

HAZARDOUS WASTE MANAGEMENT**COMPLIANCE WITH THIS INSTRUCTION IS MANDATORY**

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This instruction applies to all personnel assigned to the Louisiana Air National Guard (LA ANG). This instruction states policies and assigns responsibilities for an integrated program to ensure that LA ANG, at all levels, conduct its hazardous waste (HW) management activities in a manner that protects the public health and the environment; implements Department of Defense, Air Force, and Air Combat Command stated HW policies. This instruction is in consonance with developed hazardous waste management regulations: US Environmental Protection Agency pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), and the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C., Section 6901 as amended, and pursuant of policies and guides outlined in the LA ANG Hazardous Waste Management Plan (HWMP). This instruction establishes a comprehensive program for Hazardous Waste Management, the utilization and maintenance of bowzers used in the collection of waste and recoverable Petroleum Oil Lubricants products and wastes generated from their use.

SUMMARY OF REVISIONS

A (★) indicates revisions from the previous edition.

1. **Glossary of References and Supporting Information:** See Attachment 1.

2. **Procedures:**

★2.1. **Hazardous Waste Management:** The disposal method for all hazardous waste must be approved by the Environmental Protection Committee (EPC). In addition, all wastes generated must be disposed of in accordance with (IAW) the LAC.33.V, RCRA, Clean Water Act and Clean Air Act. The shop or section supervisors are responsible for the use and disposition of all chemical products used in their shop. Each shop or section must appoint a hazardous waste and material manager (HWM) or an initial accumulation point manager (IAP) and an alternate in a published appointment letter signed by their commander. All appointees must have completed a hazardous materials handlers and initial accumulation point managers training. A copy of the appointment letter must be forwarded to the 159 FW/EM, Environmental Manager (EM), located in Civil Engineering, Building 473. Appointment letters are reissued when there is a change in assigned personnel or in January each year. The lines of responsibility for Hazardous Waste Management extend from the wing commander to the user. See paragraph 3 for detailed list of responsibilities. When a hazardous substance is received in the shop, an entry must be logged in the "Received" section of the HQ LA ANG Form 11, **Shop Hazardous Material Tracking Log**. When the shop depletes, disposes or returns to the CDC a hazardous material an entry must be logged in the "Turn-in/Disposal" section of HQ LA ANG Form 11. HQ LA ANG Forms 11 will be sufficient documentation, if maintained properly, as a record of all hazardous materials usage. When hazardous wastes are generated, they must be properly identified, segregated, containerized, accumulated, and disposed of IAW state or federal regulations, whichever are more stringent. HQ LA ANG Form 12, **Waste Generation Summary Log**, will be used to keep track of hazardous waste disposal, and when properly maintained it will also be sufficient documentation for hazardous waste disposal. Together these two forms assist the unit in its effort to comply with the RCRA "Cradle to Grave" hazardous waste management philosophy. A flow diagram of the RCRA "Cradle to Grave" hazardous waste management process can be found in Attachment 2.

2.2. **Hazardous Wastes Identification:** All hazardous wastes must be clearly identified at the time they are generated. A DRMS Form 1930, **Hazardous Waste Profile Sheet**, (please contact 159 FW/EM at 391-8515 to get

this form) must be prepared by each shop or section supervisor or the appointed IAP manager for each waste stream generated. Hazardous Waste Profile Sheets will be updated on an annual basis. The shop or section supervisors are also responsible for ensuring that the appropriate waste accumulation container is selected and properly labeled. At a minimum, the label will include the Federal Stock Number, nomenclature (i.e. MEK, Tulyene etc.) or trade name, and part numbers are required along with the best available description of the contaminants. In the event of an unknown hazardous waste, the Bioenvironmental Engineering Technician (BEET) must draw a sample from the waste and have a chemical analysis performed before it can be turned-in for disposal. This process could take months to accomplish and is very expensive; therefore it is extremely important that the identity of chemicals used in a process be maintained.

2.3. Hazardous Waste Container Selection: All hazardous wastes must be placed in Department of Transportation (DOT) approved containers for transportation and accumulation. Contact the Environmental Protection Specialist (EPS) or the EM to obtain the proper container for the hazardous waste in question. Leaking or damaged containers will not be used under any circumstances as disposal containers. If a container is damaged in transit or while being loading for disposal, it will immediately be placed in an approved over-pack container. The contents of the damaged container must be transferred to a serviceable DOT approved container. Approved DOT containers are identified by United Nation (UN) Numbers. Attachment 3 has the procedures used to interpret the UN Number.

2.3.1. There are primarily five classes of hazardous wastes generated by the 159th Fighter Wing. Each hazardous waste stream must be placed in an approved color-coded DOT drum. The colors help to identify the class of waste. The classes of Hazardous Waste generated are as follows:

2.3.2. Petroleum Wastes: All petroleum products, either natural or synthetic, including used hydraulic fluids, brake fluids, engine oils, gear oils, JP-4, JP-5, JP-8, etc., will be placed in a **YELLOW** drum.

2.3.3. Halogenated Wastes: All products that have either a chlorine or a fluorine substance in them are considered halogenated wastes (e.g. di**CHLORO**di**FLUORO**methane, per**CHLORO**ethylene, 1 1 1-tri**CHLORO**ethane, tri**CHLORO**ethylene, all freons, methylene **CHLOR**ide, carbon removing compounds, etc.). These wastes will be placed in a **WHITE** drum.

2.3.4. Non-Halogenated Wastes; All other products which do not contain a fluorine or chlorine in them (e.g. PD-680, aliphatic naphtha, toluene, Xylene, acetone, mineral spirits, Methyl Ethyl Ketone, alcohols, etc.) will be placed in a **RED** drum.

2.3.5. Mixed Paint Wastes: All products used in the painting processes such as spraying, cleaning, priming, thinning, or stripping are considered waste paint. Unused paint that can not be turned into Defense Reutilization and Marketing Office (DRMO) for resale, will be considered waste paint: whether enamel, polyurethane, lacquer, acid fast paints, acid resistant paints, etc. These wastes will be placed in a **BLUE** drum. The 159 MS/MAFF, Corrosion Control, Building 5, is the designated collection point for all waste paint. Make sure oil based and water based paint wastes are not mixed.

2.3.6. Solid Waste: All items that are solid by chemical composition such as absorbent pads, which have been used to wipe up small oil spills, solvent spills, or in wipe down operations, are considered solid waste. Absorbent material that is saturated with a product must be wrung out to remove the excess, prior to being placed in an approved accumulation container prior to disposal. In the case of a solvent operation, allow the absorbent material to air dry, before placing it in a disposal drum. These wastes will be placed in a **BLACK** drum. Drum composition will be open top and protected from the elements, a layer of "oil dry" or fullers earth will be placed in the bottom of the drum and at every foot to every foot-and-a-half until drum is full. The shops listed in Table 1 are the designated accumulation point for solid waste:

★TABLE 1. SOLID WASTE ACCUMULATION POINTS				
Workcenter	Location	Waste	Point of Contact	Phone No.

