CHAPTER 10

ENVIRONMENTALLY REGULATED AND HAZARDOUS PROPERTY

A. GENERAL

1. The purpose of this chapter is to provide DoD installations and DLA personnel with guidance on handling, processing, and disposing of DoD excess, surplus, and FEPP which may be hazardous to human health and the environment. These types of property are normally regulated under federal or state environmental and safety laws, or other applicable laws and regulations, and overseas, by the DoD Executive Agent's Final Governing Standards (FGS), for the host nation, or the DoD Overseas Environmental Baseline Guidance Document (OEBGD), where no FGS exists. In cases of inconsistency between this manual and the OEBGD/FGS, the latter takes precedence.

2. The DoD policy is to transport, store, handle, and dispose of all regulated and/or hazardous property in accordance with applicable environmental, safety, and other pertinent laws and regulations. Policy and procedures for storage and handling of hazardous material (HM) are found in the joint services manual, "Storage and Handling of Hazardous Material," ARMY TM 38-410/NAVSUP PUB 573/AFR 69-9/MCO P4450.12/DLAM 4145.11. (AFR 69-9 to be redesignated AFJMAN 23-209).

3. For the purposes of this manual, the composite term "Hazardous Property" will be used in this chapter to address excess, surplus, and FEPP described in paragraph A1 above. Radioactive items are not addressed in this chapter (see Chapter 4, Property Requiring Special Processing, paragraph B54).

4. DLA/DRMS is responsible for the disposal of Hazardous Waste (HW) for the DoD in accordance with DoDI 4715.6, Environmental Compliance. Use of DRMS services is the preferred method of disposal. A decision not to use the DLA/DRMS for HW disposal may be made in accordance with DODD 4001.1, for best accomplishment of the installation mission, and shall be concurred with by the component chain of command to ensure that installation contracts and disposal criteria are at least as stringent as criteria used by DRMS (see Attachment 2). The DRMS should be first afforded the opportunity to redress any operational difficulties in providing service. DRMS may request information from the military services, to include lists of facilities doing their own HW disposal contracting, including the type of commodities handled and prices paid.

B. RESPONSIBILITIES

1. DoD installation responsibilities are as follows:

a. Comply with DoD Instruction 6050.5, Hazardous Material Information System, DoD Instruction 6055.1, DoD Occupational Safety and Health Program, DoDI 4715.5, Management of Environmental Compliance at Overseas Installations, DoDI 4715.6, Environmental Compliance, and respective implementing regulations.

b. Where feasible, minimize the generation of quantities of HP through resource recovery, recycling, and/or source separation, and eliminate the use of HP through nonhazardous substitutes, and acquisition policies.

c. Provide technical and analytical assistance, including research and development support, to DLA to accomplish disposal, if requested.

d. Provide all available information to DLA, as required, to complete environmental documentation; such as, environmental impact statements associated with disposal.

e. Identify known hazards contained in property (especially when turned in for DEMIL or as scrap), regardless of condition, that meet the definition of HM (such as mercury switches, Polychlorinated Biphenyls (PCB) capacitors, batteries, asbestos, radioactive components, etc.), and contained fluids, (such as oils, cooling fluids, etc.), that could create conditions that are hazardous to human health and the environment.

f. Properly identify, package, label, and certify conformance with established environmental, safety, and transportation (29, 40, & 49 CFR, host nation (or international) transportation regulations, International Maritime Dangerous Goods (IMDG) guide), criteria before transporting HP in commerce.

g. When requested, assist DLA by providing information and comments on Federal, state, regional, local, and host nation regulations being developed to control HP; such as, ability of particular installation to comply and impact on DoD. Alert DLA to any local situation which could impact HP disposal.

h. Allow DRMO's to receive and store HP, both HM and HW, from off-site DoD generators, consistent with the DoD concept of providing regional storage and disposal capability for DoD activities (within the authority of storage permits/applications existing on the issuance date of this manual).

i. Retain physical custody of HP within the guidelines provided in paragraph C, this chapter.

j. Provide for disposal of the following categories of regulated property:

(1) Toxicological, biological, radiological materials and lethal chemical warfare materials which, by U.S. law, must be destroyed. Once the appropriate destructive actions are taken to meet the military regulations, the by-products may then be turned-in to the servicing DRMO.

(2) Material which cannot be disposed of in its present form due to military regulations; such as Ammunition, Explosives and/or Dangerous Articles, and controlled medical items. This category includes those instances where military regulations require the obliteration of all markings that could relate excess material to its operational program. Once the appropriate actions are taken to meet the military regulation, the resulting material should then be turned in to the servicing DRMO.

(3) Solid waste which is municipal-type garbage, trash, and refuse resulting from residential, institutional, commercial, agricultural, and community activities, which can be disposed of in a state or locally permitted sanitary landfill, regulated as a solid waste under subtitle D of the Resource Conservation and Recovery Act (RCRA), and overseas by host nation laws and regulations and the implementing FGS for the host nation.

(4) Explosive waste and ammunition waste. DLA/DRMS HW disposal contracts do not cover the disposal of ammunition, explosives, or explosive materials or wastes as defined in the Bureau of Alcohol, Tobacco and Firearms, 27 CFR 181.11, the Department of Transportation (DoT), Subpart C of 49 CFR 173, or the Defense FAR Supplement, Parts 252.223-7002 (a)(1) and (2)(i)(iii)(v)(vi).

(5) Contractor generated HM or HW which are the contractor's responsibility for disposal under the terms of the contract. The Environmental Protection Agency (EPA) identification number holder (normally the installation commander) must maintain appropriate control of these materials or wastes and ensure they are transported and disposed of in compliance with applicable environmental laws and regulations.

(6) Refuse and other discarded material which result from mining, dredging, construction, and demolition operations. However, residue from construction and demolition that meets the regulatory definition of hazardous debris may be turned-in to the servicing DRMO for disposal on service contracts.

(7) Unique wastes and residues of a nonrecurring nature generated by research and development and experimental programs which are outside the scope of DLA service contracts.

(8) Infectious medical waste, or for overseas, medical waste regulated by the host nation and under FGS guidelines, including hospital generated infectious waste generated in the

DoD 4160.21-M

diagnosis, treatment (e.g., provision of medical services), or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals.

(9) Radioactive mixed wastes that satisfy the definition of radioactive waste subject to the Atomic Energy Act which also contain waste that is either listed as an HW in Subpart D of 40 CFR 261, or that exhibit any of the HW characteristics identified in Subpart C of 40 CFR 261.

k. Provide funding for service contract disposal of HP or for special requirements or services requested on the DLA disposal service contract.

l. Provide funding for special generator fees levied by states on specific waste streams generated in the state levying the fee, or other state generator fees, as may be required by law.

m. Notify and coordinate with DLA/DRMS, prior to taking action on any regulatory findings and/or payment of fees or penalties, concerning HW disposal on DLA disposal contracts.

n. Identify disposal requirements to the DRMOs as early as possible.

2. The DLA responsibilities are as follows:

a. Comply with DoD Instruction 6050.5, Hazardous Material Information System, DoD Instruction 6055.1, DoD Occupational Safety and Health Program, DoDI 4715.5, Management of Environmental Compliance at Overseas Installations, DoDI 4715.6, Environmental Compliance, and respective implementing regulations.

b. Accomplish documentation (including records) for DLA disposal actions as required under applicable environmental and other pertinent laws and regulations.

c. Initiate contracts or agreements for DLA disposal actions, and perform post award functions on disposal contracts.

d. Accept accountability for all HP, except those categories under responsibility of DoD installations (paragraph B1), which has been properly identified as hazardous or environmentally regulated property.

e. Accept sludges and residues from industrial processes and wastewater treatment facilities, including drying ponds.

f. Accept spill residues resulting from immediate cleanup actions of an emergency nature in response to specific, isolated operational spills.

DoD 4160.21-M

g. Accept accountability and physical custody, when storage is available, of medical wastes if they are not regulated by the host nation or by the FGS; that are RCRA regulated or state regulated; or for overseas, non-infectious, non-controlled medical items and wastes per FGS guidelines for the particular host nation (see Attachment 1, item 17).

h. Accept custody of HP within the guidelines provided in paragraph C, this chapter.

i. Program for construction of storage facilities in support of the DLA disposal mission.

j. Provide any repackaging, overpacking, or handling of HP that may be required if physically stored at a DRMO or for service contract disposal.

k. Establish an inventory control system for the types, quantities, and locations of available hazardous property for which DLA is responsible in the event that some other activity might be able to use particular property as a resource.

l. Provide an economic incentive for DoD installations to segregate and minimize waste generation by providing feedback to Military Departments and Defense Agencies on the costs associated with disposal of HW.

m. Contract for disposal technology not available within the DoD.

n. Minimize environmental risks and costs associated with the extended care, handling, and storage of HP by accomplishing disposal within a significantly compressed disposal cycle. DRMOs shall notify the permit owner, in writing, of situations that could result in noncompliance with environmental regulations.

o. Operate a system to ensure that sufficient disposal capability is programmed to preclude extended delays in the HP disposal process.

p. Maintain an analysis and information distribution capability of current technological advances on DoD HP disposal procedures and advise DoD installations of such developments on a continuing basis. Additionally, ensure that DoD installations are apprised of any Federal, state, regional, and local regulations being developed to control disposal of HP.

q. Serve as the DoD focal point to recommend matters of policy and guidance to OSD for disposal of HP within the assigned responsibility of DLA.

r. Establish procedures relative to assigned responsibility for HP disposal. Unresolved issues shall be forwarded through channels to OSD.

DoD 4160.21-M

s. Notify the Military Services of contractor or any other actions which could compromise

10-5

installation compliance with environmental regulations.

t. Assure that HW Treatment, Storage, and Disposal (TSD) contracts provide for disposal in RCRA permitted facilities and listings of EPA Identification numbers for each TSD in the contract are available to installation commanders. Where applicable, HW TSD contracts will provide for disposal in permitted facilities in accordance with the FGS and OEBGD.

u. When requested, DRMS shall make every effort to provide commercial disposal contract service, on a reimbursable basis, for HM/HW (such as installation restoration wastes and residues) that are the responsibility of the Military Services. In these instances, the Military Services shall identify their requirements, provide funding and give DRMOs sufficient advance notice to allow the establishment of a service contract for disposal of the property. DRMOs shall accept accountability and document disposal on a receipt/issue transaction.

v. DLA will assume responsibility for the original DoD generator, whenever hazardous substances are found or have caused contamination at a third party site, if the hazardous substances were correctly identified by the generator and turn-in documentation establishes that the HP was processed through DRMS. Third party sites will be managed in accordance with DLA's Defense Environmental Restoration Program guidance.

w. As required, participate in planning and provide host installation input for Emergency Planning and Community Right-to-Know Act compliance.

C. PHYSICAL CUSTODY. DoD policy is to safely store HP to protect human health and the environment. Proper storage techniques should protect HM from becoming waste due to age or container deterioration.

1. Physical custody of HW at those DRMOs lacking RCRA permitted or host compliant storage or FGS compliant facilities is determined by the host installation commander.

2. DRMO sites manned by only one employee shall not accept physical custody of HP due to safety considerations.

3. DRMOs having RCRA permitted storage facilities shall accept physical custody of HP from serviced activities until allowable storage capacity is reached. HW shall receive priority for storage space. HM may be stored only when there is no immediate HW storage requirement, and if the permit allows storage of HM. Serviced activities should provide the greatest advance notification possible to DRMOs of forthcoming generations to allow for capacity management by the DRMOs.

