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MCAS EL TORO  
SSIC # 5090.3

HAZARDOUS WASTE ANALYSIS PLAN  
AND  
CLOSURE PLAN FOR FACILITIES  
AT  
MCAS EL TORO, CALIFORNIA

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Prepared By:  
NBS/Lowry  
Engineers & Planners  
P.O. Box 28100  
San Diego, CA 92128

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## REFERENCES

- 1) Brown & Caldwell, October, 1984 (Revised January 1986)  
"Operation Plan for Temporary Hazardous Waste Collection Facilities, U.S. Marine Corps Air Station, El Toro, California."
- 2) California State Department of Health Services, Hazardous Waste Management Branch, Revised March 1985.  
"Instructions for Preparing an Operation Plan for a Hazardous Waste Storage and/or Treatment Facility which Involves Containers and/or Tanks Only," Form I.A.1.b.
- 3) Title 22, California Administrative Code Division 4 Environmental Health, Office of Administrative Hearings.
- 4) Title 23, California Administrative Code, State Water Quality Control Board, Office of Administrative Hearings.
- 5) Title 29, Code of Federal Regulations, Office of the Federal Register.
- 6) Title 40, Code of Federal Regulations, Parts 261 and 264, Office of the Federal Register.
- 7) Title 49, Code of Federal Regulations, Office of the Federal Register.
- 8) U.S. Environmental Protection Agency, April 1984. "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods, SW 846, Second Edition Revised."
- 9) California State Department of Health Services, Hazardous Waste Control Law, Health and Safety Code, Division 20, Chapter 6.5.
- 10) Neste, Brudin & Stone, Inc., March 1986. "Oil and Hazardous Substance Spill Prevention, Control and Countermeasure. Field Survey Report, SPCC Plan, and Spill Contingency Plan for the U.S. Marine Corps Air Station, El Toro, California."
- 11) Defense Logistics Agency, September 24, 1986. DRMO El Toro-YDG, "Assistance to DOD Activities Generating Hazardous Property, Hazardous Material/Hazardous Waste (HM/HW)."

## HAZARDOUS WASTE ANALYSIS AND CLOSURE PLANS

### MCAS EL TORO

#### PURPOSE AND SCOPE

This report presents the waste analysis plan and closure plan for facilities at the Marine Corps Air Station (MCAS) El Toro. This report is to be included as a part of the document entitled "Operation Plan for Temporary Hazardous Waste Collection Facilities, U.S. Marine Corps Air Station, El Toro, California"<sup>(1)</sup>. Both plans have been prepared in accordance with the criteria set forth in the California Department of Health Services (DHS) "Instructions for Preparing an Operation Plan for a Hazardous Waste Storage and/or Treatment Facility Which Involves Containers and/or Tanks Only"<sup>(2)</sup>.

The purpose of the waste analysis plan is to outline procedures for proper identification and handling of an unknown hazardous waste before it is stored. These procedures include methods for sampling, analyzing and classifying unknown wastes.

To control, minimize or eliminate threats to human health and the environment, State and Federal regulations require that a hazardous waste facility be closed in accordance with an

approved closure plan at the end of its intended life. The closure plan included in this report outlines the procedures necessary to close the existing hazardous waste storage facilities at MCAS El Toro in accordance with government regulations. The plan gives time requirements, decontamination steps and closure cost estimates. If a Hazardous Waste Collection Facility (HWCF) is relocated or a new one constructed the same closure requirements will apply.

#### V.(C) WASTE ANALYSIS PLAN

The waste analysis plan will be reviewed for accuracy and up-dated, if needed, annually. It will also be up-dated whenever the definition or means of classifying a hazardous waste changes. Refer to Appendix E for Annual Checklist to up-date Waste Analysis Plan. The checklist lists questions to help determine if the Plan needs revision.

The following waste analysis plan is based on enumerated scope items as noted in the DHS instructions. The highlighted scope item is repeated followed by the discussions.

1. For on-site facilities, identify in plan the following:
  - a. The parameters for which the waste will be analyzed.

Any unknown waste will be analyzed for its physical and chemical characteristics. Then, based on these characteristics, classified as hazardous or non-hazardous. Table A.1.1 lists common wastes known to be stored on the station. The parameters used to classify a waste as hazardous will be those as defined by Title 22, California Administrative Code, Article 11. They include:

- 1) Toxicity
- 2) Ignitability
- 3) Reactivity
- 4) Corrosivity

The specific characteristics of each of these parameters to test for are given in 40 CFR parts 261.21 through 261.24. See Appendix A for this documentation.

The analysis will be performed by a state certified laboratory. The lab will provide the Environmental/Energy office at MCAS El Toro with a written analysis

which includes the physical and chemical properties of the waste and the related waste code classifications in accordance with Title 40, Code of Federal Regulations, part 261 and the California Waste Code DHS 8022A Uniform Hazardous Waste Manifest.

In addition, the Defense Reutilization and Marketing Office (DRMO) requirements for identification prior to disposal will be considered. The DRMO requirements are given in Appendix B, Sections 5, 6 and 7.

b. The reasons why those parameters were selected for analysis.

These parameters were selected for analysis because they are the parameters set forth by both the State of California (Title 22, California Administrative Code) and the Environmental Protection Agency (40 CFR) for classifying a waste as hazardous.

c. The methods to be used for analyzing the waste.

The methods used for analyzing the waste will be those procedures as specified in Title 22, California Administrative Code, Chapter 30, Article 11.

- d. The sampling method to be used for obtaining a representative sample of the waste ("Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, 2nd Edition, U.S. Environmental Protection Agency, 1982 or equivalent).

The sampling method used will be developed and implemented in accordance with sampling methods given in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", SW-846, 2nd Edition, U.S. Environmental Protection Agency, 1982. The method used will provide the most reliable estimate of the wastes chemical properties given current regulatory and scientific objectives.

- e. The frequency with which the waste analysis will be repeated or reviewed for accuracy and timeliness.

All unknown wastes will initially be sampled, analyzed, classified as hazardous or non-hazardous and if hazardous, the type of hazard it presents. Thereafter, an analysis will be performed on the waste only if there

is reason to believe the properties of the waste have changed or if the parameters for classifying the waste as hazardous have changed.

- f. The methods to be used for ensuring compatibility of wastes with handling methods.

To ensure compatible handling methods:

- 1) Hazardous waste will be stored and transported in sealed containers. The containers will be in accordance with DOT 49 CFR, Parts 172, 173 and 178. In general, the majority of the HW generated by MCAS El Toro is flammable or toxic organics and can be stored in 18 gage or higher steel drums.
- 2) Protective gear will be worn whenever waste is handled. The level of protection required from the protective gear is dependent on the class of hazardous waste being handled. In general, the protective gear will include a PVC body suit, gloves, eye protectors and a respirator. The type of respirator varies with the class of waste being handled. For controlling organic vapors an organic respirator will be used; for acid gases a

respirator that can control acid gases will be used. Refer to OSHA 29 CFR Part 1910.132 through 1910.140 (Subpart I - Personal Protective Equipment) for the protective gear requirements.

- 3) Sampling procedures given in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" will be followed.
- 4) Unknown wastes will be protected from possible ignition or reaction by keeping them away from all sources of heat and other possibly incompatible wastes.
- 5) Known wastes will be stored in either a separate cell with other compatible wastes within a facility or stored in completely separate facilities with other compatible wastes.

## 2. OFFSITE FACILITIES

This Section does not apply.

## CLOSURE PLANS FOR MCAS EL TORO

### XIII. CLOSURE

This closure plan covers all identified Hazardous Waste Collection Facilities (HWCF) and waste storage tanks at MCAS El Toro. Refer to Figure 1 for location of these facilities and tanks.

This plan will be reviewed annually. It will be updated whenever the closure requirements change or the HWCF design, operation or usage changes. See Appendix E for Annual Checklist to up-date Closure Plan. The checklist lists questions to help determine if the Plan needs revision.

The closure plans are based on the requirements of Title 22, Article 23,<sup>(3)</sup> and the enumerated scope items as noted in the DHS "Instructions for preparing an operation plan for a hazardous waste storage and/or treatment facility which involves containers and/or tanks only."<sup>(2)</sup> In addition, tank site closure is based on Title 23, Article 7<sup>(4)</sup> and the County of Orange, "Guidelines for the Removal of an Underground Tank." Refer to Appendix C and D, respectively. The highlighted scope items are repeated followed by the discussions.

A. The closure plan must indicate:

1. How and when the facility will be partially and ultimately closed.

Presently, all operational HWCF's will remain fully open as long as the base remains open.

Although it is intended that all waste tanks will be used, one or more tanks may be taken out of service temporarily. A tank may be closed temporarily if it has presently stopped storing HW and it is intended that it will store HW again within the next 2 years. In this case, the closure requirements as outlined in Title 23, Article 7 Part 2671 - Temporary Closure will apply. The following outlines the temporary closure steps:

- a) All residual liquids, solids or sludges will be removed and properly disposed of at an approved treatment, storage or disposal area.
- b) The storage tank will be purged of flammable vapors to an acceptable level.

- c) The storage tank may be filled with a non-hazardous, non-corrosive liquid.
- d) Locked caps or concrete plugs will seal fill and access piping.
- e) Power service to pumps will be disconnected.
- f) Continuation of underground storage tank monitoring will be determined by the local agency.
- g) To verify that temporary closure actions are still in place, tanks will be checked a minimum of once ever 3 months.

The HWCF'S and waste tanks will be closed at a time when corresponding base activities close, when there is no longer a need for the facility or when the entire base is closed.

2. The maximum extent of the facility which will remain open during the life of the facility.

While HWCF'S/tanks are opreational they will be completely open.

3. How the need for maintenance after closure will be minimized.

At time of closure, the hazardous waste sites will be completely decontaminated eliminating the need for continued maintenance after closure. See Section A.6 for closure steps.

4. How escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall and waste decomposition products to groundwater, surface water or the atmosphere after closure will be controlled, minimized, or eliminated to protect health and the environment.

As the structures and surrounding area will be thoroughly decontaminated and all hazardous wastes properly disposed of offsite at time of closure, escaped hazardous waste, hazardous waste constituents, leachate, contaminated rainfall and waste decomposition products will not be a threat to the environment after closure.

5. An estimate of the maximum inventory of wastes in storage or in treatment at any given time during the life of the facility.

Building 673T3 can store a maximum of approximately 500-55 gallon drums. Each smaller HWCF can store a maximum of forty 55 gallon drums (2200 gallons) within a fenced enclosure.

The tank capacities are as follows:

<u>Tank No.</u>	<u>Volume</u>	<u>Tank Material</u>
Tank 189	50,000 gallons	Concrete
314E	50,000 gallons	Concrete
314W	50,000 gallons	Concrete
529	25,000 gallons	Concrete

6. The steps required to decontaminate facility equipment during closure.

Table A.6.1 lists by site, the minimum number of soil borings, minimum number of concrete core samples required and the types of analyses required to be performed on the samples. The table is based on information obtained from the Energy/Environmental Office at El Toro and from site investigations.

The following steps will be followed to decontaminate all sites:

- a. Containerize all remaining hazardous waste and hazardous waste residue from facilities/tanks and any appurtenant equipment and structures.

Haul containers to an approved treatment, storage or disposal area. For tanks, if they stored flammable substances the tank will be purged of the flammable vapors.

- b. Remove or decontaminate concrete.

#### Tank Sites

By the time of closure concrete tanks will be quite old and susceptible to deterioration. For this reason, they will be demolished and material hauled to an approved hazardous waste disposal area.

#### HWCF Sites

Concrete core samples will be taken from areas of concrete where spillage may have occurred. Refer to Table A.6.1 for the minimum number of samples required and the respective Site Plans for their approximate locations. The sample will be analyzed for the hazardous substances given in Table A.6.1. Also, the hazardous waste manifest for El Toro must be consulted to determine all hazardous waste types which

have been stored at the site during its lifetime. If any types of hazardous waste other than those given listed have been stored at the facility, the samples will also be tested for these substances. If the analysis shows the concrete to be contaminated beyond acceptable limits, the facility will be demolished and material hauled to a certified offsite hazardous waste disposal area. If the concrete is not contaminated beyond acceptable limits, the facility will be left in place and washed down and scrubbed to remove any surface contaminants. All wash water will be collected in containers, labeled and hauled to a proper disposal site.

- c. Excavate and haul all contaminated soil to an approved offsite hazardous waste disposal site.

Refer to Table A.6.1 for the minimum number of borings required. More borings may be necessary to accurately determine the extent of any contamination. See the respective Site Plans for approximate boring locations.

### Tank Sites

Soil samples will be taken and analyzed for the same hazardous substances listed for the concrete sample. See Section A.6.b.

Each tank site requires a minimum of three soil borings. One boring will be made alongside the tank near the fill valve. The other 2 will be made at the bottom of the excavated site centered beneath the tank. Borings will be deep enough to determine if any leakage has occurred. Samples will be taken at the surface and at every 5' interval.

### HWCF Sites

Soil samples will be taken and analyzed for the same hazardous substances listed for the concrete samples. See Section A.6.b.

One boring will be made in front of the facility entrance. The others will be made in the surrounding area where spills may have occurred or at locations of exterior storage. Borings should be made over a wide enough area so the limits of contamination can be defined.

At each boring, a soil sample will be taken at the surface and at a depth of 5 feet. If the sample at 5 feet shows signs of contamination, the boring will continue down and samples taken at 5 foot intervals until no contamination is found.

- d. Thoroughly steam clean all equipment used in closing the facility. All wash water will be containerized, labeled and disposed of at an approved hazardous waste site.
  
- e. In accordance with the County of Orange, Tank Closure Requirements, the following is also required for tank sites:
  - 1) A facility modification application plans and closure fee submitted to County of Orange, Environmental Health.
  
  - 2) Closure and/or excavation permits obtained from City or County Fire Department, City or County Building Department and the South Coast Air Quality Management District.

- 3) 48 hours notice provided to the Environmental Health and City and/or County Fire Department for an on-site inspection of the tank removal.
  - f. Obtain a certification from an independent engineer registered in the State of California verifying that the facility has been closed in accordance with the specifications of the approved closure plan.
  - g. Notify DHS of completed Closure.
  - h. Complete the tasks listed in the checklists for final closure (Appendix E).
7. A schedule for final closure, including anticipated date when wastes will no longer be received, anticipated date when final closure will be complete, and intervening milestone dates which will allow tracking of the progress of closure.

The California DHS will be notified at least 180 days prior to beginning closure activities at the hazardous waste sites. At this time the DHS will review the current closure plan to determine its adequacy and may prescribe modifications.

