UNITED STATES MARINE CORPS
MARINE CORPS RECRUIT DEPOT/EASTERN RECRUITING REGION
PO BOX 19001
PARRIS ISLAND, SOUTH CAROLINA 29905-9001

5090.8
I&L/NREAO
20 MAR 2006

DEPOT ORDER 5090.8

From: Commanding General
To: Distribution List

Subj: ENVIRONMENTAL COMPLIANCE IN UNDERGROUND STORAGE TANK (UST) MANAGEMENT

Ref: (a) 40 CFR 112 (NOTAL)
(b) MCO P5090.2a (NOTAL)
(c) SC R.61-92, Part 280

Encl: (1) ENVIRONMENTAL COMPLIANCE AND PROTECTION MANUAL

1. Situation. The 1986 amendments to the Resource Conservation and Recovery Act (RCRA) included provisions to prevent releases from USTs and mandating a comprehensive regulatory program. An UST is defined as any combination of tank and underground pipes in which 10 percent or more of the volume of the tank is beneath the ground surface (including associated underground piping). The Marine Corps UST program policy is to comply with all Federal and applicable state and local regulations pertaining to the operation and management of UST's. Additionally, Marine Corps installations must develop long term management plans to establish procedures for achieving and maintaining compliance, as well as to prioritize corrective actions against environmental risk.

2. Cancellation

3. Mission. This order establishes Marine Corps policy and responsibilities for compliance with statutory requirements for underground storage tanks (USTs) containing petroleum products and hazardous substances (HS) as it pertains to Marin Corps Recruit Depot Parris Island.

4. Execution

a. Commander's Intent and Concept of Operations. Ensure compliance with all applicable laws and regulations as they pertain to MCRD, specifically.

5. Administration and Logistics. The G-4 is the sponsor for this Order.

6. Command and Signal

a. Command. This Order is applicable to the Marine Corps Recruit Depot/Eastern Recruiting Region, Parris Island, and applies to all military personnel assigned/working aboard Parris Island, both active and reserve, and to all civilian employees to include those working for tenant activities and contractors

b. Signal. This Order is effective the date signed

W. P. LEEK
Chief of Staff

DISTRIBUTION: A

LOCATORSHEET

Sugj: ENVIRONMENTAL COMPLIANCE IN UNDERGROUND STORAGE TANK (UST) MANAGEMENT

Location: _____
(Indicate the location(s) of the copy(ies) of this Order.)

RECORD OF CHANGES

Log completed change action as indicated.

Change Number	Date of Change	Date Entered	Signature of person Incorporated Change

TABLE OF CONTENTS

Chapter 1

ENVIRONMENTAL COMPLIANCE IN UNDERGROUND STORAGE TANK (UST) MANAGEMENT

1. General. Tank Standards and Operating Requirements. UST regulations applicable to Federal installations are found in SC R.61-92, Part 280 subparts A-G. A brief description of the requirements follows:

a. In SC R.61-92 Part 280, subpart A gives the definitions for the UST program and applicability of the regulations to each system.

b. For a tabular summary of the basic requirements and when they must be operative, see enclosure (1). Enclosure (2) provides information on responding to releases from USTs. Enclosure (3) addresses release detection. Enclosure (4) addresses UST Closure and report format. Enclosure (5) are definitions.

c. South Carolina UST regulations (SC R.61-92, Part 280) apply to both existing (installed before December 1988) and new (installed after December 1988) tanks and the associated piping network. Tank standards stipulated under these regulations, including corrosion protection and spill/overflow prevention, are applicable immediately for new tanks or by 22 December, 1998, via upgrade or retrofit for existing tanks. Tanks unable to meet Federal UST standards must be closed in compliance with SC R. 61-92 Part 280, subpart G.

d. Wastewater treatment tank systems, USTs containing radioactive material (Atomic Energy Act of 1954), UST systems that are part of an emergency generator system at nuclear power generation facilities, airport hydrant fuel distribution systems, and UST systems with field-constructed tanks are deferred from the requirements of SC R. 61-92 Part 280 except for subpart F governing release response and corrective action requirements.

e. Develop and maintain a UST management plan in order to achieve and maintain compliance with regulatory requirements (this document serves).

f. Maintain a complete and accurate UST inventory. Update data elements to reflect significant changes in the UST condition, especially at critical points during the useful life

of each UST (e.g., following installation, when upgraded or repaired, if a release occurs, at closure, etc.). Such information is necessary not only to develop and maintain a rational UST compliance strategy, but also to apply accurate, appropriate funding sources to required UST actions.