	(Bldg.)			(Extension)
Structural Repair	5	Waste Paint	SSgt Robin Hebert/MSgt Pat Laughlin	ext. 8469
Vehicle Maintenance	6	Oil & Fuel Filters	TSgt Daryl Herty/ SSgt Dave Guchereau	ext. 8362
Civil Engineering-Electrical	473	Fluorescent Light Bulbs	TSgt Oscar Lewallen	ext. 8522
Munitions Maintenance	93	Desiccant	MSgt Ronald Creighton	ext. 8514/8503

NOTE: Fuel filters, oil filters, and hydraulic filters are not necessarily considered hazardous waste. If the proper procedures are followed, they can be disposed of as either a recyclable or solid waste. Once the filter is removed, place it on a drip pan for a minimum of 48 hours to allow all of the excess fluid to drain. If the fluid is not contaminated by another waste stream, it can be handled as a recyclable. The metal filter can then be crushed and disposed of or turned-in as a recyclable metal or solid waste. The only filters considered as hazardous wastes at this time are the M-17, M-17A1, C-2, and C-2A1 mask filters. These filters may be disposed of in the solid waste drum, so long as the drum is labeled as hazardous waste and the exact number of filters in the drum is known.

2.4. Container Labeling: The drum will then be labeled with a name which best describes the content, i.e., absorbent soaked with JP-8 fuel, waste paint. Label and turned in on an AF Form 2005, **Issue/Turn-in Request**, for disposal. The IAP manager is responsible for selecting the appropriate drum, unlocking the drum, and observing the authorized individuals as he disposes of the waste product. The IAP manager will then lock the drum.

2.5. Hazardous Waste Segregation: Hazardous wastes must be segregated to the maximum extent possible. Verification of combining properties must be accomplished by either the BEET or the EM prior to mixing any waste. When hazardous wastes are combined or mixed, one of several things could occur; the value of recyclables could be decreased, recyclables would have to be disposed of as hazardous waste, or even worse the mixture could have a chemical reaction or become volatile. In any case, hazardous waste should ***NEVER*** be mixed with recyclable or solid waste. Mixing of waste with similar hazard properties may be combined, (i.e., corrosivity, reactivity, ignitability, or toxicity), after receiving approval from the EM or BEET.

2.6. Hazardous Waste Transportation: The LA ANG is not authorized to transport hazardous or recyclable waste on state or federal highways. Hazardous waste can only be transported from an IAP to the 90 day Accumulation Site (ACCS) on base, by the Navy Environmental Compliance Division. Recyclable waste can only be moved on base from an IAP to a Non-Hazardous Waste Collection Site (NHWCS).

2.7. Hazardous Waste Accumulation Locations: All Hazardous waste will be collected and accumulated at the point of generation in clearly identified containers, and maintained in a secure area designated as an ***Initial Accumulation Point (IAP)***. To the extent possible the storage area will be protected from weather and traffic, and employ sufficient safeguards to prevent a spill from entering any drainage system in the shop. The responsible shop or section supervisor must ensure that segregation is rigidly enforced and that the area and containers are inspected weekly using HQ LA ANG Form 16, NHWCS/IAP, **Accumulations Site/Initial Accumulation Point Weekly Inspection Checklist**. Use generation rate to determine size of collection container. A full container is not allowed to remain at IAPs for more than 72 hours. A container is not allowed to be in use more than 365 days. These IAPs will be used for the accumulation of waste and hazardous waste for the LA ANG. The location of LA ANG IAPs is listed in the Table 2.

★TABLE 2. INITIAL ACCUMULATION POINTS				
Workcenter	Location (Bldg.)	Waste	Point of Contact	Phone No. (Extension)
NDI	Bldg 425	Silver recovery system filter (Recyclable)	TSgt George J Hammer II, TSgt Greg Walker	ext. 8476
Electro-Environmental	Bldg 5	Solder waste, Hydraulic fluid (Recyclable)	MSgt Francis Poirrier	ext. 8472
Vehicle Maintenance	Bldg 6	Zep parts washer filter & washer liquid;	TSgt Daryl Herty, SSgt Dave Guchereau	ext. 8362
Hush House	Test Cell Bldg 189	Fuel filters (JP-8); Absorbent Material	SSgt Troy J. Millon	ext. 8520
Civil Engineering-Structural	Bldg 473	Solvent contaminated solids;	SSgt Henry Knowles	ext. 8425
Civil Engineering-Utilities	Bldg 473	Oil water separator sludge (five locations)	MSgt Vincent Frisella	ext. 8422
Structural Repair	Bldg 5	Solvent contaminated solids; Zep parts washer filter & liquid; Plastic blasting media; paint booth filters; Can puncher filter; Waste paint.	SSgt Robin Hebert or MSgt Pat Laughlin	ext. 8469
Visual Information Services	Bldg 24	Film scrap recovery; Silver recovery system filters (Recyclable); Specialty bulbs; Fixer bath; Metallic tapes.	SSgt Todd Enland or TSgt Greg Guerra	ext. 8347
Munitions Maintenance	Bldg. 119	Solvent contaminated solids; Solder waste, safety seals; Zep parts washer filter & liquid; paint over- spray paper; Paint over-spray paper perma-silk.	CMSgt Frank Misuraca or MSgt Ronald Creighton	ext. 8514/8503
Fuels Management	Bldg.142	Fuel filters; Used JP-8 fuel (Recyclable)	SMSgt Walter Wendt or TSgt Patrick McGee	ext. 8475
Weapons	Bldg 425	Jet washer water & Oil Sludge; Zep parts washer filter & liquid; High efficiency particulate apparatus vacuum filter;	TSgt Milford Reine or TSgt Travis Cooper	ext. 8495
Security Police	Bldg 144	Solvent contaminated solids (weapon cleaning items) Zep parts washer filter & liquid.	SrA Kelly Fontenot or SSgt Christopher Guidry	ext. 8402
Engine Shop	Bldg 119	Zep parts washer filter & liquid; Fuel filter (JP-8); Fuel soaked Absorbent.	SSgt Chad Bates or MSgt Scott Calcagno	ext. 8463
Aerospace Repair	Bldg 5	Jet washer water, sludge, & oil sludge.	TSgt Michael Robertson	ext. 8467
Pneudraulics	Bldg 5	Zep parts washer filter & liquid; Hydraulic filters; Hydraulic test stand filters.	SSgt David Johnson or TSgt Milton Leinwar	ext. 8470
AGE	Bldg 146	Zep parts washer filter & liquid; Paint over spray paper Perma -- silk.	SMSgt Larry Roby or MSgt Jan Kobylasz	ext. 8477
Fuel Systems	Bldg 195	Fuel Soaked Absorbent	TSgt Cornelius Williams	ext 8475

Table continued on the next page

TABLE 2. CONTINUED				
Communication Maintenance	Bldg 5	Solder waste	SMSgt Louis Bernard	ext. 8302
Civil Engineering-Electrical	Bldg 473	Mercury & sodium vapor bulbs; Fluorescent & Halogen light bulbs;	TSgt Oscar Lewallen	ext. 8522
Environmental Management Office	Bldg 473	Decontamination kit, M-8 & M-9 paper,	MR. Leon L. Scoriels	ext. 8515

2.7.1. Accumulation areas listed in Table 3 will be referred to as Non-Hazardous Waste Collection Sites. The primary function of these NHWCSs will be to serve as staging areas for recyclable or waste accumulated at the IAP located in the shops. Moving full containers from the IAPs to the NHWCS will decrease the chance of a spill in the shop areas, allow the IAPs to comply with the 72 hour rule and allow host environmental function greater flexibility in their pickup schedule.