After the last hazardous waste has been received at the facility, it will be removed and disposed of offsite within 90 days and the closure activities of the site will be completed within 180 days.

8. An estimate of what it will cost to implement this closure plan, as described in Section 67002, Title 22, California Administrative Code.

Refer to Table A.8.1 for the closure cost estimate. The estimates are based on the following assumptions:

1. Some soil is contaminated and will need to be excavated.
2. A minimum of two soil samples will be taken at each boring.
3. All facilities/tanks must be demolished.
4. The contaminated soil and material must be hauled to an approved hazardous waste disposal area.

- B. Describe procedures to ensure that the closure plan is amended whenever changes in facility design or operation occur.

The closure plan will be reviewed and up-dated annually. It will also be up-dated whenever the closure requirements change or any of the HWCF's/tank's design, operation or usage change.

- C. Describe procedures to ensure that DHS will be notified at least 180 days prior to the expected date of closure.

Refer to Section A-7 (Schedule for Final Closure) and Closure Checklist (Appendix E).

- D. Describe procedures to ensure that, at closure, all hazardous wastes are removed from the following facilities and all appurtenant structures and equipment are decontaminated or removed:

- 1. Container storage areas.

Refer to Section A-6 (Steps to Decontaminate Facility) and Final Closure Checklist (Appendix E).

2. Tanks.

Refer to Section A-6 (Steps to Decontaminate Facility) and Final Closure Checklist (Appendix E).

- E. Describe plans to ensure that, at closure, all contaminated concrete and soils are sampled, analyzed and removed, if necessary.

Refer to Section A-6 (Steps to Decontaminate Facility) and Final Closure Checklist (Appendix E).

- F. Describe plans to ensure that when closure is complete, the owner or operator submits a certification by the owner or operator and an independent engineer registered in California that the facility has been closed in accordance with the specifications in the specifications in the approved closure plan.

Refer to Section A-6 (Steps to Decontaminate Facility) and Final Closure Checklist (Appendix E).

APPENDIX A

(iii) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.

[45 FR 78529, Nov. 25, 1980, as amended at 47 FR 36097, Aug. 18, 1982; 48 FR 14294, Apr. 1, 1983; 50 FR 1999, Jan. 14, 1985]

### Subpart B—Criteria for Identifying the Characteristics of Hazardous Waste and for Listing Hazardous Waste

#### § 261.10 Criteria for identifying the characteristics of hazardous waste.

(a) The Administrator shall identify and define a characteristic of hazardous waste in Subpart C only upon determining that:

(1) A solid waste that exhibits the characteristic may:

(i) Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

(ii) Pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed; and

(2) The characteristic can be:

(i) Measured by an available standardized test method which is reasonably within the capability of generators of solid waste or private sector laboratories that are available to serve generators of solid waste; or

(ii) Reasonably detected by generators of solid waste through their knowledge of their waste.

#### § 261.11 Criteria for listing hazardous waste.

(a) The Administrator shall list a solid waste as a hazardous waste only upon determining that the solid waste meets one of the following criteria:

(1) It exhibits any of the characteristics of hazardous waste identified in Subpart C.

(2) It has been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity (rat) of less than 50 milligrams per kilogram, an inhalation LC 50 toxicity (rat) of less than 2 milli-

grams per liter, or a dermal LD 50 toxicity (rabbit) of less than 200 milligrams per kilogram or is otherwise capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible, illness. (Waste listed in accordance with these criteria will be designated Acute Hazardous Waste.)

(3) It contains any of the toxic constituents listed in Appendix VIII unless, after considering any of the following factors, the Administrator concludes that the waste is not capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed:

(i) The nature of the toxicity presented by the constituent.

(ii) The concentration of the constituent in the waste.

(iii) The potential of the constituent or any toxic degradation product of the constituent to migrate from the waste into the environment under the types of improper management considered in paragraph (a)(3)(vii) of this section.

(iv) The persistence of the constituent or any toxic degradation product of the constituent.

(v) The potential for the constituent or any toxic degradation product of the constituent to degrade into non-harmful constituents and the rate of degradation.

(vi) The degree to which the constituent or any degradation product of the constituent bioaccumulates in ecosystems.

(vii) The plausible types of improper management to which the waste could be subjected.

(viii) The quantities of the waste generated at individual generation sites or on a regional or national basis.

(ix) The nature and severity of the human health and environmental damage that has occurred as a result of the improper management of wastes containing the constituent.

(x) Action taken by other governmental agencies or regulatory programs based on the health or environmental hazard posed by the waste or waste constituent.

### Environmental Protection Agency

(xi) Such other factors as may be appropriate.

Substances will be listed on Appendix VIII only if they have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms.

(Wastes listed in accordance with these criteria will be designated Toxic wastes.)

(b) The Administrator may list classes or types of solid waste as hazardous waste if he has reason to believe that individual wastes, within the class or type of waste, typically or frequently are hazardous under the definition of hazardous waste found in section 1004(5) of the Act.

(c) The Administrator will use the criteria for listing specified in this section to establish the exclusion limits referred to in § 261.5(c).

### Subpart C—Characteristics of Hazardous Waste

#### § 261.20 General.

(a) A solid waste, as defined in § 261.2, which is not excluded from regulation as a hazardous waste under § 261.4(b), is a hazardous waste if it exhibits any of the characteristics identified in this subpart.

[Comment: § 262.11 of this chapter sets forth the generator's responsibility to determine whether his waste exhibits one or more of the characteristics identified in this subpart.]

(b) A hazardous waste which is identified by a characteristic in this subpart, but is not listed as a hazardous waste in Subpart D, is assigned the EPA Hazardous Waste Number set forth in the respective characteristic in this subpart. This number must be used in complying with the notification requirements of section 3010 of the Act and certain recordkeeping and reporting requirements under Parts 262 through 265 and Part 270 of this chapter.

(c) For purposes of this subpart, the Administrator will consider a sample obtained using any of the applicable sampling methods specified in Appendix I to be a representative sample within the meaning of Part 260 of this chapter.

[Comment: Since the Appendix I sampling methods are not being formally adopted by the Administrator, a person who desires to employ an alternative sampling method is not required to demonstrate the equivalency of his method under the procedures set forth in §§ 260.20 and 260.21.]

[45 FR 33119, May 19, 1980, as amended at 48 FR 14294, Apr. 1, 1983]

#### § 261.21 Characteristic of ignitability.

(a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

(1) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has flash point less than 60°C (140°F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80 (incorporated by reference, see § 260.11), or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-78 (incorporated by reference, see § 260.11), or as determined by an equivalent test method approved by the Administrator under procedures set forth in §§ 260.20 and 260.21.

(2) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

(3) It is an ignitable compressed gas as defined in 49 CFR 173.300 and as determined by the test methods described in that regulation or equivalent test methods approved by the Administrator under §§ 260.20 and 260.21.

(4) It is an oxidizer as defined in 49 CFR 173.151.

(b) A solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number of D001.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981]

#### § 261.22 Characteristic of corrosivity.

(a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

(1) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using either an EPA test method or an equivalent test method approved by the Administrator under the procedures set forth in §§ 260.20 and 260.21. The EPA test method for pH is specified as Method 5.2 in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see § 260.11).

(2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined by the test method specified in NACE (National Association of Corrosion Engineers) Standard TM-01-69 as standardized in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see § 260.11) or an equivalent test method approved by the Administrator under the procedures set forth in §§ 260.20 and 260.21.

(b) A solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number of D002.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981]

§ 261.23 Characteristic of reactivity.

(a) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:

(1) It is normally unstable and readily undergoes violent change without detonating.

(2) It reacts violently with water.

(3) It forms potentially explosive mixtures with water.

(4) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(5) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(6) It is capable of detonation or explosive reaction if it is subjected to a

strong initiating source or if heated under confinement.

(7) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.

(8) It is a forbidden explosive as defined in 49 CFR 173.51, or a Class A explosive as defined in 49 CFR 173.53 or a Class B explosive as defined in 49 CFR 173.88.

(b) A solid waste that exhibits the characteristic of reactivity, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number of D003.

§ 261.24 Characteristic of EP toxicity.

(a) A solid waste exhibits the characteristic of EP toxicity if, using the test methods described in Appendix II or equivalent methods approved by the Administrator under the procedures set forth in §§ 260.20 and 260.21, the extract from a representative sample of the waste contains any of the contaminants listed in Table I at a concentration equal to or greater than the respective value given in that Table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering, is considered to be the extract for the purposes of this section.

(b) A solid waste that exhibits the characteristic of EP toxicity, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number specified in Table I which corresponds to the toxic contaminant causing it to be hazardous.

TABLE I—MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTIC OF EP TOXICITY

EPA hazardous waste number	Contaminant	Maximum concentration (milligrams per liter)
D004	Arsenic	5.0
D005	Barium	100.0
D006	Cadmium	1.0
D007	Chromium	5.0
D008	Lead	5.0
D009	Mercury	0.2
D010	Selenium	1.0
D011	Silver	5.0

TABLE I—MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTIC OF EP TOXICITY—Continued

EPA hazardous waste number	Contaminant	Maximum concentration (milligrams per liter)
D012	Endrin (1,2,3,4,10,10-hexachloro-1,7-epoxy-1,4,4a,5,8,7,8,8a-octahydro-1,4-endo, endo-5,8-dimethano-naphthalene.	0.02
D013	Lindane (1,2,3,4,5,6-hexachlorocyclohexane, gamma isomer.	0.4
D014	Methoxychlor (1,1,1-Trichloro-2,2-bis [p-methoxyphenyl]ethane).	10.0
D015	Toxaphene (C <sub>12</sub> H <sub>10</sub> Cl <sub>8</sub> , Technical chlorinated camphene, 67-69 percent chlorine).	0.5
D016	2,4-D. (2,4-Dichlorophenoxyacetic acid).	10.0
D017	2,4,5-TP Silvex (2,4,5-Trichlorophenoxypropionic acid).	1.0

Subpart D—Lists of Hazardous Wastes

§ 261.30 General.

(a) A solid waste is a hazardous waste if it is listed in this subpart, unless it has been excluded from this list under §§ 260.20 and 260.22.

(b) The Administrator will indicate his basis for listing the classes or types

of wastes listed in this Subpart by employing one or more of the following Hazard Codes:

Ignitable Waste	(I)
Corrosive Waste	(C)
Reactive Waste	(R)
EP Toxic Waste	(E)
Acute Hazardous Waste	(H)
Toxic Waste	(T)

Appendix VII identifies the constituent which caused the Administrator to list the waste as an EP Toxic Waste (E) or Toxic Waste (T) in §§ 261.31 and 261.32.

(c) Each hazardous waste listed in this subpart is assigned an EPA Hazardous Waste Number which precedes the name of the waste. This number must be used in complying with the notification requirements of Section 3010 of the Act and certain record-keeping and reporting requirements under Parts 262 through 265 and Part 270 of this chapter.

(d) The following hazardous wastes listed in § 261.31 or § 261.32 are subject to the exclusion limits for acutely hazardous wastes established in § 261.5: EPA Hazardous Wastes Nos. F020, F021, F022, F023, F026, and F027.

[45 FR 33119, Mar 19, 1980, as amended at 48 FR 14294, Apr 1, 1983; 50 FR 2000, Jan. 14, 1985]

§ 261.31 Hazardous wastes from non-specific sources.

The following solid wastes are listed hazardous wastes from non-specific sources unless they are excluded under §§ 260.20 and 260.22 and listed in Appendix IX.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Generic:		
F001	The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F002	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)

**APPENDIX B**

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DEFENSE LOGISTICS AGENCY  
DEFENSE PROPERTY DISPOSAL OFFICE  
EL TORO, P.O. BOX 21  
EAST IRVINE, CA 92650-0021

file

IN REPLY  
REFER TO

DRMO El Toro-YDG (John L. Rogers Jr., AV 997-3771/rh)

24 September 1986

Subject: Assistance to DoD Activities Generating Hazardous Property,  
Hazardous Material/Hazardous Waste (HM/HW)

TO: DRMO El Toro Distribution List

1. References:

- a. (DoD) Defense Utilization and Disposal Manual, DoD 4160.21-M.
- b. (DoD) Military Standard Requisitioning and Issuing Procedures (MILSTRIP) DoD 4140.17-M.
- c. (DoD) Defense Environmental Quality Program Policy Memorandum (DEQPPM) 80-5 dated 13 May 1980. Subject: Department of Defense Disposal Policy.
- d. (DoD) Defense Environmental Quality Program Policy Memorandum (DEQPPM) 80-8. Subject: RCRA Hazardous Waste Management.
- e. (DoD) DoD Consolidated Hazardous Materials/Hazardous Waste Disposal Guidance, June 1981.
  - (1) NAVSUP Notice 4400 dated 23 Oct 81.
  - (2) Marine Corps Order 4570 dated 24 Jan 82.
- f. (EPA) Resource Conservation and Recovery Act (RCRA) Code of Federal Regulations, Title 40, Parts 122, 261-265 and 270 as amended.
- g. (EPA) Toxic Substance Control Act (TSCA) Code of Federal Regulations (CFR) - Title 40, Part 761 "Polychlorinated Bipheyls" (PCBs) as amended.
- h. (DOT) Federal Department of Transportation Hazardous Materials Transportation Act (DOT) Code of Federal Regulations, Title 49, Parts 100-199 as amended.
- i. (CADOHS) State of California, California Hazardous Waste Control Law. Health and Safety Code, Division 20, Chapter 6.5 as amended.
- j. (CADOHS) State of California, California Administrative Code, Title 22, Division 4, Chapter 30, as amended.

2. The procedures are provided as implementing instructions of the cited references as they concern the processing and handling of Hazardous Material and/or Hazardous Waste. They are intended to assist Commanding Officers, Accountable Officers, Supply Officer, and Operating Personnel of Generating Activities in the day-to-day conduct of business with the DRMO.

