fire Alarm Systems/Sirens/Bells
g. Decontamination Equipment
h. First Aid Stations
i. Guard Gates/Stations
j. Emergency Equipment Locations
k. Eye Wash Stations
l. Fire Fighting Equipt. (Vehicular)
m. Fire Extinguishers
n. Emergency Respirators
o. Monitoring Equipment
p. Waste Storage Area
q. Hazardous Materials Storage Area

Instructions: Describe the Physical Characteristics and Capabilities of each of the following, if they are present in the facility

a. Entrances	h. First Aid Stations	o. Monitoring Equipment
b. Emergency Exits	i. Guard Gates/Stations	p. Waste Storage Area
c. Fire Extinguishing System	j. Emergency Equipment locations	q. Hazardous Materials Storage Area
d. Spill Control Equipment	k. Eye Wash Stations	r. Other _____
e. Communication System/ Speakers	l. Fire Fighting Equip. (Vehicular)	
f. Fire Alarm System/Alarms	m. Fire Extinguishers	s. Other _____
g. Decontamination Equipment	n. Emergency Respirators	

TOPOGRAPHICAL MAP

GEOGRAPHICAL MAP

TOPOGRAPHICAL MAP (Provide a description or information)
Flow of Surface Waters:
Facility Location & Parameters:
Underground Water Systems or Wells
Artificial or Natural Facility Barriers
Unauthorized Personnel Sign Locations
Other Information:

GEOGRAPHICAL MAP (Provide a description or information)
Primary Evacuation Routes
Secondary Evacuation Routes
Alternate Evacuations Routes
Signals to be used for each Evacuation Plan
Location of Local Fire/Police/Hospital Facilities (If possible)

DOT/NAME/HAZARD CLASS	VOLUME ON SITE	MONTHLY VOLUME	DOT ID NUMBER	DOT EMERGENCY GUIDE #	EPA WASTE CODE #

RCRA CONTINGENCY PLAN

The Environmental Protection Agency requires each generator, person or company who stores hazardous waste at any site in the United States, to prepare and maintain a RCRA CONTINGENCY PLAN which will be made available to all employees and Emergency Response Personnel in local organizations. (i.e. Fire, Police, and Hospital personnel and emergency response teams).

The requirement for each generator to prepare a RCRA Contingency Plan is outlined in Section 262.34 in STANDARDS FOR GENERATORS OF HAZARDOUS WASTES. Each generator must comply with the requirements for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities, outlined in Subpart C - PREPARDNESS & PREVENTION...and Subpart D - CONTINGENCY PLAN & EMERGENCY PROCEDURES.

When preparing a RCRA CONTINGENCY PLAN, the generator would be required to provide the following information, based on the hazardous waste stored at the generator's facility or plant. Using the RCRA Contingency Plan included in this booklet, we will cover the required and optional information that will allow emergency response personnel to properly handle any accidental release of hazardous waste at the generator's facility or plant.

RCRA EMERGENCY/CONTINGENCY PLAN - PAGE #2

1. Company name, address, city, state, and zip.

2. Telephone number and EPA Identification number.

3. List the Primary Emergency Coordinator, his or her address and office/home telephone numbers.

4. If additional personnel are assigned as alternate or secondary Emergency Coordinators, list their names, addresses and office/home telephone numbers.

5. Description of Hazardous Waste handled or stored on-site: (OPTIONAL)
   a. DOT Classification or Proper shipping name.
   b. Volume stored on site (Average).
   c. Monthly amount generated.
   d. DOT I.D. Number for the hazardous waste.
   e. DOT Emergency Guide Number.
   f. EPA Waste Code Number. (if any)

6. Federal, State & Local Emergency Response Contacts. (265.52(c)) The regulations require each generator to describe the arrangements with all Emergency Response teams or agencies relative to any emergency involving the generator's hazardous waste. This section would show the emergency response orgainization, the contact, location and telephone number.

ARRANGEMENTS WITH POLICE, FIRE, CONTRACTOR, HOSPITAL, AND EMERGENCY RESPONSE PERSONNEL - PAGE #3 (265.52(c))

Page #3 provides the required information relative to the arrangements each generator has made with local and state emergency response personnel or with local police, fire or hospital personnel. Describe each agreed-upon arrangement with there agencies.

PRIMARY/SECONDARY EMERGENCY COORDINATOR'S RESPONSIBILITIES - Page #4 - (OPTIONAL)

Page #4 allows the plan to outline and describe the Emergency Coordinator's functions or activities, in the event an emergency takes place. If emergency responsibilities are divided between Primary or Secondary Emergency Coordinators, use this page to describe those responsibilities.

JOB DESCRIPTION/FUNCTION EMERGENCY RESPONSIBILITIES - PAGES #5/6/7 (OPTIONAL)

Pages #5, 6, and 7 provide information on specific employees who have been assigned responsibilities in the event of an emergency involving hazardous waste. Their responsibilities, duties or activities may be outlined on these pages.

FACILITY EMERGENCY EQUIPMENT ON-SITE - Pages #8/9 - (265.52(e))

Page #8 provides the required information on the types and locations of safety or emergency equipment. The location of this equipment can be contained within a diagram of the plant.

Page #9 provides the required information on the physical characteristics and capabilities of all safety and emergency equipment on-site.

TOPOGRAPHICAL/GEOGRAPHICAL MAPS/DIAGRAMS IF FACILITY Pages #10/11 (265.52(f))

Page #10 provides the topographical map or diagram of the facility or plant showing the facility and it's boundaries. Page #11 provides a description of the characteristics of the facility and it's surrounding areas...and a description of the primary and secondary evacuation routes to be used in an emergency.

Remember, once the RCRA Contingency Plan has been completed, copies must be provided to all state and local agencies who would be involved in assisting the generator, in the event of any emergency or the accidental release or spill of the generator's hazardous waste.