★TABLE 3. NON-HAZARDOUS WASTE COLLECTION SITE				
Location (Bldg.)	Organization	Waste	Point of Contact	Phone No.
Bldg 473	Environmental Office	Batteries, Empty Lubricant Spray Cans, Used Oils and Fuel	Mr. Leon Scoriels	ext. 8515
Flightline	Environmental Office	Used Oils and Fuel, Absorbent Material, Gas mask filters, and Respirator filters	Mr. Leon Scoriels	ext. 8515

NOTES:

1. Turn-in times: Call NHWCS managers to arrange an exact time for TURN-IN, best times are 0830-0900 and 1415-1430 Daily, including UTA weekends. Geographically Separated Units (GSUs) need to establish their own turn-in times.

2. No waste will be accepted by the IAP or NHWCS managers without the appropriate documentation. Proper documentation includes; to sign the IAP managers log (HQ LA ANG Form 12) signed by the Shop Supervisor or IAP Manager, AF Form 2005, and Material Safety Data Sheet (MSDS).

2.7.2 Accumulation Site. The Navy Environmental Compliance Division manages and maintains the only 90-day ACCS on base. They are the only authorized transporters of all hazardous waste from IAPs to the ACCS. The point of contact for the 90 day ACCS is Mr. Hubert Colfield at 678-3689, Naval Air Station-Joint Reserve Base (NAS-JRB), Bldg CDC.

NOTE: There are Accumulation Sites also at the 236th Combat Communications Squadron (236 CBCS), Hammond LA, the 214th Engineering Installation Squadron (214 EIS), Jackson Barracks and 122nd Air Support Operations Squadron (122 ASOS), Camp Beauregard, Pineville, LA. All shops and sections will use these areas for their waste disposal. No liquids waste in excess of 1/2 gallon will be stored in any shop longer than 24 hours. Accumulated wastes during a shift may exceed 1/2 gallon but must be disposed of that day. Only authorized personnel will be allowed to dispose of waste products at these areas. The following guidelines will be adhered to:

2.8. Petroleum Products Accumulation and Hazardous Waste Disposal Management for IAP's:

2.8.1. When a drum is 95% full the IAP manager will permanently lock the drum. After 24 hours, the IAP manager will check the drum to ensure it is not leaking. In the event the drum is leaking, the contents of that drum will be transferred to an appropriately colored drum and rechecked after 24 hours.

2.8.2. When IAP managers are ready to turn-in hazardous waste, they should bring HQ LA ANG Form 12, AF Form 2005, and Material Safety Data Sheets to the Environmental Protection Specialist (EPS) at Environmental

Manager Office (EMO). The AF Form 2005 will have the National Stock Number and nomenclature of the original material and a description of the contaminants (for example, paint sludge, metal filings, etc.). If a product does not have a National Stock Number and the BEET has identified the product as being a hazardous waste, use the manufacture, trade name, and part number on the AF Form 2005. The EPS will review HQ LA ANG Form 12, ensuring it is properly completed, before accepting it from the IAP manager. EPS will write the name of the person turning-in the waste on the form. The EPS will complete DD Form 1348-1, **DoD Single Line Item Release/Receipt Document**. The EM will review, certify and log the hazardous waste turn-in documentation. EPS will attach AF Form 2005, DD Form 1348-1 and MSDSs to HQ LA ANG Form 12 to complete the turn-in documentation packet. One copy of the turn-in documentation will be placed in the EMO files and the other will be delivered to the Navy Environment Compliance Division at NAS-JRB. According to the Interservice Support Agreement, EPS manager will coordinate with Navy Environmental to pickup hazardous waste from the IAP. **EPS will never accept physical custody of hazardous waste.** Navy Environmental will add any EPA and DOT nomenclature codes necessary for compliance with state and federal guidelines under RCRA, and perform one final container inspection and DRMS Form 1930.

2.8.2.1. For the 236 CBCS, generate an In-Line DD Form 1348-1A, **Issue Release/Receipt Document**, disposal document for the waste, and contact DRMO to arrange pickup and disposal. When contacting DRMO or an approved contractor to arrange for pickup, of the waste products, remembers the 90-day storage restriction -- Normal waiting time is 5-7 days. On a monthly bases send copies of all HQ LA ANG Form 12, and DD Form 1348-1 to 159 FW/EM, NAS-JRB, 400 Russell Avenue Box 27, New Orleans, LA 70143-0027.

2.8.2.2. The 122 ASOS will submit a DA Form 2765-1, **Request for Issue or Turn-In**, to the USP&FO Camp Beauregard. DA Form 2765-1 notifies their Army Host that there is a quantity of waste to process for disposal and the nature of the waste. On a monthly bases send copies of all HQ LA ANG form 12, and DD Form 2765-1 to 159 FW/EM, NAS-JRB, 400 Russell Avenue Box 27, New Orleans, LA 70143-0027

2.8.2.3. The 214 EIS will submit a DA Form 2765-1 to LANG-DFE-E, Jackson Barracks. DA Form 2765-1 notifies their Army Host that there is a quantity of waste to process for disposal and the nature of the waste. On a monthly bases send copies of all HQ LA ANG Form 12, and DD Form 2765-1 to 159 EM, NAS-JRB, 400 Russell Avenue Box 27, New Orleans, LA 70143-0027

2.8.3. Petroleum products are defined as all oils, greases, fuels, hydraulic fluids, and other products that have a petroleum or synthetic base. Presently these products are considered recyclable, they require a different disposal method; in addition, there is a monetary value associated with these products. **IT IS IMPERATIVE THAT ONLY PETROLEUM PRODUCTS, UNCONTAMINATED BY OTHER CHEMICALS SUCH AS SOLVENTS AND THINNERS, ETC., BE PLACED IN THE YELLOW CONTAINERS.** Contamination, even by small amounts of hazardous waste in a drum containing recyclable petroleum cause the entire drum to be classified as hazardous waste. A contract has been negotiated, with Keesler AFB, MS, DRMO to dispose of these products.

NOTE: The original log (HQ LA ANG Form 12) will be maintained as a permanent record by the IAP or NHWCS manager. The EM will also keep a copy of all HQ LA ANG Forms 12 on file.

2.8.4. Upon receipt of the AF Form 2005 from an IAP or NHWCS manager, the EMO will:

2.8.4.1. In a permanent record, log in the AF Form 2005, as to the type of waste, quantity, date, and IAP from which received.

2.8.4.2. Physically check the drums to ensure proper labeling, color coding, and add the appropriate Environmental Protection Agency and DOT nomenclature necessary for compliance with state and federal guidelines under RCRA.

2.8.4.3. Perform inspections of the waste in the NHWCS until picked up for proper disposal. Documentation of this inspection is mandatory

2.8.5. In the case of used petroleum product wastes EMO will:

2.8.5.1. Assure that sufficient amounts of petroleum products have been collected to warrant a pickup by the contractor. For the 159th Fighter Wing, the contract administered by DRMO and the civilian contractors' states that a minimum of 400 gallons must be on hand before the contractor will make a pickup.

2.8.5.1.2. For GSUs, the contract administered by DRMO and civilian contractors' state that a minimum of 200 gallon must be on hand before the contractor will make a pickup.

2.8.5.1.3. Contact DRMO to arrange for contractor pickup of the waste petroleum products.

2.8.5.1.4. Petroleum waste accumulated by the 214 EIS and the 122 ASOS, will be processed through their Army host. Turn-in procedures for petroleum products are set by LANG-DLS-L.

2.8.6. Any sampling of the waste is the responsibility of the BEET, or the host, as explained in the Interservice Support Agreement.