3. Scheduling:

a. The Defense Reutilization and Marketing Service Policy for the turn-in of Hazardous Property (Hazardous Material/Hazardous Waste (HM/HW)) is that all activities generating Hazardous Property will preschedule pre-turn-in inspections by DRMO Personnel prior to any movement of Hazardous Property (HM/HW). Prescheduling of the turn-in of Hazardous Property (HM/HW) to the DRMO allows for the resolution of any Host/Generator conflicts which might include:

- (1) Inadequate Identification of the Hazardous Property.
- (2) Poor or improper packaging.
- (3) Deteriorated containers.
- (4) Improper handling.
- (5) Incomplete, inaccurate or inadequate documentation.
- (6) Requirements for a manifest.
- (7) Required documentation modification on the Disposal Turn-In Document (DTID).
- (8) Improper storage.
- (9) Accessibilty to property.

b. The DRMO will reject any turn-in that does not meet established criteria. The rejection will be documented on a DRMS Form 917, with the following distribution:

- (1) Generator, 1 copy
- (2) Commanding Officer of generating unit, 1 copy
- (3) MCAS El Toro Environmental Engineer, 1 copy
- (4) DRMO Environmental Office, 1 copy

c. The DRMO will reject all shipments of Hazardous Property (Hazardous Material) which have not received prescheduled turn-in inspection and certified by the Inspector, prior to the delivery to the DRMO.

4. Prescheduled Appointments:

a. For prescheduling appointments for turn-in of Hazardous Property (Hazardous Material/Hazardous Waste) contact:

- (1) Generating Activities located in the Long Beach/Seal Beach area  
contact:  
AV 833-2656  
COMM (213) 643-2656

(2) Generating Activities located in the MCAS Tustin-MCAS El Toro area  
contact:

DRMO Environmental Branch  
AV 997-3771  
COMM (714) 651-3771

b. For turn-in appointments following a successful prescheduling inspection  
call:

DRMO Environmental Branch  
AV 997-3771  
COMM (714) 651-3771

5. Definitions:

a. Hazardous Material (HM). A substance or combination of substances which because of its quantity, concentration or physical, chemical or infectious characteristics, pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed.

b. Hazardous Waste (HW). Any discarded material, liquid, solid, semi-solid or gaseous, in physical character, which meets the definition of a Hazardous Material, or is designated/listed as a hazardous waste by the Environmental Protection Agency (EPA) or the State of California, Department of Health Services, or other designated State Hazardous/dangerous waste control authority.

c. Extremely Hazardous Waste. Those substances or combination of substances as defined in California DOHS Title 22, Section 66570 through 66720 as extremely hazardous waste. As used in this letter, the words "EXTREMELY HAZARDOUS WASTE" will be used in conjunction with the words "Hazardous Waste". Therefore, both terms will be referred to as Hazardous Waste.

d. Basically all items of property falling in the categories listed below will be Hazardous Property (Hazardous Material/Hazardous Waste) and accountability will be transferred to the DRMO as such.

(1) Federal Supply Class (FSC) 6750, Photographic Chemicals

(2) Federal Group 68, Chemicals and Chemical Products

(3) Federal Group 80, With the exception of FSC 8020, Paints and Related Products

(4) Federal Group 91, POL Products

6. Waste Determination:

a. Reference l.c., DEQPPM 80-5 and Reference l.e., assigns DoD Components (Military Services) the responsibility for disposing of eight (8) specific types of material. The DRMO WILL NOT be involved with, nor will it accept any of the material for disposal. (See Enclosure 1).

b. The references cited in paragraph 6.a. above also designated a list of eight (8) categories of material which have been designated as predetermined Hazardous Waste. This list has subsequently been increased to a total of eleven (11) predetermined categories. Items appearing on this list must be transferred to the DRMO as a Hazardous Waste. (See Enclosure 2).

c. All others used and unused items will be transferred to the DRMO as Hazardous Material. The items are required by law to pass through the complete Disposal cycle, (i.e., Reutilization, Transfer, Donation and Sale) before the DRMO can make the determination that the item is to be discarded, at which time it becomes a waste and must be managed as such.

## 7. Identification

### a. National Stock Number (NSN) identified Hazardous Property.

(1) Property identified by National Stock Number on the DTID must include:

#### NEW, UNUSED HAZARDOUS PROPERTY

- (a) Valid NSN
- (b) Complete noun name as identified in the Supply System.

#### USED HAZARDOUS PROPERTY

- (a) Valid NSN
- (b) Complete noun name as identified in the Supply System.
- (c) Chemical Name of all hazardous contaminants and Noun name of non-hazardous contaminants.
- (d) Amount of hazardous, or non-hazardous contaminants based on users knowledge or laboratory testing of the item expressed in:
  - (1) Range of percentages
  - (2) Parts per million

### b. Local Stock Number (LSN) or Federal Supply Class (FSC) identified hazardous property.

(1) Hazardous Property identified by an LSN or FSC on the DTID must include:

#### NEW, UNUSED PROPERTY

- (a) LSN or FSC
- (b) Complete description, including manufacturer's part number, if available on the DTID.
- (c) Trade or Generic Name and the DOT Hazardous shipping name, class and ID Number must be identified in blocks U and X of the DTID. (For Example, "Toulene, Flammable Liquid, UN 1294").

#### USED PROPERTY

- (a) LSN or FSC
- (b) Chemical name of hazardous components
- (c) Chemical name(s) of all hazardous contaminants

(d) Trade name or generic name and the DOT Hazardous Shipping Name, class and ID Number in blocks U and X of the DTID. (Example: "Naptha, flammable, liquid UN 2553").

(e) Amounts of hazardous and non-hazardous components based on users knowledge or laboratory testing, expressed in:

- (1) Range of percentages
- (2) Parts per million

c. Predetermined Waste:

(1) Predetermined Waste (Enclosure 2) for turn-in to the DRMO must indicate on the DTID:

- (a) NSN, LSN or FSC
- (b) Name of the primary contents, noun name or the generic name
- (c) "HW" must be entered in block "C"
- (d) Complete descriptions of all contents and contaminants, and the manufacturer's part number when practical.
- (e) The specific amounts and types of hazardous waste contaminants must be identified by percentages in block "X" and "Y" of the DTID. (For example: "1,1,1. Trichoroethane, contaminated with 35 percent dirt, water, and grease") Laboratory analysis sheets will be attached to the DTID.
- (f) The DOT proper shipping name, hazard class, and "UN" or "NA" identification numbers must be entered in blocks "U" and "V" of the DTID.

8. Packaging

a. DOT Specification containers are not required for turn-in of hazardous materials, unless the HM is transported over a public highway to turn-in to the DRMO. However, hazardous property turned into the DRMO must be in containers that are non-leaking, safe to handle and must be able to withstand normal handling or the turn-in will be rejected until the hazardous property has been repackaged.

b. Department of Transportation (DOT) specified containers are required for storage and movement of hazardous wastes.

c. Hazardous property presented for turn-in to DRMO in the original military containers (MILSPEC) must include the turn-in activities certification of the true/condition/reliability of the container(s). The certification will be recorded in block "Y" of the DTID by the generating activity and will consist of one of the following statements:

- (1) Packaged in accordance with DOT 49, CFR 171-179
- (2) Package equals/exceeds DOT 49, CFR 171-179
- (3) Packaging is substandard to DOT 49, CFR 171-179 (This type of packaging is not acceptable for Hazardous Waste (HW) or off-site Hazardous Property turn-ins.)

9. Labeling. Generating Activities will mark and label all Hazardous Material, and hazardous containers as described in 49 CFR - Subchapter C, Parts 172.300 and 172.400. Failure to label hazardous material for turn-in will be cause for rejection of turn-in and documented on DRMS Form 917.

10. Procedures for preparation of the disposal turn-in document (DTID) for Hazardous Materials and Hazardous Wastes turned-in to DRMO El Toro.

a. All property turned in to the DRMO will be done so on a properly prepared DTID. Standard procedures for preparation of a DTID are found in paragraph 5-5 of DoD 4140.17-M, MILSTRIP and DoD 4160.21-M, Chapter 21. In addition, insert "HM" in block "C" if turn-in is hazardous material, or "HW" if the turn-in is hazardous waste.

b. The DTID will be modified to satisfy internal DoD Auditing Requirements. Where they exist, State/EPA required shipping manifests will be used in addition to the modified DTID for "Transporting Hazardous Waste". This DRMO receipts for and accepts hazardous waste, PCB items and lithium batteries on site at the generating activities storage site. NO, ABSOLUTELY NO HAZARDOUS WASTE WILL BE TRANSPORTED TO THE DRMO.

(1) Block "A", "Shipped From". The generating activity identified by name and DoDAAC will add telephone number and EPA identification number. Installations qualifying as RCRA Small Quantity Generators will enter "Small Generator Exclusion" in lieu of the EPA Identification Number.

(2) Block "B", "Shipped TO". DRMO El Toro - SZ3169  
P O Box 21  
E. Irvine, CA 92650-0021  
714-651-3771 CA6170023208

(3) Block "C", "Mark For". (Normally left blank), Insert hazardous code;

- (a) HM, if item is turned in as Hazardous Material
- (b) HW, if item is turned in as Hazardous Waste

(4) Block "U", "Freight Classification Nomenclature". Add the proper DOT Shipping Name for hazardous material (HM) or the EPA/State Hazardous Waste (HW) identification class for hazardous waste. Also include the six character (Two alpha, four numeric) DOT Identification Number as listed in DOT 49 CFR 172-101 (Federal Department of Transportation Hazardous Materials Table) for each specific type of hazardous material (HM) transported to the DRMO or hazardous waste accepted in place. The two alpha and four numeric number must be in block "U" on the DTID regardless of the classification of property as HM or HW. The DOT identification number provides specific emergency spill response information to emergency spill personnel in the event that any HM or HW is spilled during transportation.

(5) Block "W" and "X".

(a) For NSN Hazardous Waste items, block "W" will be used for internal purposes and block "X" must contain the word "WASTE", followed by the items proper shipping name as defined in DOT 40 CFR 172.

(b) For NON-NSN (LSN-FSC) Hazardous Waste items, enter the words "WASTE" followed by the items Proper shipping name as defined in DOT 40 CFR 172 and as much descriptive data as possible in blocks "W" or "X" and/or attach additional documentation with this data to the DTID.

(6) Block "Y". Use this block (in lieu of blocks AA through EE for the Deposit Account Number).

NOTE: This is not an entry required on behalf of Hazardous Property Documentation, but a movement of data prescribed to permit the use of previously identified blocks for other purposes.

(7) Blocks "AA" and "BB". When transporting hazardous material to DRMO use these two blocks to enter the transporters name. When the transporter is hauling only hazardous materials, he need only enter the name of the registered owner in block "BB". If the vehicle is owned by a DoD component, the name of the DoD component having physical possession of the vehicle is the vehicle owner. (e.g., Navy vehicle, owner U. S. Navy)

(8) Block "CC". Transporters (as identified in block AA) of hazardous material (HM) must sign and date the turn-in document at the time he accepts the shipment and in all cases prior to transporting the hazardous material (HM) to the DRMO.

\* IMPORTANT NOTICE: The DoD Form 1348-1 (Disposal Turn-In Document complies with all the Federal Department of Transportation documentation requirements as a valid shipping document or standard bill of lading for legally shipping or transporting regulated quantities of hazardous materials over public roads and highways if it is properly filled out. To comply with DOT Requirements it is essential that the DTID be accurately and completely filled out and signed in accordance with the procedures described in subparagraphs 7 and 8 above.

(9) Blocks "DD", "EE", "FF" and "GG". All hazardous waste generators must insert the following statement in these blocks of the DTID, (NOTE the following certification statement must be produced by a rubber stamp, typewriter or machine printed, handwritten copies are not acceptable).

"This is to certify that the above named materials are properly classified, described, packaged, marked and labelled, and are in proper condition for transportation according to the applicable regulation of DOT and/or EPA."

The turn-in activity must personally sign under the certification statement at the time of turn-in as the Hazardous Waste (HW) generator to comply with RCRA (EPA) and State of California laws and regulations.

(10) Blocks 7, 8, 9 and 10. These blocks are for the exclusive use of the -DRMO. The DRMO will sign and enter the date of receipt of the Hazardous Material/ Hazardous Waste (HM/HW) in block 8. The signed copy will serve as a receipt of both accountability and responsibility for Hazardous Material, and for the accountability of hazardous waste. A signed copy of the DTID will be returned to the generating activity by mail and will serve as a valid receipt of both accountability and/or responsibility for the hazardous material or hazardous waste by the DRMO.

c. It is to be stressed that the information outlined in paragraph 10.b; (4), (7) and (8) above is required when transporting hazardous materials/hazardous wastes listed in 40 CFR 261.13 through 261.33 of RCRA or 49 CFR Part 172.101, Federal Department of Transportation Regulations over public highways.

d. When shipments of hazardous material are made over public roads and highways, one copy of the DTID should be firmly attached to the material and the remaining copies should be placed in an envelope or carrier and be in the cab with the driver to comply with RCRA (EPA) and DOT regulations.

#### 11. Physical Custody

a. Physical Custody of hazardous material, i.e., those items that are new, unopened, and unused will be accepted by the DRMO, when pre-turn-in inspection has been properly performed, and turn-in appointments has been scheduled.

b. THE DRMO WILL NOT ACCEPT PHYSICAL CUSTODY OF HAZARDOUS WASTE, as the DRMO does not have conforming storage for storage of hazardous waste. Hazardous waste accountability will be accepted by the DRMO for ultimate disposal, but the Hazardous Waste will remain at the turn-in activities storage site.

#### 12. Empty Container Management

a. For the purpose of turning in empty containers to DRMO El Toro, the containers are divided into three categories:

(1) Non-Hazardous: If a container has been rinsed by the generating activity or prior to turn-in to DRMO using a proper process that renders it non-hazardous, the container should indicate "RINSED". Block "C" of the DTID should reflect "NON-HZ/RINSED". Blocks "W" and "X" of the DTID should identify:

- (a) That it is a rinsed container
- (b) Layman description of container, i.e., 55 gl. drum

(2) Hazardous: For those containers whose last contents are known to have been a hazardous substance and the container has not been triple rinsed, blocks "W" and "X" of the DTID should identify the NSN/LSN/FSC and generic name of the previous contents and hazardous characteristics of the substance. Block "C" will be coded "HM". The DRMO will reject the turn-in if the container marking, label, and documentation on the DTID are not correct.

(3) Extremely Hazardous (or Extremely Dangerous): Containers that previously contained an extremely hazardous substance. (Non-Triple Rinsed) will be turned in as extremely hazardous waste containers. Blocks "W" and "X" should identify:

(a) NSN/LSN/FSC and the generic name of the previous extremely hazardous contents and hazardous characteristics of the substance. Block "C" will be coded "HW". The DRMO will reject the turn-in if the container marking, label and documentation on the DTID are not correct.