10-6

DoD 4160.21-M

4. DRMOs with RCRA permitted storage facilities shall accept physical custody of only that

HW that is listed in the current RCRA permit.

D. IDENTIFICATION AND TURN IN PROCEDURES . DoD installations and DLA are responsible for compliance with environmental, safety and other pertinent laws and regulations. See Chapter 3, Receipt, Handling and Accounting, Attachment 1, for instructions on DTID preparation. Also, see Attachment 1 of this chapter for specific turn-in requirements for HP requiring special processing.

1. To ensure environmental compliance turn in activities and DRMOs shall plan, schedule, and coordinate HP turn-ins. HP will be identified by generating activities and turned in as described in the remainder of paragraph D. Exceptions to the procedures for property identification below may be granted only where substantial economies can be realized. Alternative identification procedures must meet regulatory and disposal contract requirements and must be approved by DRMS.

2. Hazardous Waste (HW)

a. The turn-in activity shall provide the following information upon turn-in of all HW and used HM that meets the 40 CFR 261 or state or host nation (or international) regulatory definition of a HW when discarded:

(1) Valid NSN and noun name for items cataloged in the supply system.

(2) LSN/FSC and chemical name of hazardous components, if the waste is not identified by NSN.

(3) HW Profile Sheets (HWPS). The HWPS, DRMS Form 1930 (with instruction), Attachment 3 this chapter, is required once a year for each initial waste stream. Use of the DRMS Form 1930 format is not mandatory; however, if an alternate format is developed and used, it must contain all the same information required on the DRMS Form 1930. The turn-in activity shall complete the DRMS Form 1930, or substitute form and address each item, either by providing information or entering "N/A", when applicable. The information may be based on user's knowledge, provided user's knowledge is based on the criteria described in paragraph D2a(4) below. Laboratory chemicals processed in accordance with Attachment 1 this chapter, are exempt from waste profile requirements; however, all other identification requirements apply.

(a) For subsequent turn-ins of an identical waste stream, place the approved reference number assigned by the DRMO in the "Remarks" section of the DTID. The reference number will consist of the turn-in activity DoDAAC and a sequential number to be determined by the DRMO. A profile sheet is not required when the DRMO provided reference number is entered on the DTID.

(b) The turn-in activity shall certify each HWPS annually by either providing to the DRMO a new signed and dated HWPS for each waste which will be generated during the following year, or providing a letter listing the profile number and the name of the corresponding waste stream for each profile which the generator wishes to remain active for another year. If the turn-in activity chooses to provide a letter, that letter must be signed and dated and include the following statement: "The undersigned certifies that the hazardous waste profiles listed in this letter have been carefully reviewed. Any changes to the processes generating these wastes have been considered. New regulations affecting hazardous waste identification and disposal have been applied. Neither the waste streams nor the identification of the waste streams has changed in a manner that would warrant a change in the data previously provided on these waste profiles." For overseas, assign the host nation or IMDG shipping description.

(c) DRMS and the Military Services shall review the HWPS format annually to validate its currency and adequacy in light of any new regulatory requirements, and to assess the advantages and disadvantages of its current format or use.

(4) A chemical analysis must be attached to the HWPS unless the user's knowledge can provide all required information. Documentation to support user's knowledge must be attached to each HWPS using user's knowledge as the basis for profiling the waste stream. Examples of supporting documentation are descriptions of waste production processes including raw materials, end products, and other intermittent sources of waste; historical and published information on the waste. If documentation is not attached in support of user's knowledge, chemical analysis is required. In addition, chemical analysis will be required if the DRMO verification program (for off-site generators and/or if required by permit) indicates that the turn-in activity's profile sheet is inaccurate.

b. The DRMO shall:

(1) Upon request, provide the blank HWPS, DRMS Form 1930, to the turn-in activity; and, if requested, provide training on how to complete the form.

(2) Assist turn-in activity in determining proper identification as capabilities permit. This may include providing analytical laboratory services, when possible, through the DRMO disposal service contract.

(3) Assign a reference number to each profile sheet and maintain a file of approved reference numbers which correspond to approved profile sheets.

(4) Enter the assigned reference number in the "Remarks" section of the initial DTID copy to be returned to the turn-in activity.

- (5) Accept accountability of HW and used HM identified in the above manner.
- (6) Accept physical custody in accordance with Paragraph C, this chapter.

(7) Maintain a copy of all completed profile sheets and any corresponding waste analysis for 5 years, until closure for a RCRA interim, or permitted facility, or as specified in the FGS or OEBGD, as appropriate.

(8) Reject turn-in when proper identification in accordance with the above is not provided; however, every effort shall be made to resolve discrepancies prior to rejection. If the DRMO and turn-in activity cannot reach agreement, the problem will be elevated by both parties for dispute resolution.

- 3. Hazardous Material (HM)
 - a. The turn-in activity shall provide the following information upon turn-in of all HM.
 - (1) NSN identified HM
 - (a) Valid NSN.
 - (b) Noun name as cataloged in the supply system.

(c) The "Material Safety Data Sheet (MSDS) serial number" (five-digit alpha code) of the MSDS listed Hazardous Material Information System (HMIS) or when an MSDS serial number is not available, a hard copy MSDS must accompany the turn-in.

(d) Occupational Safety and Health Administration (OSHA) compliant chemical hazard label attached to the individual package (unit container). Where the hazard label information is missing or damaged, a completed DoD Hazardous Chemical Warning Label (DD Form 2521 or DD Form 2522) as specified in DoD 6050.5-H.

(e) Chemical name of any hazardous contaminants and noun name of nonhazardous contaminants.

(f) Amounts of hazardous and nonhazardous contaminants based on user's knowledge or testing of the item expressed in a range of content (percentage by weight or Parts Per Million [PPM] as applicable).

(g) DoT shipment placards, markings and labels on all HM packages shall remain on the packages as required by OSHA final rule, 59 Federal Register July 19, 1994. (**NOTE**: If the HM is downgraded to HW this rule does not apply).

(2) LSN/FSC identified HM.

(a) Chemical name of hazardous components.

(b) A MSDS (attached to DTID).

(c) Chemical name of hazardous contaminants and noun name of nonhazardous contaminants.

(d) OSHA compliant chemical hazard label attached to the individual package (unit container). Where the label information is missing or damaged, a completed DoD Hazardous Chemical Warning Label (DD Form 2521 or DD Form 2522) as specified in DoD 6050.5-H.

b. The DRMO shall:

(1) Accept accountability of HM identified in the above manner.

(2) Accept physical custody in accordance with paragraph C, this chapter.

(3) Assign proper DoT shipping description to item received from onsite or for HM that is received in place and is not transported over public highways.

(4) Assist turn in activity in determining proper identification as capabilities permit, including contract support; reject turn in if unable to properly identify property.

4. Packaging and Transportation

a. Property turned in to the DRMO must be in containers that are nonleaking and safe to handle. The containers must be able to withstand normal handling or the turn in shall be rejected.

b. When turn-in requires transport over public highways, HM/HW must be packaged in DoT approved containers.

c. HM or HW received at the host installation, or in-place at an off-site installation, shall be packaged and stored in accordance with DoD requirements in the joint services regulation, Army TM 38-410/NAVSUP Pub 573/AFR 69-9/MCO P4450.12/DLAM 4145.11, "Storage and Handling of Hazardous Material", or applicable federal or state regulations. HW turned in to/stored at a RCRA permitted facility must be packaged in accordance with the requirements

specified in that storage facility's RCRA permit.

d. 49 CFR 173.7, U. S. Government Material, identifies the transportation and packaging requirements for HP turned-in the original military containers.

e. 49 CFR 171.14 identifies the transitional provisions for implementing requirements based on United Nations recommendations. These provisions include transition dates to phase in full use of Performance Oriented Packaging (POP) standards. DoD policy, concerning POP, is addressed in the joint services regulation, DLAR 4145.41/AR 700-143/AFR 71-5/NAVSUPINST 4030.55A/MCO 4030.40A.

f. DoD HP in foreign countries or territories shall be packaged in accordance with the appropriate standard required by the FGS, host nation, or international shipping regulations.

5. Labeling. HP shall be labeled in conformance with established environmental, safety, and transportation laws and regulations.

6. Detailed guidance governing additional turn in requirements as well as special handling and processing of HP is contained in Attachment 1 of this chapter.

E. DISPOSAL PROCESSING

1. Normally, HP is processed through the entire disposal cycle. Some categories of HP may be prohibited from reuse and sale due to regulatory constraints or because the nature or condition of the property renders it unusable or uneconomically recyclable. See Attachment 1 of this chapter for HP which may fall in this category.

2. Return to Manufacturer

a. HP which survives RTDS may be offered, prior to final disposal, to a manufacturer or recycler, if:

(1) The type of property warrants the use of this procedure by the DRMO.

(2) Sufficient quantities are available to interest a manufacturer or recycler.

(3) The manufacturer agrees to take back the property.

(4) The cost of shipping the property is less than the cost of service contract disposal, thus creating a disposal cost avoidance for the generator.

DoD 4160.21-M

(5) DoD generating activities are willing to pay the transportation cost for the shipment of HP to the manufacturer or recycler in lieu of disposal costs.

b. DRMOs using these procedures will first contact the generating activity to ensure that the generator is willing to pay the transportation cost for the shipment in lieu of the disposal costs. The return to manufacturer procedure significantly reduces HM which would otherwise go to disposal, thus encouraging beneficial reuse of products and minimizing waste.

3. Special Contract Services

a. Special contract services, on a reimbursable basis, are available through the servicing DRMO for generating activities requiring such services. These special services include: recycling, bulk removals, tank cleaning, analysis/testing and profiling of wastes, contractor supplied containers, lab packing, special collection routes and management services.

b. Generating activities requiring one or more of the above services should identify requirements to the servicing DRMO.

F. IMPLEMENTATION OF RCRA

1. Permits

a. The installation commander is responsible to ensure compliance with all RCRA requirements of the installation, to include tenant activities. Tenants are responsible for conducting their activities in accordance with RCRA and the permit requirements at the facility. Tenants shall provide necessary documentation, signed and completed, to the host for permit applications, and for reports as required by EPA or the state. Submittals shall be in the format required by the regulatory agencies.

b. The individual facility operational managers are responsible for conducting their activities in accordance with RCRA. Those facility managers, including tenants, shall provide necessary documentation to the installation commander for permit applications, shall provide to the installation commander reports required by EPA or the state, and shall ensure compliance with RCRA regulations and permit requirements at that facility.

c. The installation commander shall sign as the owner and DRMS Region Commanders shall sign as the operator, as applicable.

2. HW Management Plan. Implementation of the comprehensive HW management program, requires maximum cooperation of all activities on an installation. The following guidance applies to development and implementation of a HW Management Plan:

a. The installation commander is responsible for developing and implementing a HW Management Plan to include all tenants on the installation. This plan shall identify and implement HW management actions required by RCRA. Tenants are responsible for providing input to the installation commander for their portion of the plan.

b. All tenants shall comply with applicable portions of the HW Management Plan and ensure that internal operating procedures are consistent.

c. The DRMO Chief shall ensure that inspections, safety precautions and actions, records, etc., as established in the installation HW Management Plan, are accomplished for HP for which the DRMO has physical custody and accountability.

d. For HP received in place by the DRMO, the activity having physical custody shall be responsible for the required periodic inspections, care, and protection of this property until it is disposed of by the DRMO.

e. Required support or assistance that is available at the host installation shall be provided to the DRMO upon request. When the costs warrant, reimbursement may be required.

f. The installation commander is responsible for notifying the DRMO of regulatory findings applicable to the DRMO HP disposal operations, prior to the installation taking action on Notice of Violation, consent agreements, corrective actions, and/or payment of fines and/or penalties.

g. The installation commander is responsible for compliance with Clean Water Act (CWA), preparation of the Spill Prevention Control and Countermeasure Plan, and Emergency Planning and Community Right-To-Know requirements. Provisions affecting DRMO operations must be coordinated with DRMS before permits or reports are submitted to the regulator.