2.9. Training Requirements: All personnel who work with hazardous waste and their supervisors must receive and successfully complete hazardous waste training before working with hazardous waste. Such personnel must also complete refresher training annually. The hazardous waste training program must also provide at least awareness level training to all pertinent installation personnel. In accordance with AFI 32-7042, *Solid and Hazardous Waste Compliance*, hazardous waste training must cover at least the nine following elements:

- Introduction to the Resource Conservation and Recovery Act
- Identification of Hazardous Waste
- Accumulation Point Management (IAP and NHWCS)
- Container Use, Marking and Labeling, and on Base Transportation
- Waste Turn-in Procedures
- Manifesting and Transportation of Hazardous Waste
- Spill Prevention and Emergency Response
- Waste Reduction
- Personnel Safety and Health and Fire Safety

2.9.1. In addition, some personnel will require training in the following elements:

- Record keeping and tracking
- Hazardous Waste Operators and Emergency Response
- Department of Transportation Regulations

2.10. Record Keeping:

2.10.1. The supervisor must be able to account for all chemicals ordered by his or her section from the "cradle to the grave." This is a special interest item for Operational Readiness Inspections, and annual Bioenvironmental Engineering surveys.

2.10.2. All items, IEX 8/9, or those entities that require special disposal, asbestos brakes etc., issued to a section will be balanced against what is disposed of through the ACCS. This will be accomplished by properly manifesting on the HQ LA ANG Forms 11 & 12, all issues and turn-ins of these materials and balancing these forms against the base supply issued M-15.

2.10.3. All Shops or sections will use the HQ LA ANG Forms 11, 12, and 16. No other record keeping method will be substituted.

2.10.4. The EMO must keep a copy of the following: (Ref. 40 CFR 26)

TABLE 4. RECORD MAINTENANCE		
FORMS	DURATION	SOURCE
Signed copy of each manifest	3 yrs from date accepted by initial transporter	40 CFR 262.40
AF Form 2005, Issue/Turn-In Request	3 yrs from date of turn-in	40 CFR 262.40-44
AF Form 1348-1, DoD Single Line Item Release/Receipt Document	3 yrs from date of turn-in	40 CFR 262.40-44
DRMS Form 1930, Hazardous Waste Profile Sheet	3 yrs from date of turn-in	40 CFR 262.40-44
Waste Analysis Test Results	3 yrs from date of turn-in	40 CFR 262.11
Training Records	Closure of facility or 3 yrs from departure: (PCS or Retirement) Form 55 must be forwarded to Bioenvironmental for indefinite file.	40 CFR 262.16
Material Safety Data Sheets	3 yrs from date of turn-in	40 CFR 265.15
Accumulation Inspection Logs	3 yrs from date of inspection	40 CFR 265.174

2.11. **Inspections:** All IAP and NHWCS managers will inspect their accumulation area at least on a weekly basis. The inspections will be performed using the HQ LA ANG Form 16. The shop or section supervisor is responsible for ensuring that the weekly inspections are performed in accordance with the checklist, and conducted at intervals no greater than 7 days. The EM will conduct unannounced inspection of all IAPs and NHWCSs at least once a quarter. NHWCSs and IAPs will also be subject to inspections by host environmental function, Navy Environmental. Navy Environmental must notify the 159 FW/EM or BEET (if the EM is not available) 24 hours prior to any environmental inspections. **If any environmental inspectors should attempt to enter any 159 FW facilities without being properly escorted by the EM or BEET, the shop supervisor should detain the inspector and immediately notify the EM or BEET.**

2.12. **Unauthorized Disposal Methods:** Floor drains, interceptors, and oil and water separators are not to be used for the disposal of hazardous wastes. They are designed to catch or separate residuals from floor washing or equipment cleaning. Hazardous wastes and materials must not be washed or otherwise discharged to any storm drain or sanitary sewer system. Under no circumstances will an oil or chemical be deliberately poured, spilled, or discharged to the ground as a means of disposal.

2.13. **Spill Procedures:** The shop or section supervisor must ensure that shop personnel are trained annually, and equipped to control and clean up minor hazardous substance and petroleum spills. Unit personnel must be aware of when and who to contact for help if the spill or situation exceeds their capabilities.

2.13.1. The 159 FW personnel will contact the EM and the Navy Fire Department, and comply with the procedures established by the Navy Spill Prevention Control and Countermeasures Plan. The Petroleum Oil Lubricants Truck Parking Area should pay particular attention to the site-specific information outlined in the Navy Spill Prevention Control and Countermeasures Plan. As a minimum, a spill kit should be maintained wherever a gallon or greater quantity of hazardous materials are used or situated.

2.13.2. Personnel at the 236 CBCS, 214 EIS and the 122 ASOS will contact the EM, and follow the procedures established by the LA ANG Installation Spill Contingency Procedures or their host environmental function. As a minimum, a spill kit should be maintained wherever a gallon or greater quantity of hazardous materials are used or situated.

2.14. **Empty Containers Storage:** Empty containers maintained for the disposal of hazardous wastes must be clean and kept free of water with bungs in place. All markings identifying the previous contents must be obliterated or removed unless the product going back in the container is exactly the same. The containers must be stored separate from accumulating waste to avoid any possible confusion over container contents or selection, IAW 40 CFR 262.31. Except for compressed gas or a hazardous waste identified as being acutely hazardous, a container used to hold any hazardous waste material is considered empty when: Two centimeters (2 inches) but no more than

3% by weight of the total capacity of the container remains in a container less than or equal to 110 gallons. Containers that are greater than 110 gallons are empty when no more than 0.3% by weight of the total capacity of the container remains. A container that has held a compressed gas is empty when the pressure in the container approaches atmospheric. A container that held an acute hazardous waste is considered empty when the container is triple rinsed using a solvent capable of removing contents or when the container is cleaned using similar approved method.

2.15. Oil Water Separator Operation and Maintenance: Oil Water Separators (OWS) are tied into the Plaquemines Parish Sanitary Sewer System, and used to reduce the chances of a release to the environment. OWSs are designed catch residual petroleum products that result from equipment cleaning and minor leaks that might occur during aircraft or vehicle cleaning operations. ***Do not*** drain or pour large quantities of petroleum product into OWSs or use emulsifying detergent during maintenance procedures. Either of these actions could cause the OWS to not function properly and result in a release to the environment. OWSs are used in conjunction with washracks and some maintenance facilities. OWSs are in the following locations:

TABLE 5. OIL WATER SEPARATORS' LOCATION		
Tank Number	Location	Capacity (Gallons)
119-1	Engine Shop	1000
AWR-1	Aircraft Washrack	6000
184-1	Alert Shed	1000
6-1	Vehicle Maintenance Washrack	1000
146-1	AGE Washrack	1000
189-1	Engine Test Cell (Hush House)	1000
359-1	Refueler Maintenance	0250
93-1	Munitions Missile Maintenance)	0050

2.15.1. All OWSs are equipped with leak-detection alarms. The leak-detection alarm consists of Oil and Water Separator and Reservoir Indicator Lights, a Test button, a Horn Off button, a green power light and a 95-dB audible alarm. Notify Civil Engineering (CE) immediately at 391-8521 or 391-8422 when the alarm horn sounds, or if any of the indicator lights are on, except for the green power light. CE is responsible for maintaining oil water separators (OWS) and responding to OWS alarms at NAS-JRB. After duty hours contact Security Police at 391-8684. CE personnel are the only ones authorized to silence the alarm.