(b) Since extremely hazardous container(s) residue is regulated by EPA and CADOHS regulations, block "C" of the DTID must be coded "HW"

(3) Scrap/Crushed Containers: As a procedural matter, DRMO El Toro does not accept crushed containers. However, when it is in the best interest of DoD, the DRMO has authority to grant exceptions to this policy. In granting such waivers each case will be judged on its own merits.

b. General Guidance

(1) The generator will prepare all DTIDs (DD 1348-1) for containers to reflect the NSN/LSN/FSC of the container itself in card columns 8-22 of the DTID regardless of its previous contents. The NSN/LSN of the containers last previous contents MUST NOT be used. Generators should print the last 8 digits of the DTID on each container (using grease pencil) for identification purposes.

(2) All containers must be safe to handle when turned into the DRMO. It should be noted however that the Department of Transportation regulations require that empty containers of 110 gallons or less, previously containing hazardous or extremely hazardous substance, be offered for transportation in the same manner as when they contained the hazardous or extremely hazardous substance. Therefore, when containers are turned-in all component parts shall be intact. (For example: Bungs, gaskets, covers, and other applicable requirements.)

(3) The DRMO shall review DTIDs and inspect empty containers prior to turn-in to assure the generator has complied with the procedures as outlined. The DRMO will work with generators to correct container problems, however, the DRMO will reject in writing (DRMS Form 917, Property Disposal Reject/Advice) the turn-ins when encountering improperly prepared DTIDs.

(4) When a removable interior lining has been used within a container and the outer container has not been contaminated through removal of the inner liner, the outer container can be classified as non-hazardous and will be received under the procedures for non-hazardous containers.

13. Battery Management

a. Lithium Batteries.

(1) The DRMO will not accept physical custody of lithium batteries. The DRMO will accept accountability for lithium batteries for ultimate disposal, but the lithium batteries will remain at the turn-in activities storage site.

(2) The DTID will be prepared as indicated in paragraph 10 above and must indicate "HW" in block "C".

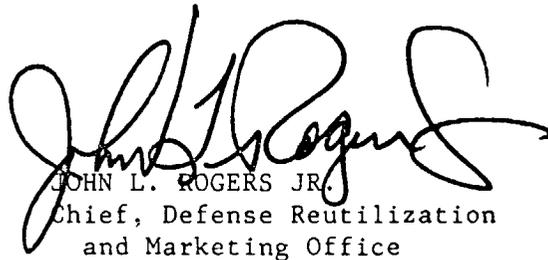
b. Vehicle and Nickel Cadium

(1) The DRMO will accept drained, vehicle and nickel-cadium batteries. The batteries should be placed on their sides on a pallet no more than two high and strapped to the pallet. The nickel-cadium batteries should be placed in a container standing upright.

(2) The DTID will be prepared as indicated in paragraph 10 above and must indicate "HM" in block "C".

14. This DRMO is prepared to advise you of turn-in procedures for all Hazardous Property (Hazardous Material/Hazardous Waste) and to assist you to correctly prepare the Disposal Turn-In Document (DTID, 1348-1). In the event additional information, assistance or guidance is required, you may request assistance from the DRMO Environmental Protection Specialist, Autorvon 997-3771 or Commercial 714-651-3771. We offer further assistance in disposing of items in place, for items that are not feasible to transport to the DRMO due to lack of facilities, transportation, technical expertise or available resources.

ENCL



JOHN L. ROGERS JR.  
Chief, Defense Reutilization  
and Marketing Office

HAZARDOUS WASTE THAT IS THE RESPONSIBILITY OF THE MILITARY SERVICES TO DISPOSE OF:

1. DRMO WILL NOT ACCEPT THESE ITEMS:

a. TOXICOLOGICAL, BIOLOGICAL, RADIOLOGICAL, AND LETHAL CHEMICAL WARFARE MATERIALS WHICH BY U.S. LAW MUST BE DESTROYED. DISPOSAL OF THE BY-PRODUCTS OF SUCH MATERIAL IS THE RESPONSIBILITY OF THE DoD COMPONENT WITH ASSISTANCE BY DLA.

b. MATERIAL WHICH CANNOT BE DISPOSED OF IN ITS PRESENT FORM DUE TO MILITARY REGULATIONS, e.g.,

c. MUNICIPAL TYPE GARBAGE, TRASH, AND REFUSE RESULTING FROM RESIDENTIAL, INSTITUTIONAL, COMMERCIAL, AGRICULTURAL, AND COMMUNITY ACTIVITIES WHICH THE FACILITIES' ENGINEERS OR PUBLIC WORKS OFFICE ROUTINELY COLLECT.

d. CONTRACTOR GENERATED MATERIALS WHICH ARE THE CONTRACTOR'S RESPONSIBILITY FOR DISPOSAL UNDER TERMS OF THE CONTRACT.

e. SLUDGES AND RESIDUES GENERATED AS A RESULT OF INDUSTRIAL PLANT PROCESSES OR OPERATIONS.

f. REFUSE OR OTHER DISCARDED MATERIALS WHICH RESULT FROM MINING, DREDGING, CONSTRUCTION, AND DEMOLITION OPERATIONS.

g. UNIQUE WASTES AND RESIDUES OF A NON-RECURRING NATURE WHICH RESEARCH AND DEVELOPMENT EXPERIMENTAL PROGRAMS GENERATE.

DoD COMPONENTS ARE RESPONSIBILITY FOR DISPOSAL OF THE FOLLOWING CATEGORIES OF PROPERTY:

1. TOXICOLOGICAL, BIOLOGICAL, RADIOLOGICAL, AND LETHAL CHEMICAL WARFARE MATERIALS WHICH BY U.S. LAW MUST BE DESTROYED. DISPOSAL OF THE BY-PRODUCTS OF SUCH MATERIAL IS THE RESPONSIBILITY OF THE DoD COMPONENTS WITH ASSISTANCE FROM DLA.

2. "MATERIAL WHICH CANNOT BE DISPOSED OF IN ITS PRESENT FORM DUE TO MILITARY REGULATIONS, e.g.,". THIS CATEGORY WOULD INCLUDE THOSE INSTANCES WHERE MILITARY REGULATIONS REQUIRE THE OBLITERATION OF ALL MARKINGS THAT COULD RELATE AN EXCESS MATERIAL TO ITS OPERATIONAL PROGRAM. ONCE THE APPROPRIATE ACTIONS ARE TAKEN TO MEET THE MILITARY REGULATION, THE RESULTING MATERIAL COULD THEN BE TURNED IN TO THE SERVICING DRMO.

3. "MUNICIPAL TYPE GARBAGE, TRASH AND REFUSE RESULTING FROM RESIDENTIAL, INSTITUTIONAL, COMMERCIAL, AGRICULTURAL, AND COMMUNITY ACTIVITIES WHICH THE FACILITIES' ENGINEER OR PUBLIC WORKS OFFICE ROUTINELY COLLECTS."

4. "CONTRACTOR GENERATED MATERIALS WHICH ARE THE CONTRACTOR'S RESPONSIBILITY FOR DISPOSAL UNDER THE TERMS OF THE CONTRACT."

5. "SLUDGES RESULTING FROM MUNICIPAL TYPE WASTEWATER TREATMENT FACILITIES."

6. "SLUDGES AND RESIDUES GENERATED AS A RESULT OF INDUSTRIAL PLANT PROCESSES OR OPERATIONS." THE SERVICES ARE RESPONSIBLE FOR DISPOSAL OF SLUDGES AND COMINGLED MATERIALS RESULTING FROM INDUSTRIAL PLANT FACILITIES WHICH ARE ACCUMULATED INTO COMINGLED STORAGE FOR DISPOSITION IN LIEU OF PROCESSING THROUGH INDUSTRIAL WASTE TREATMENT FACILITIES. DRMOs WILL ACCEPT ALL OTHER SEGREGATED GENERATIONS OF MATERIAL FROM INDUSTRIAL PLANT PROCESSES OR OPERATIONS WHERE THE BASIC INGREDIENTS AND CONTAMINANTS ARE IDENTIFIED.

7. "REFUSE AND OTHER DISCARDED MATERIALS WHICH RESULT FROM MINING, DREDGING, CONSTRUCTION, AND DEMOLITION OPERATIONS."

8. UNIQUE WASTES AND RESIDUES OF A NON-RECURRING NATURE WHICH RESEARCH AND DEVELOPMENT PROGRAMS GENERATE.

## LIST OF PREDETERMINED HAZARDOUS WASTES

1. F001 - The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1, 1, 1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons.
2. F002 - The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1, 1, 1-trichloroethane, chlorobenzene, 1, 1, 2-trichloro-1, 2, 2-trifluoroethane, ortho-dichlorobenzene, and trichlorofluoromethane.
3. F003 - The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol.
4. F004 - The following spent non-halogenated solvents: cresols and cresylic acid, and nitrobenzene.
5. F005 - The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, and pyridine.
6. F007 - Spent cyanide plating bath solutions from electroplating operations (except for precious metals electroplating spent cyanide plating bath solutions.\*)
7. F009 - Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process (except for precious metals electroplating spent stripping and cleaning bath solutions.\*)
8. F015 - Spent cyanide bath solutions from mineral metals recovery operations.

### Added by DPDS Msg 2318152 July 82:

9. Used/spent hazardous materials specifically identified by the State in which the property is located as a hazardous waste.
10. Acutely hazardous containers that have not been triple rinsed with an appropriate solvent, cleaned by an equivalent method approved by EPA or had the liner removed.
11. Any "used" chemical whose generic is listed at 40 CFR 261.31 (Appendix C items) will be considered "spent" and, as such, will be managed as a pre-determined hazardous waste.

§ 261.32 Hazardous waste from specific sources.—Continued

Industry and EPA hazardous waste No	Hazardous waste	Hazard code
K054	Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue, and shearing	(T)
K055	Buffing dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, and through-the-blue	(T)
K056	Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue, and shearing	(T)
K057	Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue and shearing	(T)
K058	Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, and through-the-blue	(R, T)
K059	Wastewater treatment sludges generated by the following subcategory of the leather tanning and finishing industry: hair save/non-chrome tan/retan/wet finish	(R)
Iron and Steel:		
K060	Ammonia still lime sludge from coking operations	(M)
K061	Emission control dust/sludge from the electric furnace production of steel	(M)
K062	Spent pickle liquor from steel finishing operations	(M, T)
K063	Sludge from lime treatment of spent pickle liquor from steel finishing operations	(M)
Primary Copper: K064	Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production	(M)
Primary Lead: K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities	(M)
Primary Zinc:		
K066	Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production	(M)
K067	Electrolytic anode slimes/sludges from primary zinc production	(M)
K068	Cadmium plant leach residue (iron oxide) from primary zinc production	(M)
Secondary Lead: K069	Emission control dust/sludge from secondary lead smelting	(M)

§ 261.33 Discarded Commercial Chemical Products, Off-Specification Species, Containers, and Spill Residues Thereof.

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded:

(a) Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in paragraphs (e) or (f) of this section.

(b) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraphs (e) or (f) of this section.

(c) Any container or inner liner removed from a container that has been used to hold any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraph (e) of this section, unless:

(1) The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;

(2) The container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or

(3) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.

(d) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any commercial chemical product or manufacturing chemical

intermediate having the generic name listed in paragraphs (e) or (f) of this Section.

[Comment: The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in . . ." refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in paragraphs (e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in paragraphs (e) or (f), such waste will be listed in either §§ 261.31 or 261.32 or will be identified as a hazardous waste by the characteristics set forth in Subpart C of this Part.]

(e) The commercial chemical products or manufacturing chemical intermediates, referred to in paragraphs (a) through (d) of this section, are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in § 261.5(c). These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous waste No	Substance <sup>1</sup>
	1080 see P058
	1081 see P057
	(Acetato)phenylmercury see P092
	Acetone cyanohydrin see P069
P001	3-(alpha-Acetoxybenzyl)-4-hydroxycoumarin and salts
P002	1-Acetyl-2-thiourea
P003	Acridine
	Agaric see P017
	Agrocan GN 5 see P092
	Aircent see P069
	Alkifer see P048

—Continued

Hazardous waste No	Substance <sup>1</sup>
P004	Aldrin
	Algrimycin see P082
P005	Allyl alcohol
P006	Aluminum phosphide (R)
	ALVIT see P037
	Aminoethylene see P064
P007	5-(Aminomethyl)-3-isoxazolol
P008	4-Aminopyridine
	Ammonium metavanadate see P119
P009	Ammonium picrate (R)
	ANTIMUCIN WDR see P082
	ANTURAT see P073
	AQUATHOL see P068
	ARETIT see P020
P010	Arsenic acid
P011	Arsenic pentoxide
P012	Arsenic trioxide
	Athrombin see P001
	AVITROL see P008
	Azindene see P054
	AZOFOS see P061
	Azophos see P061
	BANTU see P072
P013	Barium cyanide
	BASENITE see P030
	BCME see P016
P014	Benzeneethiol
	Benzocapin see P080
P015	Beryllium dust
P016	Bis(chloromethyl) ether
	BLADAN-M see P071
P017	Bromacetone
P018	Brucine
P019	2-Butanone peroxide
	BUFEN see P082
	Butaphene see P020
P020	2-sec-Butyl-4,6-dinitrophenol
P021	Calcium cyanide
	CALDON see P030
P022	Carbon disulfide
	CERESAN see P062
	CERESAN UNIVERSAL see P082
	CHEMOX GENERAL see P030
	CHEMOX P.E. see P020
	CHEM-TOL see P060
P023	Chloroacetaldehyde
P024	p-Chloroaniline
P025	1-(p-Chlorobenzoyl)-5-methoxy-2-methylindole-3-acetic acid
P026	1-(p-Chlorophenyl)thiourea
P027	3-Chloropropionitrile
P028	alpha-Chlorotoluene
P029	1-Chloro-2-methyl-2-propanol
	CHE TOX see P108
	Coumadin see P001
	Coumefen see P001
P030	Cyanides