3. Manifesting and Land Disposal Restrictions (LDR) Notification/Certification. An applicable Uniform Hazardous Waste Manifest (UHWM) and any required LDR Notification or Certification shall be prepared to accompany all offsite shipments of HW and shall include a 24-hour emergency notification telephone number. The permit holder (installation commander) has primary responsibility for signing manifests, but may delegate signature authority. However, the DRMO shall co-sign all manifests for shipments of HP on DLA accountable records. In those instances where the permit holder delegates signature authority to the DRMO, only one signature shall appear.

4. Record Keeping and Reporting. Installations shall comply with Federal and state HW record keeping and reporting requirements. Tenants shall submit reports required by the installation's HW Management Plan within time frames established by the installation commander.

All reports to EPA or the state shall be prepared in proper format by the operators and co-signed and submitted by the installation commander.

5. DoD Installations Overseas. Installations overseas do not possess RCRA permits for HW storage and disposal. Installation commanders and tenant activities overseas will comply with the OEBGD or DoD Executive Agent's FGS for the particular host nation in which the installation is located.

G. HAZARDOUS MATERIALS INFORMATION SYSTEM (HMIS)/HAZARDOUS TECHNICAL INFORMATION SERVICES (HTIS)

1. DoDI 6050.5 assigns responsibilities for the establishment and use of a DoD Hazardous Materials Information System (HMIS).

2. The HMIS is the primary DoD tool for compliance with MSDS requirements established in OSHA's Hazard Communication Standard, 29 CFR 1910.1200. There is a wide range of data in the system related to safety, health, environment, storage, packaging, labeling, transportation, precautions for use, and disposal of hazardous items. Although the HMIS data are key to the proper management of HM, they must be used in conjunction with other resources, such as occupational safety and health standards, criteria documents, and other technical guides. The very fact that the items identified in this system are hazardous dictates the extra degree of caution imposed by the laws which require that such information be readily available to persons working with or near such substances.

3. HMIS data are available on compact disk-read only memory (CD-ROM) which are updated and distributed quarterly. Items in HMIS are identified by NSN, manufacturer, and part number (trade name) and are sequenced by NIIN. For subscription information, call the number below.

HMIS MSDS Inquiries: DSN 695-4371 CD-ROM HOTLINE: DSN 695-5735

4. HTIS is a DLA managed and operated information source for DoD personnel. Specifically, HTIS provides DoD personnel with responses to questions on safety, health, transportation, storage, handling, regulatory, disposal, and environmental considerations of HM and HW. (Available on the WWW at: http://www.dscr.dla.mil/htis/.)

For telephone inquiries, call HTIS at:

(800) 848-4847(804) 279-5168(DSN) 695-5168

10-14

DoD 4160.21-M

H. US ARMY CENTER FOR HEALTH PROMOTION AND PREVENTIVE MEDICINE (USACHPPM) MILITARY ITEM DISPOSAL INSTRUCTIONS (MIDI).

1. The MIDI group at the USACHPPM provides disposal guidance for Army and other DoD activities. The MIDI/MEIS (Military Environmental Information System) CD-ROM provides methods of destruction for the disposal of hazardous and non-hazardous items used within the DoD. The MIDI system aids the preventive medicine officer and the logistician in proper disposal of outdated medical and non-medical items. The database also serves the DRMS in their disposal mission. Additional information on the CD includes information papers, and summaries of federal environmental regulations.

2. Further information. For further information on the contents of the MIDI CD-ROM disc, or to request disposal guidance on items not yet in MIDI, please contact a MIDI project officer at DSN 584-3651, commercial (410) 671-3651, or FAX (410) 671-5237. The Naval Computer and Telecommunications Area Master Station Atlantic (NCTAMS LANT) provides production and distribution of the MIDI CD-ROM disc for USACHPPM. To request addition to the CD-ROM mailing list, please contact NCTAMS LANT at DSN 565-9192, commercial (804) 445-9192, or FAX (804) 444-2835. (Available on the WWW at: http://chpmmeis.apgea.army.mil/mididb/midi_query..postgres95.html.)

ATT 1 CHAP 10 DoD 4160.21-M

SPECIAL TURN-IN REQUIREMENTS

Applicability:

a. Turn-In Requirements. The property described in this Attachment will be turned-in in accordance with the requirements provided in paragraph D, this chapter.

b. Regulated Property Located Overseas. The regulatory requirements pertaining to the property in this Attachment are based on U.S. laws and regulations. DoD components overseas are required to comply with these requirements to the extent that environmental management of the property is consistent with, and does not contradict, host nation laws and regulations as established by the DoD Executive Agent's FGS promulgated per the DoD OEBGD.

1. ASBESTOS

a. Asbestos presents a risk to human health as a result of air emissions. It is toxic by inhalation and is an active carcinogen. Asbestos-containing products, asbestos-containing material and nonfriable and friable asbestos waste are regulated for use and disposal by the Toxic Substances Control Act (TSCA) 40 CFR 763, Subpart I, the OSHA (29 CFR 1910.1001), the Clean Air Act (CAA) (40 CFR 61), and in some states, by state regulations. Definitions of asbestos, and the various categories of its physical state causing it to be regulated, are found in the cited Federal regulations.

b. Asbestos-containing materials and friable asbestos waste may be turned-in to DRMOs under the following conditions:

(1) Generators identify nonfriable asbestos property on the DTID, block 27, as Asbestos Containing Material (ACM) (non-friable). If the asbestos has become friable, the generator will mark block 27 "friable asbestos."

(2) Generators will manage asbestos-containing property separately from other property. No scrap operation should take place when removing or relocating asbestos property which could release loose asbestos fibers or dust thus causing the asbestos to become friable.

(3) ACM in poor condition (i.e., the binding of the material is losing its integrity as indicated by peeling, disassembling, tearing, alteration, cracking or crumbling) is to be treated as

friable asbestos. Also, non-friable asbestos-containing products or materials which have been or will be subjected to sanding, grinding, cutting, or abrading will be treated as friable asbestos.

10.1-1

(4) OSHA warning labels on impermeable containers will comply with 29 CFR 1920.1001 and state: "DANGER. CONTAINS ASBESTOS FIBERS. AVOID CREATING DUST. CANCER AND LUNG DISEASE HAZARD."

(5) Packaging, labeling, and shipping papers for off-site transportation of asbestos will be in accordance with DoT (49 CFR 171-173) and EPA (40 CFR 61).

(6) Friable asbestos waste will not be offered for RTDS or downgraded to scrap. Disposal actions will comply with the asbestos waste disposal standards per 40 CFR 61.150.

2. ASBESTOS CONTAMINATED SAFES/FILE CABINETS

a. Some manufacturers of file cabinets/safes, used asbestos as a fireproofing insulation prior to the EPA ban on use of asbestos. File cabinets/safes manufactured by Remington Rand, and Diebold should be considered to contain asbestos unless proven otherwise through analysis, etc.

b. Prior to turn-in, generators have the option of treating unidentifiable items as "worst case" and fund for disposal, or have the analysis performed. The safes/cabinets will be processed direct to ultimate disposal with all disposal costs funded by the generating activity, unless proof is provided that they do not contain asbestos. DRMOs may physically accept this property provided the requirements of paragraph 1.b (1) and (2) are met.

3. BATTERIES (Also see Item 33, Universal Waste Standards.)

a. See Technical Bulletin TB-43-0134, Battery Disposition and Disposal, or the latest Safety-of-Use/Ground Precautionary Message, and/or Maintenance Advisory Message. The proponent organization is the U.S. Army Communications-Electronics Command, ATTN: AMSEL-LC-LM-LT, Fort Monmouth, New Jersey 07703-5005.

b. Except as otherwise stated, batteries shall be turned-in to a DRMO as either HM or HW. This will depend upon various factors such as: the type of battery and its characteristics; the condition of the battery (used/unused); the management of the battery (e.g., universal waste or Subtitle C); and the intended disposition of the battery.

(1) Batteries must be non-leaking, safe to handle, adequately secured to pallets or placed/overpacked in containers.

(2) Batteries turned in as HW must have either an HWPS or MSDS. Batteries turned-in as HM should have a MSDS if available from the manufacturer or the HMIS. Batteries turned-in as universal waste can have either a HWPS or MSDS or any other information to identify material hazards.

(3) Battery types and chemistries must not be commingled (e.g., lead-acid batteries should not be commingled with nickel-cadmium or BA-5588/U Lithium-Sulfur Dioxide (LiI-SO₂) batteries should not be commingled with BA-5590/U or BA-5598/U LI-SO₂ batteries or any combination thereof, etc.).

c. DRMOs will accept physical custody of HW batteries only when the DRMO possesses conforming storage. Custody of batteries classified as HM will be accepted at DRMOs with conforming storage, most nearly conforming storage, appropriate general warehousing, or outside storage where batteries can be safely stored. DRMOs without storage capability will accept accountability only.

d. Lead-Acid Batteries (including sealed automotive batteries)

(1) DRMOs will accept physical custody of undrained lead-acid batteries, provided most nearly conforming storage is available, i.e. ensures protection from freezing, rupturing, and contamination of storage areas or surface water. Generators are not required to drain these batteries prior to turn-in if the DRMO has most nearly conforming storage.

(2) Batteries shall be packaged in either individual weather-resistant fiberboard boxes or wooden boxes and be properly secured on pallets.

(3) Batteries will not be stacked more than three layers high per pallet (not to exceed 3,000 lbs per pallet). Stacking height must not exceed 1 1/2 times the width of the stack. Battery terminals must be protected from external short circuits by proper stacking. Batteries placed on pallets must be secured regardless of height by methods which protect against short circuits and firmly secures the batteries to the pallet. Batteries stacked on pallets must not use the battery terminals to support weight.

(4) If the DRMO does not possess most nearly conforming storage capability which protects the undrained batteries from freezing, the generator will maintain physical custody of the undrained battery and the DRMO will accept accountability only.

e. Lithium-Sulfur Dioxide Batteries

(1) Lithium batteries can be divided into the following categories: balanced or unbalanced. Unbalanced lithium batteries are regulated as HW, unless managed as a universal waste. Balanced lithium batteries can be regulated as either a HW or as a non-hazardous solid waste if the battery contains a Complete Discharge Device (CDD) and has been properly discharged. Lithium batteries that have a CDD and have been properly discharged do not possess the characteristic of ignitability or reactivity. Lithium batteries that do not contain a CDD cannot be completely discharged and are still considered as reactive.

(2) DRMOs will take accountability and physical custody of balanced lithium batteries only under the following circumstances:

(a) The batteries are properly identified and include a certification on the DTID by the turn-in activity that the batteries are "balanced cell batteries."

(b) They are in the original container, if unused, or in fiberboard boxes or plastic bags if used.

(c) The DRMO has conforming storage.

(3) Lithium-Sulfur Dioxide batteries with CDD. These batteries contain a discharge switch which, when activated, usually renders the battery non-hazardous for reactivity by RCRA definition. In order to turn-in a lithium-sulfur dioxide battery with a CDD as nonhazardous, generators must verify that the battery was discharged in accordance with technical instructions.