★2.15.2. One thousand gallon OWSs are also located at the 122 ACPF, Camp Beauregard Alexandria LA, 214 EIS, Jackson Barracks, New Orleans LA, Bldg 305, and the 236 CBCS, Hammond, LA, Vehicle Maintenance Shop and Supply Warehouse. When the leak-detection alarm sounds at the following,

- 122 ACPF contact MSgt Larry Dillon,
- 214 EIS contact TSgt Perry Otilio.
- 236 CBCS contact MSgt Willie Gibbens.

3. Hazardous Waste Management Responsibilities:

3.1. **Fighter Wing Commander:** The Fighter Wing Commander (Squadron Commanders for Geographically Separated Units) implements the HWMP and is the responsible party for any notices of violation or enforcement actions brought against the installation.

Responsibilities include:

- signing any RCRA permit applications,
- performing no-notice inspections of HW generating activities,
- designating individuals to sign manifests,

- implementing the installation HWMP, and
- establishing enforcement procedures.

3.2. **Group Commander:** The Group Commanders ensure that HWMP procedures are fully implemented in their unit and implement enforcement procedures.

Duties include:

- appointing the Unit Environmental Coordinators,
- appointing the IAP and ACCS HW Managers, and
- reviewing the IAP, NHWCS, and Unit Environmental Coordinator (UEC) quarterly inspection reports.

3.3. **Environmental Manager:** The Environmental Management Hazardous Waste Management Program is one the duties of the EM. At small installations, the EM performs HW management at the planning level as well as the functional level.

Duties include:

- preparing and maintaining the HWMP,
- preparing and maintaining the installation Hazardous Waste Characterization Plan (Waste Analysis Plan),
- permit application,
- identifying all installation waste streams,
- characterizing HW,
- managing abandoned wastes,
- request the BEET to sample waste streams,
- maintaining the installation HW inventory, maintaining copies of all waste analyses and HW profile sheets,
- preparing, submitting and retaining HW regulatory reports (i.e.. HW activities notification and HW activity reports),
- formally approving and document IAP, NHWCS and ACCS locations,
- tracking all HW containers, maintaining a centralized HW container log,
- developing and issuing container selection criteria guidance,
- developing and implementing guidance for marking, labeling and dating installation HW containers,
- approving daily operational and weekly inspection checklist forms for IAPs, NHWCS, and ACCSs,
- inspecting installation IAPs, NHWCS, and ACCSs,
- approving the selection and location of ACCS site-specific contingency materials and equipment,
- approving ACCS site-specific contingency plans,
- maintaining EM copies of manifest and turn-in documentation files,
- developing HW compliance awards criteria, and
- implementing center commanders' enforcement procedures.

Additional duties may include:

- issuing and marking HW containers,
- answering UEC, IAP, NHWCS, or ACCS HW managers' questions concerning HW management,
- developing and implementing a HW training strategy plan,
- ensuring all appropriate personnel obtain necessary training,
- maintaining or coordinating HW records,
- arranging transportation of HW on-base,
- completing and checking HW turn-in documents,
- overseeing and checking container labeling and marking prior to off-base shipment,
- responding to HW spills or accidents,
- developing and filing spill notification and reports with appropriate authorities,
- accompanying federal or state officials during facility inspections, and

- responding to federal or state inquiries or letters or notices of violation.

3.4. **Navy Environmental:**

Duties:

- developing and issuing container selection criteria guidance,
- overseeing compliance with DOT regulations for off-base shipments from IAPs, ACCSs and Treatment Storage or Disposal Facility (TSDF),
- tracking manifests through final acceptance at the treatment or disposal facility, reconciling manifest discrepancies on an on-going basis, and
- completing and filing any necessary exception reports.

3.5. **Bioenvironmental Engineer:** The Bioenvironmental Engineer may be assigned duties under the HWMP.

Duties include:

- assisting EM in preparing and maintaining the installation Waste Analysis Plan and the TSDF, Waste Analysis Plan,
- assisting EM in preparing and maintaining the installation HW inventory,
- sampling and characterizing HW streams, and
- coordinating with EM in establishing IAPs NHWCSs and ACCSs.

Additional duties may include:

- performing annual industrial surveys of workplaces which generate HW,
- proscribing Personal Protection Equipment for personnel who handle HW, and
- conducting personal safety and health training for hazardous material users.

★3.6. **Ground Safety and Bioenvironmental:** Will refer any suspected Resource Conservation and Recovery Act (RCRA) problems to the Environmental Managers Office.

3.7. **HW Process Supervisor:** A supervisor is one who supervises personnel who handle hazardous materials or HWs, or maintains installation IAPs and evaluates personnel for performance of HW duties.

Duties include:

- identifying new or modified HW streams to EM,
- performing weekly evaluations to ensure new waste streams or process modifications are reported to EM,
- appointing IAP and ACCS HW managers and alternates,
- assisting the IAP and ACCS HW manager in developing a daily operational checklist and weekly inspection checklist for EM approval,
- overseeing container management at IAPs and ACCSs (including compatibility, marking, labeling and dating),
- assisting IAP and ACCS HW managers in developing a site-specific contingency plan and in maintaining contingency materials and equipment,
- endorsing the IAP and ACCS completed inspection checklists ,
- overseeing the maintenance of inspection records by ACCS HW managers,
- overseeing transportation of HW from the IAP or ACCS,
- ensuring IAP and ACCS HW managers' and alternates' job descriptions and performance plans are modified to include their HW management duties, and
- ensuring personnel obtain appropriate HW training and maintaining training records.

Additional duties may include inspecting IAPs and ACCSs.

3.8. Initial Accumulation Point HW Manager and Alternate: Initial Accumulation Point HW Managers and Alternates are responsible for maintaining an IAP in compliance with the installation's HWMP and RCRA requirements.

Duties include:

- maintaining HW profile sheets for pertinent waste streams,
- developing daily operational checklist and weekly inspection checklist for EM approval,
- using appropriate containers, maintaining a container low and reporting container status to EM according to the HWMP,
- marking HW containers, in accordance with the HWMP,
- dating HW containers,
- inspecting containers,
- prepare AF Form 2005 for full containers of waste,
- bring HQ LA ANG Form 12, AF Form 2005 and MSDSs to EPS (159 FW only), and
- arranging for transportation of waste within regulatory time limits (GSUs only).

Additional duties may include:

- identifying waste streams,
- obtaining appropriate containers,
- filling containers,
- completing HW turn-in documents,
- labeling containers, and
- transporting HW containers to the on base ACCS or TSDF (GSUs only).

3.9. Accumulation Site HW Manager and Alternate: Accumulation Site HW Managers and Alternates are responsible for maintaining an ACCS in compliance with the installation's HWMP and RCRA requirements.

Duties include:

- maintaining HW profile sheets for pertinent waste streams,
- developing daily operational checklist and weekly inspection checklist for EM approval,
- using appropriate containers, maintaining a container log, and reporting container status to EM,
- inspecting containers and maintaining an inspection log,
- marking labeling and dating HW containers,
- arranging transportation of waste within regulatory time limits,
- developing and maintaining a site-specific spill control plan,
- maintaining contingency materials and equipment, and
- completing HW turn-in documents.

Additional duties may include:

- identifying waste streams,
- obtaining appropriate containers,
- filling containers,
- responding to HW spills, and
- reporting HW spills.