Hazardous waste No.	Substance	Hazardous waste No.	Substance	Hazardous waste No.	Substance
P031	Cyanogen		MALIX see P060	P102	2-Pyridin-1-yl
P032	Cyanogen bromide		MAHEVAN see P001		PROTHROMADIN see P001
P033	Cyanogen chloride		MAR FRIN see P001		QUICKSAM see P002
	Cyfluthrin see P040		MAHIND MAR FRIN see P001		QUINTOX see P037
P034	2-(4-chlorophenyl)-4,4-dimethylphenyl (1,1-DP) see P001		MAVIRAN see P001		RAT AND MICE BAIT see P001
	DN THIMOL see P001	P065	MEGATOX see P005		RAT-A-WAY see P001
	DN THINIL see P001		Mercury fulminate		RAT-B-GON see P001
	DN see P043		MEHSOLITE see P002		RAT-O-GIDE #2 see P001
P035	2,4-Dichlorophenoxyacetic acid (2,4-D)		METACID 50 see P071		RAT-GUARD see P001
P036	Dichlorophenylarsine		METAFOS see P071		RAT-KILL see P001
	Dicyanogen see P031		METAPHOR see P071		RAT-MIX see P001
P037	Dieldrin		METAPHOS see P071		RATS-NO-MORE see P001
	DIELDREX see P037	P066	METASOL 30 see P002		RAT-OLA see P001
P038	Dimethylarsine		Methomyl		RATTOREX see P001
P039	0,0-Dimethyl S-(2-(methylthio)ethyl)ester of phosphorothioic acid	P067	2-Methylaziridine		RATTUNAL see P001
			METHYL-E 805 see P071		RAT-TROL see P001
P040	0,0-Diethyl-O-(2-pyrazinyl)phosphorothioate	P068	Methyl hydrazine		RO-DETH see P001
P041	0,0-Diethyl phosphoric acid, O-p-nitrophenyl ester		Methyl isocyanate see P064		RO-DEX see P106
P042	2,4-Dihydroxy-alpha-(methylamino)-methyl benzyl alcohol	P069	2-Methylacetonitrile		ROSEX see P001
		P070	2-Methyl-2-(methylthio)propionaldehyde-O-(methylcarbonyl) oxime		ROUGH & READY MOUSE MIX see P001
P043	Di-isopropylfluorophosphate		METHYL NIRON see P042		SANASEED see P106
	DIMETATE see P044	P071	Methyl parathion		SANTOBRITE see P090
	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-endo see P060		METRON see P071		SANTOPHEN 20 see P090
			MOI E DEATH see P108		SCHRADAN see P068
P044	Dimethoate		MOUSE-NOTS see P108	P103	Selenourea
P045	3,3-Dimethyl-1-(methylthio)-2-butanone-O-[(methylamino)carbonyl] oxime		MOUSE-RID see P108	P104	Silver Cyanide
P046	alpha, alpha-Dimethylphenethylamine		MOUSE-TOX see P108		SMITE see P105
	Dinitrocyclohexylphenol see P034	P072	MUSCIMOL see P007		SPARIC see P020
P047	4,6-Dinitro-o-cresol and salts	P073	1-Naphthyl 2-thiourea		SPOR-KIL see P092
P048	2,4-Dinitrophenol	P074	Nickel carbonyl		SPRAY-TROL BRAND RODEN-TROL see P001
	DINOSEB see P020	P075	Nickel cyanide		SPURGE see P080
	DINOSEBE see P020	P076	Nitric oxide	P105	Sodium azide
	Dauflolon see P039	P077	p-Nitroaniline		Sodium coumatin see P001
P049	2,4-Dithoburet	P078	Nitrogen dioxide	P106	Sodium cyanide
	DNBP see P020	P079	Nitrogen peroxide		Sodium fluorosulfate see P068
	DOLCO MOUSE CEREAL see P108	P080	Nitrogen tetroxide		SODIUM WARFARIN see P001
	DOW GENERAL see P020	P081	Nitroglycerine (R)		SOLFARIN see P001
	DOW GENERAL WEED KILLER see P020	P082	N-Nitrosodimethylamine		SOLFOBLACK 88 see P048
	DOW SELECTIVE WEED KILLER see P020	P083	N-Nitrosodiphenylamine		SOLFOBLACK 89 see P048
	DOWICIDE G see P090	P084	N-Nitrosomethylvinylamine	P107	Strontium sulfide
	DYANACIDE see P092		NYLMERATE see P092	P108	Strychnine and salts
	EASTERN STATES DUOCIDE see P001		OCTALOX see P037		SUBTEX see P020
	ELGETOL see P020	P085	Octamethylpyrophosphoramide		SYSTEM see P065
P050	Endosulfan		OCTAN see P092		TAG FUNGICIDE see P092
P051	Endrin	P086	Oleyl alcohol condensed with 2 moles ethylene oxide		TEKWAISA see P071
	Epinephrine see P042		OMPA see P065		TEMIC see P070
P052	Ethylcyanide		OMPACIDE see P065		TEMIK see P070
P053	Ethylenediamine		OMPAX see P065		TERM-I-TROL see P090
P054	Ethylamine	P087	Osmium tetroxide	P109	Tetraethylthiopyrophosphate
	FASCO FASCRAI POWDER see P001	P088	7-Oxabicyclo[2,2,1]heptane-2,3-dicarboxylic acid	P110	Tetraethyl lead
	FEMMA see P091		PANIVARFIN see P001	P111	Tetraethylpyrophosphate
P055	Ferric cyanide		PANOFAM D 31 see P037	P112	Tetranitromethane
P056	Fluorine		PANTHERINE see P007		Tetraphosphoric acid, hexaethyl ester see P063
P057	2-Fluoroacetamide		PANWARFIN see P001		TETROSULFUR BLACK PB see P048
P058	Fluoroacetic acid, sodium salt	P089	Parathion		TETROSULPHUR PBR see P048
	FLODOL-80 see P071		PCP see P090	P113	Thalic oxide
	FLODOL M see P071		PENNCAP-M see P071		Thallium peroxide see P113
	FOSFERNO M 50 see P071		PENOXYL CARBON N see P048	P114	Thallium selenite
	FRATOL see P058	P090	Pentachlorophenol	P115	Thallium (I) sulfate
	Fulminate of mercury see P065		Pentachlorophenolate see P090		THIFOR see P092
	FUNGITOX OR see P092		PENTA-KILL see P090		THIMUL see P092
	FUSSOF see P057		PENTASOL see P090		THIODAN see P050
	GALLOTOX see P092		PENWAR see P090		THIOFOR see P050
	GEARPHOS see P071		PERMICIDE see P090		THIOMUL see P050
	GERUTOX see P020		PERMAGUARD see P090		THIONEX see P050
P059	Heptachlor		PERMATOX see P090	P116	Thiophenit see P071
P060	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4,5,8-endo, endo-dimethanonaphthalene		PERMITE see P090		Thiosemicarbazide
			PERTOX see P030		Thiosulfan tonal see P060
			PESTOX III see P065	P117	Thuram
			PHENMAD see P092		THOMPSON'S WOOD FIX see P090
			PHENOTAN see P020		TIOVEL see P050
P061	Hexachloropropene	P001	Phenyl dichloroarsine	P118	Trichloromethanethiol
P062	Hexasulfur tetraphosphate		Phenyl mercaptan see P014		TWIN LIGHT RAT AWAY see P001
	HK75TAQUICK see P092	P102	Phenylmercury acetate		USAF RH-8 see P068
	HOSTAQUIK see P092	P063	N-Phenylthiourea		USAF EK-4890 see P002
	Hydrazomethane see P068		PHILIPS 1861 see P008	P119	Vanadic acid, ammonium salt
P063	Hydrocyanic acid		PHIX see P092	P120	Vanadium pentoxide
	ILLOXOL see P037	P094	Phorate		VOFATOX see P071
	INDOCI see P025	P095	Phosgene		WANADU see P120
	Indomethacin see P025	P096	Phosphine		WARCOUMIN see P001
	INSECTORPHENE see P050	P097	Phosphorothioic acid, O,O-dimethyl ester, O-ester with N,N-dimethyl benzene sulfonamide		WARFARIN SODIUM see P001
	Isodrin see P060		Phosphorothioic acid, O,O-dimethyl-O-(p-nitrophenyl) ester see P071		WARFICIDE see P001
P064	Isocyanic acid, methyl ester		PIED PIPER MOUSE SEED see P108		WOFOTOX see P072
	KILOSEB see P020	P098	Potassium cyanide		YANOCK see P057
	KOP-THIODAN see P050	P099	Potassium silver cyanide		YASOKNOCK see P068
	KWIK-KIL see P108		PREMERGE see P020		ZIARNIK see P092
	KWIKSAN see P092	P100	1,2-Propanediol	P121	Zinc cyanide
	KUMADER see P001		Propargyl alcohol see P102	P122	Zinc phosphide (R.T.)
	KYPFARIN see P001		Propionitrile		ZOCCUMARIN see P001
	LEYTOSAN see P092				
	LIQUIPHENE see P092				

The Agency included those trade names of which it was aware, an omission of a trade name does not imply that the omitted material is not hazardous. The material is hazardous if it is listed under its generic name.

(f) The commercial chemical products or manufacturing chemical intermediates, referred to in paragraphs (a), (b) and (d) of this section, are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in § 261.5 (a) and (b). These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous Waste No	Substance <sup>1</sup>
U001	AAF see U005
U002	Acetaldehyde
U003	Acetone (l)
U004	Acetonitrile (l,T)
U005	Acetophenone
U006	2-Acetylaminofluorene
U007	Acetyl chloride (C,T)
U008	Acrylamide
U009	Acetylene tetrachloride see U209
U010	Acetylene trichloride see U228
U011	Acrylic acid (l)
U012	Acrylonitrile
U013	AEROTHENE TT see U226
U014	3-Amino-5-(p-acetamidophenyl) 1H-1,2,4-triazole, hydrate see U011
U015	6-Amino-1,2,3,6,8a,8b-hexahydro-8-(hydroxymethyl)8-methoxy-5-methylcarbamate aziridine(2,3,3,4) pyrrolo(1,2-a)indole 4,7-dione (ester)
U016	Aniline (l)
U017	Asbestos
U018	Auramine
U019	Azaxone
U020	Benz(c)acridine
U021	Benzaldehyde
U022	Benz(a)anthracene
U023	Benzene
U024	Benzene sulfonyl chloride (C,R)
U025	Benzidine
U026	1,2-Benzisothiazolin 3-one 1,1-dioxide see U202
U027	Benzofuran
U028	Benzothiazole (C,R,T)
U029	Bis(2-chloroethoxy)methane
U030	Bis(2-chloroethyl) ether
U031	N,N-Bis(2-chloroethyl)-2-naphthylamine
U032	Bis(2-chloropropyl) ether
U033	Bis(2-ethylhexyl) phthalate
U034	Bromomethane
U035	4-Bromophenyl phenyl ether
U036	n-Butyl alcohol (l)
U037	Calcium chromate
U038	Carbonic acid see U188
U039	Carbon tetrachloride see U211
U040	Carbon fluoride
U041	Chloral
U042	Chlorambucil
U043	Chlorane
U044	Chlorobenzene
U045	Chlorobenzilate
U046	p-Chloro-m-cresol
U047	Chlorodibromomethane
U048	1-Chloro-2,3-epoxypropane
U049	CHLOROETHENE NU see U226
U050	Chloroethyl vinyl ether
U051	Chloroethane
U052	Chloroform (l,T)
U053	Chloromethane (l,T)
U054	Chloromethyl methyl ether
U055	2-Chloronaphthalene
U056	2-Chlorophenol
U057	4-Chloro-o-toluidine hydrochloride
U058	Chrysene
U059	C1 23080 see U073
U060	Cresols
U061	Cresols
U062	Crotonaldehyde
U063	Cresylic acid
U064	Cumene
U065	Cyanomethane see U011
U066	Cyclohexane (l)
U067	1,3-Cyclohexadiene (l)
U068	Cyclophosphamide
U069	Daunomycin
U070	Dioxin

Hazardous Waste No	Substance <sup>1</sup>
U061	DDE
U062	Diallate
U063	Dibenz(a,h)anthracene
U064	Dibenz(a,i)pyrene
U065	Dibromochloromethane
U066	1,2-Dibromo-3-chloropropane
U067	1,2-Dibromoethane
U068	Dibromomethane
U069	Di-n-butyl phthalate
U070	1,2-Dichlorobenzene
U071	1,3-Dichlorobenzene
U072	1,4-Dichlorobenzene
U073	3,3'-Dichlorobenzidine
U074	1,4-Dichloro-2-butene
U075	3,3'-Dichloro-4,4'-diaminobiphenyl see U073
U076	Dichlorodifluoromethane
U077	1,1-Dichloroethane
U078	1,2-Dichloroethane
U079	1,1-Dichloroethylene
U080	1,2-trans-dichloroethylene
U081	Dichloromethane
U082	Dichloromethylbenzene see U017
U083	2,4-Dichlorophenol
U084	2,6-Dichlorophenol
U085	1,2-Dichloropropane
U086	1,3-Dichloropropane
U087	Diethyl acrylate (l)
U088	Diethylamine
U089	Diethylstilbestrol
U090	Dihydrostilbestrol
U091	3,3'-Dimethoxybenzidine
U092	Dimethylamine (l)
U093	p-Dimethylaminoazobenzene
U094	7,12-Dimethylbenz(a)anthracene
U095	3,3'-Dimethylbenzidine
U096	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U097	Dimethylcarbamoyl chloride
U098	1,1-Dimethylhydrazine
U099	1,2-Dimethylhydrazine
U100	Dimethylhydrazine
U101	2,4-Dimethylphenol
U102	Dimethyl phthalate
U103	Dimethyl sulfate
U104	2,4-Dinitrophenol
U105	2,4-Dinitrotoluene
U106	2,6-Dinitrotoluene
U107	Di-n-octyl phthalate
U108	1,4-Dioxane
U109	1,2-Diphenylhydrazine
U110	Dipropylamine (l)
U111	Di-n-propylnitrosamine; EBOC see U114
U112	1,4-Epoxybutane see U215
U113	Ethyl acetate (l)
U114	Ethyl acrylate (l)
U115	Ethylenebisdiethylcarbamate
U116	Ethylene oxide (l,T)
U117	Ethylene thiourea
U118	Ethyl ether (l,T)
U119	Ethyl methanesulfonate
U120	Ethyl nitrite see U003
U121	Firemaster T23P see U235
U122	Fluoranthene
U123	Fluorotrichloromethane
U124	Formaldehyde
U125	Formic acid (C,T)
U126	Furan (l)
U127	Furfural (l)
U128	Glycidylaldehyde
U129	Hexachlorobenzene
U130	Hexachlorobutadiene
U131	Hexachlorocyclohexane
U132	Hexachlorocyclopentadiene
U133	Hexachloroethane
U134	Hexachlorophene
U135	Hydrazine (R,T)
U136	Hydrofluoric acid (C,T)
U137	Hydrogen sulfide
U138	Hydroxybenzene see U188
U139	Hydroxymethyl arsine oxide
U140	4-(4-hydroxyphenyl)bis(N,N-dimethyl)amine see U014
U141	Indene
U142	Indole
U143	Indole
U144	Indole
U145	Indole
U146	Indole
U147	Indole
U148	Indole
U149	Indole
U150	Indole
U151	Indole
U152	Indole
U153	Indole
U154	Indole
U155	Indole
U156	Indole
U157	Indole
U158	Indole
U159	Indole
U160	Indole
U161	Indole
U162	Indole
U163	Indole
U164	Indole
U165	Indole
U166	Indole
U167	Indole
U168	Indole
U169	Indole
U170	Indole
U171	Indole
U172	Indole
U173	Indole
U174	Indole
U175	Indole
U176	Indole
U177	Indole
U178	Indole
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U186	Indole
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U190	Indole
U191	Indole
U192	Indole
U193	Indole
U194	Indole
U195	Indole
U196	Indole
U197	Indole
U198	Indole
U199	Indole
U200	Indole
U201	Indole
U202	Indole
U203	Indole
U204	Indole
U205	Indole
U206	Indole
U207	Indole
U208	Indole
U209	Indole
U210	Indole
U211	Indole
U212	Indole
U213	Indole
U214	Indole
U215	Indole
U216	Indole
U217	Indole
U218	Indole
U219	Indole
U220	Indole
U221	Indole
U222	Indole