g. Monitor transfer operations to ensure that spilling or overflowing does not occur.

h. Maintain and inspect corrosion protection measures, including cathodic protection, to ensure proper operation. A cathodic protection tester should perform cathodic protection maintenance activities.

i. UST systems must be made of, or lined with, materials compatible with substances stored in the UST system.

j. Conduct repairs to UST systems per a code of practice developed by a nationally recognized association or an independent testing laboratory; repairs may be made by the manufacturers' authorized representatives. Test repaired tanks operability for tightness and corrosion protection, and maintain records of all repairs for the remaining operating life of the UST system. Internal inspections of repaired tanks, using appropriate confined space entry procedures, may be permitted in lieu of tightness testing.

k. Maintain written records demonstrating compliance with operations and maintenance requirements. These records are to be kept by the MCCS department responsible for the operations of the only active USTs on Parris Island. Records shall be retained throughout the duration of the life of the tank. Copies of these records will also be kept at the NREAO Compliance Section Office.

l. The owner/operator must report all existing USTs and installation certifications for new UST systems to SC Bureau of Underground Storage Tank Management. Owners/operators must also report releases, spills, and corrective actions planned in cleanup procedures. These actions are performed by the Natural Resources and Environmental Affairs Office (NREAO), Environmental Compliance section.

2. Release Detection

a. SC R. 61-92, Part 280, subpart D identifies release detection requirements. Note: Hereafter only the Part and subpart will be referenced.

b. In addition to compliance with tank standards identified under Part 280.20 and Part 280.21, new, existing upgraded, and existing non-upgraded tanks and pipes must provide methods for release detection. Such requirements are to be phased in for existing tanks and piping systems, while new tanks and associated piping networks must provide methods for release detection upon installation. The schedule for phasing in release detection requirements regarding existing systems is based on the age of the tank and piping. The phase-in process began December 22, 1989, for tanks 25 years old or older (see appendix G-1). As of December 22, 1993, all piping systems and existing tanks must have complied with release detection requirements.

c. Specific types of release detection methods to be employed are defined in Part 280, subpart D (see appendix G-3). The owner/operator must choose from the options outlined in these regulations: release detection will consist of one of the monthly monitoring methods as defined under Part 280.43(d)-(h) or tank tightness testing in combination with monthly inventory control. The employment of release detection methods required under Part 280, subpart D, is necessary for the life of the tank and piping system.

d. While the use of a release detection option that involves the use of tank tightness testing may appear to be the less difficult way to meet initial regulatory requirements, it may not be the most prudent. This is especially true if there are plans to upgrade tanks to meet long-term storage needs. Parris Island Environmental personnel conduct monthly groundwater monitoring; check and record cathodic protection rectifier readings; and check the auto leak detector for operation. A site check, per Part 280.52(b), is required when a release is suspected.

e. UST system spills or overfills must be immediately cleaned up and reported to the state within 24 hours when: Spilled amount exceeds 25 gallons, or if a petroleum sheen is present on nearby surface water for tanks containing petroleum products. Spilled HS's exceed reportable quantities under CERCLA. The procedure for suspected leaks or releases is: The operator or manager of the MCCS 7-Day Store will call the Depot

Environmental Office (228-3102 or 228-2611) who will then implement the corrective actions and reporting requirements that follow. If there is a gasoline release that poses a fire or explosion hazard the area should be shut down and the Fire Department notified immediately (228-3637).

f. Spills and overfills resulting in the release of petroleum that is less than 25 gallons must be contained immediately and cleaned up within 24 hours. If cleanup cannot be accomplished within 24 hours, the NREAO will immediately notify the regulatory agency. The spilled material must be stabilized from inclement weather.