3.10. Non-Hazardous Waste Collection Site Manager: Non-Hazardous Waste Collection Site Managers and Alternates are responsible for maintaining a NHWCS in compliance with the installation's HWMP and RCRA requirements.

Duties include:

- maintaining profile sheets for pertinent waste streams,
- developing daily operational checklist and weekly inspection checklist for EM approval,
- using appropriate containers, maintaining a container log, and reporting container status to EM,

- inspecting containers and maintaining an inspection log,
- marking labeling and dating containers,
- arranging transportation of waste within regulatory time limits,
- developing and maintaining a site-specific spill control plan,
- maintaining contingency materials and equipment, and
- completing turn-in documents.

Additional duties may include:

- identifying waste streams,
- obtaining appropriate containers,
- responding to spills, and
- reporting spills.

3.11. Hazardous Waste Generator: A Hazardous Waste Generator is anyone who, in the course of his or her employment, generates and handles a HW until it is placed in an IAP or ACCS. Generation may be continuous or periodic. Duties include identifying HW streams and process modifications to EM, supplying process information to assist EM in preparing the installation Waste Analysis Plan (Waste Characterization Plan) and the HW inventory and maintaining any pertinent HW profile sheets.

3.12. Hazardous Materials User: Hazardous Materials User includes anyone who, in the course of his or her employment, handles hazardous materials. Although this person is not normally a HW generator, hazardous material spill residue may be generated, or excess hazardous materials may need to be discarded as HW on occasion. Duties include reporting any HW waste generation to EM, and following procedures for turning in excess, unused or surplus HM in accordance with HQ LA ANGI 32-1, including attaching the required labels and MSDSs.

3.13. Hazardous Waste Transporter-On-Base: An On-Base Hazardous Waste Transporter is one who transports waste from an IAP to an NHCWS or the on base ACCS (90-day). Duties include reporting HW spills occurring during transit.

3.14. Hazardous Waste Transporter-off-Base: An Off-Base Hazardous Waste Transporter is one who transports waste from an IAP or the ACCS along public highways to an off base TSDF. In some instances, transportation may be from a remote site to an on base ACCS or TSDF along public highways. RCRA HW manifests are necessary and RCRA requirements for transporters must be met. Duties may include responding to HW spills; reporting HW spills: ensuring container labeling and marking is proper, and checking HW manifests for completeness and accuracy.

3.15. Contracting Buyers and Solicitors: Contracting administrative personnel who negotiate contracts for outside contractors to perform work on-base including the use of hazardous materials or generation of HW. Duties may include identifying potential contractor-generated HW streams to EM.

4. Prescribed Forms. HQ LA ANG Form 11, **Shop Hazardous Material Tracking Log**, HQ LA ANG Form 12, **Waste Generation Summary Log**, HQ LA ANG Form 16, **Accumulations Site/Initial Accumulation Point Weekly Inspection Checklist**, AF Form 2005, **Issue/Turn-In Request**, DD Form 1348-1, **DoD Single Line Item Release/Receipt Document**, DRMS Form 1930, **Hazardous Waste Profile Sheet**, DD Form 1348-1A, **Issue Release/Receipt Document**, DA Form 2765-1, **Request for Issue or Turn-In**.

BY ORDER OF THE GOVERNOR

BENNETT C. LANDRENEAU
Major General, LAARNG
The Adjutant General

OFFICIAL

//OFFICIAL//

JOHN G. ROBINSON, LT COL, LA ANG

Executive Support Staff Officer

Attachments:

1. Glossary of References and Supporting Information
2. Cradle to Grave Flow Diagram
3. UN Number Identification

GLOSSARY Of REFERENCES AND SUPPORTING INFORMATION

References

Title 40 Code of Federal Regulation, Protection of Environment, September 3, 1996
Office of the Federal Register, National Archives and Records Administration

Title 33 Louisiana Administrative Code, Environmental Quality Part V, Hazardous Materials and Hazardous Waste, September 3, 1996, Office of the State Register

Air Force Instruction 32-7005, *Environmental Protection Committees*

Air Force Instruction 32-7042, *Solid and Hazardous Waste Compliance*

LAC.33.V, Louisiana Administrative Code Title 33 Part V

Lab Safety, United Nation Number

Abbreviations and Acronyms

ACCS	Accumulation Site
AUL	Authorized Use List
BEET	Bioenvironmental Engineering Technician
CDC	Central Distribution Center
CE	Civil Engineering
DOT	Department of Transportation
DRMO	Defense Reutilization and Marketing Office
EM/(EM)	Environmental Manager/(Environmental Engineer)
EMO	Environmental Manager Office
EPC	Environmental Protection Committee
EPS	Environmental Protection Specialist
GSU	Geographically Separated Unit
HW	Hazardous Waste
HWM	Hazardous Waste Manager/Monitor (Shop)
HWMP	Hazardous Waste Management Plan
IAP	Initial Accumulation Point
IAW	in accordance with
LA ANG	Louisiana Air National Guard
MSDS	Material Safety Data Sheet
NAS-JRB	Naval Air Station-Joint Reserve Base
NHWCS	Non-Hazardous Waste Collection Site
OVS	Oil Water Separator
RCRA	Resource Conservation and Recovery Act
TSDF	Treatment Storage or Disposal Facility
UEC	Unit Environmental Coordinator
UN	United Nation Number

Terms

Abandoned Container -- Any container that is not under the control of an individual or organization, and ownership cannot be determined by reasonable inspection of the container.

Accumulation Site (NHWCS) -- Site at which storage of an unlimited quantity of hazardous waste is allowed for up to 90 days without a storage permit or interim status.

NHWCS Manager - Individual appointed by the Logistics Group Commander to operate the NHWCSs and act as the liaison between EM and the organization concerning hazardous waste management.

Checklist - A written list of items to be accomplished during an operation or evaluated during an inspection.

Defense Reutilization and Marketing Office (DRMO) - LA ANG agent for collection of recyclable petroleum products and reutilization, transfer, donation and sales of unused hazardous materials and non-hazardous commodities.

Environmental Management (EM) -- The office or organization responsible for managing the center's environmental issues. The Environmental Engineer (EM) is primarily responsible for the duties of EM, but some of the duties may be performed by the Bioenvironmental Engineer at the request of the EM.

Environmental Protection Committee -- Installation committee established by AFI 32-7005, *Environmental Protection Committees*, to ensure systematic interdisciplinary approach to achieve and maintain environmental quality.

Hazardous Waste (HW) -- Any solid waste defined in 40 CFR 261.3 or state HW management rules and regulations.

Hazardous Waste Labeling - Applying the specific information to the hazardous waste label, which identifies the contents and accumulation, start and full dates.

Hazardous Waste Profile - A written list of the hazardous constituents and characteristics of the waste from a particular hazardous waste stream.

Hazardous Waste Stream Inventory - A list of all hazardous waste streams used by LA ANG. This list, at a minimum, includes waste stream location, waste stream number, estimated annual quantity disposed, hazardous waste criteria and concentration limits, Environmental Protection Agency/state hazardous waste ID number, Environmental Protection Agency priority pollutant number, disposal container type and disposal method.

Initial Accumulation Point (IAP) -- A collection point at or near the point of generation where a waste may be initially accumulated. A maximum of 55 gallons of hazardous waste or one quart of acutely hazardous waste may be stored in an IAP at any one time. When the quantity limits are reached, the containers must be transferred to an accumulation site within 72 hours.