(4) DRMOs will take accountability but not physical custody of unbalanced lithium batteries.

f. Magnesium Batteries

(1) Magnesium batteries shall be turned-in as either HM or HW depending on how they will be managed for disposal. The level of charge remaining determines whether the batteries will be disposed of as HW or as non-hazardous solid waste. To minimize the amount of magnesium batteries disposed of as HW, generators shall identify, at the time of turn-in, whether the batteries are used or unused, have greater or less than 50 percent of charge remaining, or are totally discharged.

(2) Magnesium batteries, including used batteries with less than 50 percent of the original charge, with RTDS potential, shall be turned-in as HM. Unused or damaged batteries that have greater than 50 percent of the original charge remaining, which do not have RTDS potential, shall be disposed of as HW, under RCRA Subtitle C, unless managed as a universal waste under the Universal Waste Standard.

(3) If information pertaining to the charge is not available, the batteries will be disposed of as HW.

(4) Magnesium batteries can give off hydrogen gas, accordingly they can be dangerous if stored in air-tight containers. Generating activities shall turn-in these batteries in containers which are not completely air-tight.

g. Mercury Batteries. Mercury batteries may be turned-in as either an HM or an HW depending on whether the battery is used, unused, or how it will be managed or recycled. Mercury batteries shall not be packaged in sealed, air-tight containers. DRMOs will not accept mercury batteries which exhibit bulging of the positive terminal or are air tight in their plastic sleeves unless they are properly packaged and rendered safe to handle by the turn-in activity.

h. Nickel Cadmium (NICAD) Batteries. NICAD batteries have the same turn-in requirements as undrained lead acid batteries except that DRMOs will not accept custody of these batteries where temperatures below -40 degrees F can be expected during the time the DRMO will have custody of these batteries.

i. Silver-Bearing batteries. Silver batteries will be turned-in as either HM for RTDS, HW for disposal, or for precious metals recycling, depending on whether the battery is used or unused, how it will be managed or recycled. In most cases, silver bearing batteries are managed for precious metals recovery. Silver batteries sent for precious metals recovery are exempt from Subtitle C HW are regulated under 40 CFR 266.70 (Subpart F), regardless of any other hazardous characteristic the waste may exhibit. Batteries destined for silver recovery are not classified as a HW but they are regulated by the DoT. DRMOs will accept accountability but not physical custody of Navy propulsion batteries containing silver. These batteries contain explosive devices, squibs, charges, etc., and are dangerous to process and store. Generators will retain physical custody until shipping instructions and fund citations are received from DRMS.

j. Thermal Batteries. All thermal batteries are to be retained under DoD control and must not be reported as excess property or be made available for disposal as surplus. Thermal batteries listed in FSC 6135 shall be reported to the IM for disposition instructions. DRMOs will not accept these batteries until they have been rendered inert by the generating activity or service designated collection points. Generators must identify whether these batteries contain asbestos upon turn-in. Scrap residue resulting from these batteries shall be accepted by the DRMO.

4. BLAST MEDIA

a. Spent blast media often exhibits toxicity characteristics from contaminants such as chromium, lead, mercury, arsenic and/or other toxic contaminants listed at Subpart C 40 CFR 261.24, Table 1. To ascertain toxicity levels of the contaminants, representative extracts of the waste are analyzed for the constituents that are regulated utilizing the Toxicity Characteristic Leaching Procedure to determine the toxicity levels of the contaminants.

b. Blast media, used in paint removal operations, will be processed directly to HW disposal, if it contains waste listed as a HW in Subpart D of 40 CFR 261, or if exhibits any of the HW characteristics identified in Subpart C of 40 CFR 261.

c. Blast media, which is identified by the turn-in activity as nonhazardous, must be accompanied with a Toxicity Characteristics Leaching Procedure lab analysis demonstrating it does not meet the definition of a regulated HW per 40 CFR 261 or state regulations. Nonhazardous blast media may be processed for RTDS.

5. CARBON COMPOSITE FIBER MATERIAL

a. Carbon composite fiber material is made of long carbon fibers mixed with bonding and hardening agents (i.e., epoxy resins). The materials used consist of composite carbon/graphite, carbon/boron, boron/tungsten. This forms a very strong light-weight plastic. Primary items containing these fibers are aircraft (skin), wrecked aircraft residue and Kevlar (R) personal protective equipment. Disposal of this material may occur as usable items/components or as wrecked aircraft residue. The health hazards associated with composite fibers appear to be similar to the effects of fiberglass. Inhalation of carbon fibers can result in bronchial irritation. The material is sharp when broken and can cause skin irritation. Airborne fibers caused by burning are smaller than fibers created by cutting and can more easily enter deep into the lungs when inhaled. Burning of carbon composite material creates hazardous decomposition products that create a health hazard when inhaled.

(1) The host environmental office should be contacted regarding applicable state or local environmental regulations, prior to beginning work which may release fibers.

(2) In states where this property is regulated, the generator will fund for HW processing.

b. Categories of composite fiber property

(1) Usable. Only undamaged composite fiber property will be turned in to the DRMOs. If property has exposed areas which could be considered friable, it is to be processed as damaged.

(2) Demil residue/damaged material: Material in this category may be turned in to the DRMO provided the property has been: treated with a fixative (e.g., water and floor wax), bagged in durable plastic or covered with shrink wrap and; sealed and labeled appropriately prior to turn-in. The turn-in will contain a certification that the material has been treated with a fixative. Composite fibers which are bagged should be disposed of as refuse by the generator.

6. CHEMICAL DEFENSE EQUIPMENT (CDE)

a. CDE Kits

(1) The chemical components in the CDE kits which are a RCRA or state regulated HW when discarded will be turned in to the DRMO for disposal on service contract. Only those kits which are no longer in usable condition should be turned in for disposal, as follows:

(a) The hazardous constituents in the kits are identified by the turn-in activity with the applicable RCRA waste codes per 40 CFR 261, and if applicable, by state waste codes.

10.1-6

DoD 4160.21-M

(b) Generators will coordinate with the item manager prior to turn-in of CDE kits

to determine specific kit separation requirements. Some CDE kits may be turned-in and managed as a whole kit for disposal, and some may require removal and/or separation of individual components for DEMIL and/or disposal. If separation is required, each commodity will be turned in on a separate DTID marked as "HW" in block 4.

(2) The property will be coded DEMIL "F." The method of DEMIL is the actual disposal by the HW disposal contractor at an RCRA permitted disposal facility.

(a) DEMIL certification will be done on either DRMS Form 1668, DD Form 1155, or DD Form 1348-1A. The DRMO Contracting Officer's Representative will be the certifier and the next level of authority, up through the DRMO Chief, will be the verifier. The DEMIL authority to be placed on the certification will be: "I certify that this property has been released for transportation to a permitted landfill/incinerator for ultimate disposal, in accordance with standard EPA requirements, which will constitute Demilitarization. The HW manifest and certificate of disposal will serve as documentation that demilitarization has been accomplished.

(b) DRMOs may accept physical custody (if the DRMO has an interim or Part B RCRA facility permit) of the HW components from the CDE and process these directly to disposal service contract. Turn-in activities are urged to contact the local DRMO prior to turn in to ensure identification and disposal turn in requirements are complete. Additional information concerning CDE may be requested from the IM, USA Armament and Chemical Acquisition and Logistics Activity, ATTN: AMSTA-AC-CTC, Rock Island Arsenal, Rock Island, Illinois 61299-7630, telephone (DSN) 793-2103/4475, Commercial (309) 782-2103/4475.

b. Protective Masks and Filters

(1) Usable Protective Masks in condition codes A and B. CDE containing ASC whetherite charcoal in condition codes A and B will receive the following processing:

(a) Accountability (only) of the property will be transferred to the DRMO. DRMOs will offer the property for reutilization to DoD activities, law enforcement activities under 10 USC 2576a, for sale to local law enforcement and firefighting activities under Public Law 90-500, and for foreign military sales.

(b) Canisters/filters will not be removed from the protective masks by the holding activity until it is determined that there are no requirements for items in condition codes A and B.

NOTE: ASC is not an acronym, but a specific designator for activated carbon that has been impregnated with a type of ASC solution which is a mixture of copper, chromium and silver.

10.1-7

DoD 4160.21-M

(2) Waste Disposal of ASC Filters. If the protective masks are not issued as indicated above, the generating activity having custody of the property will remove and properly package

the ASC filters as hazardous waste (chromium 6, waste code D007 chromium) for turn-in to the DRMO as follows:

(a) Prepare a separate DD Form 1348-1A for the waste filters following the instructions given at paragraph (3) (a)-(e) below and in paragraph D of this chapter.

(b) Transfer custody of the masks (with filters removed) to the DRMO for demilitarization of the mask itself, i.e., slashing the face piece of the mask with a cut of no less than four inches directly below the eyepieces.

(3) Turn-in instructions for CDE

(a) The turn-in activity is responsible for removal of filters, canisters and filter systems prior to turn-in. End items (gas masks, shelters, vehicles, etc.) will not be accepted with filters, canisters or filter systems attached.

(b) Large filters (e.g., shelter, hospital, etc.) which cannot be placed in drums will have all inlet and outlet ports sealed. If damaged/broken, the entire filter will be sealed in plastic wrap, to a thickness of 6.0 mil. minimum, and the DRMOs will take accountability but not physical custody of this property.

(c) The DTID must contain a valid NSN.

(d) The property will be coded DEMIL F. The method of DEMIL is the actual disposal by the hazardous waste disposal contractor at an RCRA-permitted disposal facility.

(e) DEMIL certification is the same as in paragraph a(2)(a) above.

7. CHLOROBROMOMETHANE/BROMOCHLOROMETHANE (CB). Liquids and fire extinguishers that have not been drained of all residues and depressurized by removal of the valve assembly will go directly to waste disposal contract. DRMOs will accept accountability, but not physical custody of these items.

8. COMPRESSED GAS CYLINDERS. Generating activities shall turn in, and DRMOs shall process, compressed gas cylinders in accordance with the joint regulation, DLAR 4145.25/AR 700-68/NAVSUPINST 4440.128C/MCO 10330.2C/AFR 67-12, Storage and Handling of Compressed Gases and Liquids in Cylinders, and of Cylinders.

10.1-8

DoD 4160.21-M

9. CONTAINERS (EMPTY)

a. Turn-In Requirements:

(1) Containers shall be turned in under one of the following categories:

(a) Nonhazardous containers. Containers whose last contents are known to have been a nonhazardous material or containers which previously contained hazardous or acutely hazardous material that have been triple rinsed by a scientifically approved method or have had the liner removed.

(b) Hazardous containers. Containers that have previously contained materials that are hazardous by any Federal or State definition that have not been triple rinsed with a proper solvent, cleaned by a scientifically approved method or have had the liner removed.

(c) Acutely hazardous containers. Containers that have contained any of the material listed in 40 CFR 261.31, 261.32, or 261.33(e) and have not been triple rinsed with a proper solvent, cleaned by a scientifically approved method, or have had the liner removed.

(2) The DTID for all disposal categories shall reflect the NSN or FSC of the container itself regardless of its previous contents. The NSN or FSC of the container's previous contents must not be used.

(3) Containers when turned in to a DRMO. The containers must be nonleaking, safe to handle and able to withstand normal handling, otherwise the DRMO may reject turn-ins.