Hazardous Waste No	Substance <sup>1</sup>
U141	Isosafrole
U142	Kepon
U143	Lesiocarpine
U144	Lead acetate
U145	Lead phosphate
U146	Lead subacetate
U147	Maleic anhydride
U148	Maleic hydrazide
U149	Malononitrile
U150	MEK Peroxide see U180
U151	Melphalan
U152	Mercury
U153	Methacrylonitrile
U154	Methanol
U155	Methacrylonitrile
U156	Methyl alcohol see U154
U157	Methyl chloroform see U226
U158	3-Methylcholanthrene
U159	Methyl chloroformate see U156
U160	4,4'-Methylene-bis-(2-chloroaniline)
U161	Methyl ethyl ketone (MEK) (l,T)
U162	Methyl ethyl ketone peroxide (R)
U163	Methyl iodide see U138
U164	Methyl isobutyl ketone
U165	Methyl methacrylate (R,T)
U166	N-Methyl-N'-nitro-N-nitrosoguanidine
U167	Methylthiourea
U168	Mitomycin C see U010
U169	Naphthalene
U170	1,4-Naphthoquinone
U171	1-Naphthylamine
U172	2-Naphthylamine
U173	Nitrobenzene (l,T)
U174	Nitrobenzyl see U160
U175	4-Nitrophenol
U176	2-Nitropropane (l)
U177	N-Nitrosod-n-butylamine
U178	N-Nitrosodethanolamine
U179	N-Nitrosodethylamine
U180	N-Nitrosod-n-propylamine
U181	N-Nitrosod-ethylurea
U182	N-Nitrosod-n-methylurea
U183	N-Nitrosod-n-propylurethane
U184	N-Nitrosopiperidine
U185	N-Nitrosopyrrolidine
U186	5-Nitro-o-toluidine
U187	Paraldehyde
U188	PCNB see U185
U189	Pentachlorobenzene
U190	Pentachloroethane
U191	Pentachloronitrobenzene
U192	1,3-Pentadiene (l)
U193	Perc see U210
U194	Perchloroethylene see U210
U195	Phenacetin
U196	Phenol
U197	Phosphorous sulfide (R)
U198	Phthalic anhydride
U199	2-Picoline
U200	Pronamide
U201	1,3-Propane sultone
U202	n-Propylamine (l)
U203	Pyridine
U204	Quinones
U205	Reserpine
U206	Resorcinol
U207	Saccharin
U208	Safrole
U209	Selenium acid
U210	Selenium sulfide (R,T)
U211	Silvex see U233
U212	Streptozotocin
U213	2,4,5-T see U232
U214	1,2,4,5-Tetrachlorobenzene
U215	1,1,1,2-Tetrachloroethane
U216	1,1,2,2-Tetrachloroethane
U217	Tetrachloroethane
U218	Tetrachloroethylene see U210
U219	Tetrachloromethane
U220	2,3,4,6-Tetrachlorophenol
U221	Tetrahydrofuran (l)
U222	Thallium (l) acetate
U223	Thallium (l) carbonate
U224	Thallium (l) chloride
U225	Thallium (l) nitrate
U226	Thiourea
U227	Thiophene
U228	Toluene
U229	Toluene
U230	Toluene
U231	Toluene
U232	Toluene
U233	Toluene
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U292	Toluene
U293	Toluene
U294	Toluene
U295	Toluene
U296	Toluene
U297	Toluene
U298	Toluene
U299	Toluene
U300	Toluene

Hazardous Waste No	Substance <sup>1</sup>
U223	Toluene diisocyanate
U224	Toxaphene 2,4,5-TP see U223
U225	Tribromomethane
U226	1,1,1-Trichloroethane
U227	1,1,2-Trichloroethane
U228	Trichloroethene Trichloroethylene see U228 Trichlorofluoromethane
U229	2,4,5-Trichlorophenol
U230	2,4,6-Trichlorophenol
U231	2,4,5-Trichlorophenoxyacetic acid
U232	2,4,5-Trichlorophenoxypropionic acid alpha, alpha, alpha-Trichlorotoluene see U023
U233	TRI-CLENE see U228
U234	Trinitrobenzene (R,T)
U235	Tri(2,3-dibromopropyl) phosphate
U236	Trypan blue
U237	Uracil mustard
U238	Urethane Vinyl chloride see U043 Vinylidene chloride see U078
U239	Xylene

<sup>1</sup> The Agency included those trade names of which it was aware; an omission of a trade name does not imply that it is not hazardous. The material is hazardous if it is listed under its generic name.

## Appendix I—Representative Sampling Methods

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Samples collected using the sampling protocols listed below, for sampling waste with properties similar to the indicated materials, will be considered by the Agency to be representative of the waste.

Extremely viscous liquid—ASTM Standard D140-70 Crushed or powdered material—ASTM Standard D346-75 Soil or rock-like material—ASTM Standard D420-69 Soil-like material—ASTM Standard D1452-65 Fly Ash-like material—ASTM Standard D2234-76 [ASTM Standards are available from ASTM, 1916 Race St., Philadelphia, PA 19103]

Containerized liquid wastes—"COLIWASA" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," U.S. Environmental Protection Agency, Office of Solid Waste, Washington, D.C. 20460. [Copies may be obtained from Solid Waste Information, U.S. Environmental Protection Agency, 28 W. St. Clair St., Cincinnati, Ohio 45268]

Liquid waste in pits, ponds, lagoons, and similar reservoirs—"Pond Sampler" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods."<sup>1</sup>

This manual also contains additional information on application of these protocols.

<sup>1</sup> These methods are also described in "Samplers and Sampling Procedures for Hazardous Waste Streams," EPA 600/2-80-018, January 1980.

## Appendix II—EP Toxicity Test Procedure

### A. Extraction Procedure (EP)

1. A representative sample of the waste to be tested (minimum size: 100 grams) should be obtained using the methods specified in Appendix I or any other methods capable of yielding a representative sample within the meaning of Part 260. [For detailed guidance on conducting the various aspects of the EP see "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," SW-846, U.S. Environmental Protection Agency Office of Solid Waste, Washington, D.C. 20460.]

2. The sample should be separated into its component liquid and solid phases using the method described in "Separation Procedure" below. If the solid residue<sup>2</sup> obtained using this method totals less than 0.5% of the original weight of the waste, the residue can be discarded and the operator should treat the liquid phase as the extract and proceed immediately to Step 6.

3. The solid material obtained from the Separation Procedure should be evaluated for its particle size. If the solid material has a surface area per gram of material equal to, or greater than, 3.1 cm<sup>2</sup> or passes through a 9.5 mm (0.375 inch) standard sieve, the operator should proceed to Step 4. If the surface area is smaller or the particle size larger than specified above, the solid material should be prepared for extraction by crushing, cutting or grinding the material so that it passes through a 9.5 mm (0.375 inch) sieve or, if the material is in a single piece, by subjecting the material to the "Structural Integrity Procedure" described below.

4. The solid material obtained in Step 3 should be weighed and placed in an extractor with 16 times its weight of deionized water. Do not allow the material to dry prior to weighing. For purposes of this test, an acceptable extractor is one which will impart sufficient agitation to the mixture to not only prevent stratification of the sample and extraction fluid but also insure that all sample surfaces are continuously

<sup>1</sup> Copies may be obtained from Solid Waste Information, U.S. Environmental Protection Agency, 28 W. St. Clair Street, Cincinnati, Ohio 45268.

<sup>2</sup> The percent solids is determined by drying the filter pad at 100° C until it reaches constant weight and then calculating the percent solids using the following equation:

$$\% \text{ solids} = \frac{(\text{weight of pad + solid}) - (\text{tare weight of pad})}{\text{initial weight of sample}} \times 100$$

brought into contact with well mixed extraction fluid.

5. After the solid material and deionized water are placed in the extractor, the operator should begin agitation and measure the pH of the solution in the extractor. If the pH is greater than 5.0, the pH of the solution should be decreased to 5.0 ± 0.2 by adding 0.5 N acetic acid. If the pH is equal to or less than 5.0, no acetic acid should be added. The pH of the solution should be monitored, as described below, during the course of the extraction and if the pH rises above 5.2, 0.5N acetic acid should be added to bring the pH down to 5.0 ± 0.2. However, in no event shall the aggregate amount of acid added to the solution exceed 4 ml of acid per gram of solid. The mixture should be agitated for 24 hours and maintained at 20°-40° C (68°-104° F) during this time. It is recommended that the operator monitor and adjust the pH during the course of the extraction with a device such as the Type 45-A pH Controller manufactured by Chemtrix, Inc., Hillsboro, Oregon 97123 or its equivalent, in conjunction with a metering pump and reservoir of 0.5N acetic acid. If such a system is not available, the following manual procedure shall be employed:

(a) A pH meter should be calibrated in accordance with the manufacturer's specifications.

(b) The pH of the solution should be checked and, if necessary, 0.5N acetic acid should be manually added to the extractor until the pH reaches 5.0 ± 0.2. The pH of the solution should be adjusted at 15, 30 and 60 minute intervals, moving to the next longer interval if the pH does not have to be adjusted more than 0.5N pH units.

(c) The adjustment procedure should be continued for at least 6 hours.

(d) If at the end of the 24-hour extraction period, the pH of the solution is not below 5.2 and the maximum amount of acid (4 ml per gram of solids) has not been added, the pH should be adjusted to 5.0 ± 0.2 and the extraction continued for an additional four hours, during which the pH should be adjusted at one hour intervals.

6. At the end of the 24 hour extraction period, deionized water should be added to the extractor in an amount determined by the following equation:

$$V = (20)(W) - 16(W) - A$$

V = ml deionized water to be added  
W = weight in grams of solid charged to extractor  
A = ml of 0.5N acetic acid added during extraction

7. The material in the extractor should be separated into its component liquid and solid phases as described under "Separation Procedure."

8. The liquids resulting from Steps 2 and 7 should be combined. This







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EDITION OF 1 JAN 64 MAY BE USED  
 UNTIL EXHAUSTED  
 STANDARD DISPOSAL TURN-IN DOCUMENT FOR HAZARDOUS WASTE

DOD SINGLE LINE ITEM RELEASE/RECEIPT DOCUMENT

4



APPENDIX C

Article 7. Closure Requirements

2670. Applicability.

(a) This article defines temporary and permanent closure and describes the nature of activities which must be accomplished in order to protect water quality in each of these situations.

(b) The temporary closure requirements of Section 2671 of this article shall apply to those underground storage tanks in which the storage of hazardous substances has ceased but where the underground storage tank owner or operator proposes to retain the ability to use the underground storage tank within 2 years for the storage of hazardous substances. Section 2671 of this article does not apply to underground storage tanks that are empty as a result of the withdrawal of all stored material during normal operating practice prior to the planned input of additional hazardous substances consistent with permit conditions.

(c) The permanent closure requirements of Section 2672 of this article shall apply to those underground storage tanks in which the storage of hazardous substances has ceased and where the owner or operator has no intent within the next 2 years to use the underground storage tank for storage of hazardous substances.

(d) The requirements of this article do not apply to those underground storage tanks in which hazardous substances are continued to be stored even though there is no use being made of the stored substance. In these cases, the applicable containment and monitoring requirements of Article 3 or 4 of this subchapter shall continue to apply.

(e) During the period of time between cessation of hazardous substance storage and actual completion of underground storage tank closure pursuant to Section 2671 or 2672 of this article, the applicable containment and monitoring requirements of Article 3 or 4 of this subchapter shall continue to apply.

(f) Prior to closure, the underground storage tank owner shall submit to the local agency a proposal describing how the owner intends to comply with Section 2671 or 2672 of this article, as appropriate. The requirement for prior submittal is waived if the storage of hazardous substances ceases as a result of an unauthorized release or to prevent or minimize the effects of an unauthorized release. In this situation, the underground storage tank owner shall submit the required proposal within 14 days of either the discovery of an unauthorized release or the implementation of actions taken to prevent or minimize the effects of the unauthorized release.

(g) Underground storage tanks that have experienced an unauthorized release do not qualify for temporary closure pursuant to Section 2671 of this article until the underground storage tank owner demonstrates to the local agency's satisfaction that appropriate authorized repairs have been made which would allow the underground storage tank to be capable of storing hazardous substances pursuant to the permit issued by the local agency.

(h) Underground storage tanks that have experienced an unauthorized release and that cannot be repaired by authorized methods must be permanently closed pursuant to requirements of Section 2672 of this article.

NOTE: Authority cited: Section 25299.3, Health and Safety Code. Reference: Section 25298, Health and Safety Code.

**2671. Temporary Closure.**

(a) This section applies to those underground storage tanks in which storage has ceased but where the owner or operator proposes to retain the ability to use the underground storage tank within 2 years for the storage of hazardous substances.

(b) The owner or operator shall comply with all of the following:

(1) All residual liquid, solids, or sludges shall be removed and handled pursuant to the applicable provisions of Chapter 6.5 of Division 20 of the Health and Safety Code.

(2) If the underground storage tank contained a hazardous substance that could produce flammable vapors at standard temperature and pressure, then the underground storage tank, either in part or as a whole, shall be purged of the flammable vapors to levels that would preclude an explosion or such lower levels as may be required by the local agency.

(3) The underground storage tank may be filled with a noncorrosive liquid that is not a hazardous substance. This liquid must be tested and results submitted to the local agency prior to its being removed from the underground storage tank at the end of the temporary closure period.

(4) Except for required venting, all fill and access locations and piping shall be sealed utilizing locked caps or concrete plugs.