Resource Conservation and Recovery Act (RCRA) - As amended by the Hazardous and Solid Waste Amendments of 1984, sets minimum standards for "cradle-to-grave" management of hazardous waste.

Treatment Storage or Disposal Facility (TSDF) -- Facility for the treatment, storage or disposal of HW operating under RCRA interim status, or a permit issued by the: US Environmental Protection Agency or appropriate state regulatory authority.

TSDF Waste Analysis Plan - This describes the specific analytical procedures to be used when testing a waste. These procedures will be in accordance with 40 CFR 264.13 or 265.13.

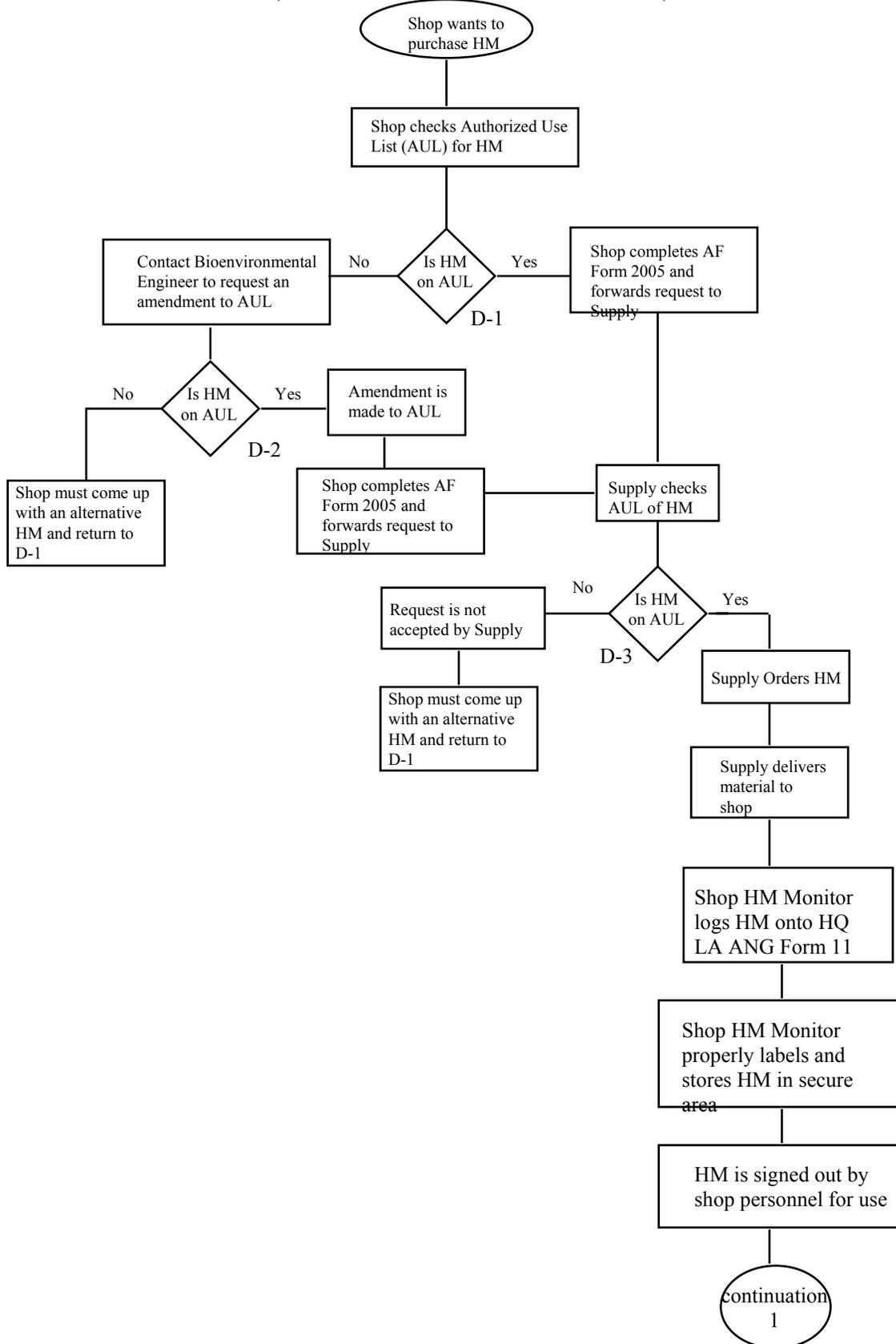
Uncharacterized - A waste suspected to be hazardous with unknown characteristics.

Waste Characterization - An evaluation of a waste to determine if it is a hazardous waste. This evaluation can be based on either the generator's knowledge of the process used in generating the waste or by analytical testing.

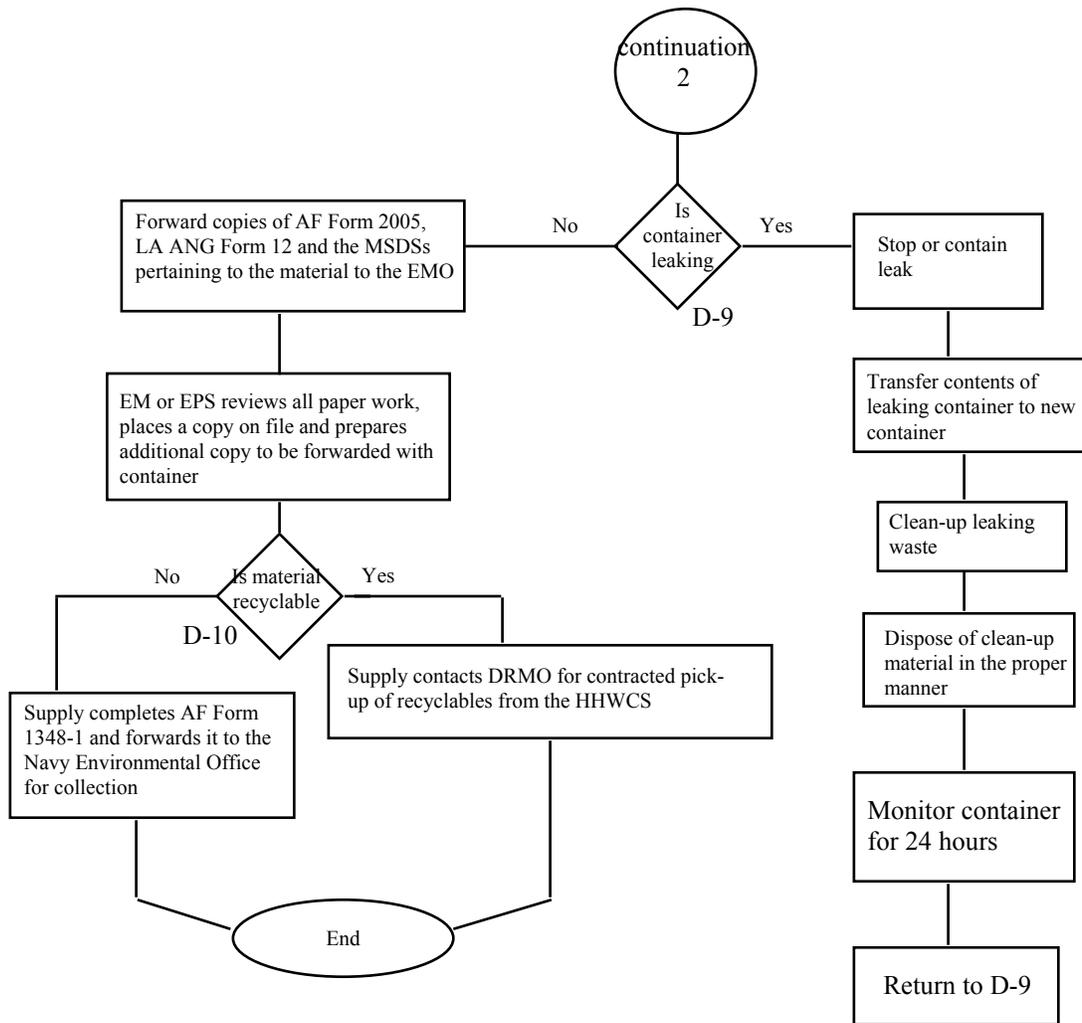
Waste Analysis Plan - Describes the procedures for identifying and evaluating hazardous waste streams in order to complete a hazardous waste profile sheet on each waste stream generated on the installation.