(4) Containers that have previously held hazardous or acutely hazardous materials and have not been triple rinsed, cleaned by an equivalent method approved by EPA, or have had the liner removed must have all bungs, gasket seals, covers, etc., in place. Waivers to this policy may be granted on a case-by-case basis by the DRMO under the following circumstances:

(a) Containers shall be transported onsite only.

(b) The generator is adversely impacted by compliance and furnishes the DRMO with details (that is, location, description, quantity, and extent of impact).

(c) The DRMO has the necessary equipment (such as bungs) to seal the containers upon receipt.

(5) Markings/labels on the containers must be consistent with the DTID.

(a) For nonhazardous containers, the turn in activity shall certify in block 4 of the DTID "NON-HZ." $\,$

10.1-9

DoD 4160.21-M

(b) If the container has been triple rinsed, block 4 shall reflect "NONHZ/TRIPLE RINSED" and the container itself shall be marked "triple rinsed."

- (6) For hazardous containers, the following shall apply:
 - (a) Block 4 of the DTID shall be coded "HM."
 - (b) Block 27 of the DTID must identify:
 - $\underline{1}$ That the container is empty.
 - 2 Layman description of the container, such as 55-gallon metal drum.
 - $\underline{3}$ NSN or FSC and noun name of the previous contents.
- (7) For acutely hazardous containers, the following shall apply:

(a) Block 4 of the DTID shall be coded "HW" and the turn in shall be manifested to the DRMO unless transported onsite.

- (b) Block 27 of the DTID must identify:
 - <u>1</u> That the container holds "residue" only.
 - 2 Layman description of the container, such as 55-gallon metal drum.
 - 3 NSN or FSC and noun name of the previous contents.

(8) Triple Rinse. Triple rinsing of empty containers which previously contained hazardous or acutely hazardous contents is not a turn-in requirement, but an option which can increase its RTDS potential. DRMS does not require triple rinsing for turn-in of any container. However, if the generator elects to triple-rinse containers before they are turned in, they can be turned in under the nonhazardous procedures and do not require sealing. All rinsate generated from triple rinsing acutely hazardous waste containers shall be managed as a HW under 40 CFR 261.3(a)(2). In addition, the rinsate may also exhibit additional hazardous characteristics depending upon the type of solvent utilized for rinsing.

(9) Scrap. Only nonhazardous empty containers can be managed as scrap. This can be either containers whose previous contents were nonhazardous, tripled rinsed containers, or containers with their liners removed.

10.1-10

(10) Crushed Containers. Empty containers in good condition should not be intentionally crushed. Generators should coordinate with their local DRMO to determine RTDS potential prior to crushing containers. Crushed containers may only be turned-in under the following conditions:

(a) The crushed container previously held a non-hazardous material, the generator identifies the material, ant the generator certifies in block 4 of the DTID "NON-HZ."

(b) The crushed containers must be non-leaking, free of oily residue, sludge, or solid residue which can be scraped off the container. Crushed containers shall be collected and turned in separately from other scrap items and shall be safe to handle and store.

(c) If the crushed containers previously held an HM or an acutely hazardous material and have not been triple-rinsed with an appropriate solvent, cleaned by an equivalent method or had the liner removed, they may not be turned in as scrap. If a container containing an acutely hazardous material is crushed, the generator must totally seal the container or make it safe to handle; (i.e., overpack crushed container) and turn it in under the container procedures outlined for acutely hazardous materials.

b. Storage. DRMOs will accept physical custody of empty hazardous or acutely hazardous containers when storage is available.

10. DENTAL AMALGAM (RESERVED)

(Contact applicable Military Service representative, chapter 2, attachment 1.)

a. Dry Amalgam (also, see Dental Material, Chapter 4, Property Requiring Special Processing, paragraph B18).

11. DRUGS AND BIOLOGICALS (FSC 6505) (RESERVED) (Contact applicable Military Service representative, chapter 2, attachment 1.)

12. EPINEPHRINE SHARPS (When epinephrine is the sole active ingredient)

a. Unused epinephrine sharps are considered noninfectious and may be turned in to DRMOs for disposal.

b. Unused, shelf life expired epinephrine sharps will be contained in impermeable containers that are sealed, marked, and labeled as P024 HW.

c. The HW characteristic of epinephrine takes precedence over the fact that it is contained in a sharp.

d. Used epinephrine sharps are considered medical waste and disposal is the responsibility of the generating component.

e. Additional information on sharps is available through MIDI (see paragraph H, this chapter).

NOTE: See Chapter 4, Property Requiring Special Processing, paragraph 35, for general instructions on disposal of Hypodermic Needles and Syringes ("Sharps").

13. FLUORESCENT LAMP BALLASTS. Fluorescent lamp ballasts may contain PCBs regulated by 40 CFR 761. In fluorescent fixtures, PCBs may be found in ballasts either within small capacitors or in the form of a black, tar-like compound.

a. In determining if ballasts contain PCBs the following guidelines apply: All ballasts manufactured through 1979 contain PCBs; ballasts manufactured after 1979, that do not contain PCBs are labeled "NO PCBs"; if a ballast is not labeled "NO PCB," it should be assumed to contain PCBs >500 ppm. If more information is needed, the manufacturer should be contacted.

b. Nonleaking PCB ballasts are not regulated under the PCB rules. Disposal may be in a municipal solid waste landfill if properly packaged in sealed containers; however, these items are regulated under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA); in the event there are leaks, under CERCLA the release of one pound of PCBs or approximately 12-16 ballasts is a reportable quantity subject to reporting to the National Response Center. A generator may become liable under CERCLA for throwing away PCB-containing ballasts in a dumpster or local landfill. The EPA Green Lights program recommends use of high-temperature incineration, a chemical or HW landfill, or recycling as responsible waste management.

NOTE: In 1991, EPA initiated a voluntary energy conservation program know as "Green Lights" to encourage pollution prevention through the use of energy efficient lighting. Government agencies participating in this program are responsible for disposing of their used lighting materials in compliance with applicable regulations when upgrading to new energy saver lighting.

c. Ballasts marked "NO PCB" should be segregated, handled and managed separately from PCB light ballasts, to avoid PCB contamination in the event of a PCB ballast leaking.

d. Leaking ballasts are items in which PCBs have escaped from the interior onto the exterior of the surface. PCBs are a clear or yellow oil, and most PCB leaks are visible. If there is oil on the surface of a PCB ballast, it is considered a "leaker" and must be managed as a PCB waste. Non-leaking PCB light ballasts and leaking PCB ones must be segregated in separate packaging and a separate DTID shall be prepared.

e. Leaking ballasts. If the ballasts are damaged or leaking at the time of removal or turn-in, they are regulated under the PCB rules, 40 CFR 761, for disposal as PCB waste.

f. Turn-in activities shall properly identify, package, mark and/or label containers of non-leaking and leaking PCB light ballasts in accordance with 40 CFR 761. State regulations should be checked since some state regulations on PCBs may be more stringent than the Federal regulations. This property will not receive RTDS processing but will be placed directly on disposal service contract.

g. DRMOs shall RTDS lighting ballasts which are marked as having "NO PCBs" which are unused or in serviceable condition. If these items fail RTDS, they may be downgraded as scrap.

14. FLUORESCENT LIGHT TUBES AND HIGH INTENSITY DISCHARGE LAMPS (HID)

a. Currently, fluorescent light tubes and HID lamps are neither listed nor excluded as HW under EPA regulations. Some states have specific regulations in the absence of federal regulations. State regulations should be checked prior to disposal. This type of property contains mercury, cadmium, antimony and other metals, which when contained in the items at or above the toxic levels listed in 40 CFR 261 (e.g., mercury is an RCRA characteristic HW (D009)), are regulated as an HW when discarded.

b. Prior to discard and disposal, unused or serviceable tubes and lamps can be packaged, handled and stored safely without being managed as HW. Unused or serviceable fluorescent lamps may be processed for RTD or sale. The lamps scheduled for RTDS shall be placed in replacement lamp cartons, when available. When lamp cartons are not available, the lamps shall be placed in bundles of 20 lamps and wrapped with a plastic cushion wrap to prevent breakage.

c. Small quantities of fluorescent lamps and HID lamps can routinely be disposed of in municipal solid waste landfills by generating activities, as long as the waste does not fail Toxicity Characteristics Leaching Procedures and becomes classified as HW. The lamps may not intentionally be shattered. Generators disposing of their own lamps as municipal or household waste should seek guidance from their host installation environmental branch prior to disposal.

d. Fluorescent lamps and HID lamps which fail RTDS shall be considered for recycling at a permitted or licensed recycling facility or disposed of as HW on a disposal service contract.

15. LAB PACKS FOR SMALL QUANTITY CHEMICAL ITEMS. The special lab pack procedures set forth below should facilitate the turn in of small quantities of chemicals (items less than 1 gallon or 7 pounds in weight) to DRMOs. This procedure enables the turn in activity to prepare just one DTID for the chemicals, including those noncontrolled, condemned, HW in FSC 6505. This should significantly reduce the documentation and transportation efforts for both the turn in activity and the DRMO.

10.1-13

DoD 4160.21-M

a. The generating activity shall not lab pack for turn in. All lab packing shall be done by

DRMS' commercial contractors.

b. Lab Packing by Commercial Contractor. The contractor shall perform the lab packing of chemicals with the DRMO taking accountability on a "wash-post" basis before contractor removal. The DRMO Contracting Officer Representative shall monitor these procedures while the generator shall have an observer present. A list of chemicals must be attached to the DTID as each lab pack is filled.

c. The generating activity shall pre-coordinate the turn in with the DRMO, so that the DRMO can determine whether or not the items in the lab pack can bypass the disposal cycle and move directly to disposal by service contract. Pre-coordination should be done well in advance of the actual turn in to allow the contractor sufficient lead time to assess the need for equipment and supplies necessary to accomplish the lab packing. The generator shall provide a list of the property to be turned in as a part of the pre-coordination process. The list, which shall include the chemical name, weight, and volume of each item, may be transcribed onto a blank sheet of paper. (See paragraph "e" below for LDR changes for lab pack preparation and disposal.)

d. The generating activity shall prepare a DTID for each lab pack and attach the list of the chemicals to it. On the DTID, the generator should use an LSN, which should consist of the FSC, National Codification Bureau Code (NCB), and the hazard class. If a requirements contract is in place, the DRMO and the generator should assure that the hazard class matches a CLIN in the disposal service contract. The chemical name shall be "lab pack"; unit of issue should be "DR" (drum), and the quantity "1" (one).

e. Lab packs are subject to the LDR. An EPA final rule, 19 Sep 94, changed the LDR notification and requires new certification requirements for lab packs to correspond with changes EPA made to regulations determining what goes into a lab pack. The final rule replaced 40 CFR 268 Appendix IV and V with a new Appendix IV which list the waste codes that are prohibited from going into a lab pack. Lab packs must be treated to the standards in 40 CFR 268.40 or they can be handled under the alternative treatment standard in 40 CFR 268.42(c). If lab packs are handled under the alternative treatment standard in 40 CFR 268.42(c), a lab pack notification form found in 40 CFR 268.7(a)(8) and the 3 Jan 95 technical amendments must be used. In general, the certification states that the lab pack does not contain any wastes identified in Appendix IV to part 268.

16. LIQUID ROCKET PROPELLANTS AND ASSOCIATED PRODUCTS

a. Liquid rocket propellants including aniline, furfuryl, alcohol, hydrazine, UDMH, and JP-X shall be destroyed in accordance with instructions provided by the managing Military Service.