(5) Power service shall be disconnected from all pumps associated with the use of the underground storage tank except if the pump services some other equipment which is not being closed.

(c) The monitoring required pursuant to the permit may be modified or eliminated during the temporary closure period by the local agency. The local agency shall consider, in making the above decision, the need to maintain monitoring in order to detect unauthorized releases that may have occurred during the time the underground storage tank was used but that have not yet reached the monitoring locations and been detected.

(d) The underground storage tank shall be inspected by the owner or operator at least once every 3 months to assure that the temporary closure actions are still in place. This shall include:

(1) Visual inspection of all locked caps and concrete plugs.

(2) If locked caps are utilized, then at least one shall be removed to determine if any liquids or other substances have been added to the underground storage tank or if there has been a change in the quantity or type of liquid added pursuant to subsection (b) (3) of this section.

NOTE: Authority cited: Section 25299.3, Health and Safety Code. Reference: Section 25298, Health and Safety Code.

**2672. Permanent Closure Requirements.**

(a) Owners of underground storage tanks subject to permanent closure shall comply with either subsection (b) of this section for underground storage tank removal or subsection (c) of this section for closure in place. It is not essential that all portions of an underground storage tank be permanently closed in the same manner; however, all actions shall comply with the appropriate subsection of this section. Subsections (d) and (e) of this section regarding no discharge demonstration applies to all underground storage tanks subject to permanent closure.

(b) Owners of underground storage tanks proposing to remove the underground storage tank shall comply with applicable provisions of Chapter 6.5 of Division 20 of the Health and Safety Code, in addition to the following:

(1) All residual liquid, solids, or sludges shall be removed.

(2) If the underground storage tank contained a hazardous substance that could produce flammable vapors at standard temperature and pressure, then the underground storage tank, either in part or as a whole, shall be purged of the flammable vapors to levels that would preclude explosion or such lower levels as may be required by the local agency.

(3) When an underground storage tank or any part of an underground storage tank is to be disposed of, the owner must document to the local agency that proper disposal has been completed.

(4) An owner of an underground storage tank or any part of an underground storage tank that is destined for a specific reuse shall identify to the local agency the future underground storage tank owner, operator, location of use, and nature of use.

(5) An owner of an underground storage tank or any part of an underground storage tank that is destined for reuse as scrap material shall identify this reuse to the local agency.

(c) Closure of underground storage tanks in place shall comply with the applicable provisions of Chapter 6.5 of Division 20 of the Health and Safety Code, in addition to all of the following:

(1) All residual liquid, solids, or sludges shall be removed.

(2) All piping associated with the underground storage tank shall be removed and disposed of unless removal might damage structures or other pipes that are being used and that are contained in a common trench, in which case the piping to be closed shall be emptied of all contents and capped.

(3) The underground storage tank, except for the piping that is closed pursuant to subsection (2) of this subsection, shall be completely filled with an inert solid, unless the owner intends to use the underground storage tank for the storage of a nonhazardous substance which is compatible with the previous use of the underground storage tank.

(4) A notice shall be placed in the deed to the property. The notice shall describe the exact vertical and areal location of the closed underground storage tank, the hazardous substances it contained, and the closure method.

(d) The owner of an underground storage tank being closed pursuant to this section shall demonstrate to the satisfaction of the local agency that no unauthorized release has occurred. This demonstration can be based on the ongoing leak detection monitoring, ground water monitoring, or soils sampling performed during or immediately after closure activities.

If feasible, soil samples shall be taken and analyzed according to the following:

(1) If the underground storage tank or any portion thereof is removed, then soil samples from the soils immediately beneath the removed portions shall be taken. A separate sample shall be taken for every 200 square-feet for underground storage tanks or every 20 lineal-feet of trench for piping, at a minimum.

(2) If the underground storage tank or any portion thereof is not removed, soils sampling pursuant to Section 2645 of Article 4 of this subchapter shall be implemented, if feasible.

(3) Soils shall be analyzed for all constituents of the previously stored hazardous substances and their breakdown or transformation products.

(e) The detection of any unauthorized release shall require compliance with the reporting requirements of Article 5 of this subchapter.

NOTE: Authority cited: Section 25299.3, Health and Safety Code. Reference: Section 25298, Health and Safety Code.

#### Article 8. Categorical and Site-Specific Variance Procedures

##### 2680. Applicability.

(a) This article sets up procedures for categorical and site-specific variances from the requirements for the construction and monitoring of new and existing underground storage tanks as described in Chapter 6.7 of Division 20 of the Health and Safety Code and Articles 3 and 4 of this subchapter. A site-specific variance, if approved, would apply only to the specific site(s) approved for a variance. A categorical variance, if approved, would apply to the region, area, or circumstances approved for a variance. A categorical variance application shall include more than one site or shall be non-site specific. These procedures are in addition to those established by the appropriate sections of Chapter 6.7 of Division 20 of the Health and Safety Code.

(b) Section 2681 of this article specifies the procedures that must be followed by the applicant and the State Board for categorical variance requests.

(c) Section 2682 of this article specifies the procedures that must be followed by the applicant, local agency, and the regional board for site-specific variance requests.

NOTE: Authority cited: Section 25299.3, Health and Safety Code. Reference: Section 25299.4, Health and Safety Code.

##### 2681. Categorical Variances.

(a) A categorical variance allows an alternative method of construction or monitoring which is applicable to more than one local agency jurisdiction. Application for a categorical variance shall be made by the permittee to the State Board on a form provided by the State Board.

(b) Application for a categorical variance shall include, but not be limited to:

(1) A description of the provision from which the variance is requested.  
(2) A description of the proposed alternative program, method, device, or process.

(3) A description of the region, area, or circumstances under which the variance would apply.

(4) Clear and convincing evidence that the proposed alternative will adequately protect the soil and the beneficial uses of waters of the state from an unauthorized release.

(5) A list including names and addresses of all persons known to the applicant who may be affected by or may be interested in the variance request.

(6) An initial payment of \$11,000.

(c) The applicant will be required to pay a fee based on the actual costs of considering the application. The State Board will bill the applicant for additional costs or refund any remaining part of the initial fee, if necessary.

(d) The State Board shall review all applications submitted and shall notify the applicant in writing within 30 days of receipt of the application as to whether or not the application is complete.

APPENDIX D



TOM URAM  
DIRECTOR

L. REX EHLING, M.D.  
HEALTH OFFICER

1725 WEST 17TH STREET  
SANTA ANA, CA 92706

TELEPHONE: 714/834-7601

MAILING ADDRESS: P.O. BOX 355  
SANTA ANA, CA 92702

PUBLIC HEALTH AND MEDICAL SERVICES  
ENVIRONMENTAL HEALTH

GUIDELINES FOR THE REMOVAL OF AN UNDERGROUND STORAGE TANK

A Facility Modification Application must be submitted to Environmental Health before any underground storage tank and/or product lines may be legally closed. Applications may be obtained in person, or by calling Environmental Health at (714) 834-8175.

1. Applicant submits Facility Modification Application, four sets of plans and closure fee to Environmental Health at the above address. Plans must include:
  - a) Site location and plot plan identifying existing structures, utilities, and underground storage tanks.
  - b) The size of the existing underground storage tanks and the types of hazardous materials or waste which have been stored in the tanks.
  - c) A statement regarding the intended disposition of the underground storage tanks being removed. The underground tank shall be properly disposed of. Appropriate documentation shall be forwarded to Environmental Health for verification. If the tank is destined for re-use, the nature of the re-use as well as future owner and location of such shall be transmitted to Environmental Health.
2. Applicant must apply for closure and/or excavation permit(s) from city or County Fire Department, city or County Building Department, and the South Coast Air Quality Management District (AQMD) (if applicable) for their approval.
3. Applicant must provide 48 hours notice to Environmental Health and city or County Fire Department for an on-site inspection of the tank removal.
4. Owners of underground storage tanks proposing to remove the underground tank shall comply with applicable provisions of Chapter 6.7 of Division 20 of the Health and Safety Code and the following:
  - a) All residual liquid, solids, or sludges from the underground storage tank and/or product lines shall be removed and disposed of as hazardous waste. A copy of all uniform hazardous waste manifests used for the disposal shall be forwarded to Environmental Health after they have been signed by the receiving State permitted hazardous waste disposal facility.

- b) The underground tank and/or product lines shall be purged to render a safe, nonexplosive atmosphere. (Note: A representative from the appropriate fire department must be present prior to initiating this procedure.)
  - c) All piping associated with the underground storage tank shall be removed and disposed of unless removal might damage structures or other pipes that are being used and that are contained in a common trench, in which case the piping to be closed shall be emptied of all contents and capped.
5. The owner of the underground storage tank shall demonstrate to the satisfaction of Environmental Health that no significant soil contamination has occurred. This shall be achieved at a minimum, by collecting soil samples from the excavation of the removed underground tank(s) and/or product lines and having them analyzed for the stored hazardous substance and its constituents. Environmental Health staff must be on site to direct this sampling. Based on field observations and investigation, a site mitigation proposal for remediation may be required.
6. The owner of the underground storage tank must provide a minimum of six clean 8 oz. glass sample jars, with lids and seals. The tank owner must also provide a cooler or ice chest with ice in order to chill the jars immediately after sampling. It is the tank owner's responsibility to arrange for a State Certified Laboratory to analyze the samples. The tank owner must also arrange to have the samples transported to the lab immediately after sampling. A written copy of the lab results must be forwarded to Environmental Health. The lab report must verify that the samples were received in a chilled state with the "Orange County" labels intact.
7. Gasoline contaminated soil samples must be analyzed for the following constituents: total petroleum hydrocarbons, (EPA 8015); and benzene, toluene, xylene, and ethyl benzene (EPA 8020). Diesel contaminated soil samples shall be analyzed for total petroleum hydrocarbons (EPA 8015). Waste oil contaminated soil samples shall be analyzed for total petroleum hydrocarbons (EPA 418.1). Other analyses may be required by this department.

The closure is completed only after successful compliance with the above requirements. All work performed by the applicant must be done in accordance with the California Occupational Safety and Health Administration requirements. If you have any questions or need additional information, please contact the Underground Tank Program at (714) 834-8175.

APPENDIX E

ANNUAL CHECKLIST TO UPDATE WASTE ANALYSIS PLAN

- |  | YES   | NO    |
|--|-------|-------|
| 1. Have waste analysis requirements changed?   | _____ | _____ |
| Refer To:  |       |       |
| 1) "Instructions for preparing operation plan for hazardous waste storage and/or treatment facilities which involve containers and/or tanks," DHS. |       |       |
| 2) Title 22, California Administrative Code.   |       |       |
| 3) Title 40, Code of Federal Regulations.  |       |       |
| 2. Has the definition and classification of a Hazardous Waste changed?   | _____ | _____ |
| 3. Have the parameters for analyzing the waste changed? See Section C.1.a of Waste Analysis Plan.  | _____ | _____ |
| 4. Have the methods for sampling and/or analyzing the waste changed? Refer to Section C.1.c and C.1.d.   | _____ | _____ |

If the Answer was "YES" to any of the above questions, the Waste Analysis Plan must be reviewed and revised to reflect those changes.

If the answer was "NO" to all the above questions, the Waste Analysis Plan will not need revision.

ANNUAL CHECKLIST TO UPDATE CLOSURE PLAN

	YES	NO
1. Has the design, operation or usage of hazardous waste sites changed? Revise Table A.6.1 if applicable.	_____	_____
2. Are any sites no longer in use?	_____	_____
3. Are there any new hazardous waste facilities or tanks?	_____	_____
4. Have the closure requirements changed?	_____	_____

Refer to:

- 1) Instructions for preparing operation plan for hazardous waste storage and/or treatment facilities which involve containers and/or tanks.
  - 2) Title 22, California Administrative Code.
  - 3) Title 23, California Administrative Code.
  - 4) Title 40 Code of Federal Regulations.
  - 5) Title 49 Code of Federal Regulations.
5. Has the cost estimate been up-dated for inflation and changes (Table A.8.1)? Refer to Title 22, California Administrative Code, Article 17.
- \_\_\_\_\_

If the answer was "NO" to questions 1 through 4 and "YES" to question 5, the Closure Plan will not need revision.

If the answer was "YES" to at least one of questions 1 through 4 or "NO" to 5 follow the corresponding directions below:

1. Revise the Plan including the Tables and Figures, to reflect the changes.
2. Verify that the closure procedures have been implemented. Revise the Plan to show the closed sites.
3. Revise the Closure Plan to include the new facilities/tanks.

4. Review referenced documents and revise the plan to reflect the requirement changes.
5. Up-date the cost estimate.

## FINAL CLOSURE CHECKLIST<sup>(1)</sup>

CLOSED FACILITY \_\_\_\_\_

DATE \_\_\_\_\_

ALL SITES:

	YES	NO
1. Has DHS been notified at least 180 days prior to starting closure?	_____	_____
2. Has all hazardous waste been disposed at an approved offsite location within 90 days from the last day waste was received?	_____	_____
3. Have all closure activities been completed within 180 days from the last day waste was received?	_____	_____
4. Has concrete been sampled and either decontaminated or removed and hauled to an approved hazardous waste disposal site?	_____	_____
5. Has adjacent soil been sampled and all contaminated soil removed and hauled to an approved hazardous waste disposal site?	_____	_____
6. Has all equipment used in closure been steam cleaned or properly decontaminated?	_____	_____
7. Has a certification been obtained from an independent engineer verifying closure?	_____	_____
8. Has DHS been notified that closure is complete?	_____	_____
 IN ADDITION FOR TANK SITES:		
9. Has a facilities modification application been submitted to County of Orange, Environmental Health?	_____	_____
10. Has a permit for closure and/or excavation been obtained from the City or County Fire Department, City or County Building department, and the South Coast Air Quality Management District?	_____	_____

(1) Checklist to be filled out for each Hazardous Waste Site.

11. Has County of Orange, Environmental Health and County Fire Department been given 48 hours notice for an on-site inspection of tank removal? \_\_\_\_\_
12. Have all the requirements for the removal of an underground storage tank been met? \_\_\_\_\_  
Refer to Appendix D.

If the answer was "YES" to all the above questions, closure is complete.

If the answer was "NO", follow the corresponding directions below:

1. Notify DHS as soon as possible.
2. Properly dispose of waste as soon as possible.
3. Notify DHS as to when closure is expected to be completed.
4. Follow procedures in Closure Plan for concrete. Refer to Section A.6.b in Closure Plan.
5. Follow procedures in Plan for soil. Refer to Section A.6.c in Closure Plan.
6. Steam clean equipment as soon as possible after use. See Section A.6.d in Closure Plan.
7. Obtain certificate. See Section A.6.f in Closure Plan.
8. Notify DHS of completed Closure.
9. Submit facilities modifications application.
10. Obtain permit for closure/excavation.
11. Notify County of Orange, Environmental Health and County Fire Department.
12. Meet the necessary requirements.