Waste Identification - Notifying Environmental Management of a waste stream that may be hazardous.

“CRADLE TO GRAVE” (Purchase of Hazardous Material)



“CRADLE TO GRAVE” (Disposal/Turn-in of Hazardous Waste)



UN NUMBERS USED BY DOT

HOW TO INTERPRET THE UN NUMBERS USED ON SHIPPING CONTAINER

EXAMPLE 1H1/Y1.8/100/90/USA/LS-2 2mm

1. TYPES OF PACKING. 1H1/Y1.8/100/90/USA/LS-2 2mm

This number is used to designate the **type of packaging**.
These numbers are as follows:

- “1” means a drum (OR PAIL)
- “2” means a wooden barrel
- “3” means a jerrycan
- “4” means a box
- “5” means a bag
- “6” means composite packaging
- “7” means pressure receptacle

PARTS: Subpart [178.502(a) (1)]

In the example used above, this marking would indicate a
1. Drum

2. MATERIAL OF CONSTRUCTION. 1H1/Y1.8/100/90/USA/LS-2 2mm

This letter (or letters) indicates the **material of construction**.
These letters could be as follows:

- “A” means steel (all types and surface treatments).
- “B” means aluminum.
- “C” means natural wood
- “D” means plywood.
- “F” means reconstituted wood.
- “G” means fiberboard.
- “H” means plastic.
- “L” means textile
- “M” means paper, multi-wall.
- “N” means metal {other than steel or aluminum
- “P” means glass, porcelain or stoneware

\parts: subpart L 178.502(a) (2)

In the example used above, this marking would indicate
1. Plastic

In the case of composite packaging, two capital letters are used, the first indicating material of the inner receptacle and the second, that of the outer receptacle. For example, a plastic receptacle in a steel drum is designated “6HA1”.

3. CATEGORY OF PACKAGING: EXAMPLE: 1H1/Y1.8/100/90/USA/LS-2 2mm

This number indicates the **category of Packaging** within the type of which the package belongs. They are as follows:

- “1” indicates a non-removable head drum (tight head).
- “2” Indicates a removable head drum (open head).

This number is used only when deemed appropriate.

Parts: Subpart L 178.502 (a) (3)

In the example used above, this marking would indicate

1 Tight Head

So the packaging identification code, which indicates the shipping container, would describe a plastic tight head drum.

4. PERFORMANCE STANDARD: 1H1/Y1.8/100/90/USA/LS-2 2mm

This letter is used to identify the **performance standard** under which the packaging design type has been successfully tested:

- “X” for packaging meeting packaging group I, II, and III tests. (most stringent)
- “Y” for packaging meeting packaging group II and III tests.
- “Z” for packaging meeting packaging group III test.

The packaging groups I, II, and III indicate the degree of danger presented by the material as either great, medium or minor, respectively.

Table 172.102 in column 5.

Parts: Subpart L 178.203 (a) (3).

For example, you want to ship Acetone. By checking the hazardous materials table, you find that Acetone has a Group II rating. Your packaging could have performance standard of “X” or “Y”, both of these meet Group II testing requirements. If you have a Group I chemical, it can only be shipped in a “X” packaging. A Group III chemical can be shipped in either a “X”, “Y”, or “Z” packaging because they all meet Group III testing requirements.

5. SPECIFIC GRAVITY / MASS: 1H1/Y**1.8**/100/90/USA/LS-2 2mm

This number is a designation of the **specific gravity for a liquid** or the **mass for a solid** for which the packaging design has been tested.

1. If the packaging is without inner packaging and is intended to contain liquids, this number will be the specific gravity, round down to the first decimal. This number may be omitted when the specific gravity does not exceed 1.2.
2. For packaging intended to contain solids or inner packaging, the number shall be maximum gross mass in kilograms.

Parts: Subpart I 178.502 (a) (4)

6. VAPOR PRESSURE: 1H1/Y1.8/100/90/USA/LS-2 2mm

This location will indicate one of two things:

1. For single and composite packaging intended to contain liquids, the test pressure in kilopascals rounded off the nearest 10KPs of the hydrostatic pressure test that the packaging design has successfully passed.
2. For packaging intended to contain solids or inner packaging, the letter “S” will appear.

Parts: subpart L.178.503 (a) (5) (i)

178.502 (a) (5) (i)

For **specific gravity (S.G.)** and **vapor pressure (V.P.)**, if your contents to be shipped have a specific gravity and vapor pressure equal to or less than those stated on the packaging, that packaging is approved for shipping your contents.

Example:

If contents are: 1.2 S.G. 150 V.P.

These packaging could be used:

1A1/Y1.2150.....Both S.G. and V.P. of contents are equal.

1A1/Y1.4/150.....S.G. of contents is less than that of the packaging.

1A1Y1.8/300.....Both S.G. and V.P. of contents are less than that of the packaging

To find the specific gravity and vapor pressure of your contents, please check the following resources: MSDS, Merck Index, Chemical Dictionary, CRC Handbook of Chemistry and Physics or contact the Manufacturer of the contents.

7. YEAR OF MANUFACTURE: 1H1/Y1.8/100/90/USA/LS-2 2mm

This number indicates the **year of manufacturing** packaging of types 1H and 3H shall also be marked with the month of manufacture, This can be done by any appropriate manner, and may be located in a different place from the remainder of the markings.

Parts: Subpart L 178.503 (a) (6)

8. COUNTRY OF MANUFACTURE: 1H1/Y1.8/100/90/USA/LS-2 2mm

This section indicates the **country of manufacture**.

Parts: Subpart L 178.503 (a) (7)

9. NAME OF MANUFACTURE: 1H1/Y1.8/100/90/USA/LS-2 2mm

This section will indicate the **name of the manufacturer** of the shipping container. This can be done by one the following:

1. Name and address of manufacturer.
 2. Symbol of manufacturer. *
 3. Name and address of symbol of the approval agency certifying compliance with UN standard
- Symbols, if used must be registered with the Associate Administrator for Hazardous Materials Safety.

Parts: Sub[art L 178.503 (a) (8)

10. MINIMUM THICKNESS: 1H1/Y1.8/100/90/USA/LS-2 2mm

This number indicates the **minimum thickness** of the packaging material, expressed in millimeters and abbreviated “**mm**”. This would be for metal or plastic drums or jerrycans intended for refuse as single packaging or the outer packaging of a composite packaging.

Parts: Subpart L 178.503 (a) (10)