10.1-14

b. Destruction of liquid rocket propellants shall be accomplished with the cognizance of the director of medical services of the host installation.

c. Associated Products

(1) Fuming nitric acid (including that which has been administratively condemned), liquid oxygen, and liquid nitrogen possess commercial use and must not be destroyed until the DRMO has made a determination of salability.

(2) Otto fuel II at all concentrations may be turned in to the DRMO. Otto fuel II is a non-explosive, low fire hazard material. However, because of its Propylene Glycol Dinitrate component, it must be disposed of as an RCRA HW (toxic). DRMOs shall accept accountability, but not physical custody, of this material.

(3) Hydrazine solutions containing 22 percent or less hydrazine may be turned in to the DRMO. DRMOs shall accept accountability, but not physical custody, of this material.

17. MEDICAL WASTE

a. Infectious Medical Waste. Disposal of infectious medical, veterinary, hospital generated, or bio-hazard wastes are the responsibility of the generating DoD component. DRMOs have no responsibility for this type of HP (see paragraph B.1j(8)).

b. RCRA or State Regulated Infectious Hazardous Waste

(1) Generating activities shall identify their requirements to the DRMOs for disposal of infectious waste, which is also a HW. Infectious waste and infectious waste mixtures which meet the definition of a HW, under RCRA Subtitle C or state regulations, are normally regulated by the individual states where the waste is generated. In cases where the State hazardous waste characterization takes precedence over the infectious waste classification, DRMOs may accept accountability (for service contract disposal) but not physical custody. All contaminants must be listed on the HWPS.

(2) For overseas activities, mixtures of infectious medical wastes and hazardous wastes will be handled as infectious, according to the OEBGD and respective FGS

(3) Non-infectious medical, veterinary, or used laboratory solvents and solutions, which are RCRA or state regulated HW (e.g., alcohol, formalin, formaldehyde, and xylene), as a result of laboratory tissue processing, may be turned in to the DRMO. Tissue or particulate present in the waste must be filtered out and disposed of as a pathological waste prior to turn-in. All contaminant must be listed on the HWPS and the DTID. An authorized medical officer shall certify on the HWPS that the waste is non-infectious.

(4) DRMOs shall accept accountability and physical custody if the waste or waste code is listed in the storage facility permit and sufficient storage space is available. Fractional distillation is the preferred method for recycling xylene and other solvents generated by medical laboratories. It is recommended that this method be used where available, instead of turn-in to the DRMO.

18. MERCURY VAPOR LAMPS. Each mercury vapor bulb contains between 29 and 100 mg of mercury depending on its wattage rating. Because the bulbs are pressurized, when one is broken a large part of the mercury is atomized and enters the atmosphere. High pressure sodium bulbs are hazardous also since they contain between 17 and 30 mg of mercury.

a. Turn-in activities shall remove the mercury vapor bulbs or sodium bulbs from light fixtures (intact or broken) and turn-in the items separately. The bulbs are easily broken during handling if left in the lighting fixture.

b. Unbroken mercury vapor and high pressure sodium lamps shall be packaged in sealed plastic bags and placed in an outer package to avoid breakage.

c. Broken bulbs shall be turned in as HW following the turn-in, waste identification and transportation requirements outlined in this chapter.

d. Recycling. Mercury vapor lamps may be sent for mercury reclamation to a permitted or licensed recycling facility.

19. METALWORKING MACHINES (see Chapter 4, Special Processing Requirements, paragraph B43)

20. OIL

a. Synthetic Jet Engine Oil MIL--7808 and MIL-L-23699. These oils contain tricresyl phosphate which produces paralysis if taken internally. The containers for these synthetic fluids must not be used as containers for food. Any sale solicitation or contract for these oils shall contain pertinent precautionary information in the property description.

b. Used Oil. Although used oil destined for disposal or recycling is not listed as HW, established standards for managing used oil are at 40 CFR 279 and various state regulations.

(1) Used oil turned in to the DRMOs shall be processed for RTDS.

(2) When used oil is mixed with any quantity of a listed waste, listed in Subpart D of 40 CFR 261, the resultant mixture is subject to regulation as HW under 40 CFR 124, 260-268, & 270, rather than as used oil under 40 CFR 279.

10.1-16

(3) Identification of Used Oil. In order to determine the recycling and RTDS potential of used oil certain information is required at turn-in. The DTID, or HWPS for used oil turned in as HW, shall identify:

oil.

(a) Listed HW specified in 40 CFR 261.31, 261.32, 261.33; when mixed in the

(b) Flash Point. Used oils cannot be classified as an HW due only to ignitability or a low flash point. See 40 CFR 279.10(b)(2)(iii). Used oils can be classified as off-specification used oils if the flash point is below 100 degrees Fahrenheit. A flash point of less than 140 degrees may indicate that the used oil was mixed with an HW.

(c) Total halogens. If the total halogens are greater than 1000 ppm, turn-in as HW; if less, turn-in as HM. Used oil containing more than 1000 ppm total halogens is presumed to be an HW because it has been mixed with halogenated HW listed in Subpart D of 40 CFR 261. However, a generator may be able to demonstrate otherwise by complying with 40 CFR 279.10(b) (ii), rebuttable presumption for used oil.

c. Refrigerant contaminated compressor oil from refrigerated equipment may contain residual halogenated substances which cause it to exceed 4000 ppm chlorofluorocarbons (CFC) concentrations. EPA does not require that the halogenated substances be recovered from refrigerant-contaminated compressor oil to comply with the refrigerant recycling rule. This type of oil will be managed under RCRA, 40 CFR 279.10(b)(ii)B.

21. OPENED CONTAINERS. Partially used HM in opened containers, where the packaging integrity has been violated shall normally be disposed of directly on service contract. Exception: A waiver may be given by DRMS for such items which satisfy an RTD requirement or for which an economical, legitimate market exists. Repackaging by the generator may be required and DRMS may require additional documentation such as a lab analysis or HWPS to demonstrate the original material remains intact and was not contaminated or mixed with other HP.

22. ORGANIC PEROXIDES (or other shock sensitive chemicals)

a. DRMOs will take accountability, but not physical custody of organic peroxide chemicals. Additional information and a safety certification will be required for the turn-in of this type of HP, which may be shock sensitive, thermally unstable and/or subject to decomposition.

b. DRMOs will not take accountability (e.g., sign block 22 of the DTID) unless the required information and certification about the stability of the material or waste is provided as follows:

(1) Age of the material and/or shelf life date. Has the shelf life expired?

10.1-17

DoD 4160.21-M

(2) How has the material been stored (e.g., Storage temperature, type of storage area, number and size of containers, has material been opened, if opened, has the material been

stabilized)?

- (3) If applicable, has this material been refrigerated for its entire shelf life?
- (4) If applicable, is there any appearance of crystallization?

(5) A certification, of a duly authorized government representative, or the "knowledgeable person," such as the host's industrial hygienist (IH) or bio-environmental engineer, stating: "In my professional judgement, I certify that this organic peroxide has been inspected or tested by knowledgeable personnel and does not contain explosive components; the material has not chemically degraded to the point that it presents an explosive hazard or danger of self-ignition under normal handling conditions incident to shipment for reuse or disposal."

23. OVERPACKED HAZARDOUS MATERIAL. HM placed in overpacks due to the damaged condition of the original container, such as leaks, dents, rust, bulging, is prohibited from RTDS and will be disposed of directly on service contract. Exception: Large volumes of DS2 which may be sold only for distillation.

24. OZONE DEPLETING SUBSTANCES (ODS)

a. General. The 1990 Clean Air Act, as amended, requires certain substances which have destructive effects on the ozone layer (such as CFCs, halons, carbon tetrachloride, methyl chloroform and Hydrochlorofluorocarbons (HCFCs)) not be vented to the environment and be phased out from production and use over an extended period of time (See Definitions for class I and class II ODS). EPA has issued regulations, at 40 CFR 82, Protection of the Stratospheric Ozone, to limit ODS emissions and to encourage recovery and reclaiming of refrigerants.

b. DoD Reserve for ODS

(1) The DLA has established a DoD ODS Reserve at the DCSR, Richmond, Virginia. DoD components shall turn in to the Reserve the following excess CFCs and Halons: CFCs - 11, 12, 114, 500, 502 and Halons - 1202, 1211, 1301. The reserve accepts both used and unused (new) CFCs and Halons in a relatively pure state (i.e., not as a component of other products). These chemicals may have been purchased under the Federal Supply Classes (FSC) of 6830 and 4210, or from a commercial source. CFC/Solvent -113 (Type I & II) and 1, 1, 1 Trichloroethane (FSCs 6850 and 6810) can also be turned in to the reserve provided they have never been used and the containers in which the chemicals reside have never been opened or unsealed. The reserve will also accept empty associated standard government cylinders. For more information about the ODS Reserve, call commercial (804) 279-5203 or 4255 or (DSN) 695-5203-4525.

10.1-18

DoD 4160.21-M

(2) Recovered refrigerants or halons shall not be used as a form of payment for the performance of a service contractor's recovery service. DLA (DSCR) will provide MILSTRIP disposition instructions for reported ODS excess products.

(3) Refrigerants, halons and ODS recovery cylinders required by the Reserve will not be turned-in to the DRMOs. DRMOs inadvertently receiving "Reserve-required" refrigerants, halons, or recovery cylinders, shall return the property to the turn-in activity for subsequent return to the Reserve. DRMOs will not RTDS any refrigerants, halons, or recovery cylinders which should go to the Reserve, unless instructions are received through DRMS from DSCR that the items are excess property and do not need to be returned to the Reserve.

c. Turn-in of refrigeration equipment to DRMOs. Turn-in of excess property containing refrigerants (e.g., enameled white goods such as household refrigerators, room air conditioners, water coolers) and other refrigeration equipment listed at Attachment 4.

(1) General. The EPA Refrigerant Recycling Regulation, 40 CFR 82.150-166, establishes a recycling program for refrigerants recovered during the servicing and disposal of specific refrigeration equipment (see Attachment 4). This includes a safe disposal requirement (i.e., removing of refrigerants by certified technicians) from refrigeration equipment going to final disposal to a scrap recycler or landfill.

(2) Usable/Serviceable Property. Generating activities should not remove the refrigerant from usable/serviceable refrigeration property. These items shall be processed as normal receipts with the refrigerants intact and shall be processed for RTDS by the DRMO.

(3) Generating activities shall attach the following statement to the turn-in document (DD Form 1348-1A) and to the property identifying the class I or II refrigerant contained in the item:

WARNING: Contains (insert name of substance), a substance which harms public health and environment by destroying ozone in the upper atmosphere.

(4) If the usable/serviceable property fails RTDS and is processed to final disposal (scrap or landfill), DRMS/DRMO shall ensure removal and recovery of the ODS from the property prior to final disposal and that a signed statement is provided giving the information listed in paragraph 24d(1) and (2) below, per 40 CFR 82.156(f)(2). Removal service may be arranged through a turn-in activity or host installation having certified technicians, or DRMS/DRMO may contract the recovery service.

d. Scrap/unserviceable property. The generating activities shall remove or recover refrigerants prior to turn-in of unserviceable or scrap refrigeration equipment, as well as hazardous components (e.g., PCB capacitors, mercury switches, fluids, etc.). Per 40 CFR

10.1-19

82.156(f)(2), generating activities shall provided a signed statement with the following information with the turn-in document. DRMOs shall retain the statement and documentation in their property accounting files.

(1) The name and address of the person who recovered the refrigerant.

(2) The date the refrigerant was recovered.