## TABLES

TABLE A.1.1

TABLE A.1.1

HAZARDOUS WASTES GENERATED BY THE U.S. MARINE CORPS AIR STATION, EL TORO

USEPA WASTE CODE	WASTE TYPE	QUANTITIES		PROCESS ORIGIN	STORAGE CONTAINER GALLON	STORAGE DESIGN CAPACITY	HAZ. PROPERTIES	CALIF. WASTE CODE FROM DHS 8022A
		MTHLY	YRLY					
D001	Polyurethane Paint	30	330	Painting	5, 30, 55	800	I	461
D001	Paint Thinner	20	210	Painting	5, 30, 55		I	214
D001	Dry Cleaning Solvent	160	1,900	Degreasing	5, 30, 55		I	213
D001	Oil, Engine	4000	48,000	Maintenance	5, 55	25,000-50,000 PER TANK	I	221
D001	Hyd. Fluid	2000	24,000	"	"		I	221
D001	Brake Fluid	170	2,000	"	"		I	221
D001	Degreaser	20	210	"	"		I	213
D001	JP-5 Fuel	20,000	240,300	Defueling Aircraft	55		I	343
D001	JP-4 Fuel	500	6,000	"	55		I	343
D001	Transmission Fluid	30	360	Maintenance	5, 55		I	343
D001	Diesel Fuel	180	2,200	Defueling Generators	5, 55		I	343
D001	Grease	5	60	Maintenance	5		I	343
D001	Fuel Contam Absorbent	110	1,320	Spill Residue	55		I	352
D001	Oily Rags	165	2,000	Maintenance	55	4,500	I	352
D001	Corrosion Preventative	55	660	"	5, 55		I	213
D001	Stoddard Solvent	20	240	"	5, 55		I	213
D001	Cleaning Solvent	30	330	"	5, 55		I	561
--	Trichlorotrifluoroethane	30	360	Degreasing	"		T	211
--	Antifreeze	55	660	Vehicle Maintenance	"		T	343
D001	Isopropyl Alcohol	5	60	Maintenance	5, 30, 55		I	212
U002	Acetone	1	12	"	5		I	212
U226	1,1,1-Trichloroethane	10	120	"	5, 55		T	211
U159	Methyl Ethyl Ketone	5	60	Painting	5, 55		I	212
--	Paint Stripper	10	120	"	5, 55	T	211	
--	Naptha & Ferrocene	1	12	Test Cell Smoke Abatement	5, 9	T	343	
--	PCB	--	200	Transformer Replacement	5, 30, 55 Transformer	2,000	T	261
--	Sealants	1	12	Maintenance	5	20	T	181
--	Adhesives	1	12	"	5, 9		T	281
--	Asbestos	10 lbs	120 lbs	"	5,30,55,85	4,000 lbs	T	151
D003	Lithium Batteries	3 lbs	36 lbs	"	5, 9, 55	100 lbs	R	181
--	Hydrocarbon Contam. H <sub>2</sub> O	55	660	"	55	25,000		134
--	Pentachlorophenol Contaminated Wood	2 lbs	24 lbs	Ammunition Box Disp.	55	1,100 lbs	T	352
--	Calcium Hypochlorite	25 lbs	300 lbs	Decontamination	5, 55	400	T	181
--	Diethylene Triamine	5	60	Decontamination	5, 9		T	343
U103	Battery and (Sulphur)	20	360	Maintenance	5, 55		C	113
D002	Hydrofluoric Acid	5	60	"	5,10,30,55	55	C	113

This Table is from "Operation Plan for Temporary Hazardous Waste Collection Facilities, U.S. Marine Corps Air Station, El Toro, California." (I)

TABLE A.6.1

TABLE A.6.1  
MCAS EL TORO

<u>Bldg./Tank No.</u>	<u>POLLUTANT TESTING REQUIREMENTS</u> <sup>(1)</sup>				<u>SAMPLES</u>	
	<u>Petroleum Hydrocarbon</u>	<u>Chlorinated Solvents</u>	<u>Asbestos PCB's Lithium</u>	<u>All Priority Pollutants</u>	<u>No. Soil Borings (Min)</u>	<u>No. Concrete Samples (Min)</u>
769	X	X			5	1
770	X	X			3	1
771	X	X			5	1
772				X	8	1
778	X	X			5	1
779	X	X			5	1
445	X	X	X		1	3
673T3	X	X				3
Tank 189	X				3	
Tank 314E	X				3	
Tank 314W	X				3	
Tank 529	X				3	

(1) Samples will also be tested for any other hazardous waste known to have been stored at the site.

NOTE: See Figures for boring/sample locations.

TABLE A.8.1

TABLE A.8.1

01/05/87 (ELTEST.WRK)  
 MCAS EL TORO  
 E74014-114

HAZARDOUS WASTE FACILITY/TANK CLOSURE  
 COST ESTIMATE

ITEM	DESCRIPTION	UNIT	QUANTITY	MATERIAL		LABOR		TOTAL ESTIMATE	
				UNIT PRICE	TOTAL COST	UNIT PRICE	TOTAL COST	UNIT PRICE	TOTAL COST
BUILDING 769									
	CONCRETE SAMPLE & TESTING	EA	1		\$0.00	\$500.00	\$500.00	\$500.00	\$500.00
	SOILS SAMPLE & TESTING	EA	10		\$0.00	\$400.00	\$4,000.00	\$400.00	\$4,000.00
	SLAB & ROOF REMOVAL	SF	192	\$2.64	\$506.88	\$2.86	\$549.12	\$5.50	\$1,056.00
	FENCE REMOVAL	LF	56		\$0.00	\$2.00	\$112.00	\$2.00	\$112.00
	SOIL EXCAVATION	CY	36	\$0.23	\$8.28	\$0.32	\$11.52	\$0.55	\$19.80
	BACKFILL & COMPACT	CY	36	\$1.20	\$43.20	\$1.30	\$46.80	\$2.50	\$90.00
	HAUL TO HW DISPOSAL AREA	CY	40		\$0.00		\$0.00	\$325.00	\$13,000.00
SUBTOTAL									\$18,777.80
BUILDING 770									
	CONCRETE SAMPLE & TESTING	EA	1		\$0.00	\$500.00	\$500.00	\$500.00	\$500.00
	SOILS SAMPLE & TESTING	EA	6		\$0.00	\$400.00	\$2,400.00	\$400.00	\$2,400.00
	SLAB & ROOF REMOVAL	SF	192	\$2.64	\$506.88	\$2.86	\$549.12	\$5.50	\$1,056.00
	FENCE REMOVAL	LF	56		\$0.00	\$2.00	\$112.00	\$2.00	\$112.00
	SOIL EXCAVATION	CY	36	\$0.23	\$8.28	\$0.32	\$11.52	\$0.55	\$19.80
	BACKFILL & COMPACT	CY	36	\$1.20	\$43.20	\$1.30	\$46.80	\$2.50	\$90.00
	HAUL TO HW DISPOSAL AREA	CY	40		\$0.00		\$0.00	\$325.00	\$13,000.00
SUBTOTAL									\$17,177.80
BUILDING 771									
	CONCRETE SAMPLE & TESTING	EA	1		\$0.00	\$500.00	\$500.00	\$500.00	\$500.00
	SOILS SAMPLE & TESTING	EA	10		\$0.00	\$400.00	\$4,000.00	\$400.00	\$4,000.00
	SLAB & ROOF REMOVAL	SF	192	\$2.64	\$506.88	\$2.86	\$549.12	\$5.50	\$1,056.00
	FENCE REMOVAL	LF	56		\$0.00	\$2.00	\$112.00	\$2.00	\$112.00
	SOIL EXCAVATION	CY	36	\$0.23	\$8.28	\$0.32	\$11.52	\$0.55	\$19.80
	BACKFILL & COMPACT	CY	36	\$1.20	\$43.20	\$1.30	\$46.80	\$2.50	\$90.00
	HAUL TO HW DISPOSAL AREA	CY	40		\$0.00		\$0.00	\$325.00	\$13,000.00
SUBTOTAL									\$18,777.80
BUILDING 772									
	CONCRETE SAMPLE & TESTING	EA	1		\$0.00	\$1,800.00	\$1,800.00	\$1,800.00	\$1,800.00
	SOILS SAMPLE & TESTING	EA	16		\$0.00	\$1,700.00	\$27,200.00	\$1,700.00	\$27,200.00
	SLAB & ROOF REMOVAL	SF	192	\$2.64	\$506.88	\$2.86	\$549.12	\$5.50	\$1,056.00
	FENCE REMOVAL	LF	56		\$0.00	\$2.00	\$112.00	\$2.00	\$112.00
	SOIL EXCAVATION	CY	36	\$0.23	\$8.28	\$0.32	\$11.52	\$0.55	\$19.80
	BACKFILL & COMPACT	CY	36	\$1.20	\$43.20	\$1.30	\$46.80	\$2.50	\$90.00
	HAUL TO HW DISPOSAL AREA	CY	40		\$0.00		\$0.00	\$325.00	\$13,000.00
SUBTOTAL									\$43,277.80
BUILDING 778									
	CONCRETE SAMPLE & TESTING	EA	1		\$0.00	\$500.00	\$500.00	\$500.00	\$500.00
	SOILS SAMPLE & TESTING	EA	10		\$0.00	\$400.00	\$4,000.00	\$400.00	\$4,000.00
	SLAB & ROOF REMOVAL	SF	192	\$2.64	\$506.88	\$2.86	\$549.12	\$5.50	\$1,056.00

FENCE REMOVAL	LF	56		\$0.00	\$2.00	\$112.00	\$2.00	\$112.00
SOIL EXCAVATION	CY	36	\$0.23	\$8.28	\$0.32	\$11.52	\$0.55	\$19.80
BACKFILL & COMPACT	CY	36	\$1.20	\$43.20	\$1.30	\$46.80	\$2.50	\$90.00
HAUL TO HW DISPOSAL AREA	CY	40		\$0.00		\$0.00	\$325.00	\$13,000.00
SUBTOTAL								\$18,777.80
BUILDING 779								
CONCRETE SAMPLE & TESTING	EA	1		\$0.00	\$500.00	\$500.00	\$500.00	\$500.00
SOILS SAMPLE & TESTING	EA	10		\$0.00	\$400.00	\$4,000.00	\$400.00	\$4,000.00
SLAB & ROOF REMOVAL	SF	192	\$2.64	\$506.88	\$2.86	\$549.12	\$5.50	\$1,056.00
FENCE REMOVAL	LF	56		\$0.00	\$2.00	\$112.00	\$2.00	\$112.00
SOIL EXCAVATION	CY	36	\$0.23	\$8.28	\$0.32	\$11.52	\$0.55	\$19.80
BACKFILL & COMPACT	CY	36	\$1.20	\$43.20	\$1.30	\$46.80	\$2.50	\$90.00
HAUL TO HW DISPOSAL AREA	CY	40		\$0.00		\$0.00	\$325.00	\$13,000.00
SUBTOTAL								\$18,777.80
BUILDING 445								
CONCRETE SAMPLE & TESTING	EA	3		\$0.00	\$1,800.00	\$5,400.00	\$1,800.00	\$5,400.00
SOILS SAMPLE & TESTING	EA	2		\$0.00	\$1,700.00	\$3,400.00	\$1,700.00	\$3,400.00
BUILDING DEMOLITION	CF	10000	\$0.12	\$1,200.00	\$0.09	\$900.00	\$0.21	\$2,100.00
SOIL EXCAVATION (1' DEPTH)	CY	70	\$0.23	\$16.10	\$0.32	\$22.40	\$0.55	\$38.50
BACKFILL & COMPACT	CY	70	\$1.20	\$84.00	\$1.30	\$91.00	\$2.50	\$175.00
HAUL TO HW DISPOSAL AREA	CY	222		\$0.00		\$0.00	\$325.00	\$72,150.00
SUBTOTAL								\$83,263.50
TANK 189								
SOILS SAMPLE & TESTING	EA	11		\$0.00		\$0.00	\$50.00	\$550.00
TANK REMOVAL (50000 GAL)	CF	6685	\$0.36	\$2,406.60	\$0.27	\$1,804.95	\$0.63	\$4,211.55
SOIL EXCAVATION (5' DEEP)	CY	519	\$0.23	\$119.37	\$0.32	\$166.08	\$0.55	\$285.45
BACKFILL & COMPACT	CY	767	\$1.20	\$920.40	\$1.30	\$997.10	\$2.50	\$1,917.50
HAUL TO HW DISPOSAL AREA	CY	44		\$0.00		\$0.00	\$325.00	\$14,300.00
SUBTOTAL								\$21,264.50
TANK 314E								
SOILS SAMPLE & TESTING	EA	11		\$0.00		\$0.00	\$50.00	\$550.00
TANK REMOVAL (50000 GAL)	CF	6685	\$0.36	\$2,406.60	\$0.27	\$1,804.95	\$0.63	\$4,211.55
SOIL EXCAVATION (5' DEEP)	CY	519	\$0.23	\$119.37	\$0.32	\$166.08	\$0.55	\$285.45
BACKFILL & COMPACT	CY	767	\$1.20	\$920.40	\$1.30	\$997.10	\$2.50	\$1,917.50
HAUL TO HW DISPOSAL AREA	CY	44		\$0.00		\$0.00	\$325.00	\$14,300.00
SUBTOTAL								\$21,264.50
TANK 314W								
SOILS SAMPLE & TESTING	EA	11		\$0.00		\$0.00	\$50.00	\$550.00
TANK REMOVAL (50000 GAL)	CF	6685	\$0.36	\$2,406.60	\$0.27	\$1,804.95	\$0.63	\$4,211.55
SOIL EXCAVATION (5' DEEP)	CY	519	\$0.23	\$119.37	\$0.32	\$166.08	\$0.55	\$285.45
BACKFILL & COMPACT	CY	767	\$1.20	\$920.40	\$1.30	\$997.10	\$2.50	\$1,917.50
HAUL TO HW DISPOSAL AREA	CY	44		\$0.00		\$0.00	\$325.00	\$14,300.00
SUBTOTAL								\$21,264.50
TANK 529								
SOILS SAMPLE & TESTING	EA	11		\$0.00		\$0.00	\$50.00	\$550.00

**FIGURES 1 THROUGH 11**

**UNAVAILABLE**