(3) Additionally, an "EMPTY" label shall be attached to the property to indicate the refrigerant has been removed/recovered prior to turn-in as scrap.

e. Per 40 CFR 82.102(a)(1), a warning statement/label is required on containers containing recycled or reclaimed class I substances (CFCs), halons, carbon tetrachloride, methyl chloroform and class II substances (HCFCs) for transportation and storage. Normally containers containing recycled or reclaimed class I or class II substances should be turned in to the DoD ODS Reserve. However, if not required by the Reserve, and if turned in to the DRMO, the following turn-in requirements apply:

(1) Usable property. Generating activities turning-in containers of recycled or reclaimed class I or class II substances shall ensure that the EPA required container warning statement/label is on the container. The warning statement must be substance specific and the label size must comply with specific requirements in the regulation.

(2) Empty ODS containers. Containers that once contained a class I or class II substance which has been removed from the container and the container itself is now recycled or turned-in as scrap do not require the warning label. If turned in to the DRMO for recycling or scrap, an "EMPTY" label shall be placed on the property. (**NOTE:** Prior to turning-in empty ODS recovery cylinders to the DRMO, generators should check with their respective military service, agency or the DoD ODS Reserve to determine the NSN of empty recovery cylinders which the Reserve wants returned.)

(3) Waste Disposal. Containers containing class I or class II substances or wastes in trace amounts do not require labeling when discarded and sent to final disposal (e.g., incineration, energy recovery or landfill) (FR 60 January 19, 1995, page 4010).

f. Turn-in of ODS products banned as "non-essential" by the Non-Essential Products Ban, 40 CFR 82.60-68.

(1) This part of the regulation defines as "non-essential" specific products which release class I and class II ODS and prohibits their sale or distribution. The regulation also provides exemptions from the ban for specific products under specific conditions. Refer to the applicable parts of the regulation to determine which are banned products or which are exempted

products, the conditions of exemption and applicable effective dates.

(2) Turn-in activities shall identify class I and class II products subject to the nonessential products ban on the turn-in document. The DRMO shall not distribute or sell this type of property, unless exempt from the regulation and the conditions of exemption can be met as outlined in the regulation.

25. PESTICIDES (See also Item 33, Universal Waste Standards.)

a. Turn-in Requirements

(1) DRMOs shall accept pesticides which are properly packaged and safe to handle. Pesticides in broken or leaking containers shall be repackaged before turn in to the DRMO. Repackaged pesticides containers should be stencil-labeled "FOR DISPOSAL ONLY." The following information must be affixed to the container:

(a) NSN-Repackaged (if applicable).

(b) Nomenclature and percent active ingredient.

(c) Type and quantity of rinse solution added to repackaged container (if applicable).

(d) Total quantity in gallons (liquids)/pounds (solids).

(e) Date packaged (month/year).

(2) Suspended pesticides, with no DoD approved uses, and pesticides without Federal Insecticide, Fungicide, and Rodenticide Act labels, and restricted use pesticides bearing the "DANGER" label shall be directly processed to a DRMS disposal service contract.

(3) If a pesticides is manufactured under an EPA exception for the sole use of DoD or a Military Service (Army, Navy, USAF, USMC), the generating activity must enter "DoD use only" or "(Identify Military Service) use only" in block 27 of the DTID.

(4) If maximum pesticide strength has deviated from the labeled amount, the product is considered adulterated and cannot be further used as a pesticide. The generator must indicate "adulterated" in block 27 of the DTID.

(5) Pesticides shall also be stencil-labeled "FOR DISPOSAL ONLY" under the following conditions:

DoD 4160.21-M

(a) Revised labels for suspended pesticides cannot be obtained by the turn in activity from the manufacturer.

(b) Pesticides without a label.

(c) Pesticides which have had their composition altered.

b. Serviceable Pesticides. When turned-in to the DRMO, the generating activity shall ensure that pesticide containers are labeled with the information listed below. The generating activity must not detach, alter, deface, or destroy in whole, or in part, any manufacturer label attached to the pesticide container. If labels are defaced or illegible, neither the generator the DRMO shall make any modifications to existing labels. Only duplicate or revised, registered labels obtained from the manufacturer shall be affixed to the container.

(1) Name and address of manufacturer or person for whom the pesticides were manufactured.

(2) Name, brand, or trademark under which the product is sold.

(3) EPA Registration Number and EPA Establishment Number (for those used in the United States).

(4) Statement of net contents.

(5) Statement of ingredients.

(6) Pertinent warning or cautionary statement, as necessary, to prevent injury to man, animals, and vegetation not detrimental to man.

(7) Directions for use which, if followed, are adequate to protect the user, the public, and the environment.

c. Technical information necessary for preparing labels or other purposes may be obtained from several sources. See Attachment 5, this chapter for additional information and Military Service points of contact.

d. Any special military markings on pesticide containers shall be obliterated by the holding activity before release to a non-Federal recipient. The DRMO will notify the holding activity if the directed release requires obliteration of these markings.

26. POLYCHLORINATED BIPHENYL (PCB). PCBs are regulated under the TSCA and the implementing regulations 40 CFR 761. State and host nation regulations may differ and 10.1-22

DoD 4160.21-M

should be consulted prior to taking disposal action. The following turn-in procedures apply:

a. Laboratory Analysis. An individual laboratory analysis by gas chromatography (GC)/Electron Capture Detector, conducted after an item is taken out of service for disposal or prior to turn-in, shall accompany each item and the DTID. The analysis shall indicate the amount of PCB in parts per million (PPM). The Federal Regulatory ranges for PCBs are:

(1) 2 ppm or less

- (2) Less than 50 ppm
- (3) 50-499 ppm
- (4) 500 ppm or greater

NOTE: EPA accepts only GC as the method for determining the concentrations of PCBs in oils. The quality of testing varies; testing laboratories should demonstrate use of quality techniques and should provide quality assurance on the precision of their test results. Accepted GC testing methods are: USEPA SW 846, Method 8080, "Organochlorine Pesticides and PCBs"; USEPA Test Method 600, "The Determination of Polychlorinated Biphenyls in Transformer Fluid and Waste Oils"; and ASTM D 4059, "Standard Method for Analysis of Polychlorinated Biphenyls in Insulating Liquids by Gas Chromatography".

c. Batch testing of transformer oils may be accepted on a case-by-case basis with DRMS approval prior to turn-in.

d. Exception to testing

(1) Property that has the original equipment manufacturer's nameplate indicating the presence of PCBs such as a generic designator or commercial trade name (e.g. Askarel, Aroclors, Pyranol, etc.).

(2) Hermetically sealed items without a manufacturer's nameplate, which will be assumed worst case (>500 ppm).

(3) Hermetically sealed items with the original manufacturer's nameplate indicating the level or range of PCB concentration, or non-PCB, on the nameplate.

e. Packaging and Marking. PCB property must be enclosed, nonleaking, and safe to handle. Liquid PCBs and spill residue must be packaged and labeled for transportation per DoT 49 CFR in the U.S. PCB Containers >50 ppm PCB, PCB Articles, PCB Transformers at or >500 10.1-23

DoD 4160.21-M

ppm, and PCB Equipment shall be marked according to the requirements of 40 CFR 761.40 and 761.45.

f. Overseas activities shall comply with the FGS, host nation or international shipping requirements when managing and shipping PCBs.

27. RADIOACTIVE MIXED WASTE. DRMOs are not authorized to receive or dispose of radioactive mixed wastes. See paragraph B1(j)(9) this chapter.

28. SPILL RESIDUE AND HAZARDOUS DEBRIS. The DRMS has disposal capability for spill residue and hazardous debris (as defined in 40 CFR 261.3 and 268.2 for HW or 40 CFR 761 for PCBs). This policy does not include spill residue and debris from the categories of property, enumerated in paragraph B1 of this chapter, which are the disposal responsibility of the DoD installations.

a. DRMS shall dispose of spill residue and hazardous debris on disposal service contract.

b. Turn-in activities shall coordinate with the DRMO in advance of the turn in.

c. Turn-in activities shall meet HP identification, packaging, labeling, and documentation requirements as outlined in paragraph D of this chapter.

d. The standard identification "9999-00-SPILRES" or "9999-00-DEBRIS" shall be used on the DTID.

e. The code "HW" shall be used in block 4 of the DTID, if applicable.

f. Identification of PCBs in spill residue and cleanup debris shall meet PCB turn-in requirements of this manual and comply with 40 CFR Part 761. PCB spill residue and PCB cleanup debris will be processed directly to disposal contract.

29. STORAGE TANKS

a. Empty tanks that are cleaned and purged may be turned in to a DRMO.

b. Conditions of turn-in. If a tank (Underground Storage Tank, [UST], or above ground tank) was used to store HW, the tank must be cleaned in accordance with 40 CFR 264/265.197. An UST containing regulated substances must be cleaned in accordance with 40 CFR 280.71. For safety considerations, tanks which previously contained combustible or flammable liquids need to be tested for flammable vapors/gas, rendered vapor/gas free, and vented prior to turn-in.

10.1-24

DoD 4160.21-M

c. Exempt UST or nonregulated above ground tanks shall be pumped, have sludges/residue removed, be rinsed and/or purged, in a similar manner as regulated storage tanks prior to turn-in.

d. DRMS can provide UST and above ground tank cleaning, removal and final disposal services, if requested by the generating activity.

30. TIRES - DISCARDED/SCRAP. Several states have instituted scrap tire management programs whereby they regulate, under solid waste regulations, how scrap tires are managed by including permit programs for facilities that collect/store scrap tires, a manifest system for disposal, and the manner of transportation and landfill disposal.

a. DRMOs need to determine, based on the amount of tires received yearly, storage space, permit requirements and other state requirements. DRMOs should apply for permits through their host installation.

b. Host installations in states requiring permits for the collection of tires should request a permit or license as owner of the facility, and the DRMO will sign as the operator. State agencies may assess fees for processing of permit or license applications. The host permit or license application may cover multiple tire storage areas on the installation. DRMS will pay only that portion of the fee which is for DRMO scrap storage areas included on the application.

c. Turn-in activities may dispose of scrap tires at the DRMOs. However, the DRMOs' ability to receive the tires may be limited if the DRMO is in a state that requires permits for tire collection above a specific amount, e.g., 500, 1000, unless the host installation has a permit. If the DRMO cannot receive the scrap tires, the turn-in activity will retain physical custody during the RTDS process.

31. TOXICOLOGICAL, BIOLOGICAL, AND RADIOLOGICAL AGENTS/MATERIALS

a. Toxicological, biological, and radiological agents or materials which are determined to be hazardous and which have no value in industry or the civilian economy shall be demilitarized by the owning DoD activity as prescribed in DoD 4160.21-M-1.

b. Where toxicological, biological, or radiological agents or materials, other than war munition type items, have potential commercial value, consideration may be given to sale as a means of disposal. Items of this type produced or intended for use as war munitions may not be sold (see DoD 4160.21-M-1). Sale action for items of other than war munitions type may be initiated only when a waiver authorizing sale is granted by the headquarters of the procuring Military Service and DUSD (L).

10.1-25

DoD 4160.21-M

c. Requests for waiver to permit sale shall be supported by pertinent documentation, setting forth in detail the measures to be taken to minimize the hazards which could be met due to the dangerous nature of the material to be offered. A copy of the request, supporting documentation, and the waiver authorizing sale shall be furnished to DRMS at the time the material is reported for sale.

d. Sale of material of the types described in this paragraph shall be made only when authorized and only to qualified purchasers for use, remanufacture, reprocessing, or authorized resale.

32. TREATED WOOD PRODUCTS

a. Pentachlorophenol (PCP) Treated Wood Products

(1) Disposal of PCP-treated wood products is not currently regulated by Federal RCRA regulations, however, disposal may be regulated by state or local law.

(2) When PCP-treated wood products (which have not been containerized) are palletized for turn-in to a DRMO, generating (turn-in) activities should ensure that any available PCP-treated pallets are used for this purpose. If PCP-treated pallets are not available, generating activities are encouraged to use the servicing DRMO as a possible source for PCP-treated pallets before using non-treated standard pallets. This would also prevent the inadvertent and unnecessary expense for disposal of standard pallets on service contracts.

(3) For further information on PCP-treated products, refer to Technical Guide No. 146, "Pentachlorophenol Materials," published by the USACHPPM, (410) 671-3651 (DSN 584).

b. Other Types of Treated Wood

(1) Creosote and inorganic arsenical pressure-treated wood products which may be turned in to the DRMOs are railroad ties; pilings, piers, and dock materials; decking; construction lumber; and telephone poles (Note: PCP is sometimes used to treat these products). These items shall receive RTDS processing.

(2) Spent treated wood has potential reuse as fence posts, rails, lighting poles, landscape timber, parking lot bumper guards.

(3) Disposal requirements for spent treated wood products may vary depending on state regulations. If treated wood materials are designated as fuel or are disposed of in a landfill, compliance is required with applicable Federal or state regulations for characterizing the waste.

10.1-26

DoD 4160.21-M

33. UNIVERSAL WASTE (40 CFR 273.)

a. EPA's Universal Waste Standards, effective May 11, 1995, establish a new program for managing specific HW outside of the RCRA Subtitle C requirements. The intent is to ease the burden of full RCRA Subtitle C compliance on small and large quantity handlers of universal waste, but still regulate the waste, thus encouraging conservation through recycling. Conditionally exempt as universal waste are:

- (1) Batteries (All battery types that are HW when discarded.)
- (2) Pesticides
- (3) Mercury thermostats

b. Generators and DRMOs have the option of managing universal wastes either under the current RCRA Subtitle C requirements or under the Universal Waste Standards. Lead acid batteries may be managed as either universal waste or under the requirements in 40 CFR 266, Subpart G.

c. The Universal Waste Standards are immediately effective only in those states without RCRA authorization. Implementation of the Universal Waste Standards is optional in all other states. These states may adopt the Universal Waste Standards by amending their RCRA program and receiving authorization by EPA. States are not mandated by law to implement the Universal Waste Program for all or any of the waste covered in the standards. For example, a state could adopt standards covering only batteries but not pesticides or thermometers. Prior to managing the above items under the Universal Waste Standards, check with state environmental agencies to determine if and when the Universal Waste Standards are applicable in the particular state.

d. Generators will coordinate with the DRMOs prior to turning in HW as universal waste. DRMOs will coordinate the establishment of a universal waste management program with their host installation.

e. The following turn-in requirements apply to universal waste:

(1) Universal waste may be turned-in as HM, marked in block 4 on the DTID.

(2) Universal waste turned-in to a DRMO must be labeled in accordance with 40 CFR 273.14 or 273.34.

(3) Either a HWPS or a MSDS will accompany the turn-in of universal waste, unless the item is exempted under 29 CFR 1900.1200(b)(5) and (6).

(4) Off-site shipments of universal waste must comply with DoT (49 CFR 170-180) shipping requirements.

10.1-27

DoD 4160.21-M

34. USED OIL FILTERS. The EPA promulgated a used oil filter regulation that excludes certain types of oil filters from the definition of HW. 40 CFR 261.4(b)(13) excludes oil filters from HW regulations provided three criteria are met; the filters must not be terne plated; must not be mixed with other HW; and must be gravity hot-drained. States with authorized HW programs may choose to adopt the EPA regulations or may adopt more stringent HW rules. If the generator identifies a requirement for recycling, DRMS service contracts may include or be modified to include oil filter recycling.

10.1-28

ATT 2 CHAP 10 DoD 4160.21-M

HAZARDOUS WASTE DISPOSAL CONTRACT STANDARDS

1. Provide <u>100 percent</u> manifest tracking to maintain a "cradle to grave" audit trail of documentation for hazardous waste disposal (e.g., from original turn-in to final disposal).

2. Maintain automated records for all HW disposal transactions (e.g., waste streams, waste codes, locations, quantities, prices, other pertinent information).

3. Monitor contractor performance at time of pick up by DoD personnel serving as Contracting Officer's Representative (COR).

4. Conduct extensive past performance and technical evaluation of prime contractor and subcontractors prior to contract award and monitor during contract performance.

5. Conduct on-site post-award inspections of selected sub-contractors (e.g. treatment, storage, and/or disposal facility and transporters) to ensure compliance with regulatory requirements.

6. Evaluate contractor performance and document current and past performance history in a performance database.

7. Ensure contract provisions comply with the Federal Acquisition Regulation and applicable Federal, State, and local safety, environmental and transportation regulations.

8. Monitor contract costs to ensure competitive pricing as well as high quality contractor service.

9. Reduce start-up, administrative, and re-procurement costs by preparing and awarding long-term contracts, if in the best interest of the DoD.

10.2-1

ATT 3 CHAP 10 DoD 4160.21-M

HAZARDOUS WASTE PROFILE SHEET

Reference: Paragraph D2

ATT 4 CHAP 10

MAJOR CATEGORIES OF REFRIGERATION EQUIPMENT AFFECTED BY THE REFRIGERANT RECYCLING RULE

Reference: Attachment 1, Item 24

Household Refrigeration. Refrigerators and freezers intended primarily for household use, though they may be used outside the home (e.g., in offices, etc.).

Transportation Refrigeration. Refrigerated ship holds; truck trailers; railway freight cars; other shipping containers.

Commercial Comfort Air Conditioning. Centrifugal chillers; reciprocating chillers; screw chillers.

Comfort Cooling in Vehicles (Other than Trucks and Autos). Trains; airplanes; ships; buses; farm equipment; construction equipment.

Other Refrigerated Appliances. Dehumidifiers; vending machines; ice makers; water coolers.

Residential Air Conditioning. Window units; packaged terminal air conditioners; central air conditioners; light commercial air conditioners; heat pumps.

Retail Food. Small reach-in refrigerators and freezers; refrigerated display cases; walk-in coolers and freezers; large parallel rack systems. (Includes equipment found in supermarkets, convenience stores, restaurants, and other food service operations.)

Cold Storage Warehouses.

Commercial Comfort Air Conditioning.

Industrial Process Refrigeration. Includes, but is not limited to industrial ice machines and ice rinks.

Military Equipment. The final rule does not apply to devices containing and using refrigerants that are designed for and used solely in a military application. Such devices are excepted unless their system of parts in that equipment is identical to equipment used for household or commercial purposes.

10.4-1

ATT 5 CHAP 10 DoD 4160.21-M

PESTICIDE TECHNICAL INFORMATION POINTS OF CONTACT

Reference: Attachment 1, Item 25, paragraph c

Military and/or Federal specifications have been published on all standard stocks. Each specification contains basic data on standards established on each chemical for labeling, packaging, type and size of containers, quality assurance, assay procedures, and other essential information. A listing of specifications applicable to some pesticides is contained in Attachment 6. Technical assistance on label requirements and other aspects on the use and disposition of pesticides can also be obtained from the engineer or medical entomologist serving military installations. Should entomology support be unavailable, assistance can be obtained, upon request, from the following points of contact:

(1) Armed Forces Pest Management Board, Forest Glen Section, WRAMC, Washington, DC 20307-5001.

(2) Commander, U.S. Army Environmental Center, ATTN: SFIM-ECN, Aberdeen Proving Ground, MD 21010-5401.

(3) U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), ATTN: HSHB-MR-R, Aberdeen Proving Ground, MD 21010-5422.

(4) Department of the Navy, Navy Environmental Health Center, ATTN: Entomology Programs, Code 37, 2510 Walmer Avenue, Norfolk, VA 23513-2617.

(5) Commander, Naval Facilities Engineering Command, Code 1333, 200 Stovall Street, Alexandria, VA 22332-2300.

(6) AL/OEM, 2402 E Drive, Brooks AFB, TX 78235-5114. (Surveillance, insect info and medical aspects.)

(7) HQ AFCESA/CESM, 139 Barnes St, Ste 1, Tyndall AFB, FL 32403-5319. (Chemical use and chemical specific questions.)

(8) HQ United States Air Force in Europe, ATTN: HQ USAFE/CEV, APO AE 09094-5010.

(9) Det 3, Armstrong Laboratory, Unit 5213-Bldg 850, Kadena AB Japan. (Chemical use and chemical specific questions.)

10.5-1

DoD 4160.21-M

(10) HQ USA Europe & 7th Army, ATTN: AEAEN-EH-B, APO AE 09014.

(11) USA Facilities Engineer Activity-Korea, ATTN: Eighth Army Facilities Engineers

(EAFE-EN DIR), APO AP 96301.

(12) HQ USACHPPM-EUR, Landstuhl, Germany, APO AE 09180

(13) HQ USACHPPM-PAC, Sagami, Japan, APO AP, 96343-0079

(14) Defense Logistics Agency, ATTN: CAAE (Staff Entomologist), 8725 John J. Kingman Road, STE 2533, Fort Belvoir, VA 22060-6221.

(15) Defense Supply Center Richmond, ATTN: JDTB, 8000 Jefferson Davis Highway, Richmond, VA 23297-5810.

10.5-2

ATT 6 CHAP 10 DoD 4160.21-M

TABLE OF SOME MILITARY/FEDERAL SPECIFICATIONS APPLICABLE TO PESTICIDES

Reference: Attachment 1, Item 25

Amitrole	O-H-190
Chlordane	O-I-518A
Chlordane (Concentrate, Water Emulsifiable	O-I-515(3)
Chlordane, 5 percent Dust	MIL-I-21036(1)
Dalapon	O-H-205C
DDT	O-I-514A
DDT, Dusting Powder	O-I-578B
DDT, Emulsifiable Concentrate	O-I-558C(1)
DDT, Liquid Form, 5 percent	O-I-531D
DDT, 20 percent Solution	O-I-509A
Dieldrin, Emulsifiable Concentrate	O-I-522B
Dieldrin, 50 percent Water Dispersable Powder	O-I-523(1)
Diuron MIL-H-51152A	
Fenuron	H-00220
Iso-octyl 2,4,5-Trichlorophenoxyacetate	MIL-H-607
Lindane, Liquid Emulsifiable Concentrate	O-I-533A & O-I-
00533B	
Lindane, Dusting Powder	MIL-I-11490C
Lindane, Water Dispersable Powder	O-I-535B
Monuron	MIL-H-51153B
n-Butyl 2,4-Dichlorophenoxyacetate	MIL-H-51147A
n-Butyl 2,4,5-Trichlorophenoxyacetate	MIL-H-51148A
Silver Ester & Silver Potassium Salt	O-H-215A
Simazine	O-H-207A
Sodium Arsenite Concentrate	O-I-579(1)
Sodium Monofluoracetate	O-R-504
2,4-Dichlorophenoxyacetic Acid (Salts & Esters)	O-H-200C
2,4,5-Trichlorophenoxyacetic Acid (Salts & Esters)	O-H-210C
2, 1,5 menorophenoxyacene riera (baits & Escus)	0 11 2100

NOTE: Additional specifications may be identified by referral to the "Department Index of Specifications and Standards" (and cumulative bimonthly supplements).

10.6-1