3. Release Response and Corrective Action

a. Part 280, subpart F outlines release response and corrective action requirements.

b. Upon confirmation of a release, owner/operators must stop further release of the regulated substance from the UST system and identify and mitigate fire, explosion, and vapor hazards.

c. The following initial abatement measures are required for a confirmed release, as identified in Part 280.62:

d. Remove as much of the regulated substance as necessary from the UST system to prevent further release

e. Remedy hazards posed by UST releases. Hazards include contaminated soils below ground level and migration of the regulated substance into surrounding soils and groundwater.

f. Continue to monitor and mitigate any fire and safety hazards.

g. Measure prudently for the presence and extent of releases around the UST site.

h. Alleviate any hazards posed by contaminated soils and materials that were excavated or exposed as a result of any corrective or investigative activities. The owner/operator must comply with applicable Federal, state, and local regulations regarding disposal or treatment of these substances.

i. Report initial abatement steps within 20 days. This report is prepared by NREAO personnel and sent to SCDHEC.

j. Small leaks or spills can sometimes be cleaned up without removing the tank or pipeline. In many cases, loose joints and connections cause leaks while the general condition of the tank or pipeline is good. In such cases, the tank or pipeline can be repaired per 40 CFR 280.33 and returned to service.

4. Reporting

a. Upon discovery of a confirmed or suspected release, owner/operators must notify the South Carolina Department of Health and Environmental Control (SCDHEC) agency within 24 hours. Petroleum releases exceeding 25 gallons must also be reported to the CMC (LF). Utilize the message format provided in MCO 5090.2A, appendix E. Both these reports will be made via the NREAO personnel.

b. The EPA or state agency requires the submission of an initial site characterization report which includes at a minimum the determination of the nature and extent of the release; the estimated quantity of the release; a free product assessment; and information on surrounding population, geology, water supply, wells, utilities, climate, and land use. The site characterization report must be submitted to the regulatory agency within 45 days of release confirmation or another reasonable time as determined by the regulatory agency.

c. Investigate soil and groundwater contamination to determine the extent of the contamination plume. Submit the information obtained during the investigation to the SCDHEC, Bureau of USTs. Submission of a corrective action plan to the appropriate regulatory agency may be required, with additional information on the condition and extent of contaminated soil, groundwater remediation actions, and demonstration that adequate protection to human health, safety, and the environment is being provided. SCDHEC will review this corrective action plan to determine if it will adequately protect human health, safety, and the environment. The regulatory agency may approve the plan or make any modifications prior to implementation.

d. The regulatory agency must notify members of the public for each confirmed release that requires a corrective action plan and make the Corrective action plan available to the public, upon request. Additionally, the public must be notified if the selected corrective action fails to meet the established cleanup goals.

5. Out-of-Service UST Systems and Closure

a. The regulations applicable to this section are located in Part 280, subpart G. (see appendix 4)

b. Temporary closure of a UST system requires continued operation and maintenance of corrosion protection and release detection measures. Continue to maintain corrosion protection even when the UST system is empty.

c. Temporary closure of three months or more requires that vent lines be left open and all other lines, pumps, man ways, and ancillary equipment be capped and secured.

d. Temporary closure of more than 12 months requires permanent closure of the UST system if it does not meet either new UST performance standards or corrosion protection upgrading standards. The regulatory agency may grant an extension of the 12-month, temporary closure period.

e. Owners/operators must notify the implementing agency 30 days prior to the permanent closure or change-in-service of a UST. Continued use of a UST to store a non-regulated substance is considered a "change-in-service." USTs must be emptied and properly cleaned prior to permanent closure or change-in-service, and closed tanks must be removed or filled with an inert solid and all tank openings must be capped. Owners/operators must perform a site assessment on USTs which undergo permanent closure or change-in-service. The site assessment must measure for the presence of contaminants in the places where they most likely will be present and detected. USTs which use proper groundwater or external vapor monitoring systems, which are operating in accordance with the applicable requirements, do not need to perform a site assessment if no release is detected at closure/change-in-service.

f. Site assessment of an excavation zone and compliance with closure requirements may also apply to UST systems permanently closed before 22 December, 1988, if the regulatory agency determines that the UST may pose a current or potential threat to human health, safety, or the environment.

g. Maintain records documenting compliance with closure requirements for a period of three years after closure.

h. Proper documentation of UST removals and in-place closures is very important to ensure compliance, reduce environmental liability, avoid duplicative effort, and show progress and due diligence. Marine Corps Recruit Depot Parris Island must record and maintain specific, detailed information for every UST taken out of service. Such information should be organized into a written UST closure report. These procedures and documents will be performed by NREAO personnel.

6. Environmental Compliance. See chapter 4 of MCO P5090.2A for information on policy, responsibility, and procedures for achieving compliance with applicable Executive Orders, and Federal, State, interstate, and regional statutory and regulatory environmental requirements.

7. Identify and submit. Submit to the CMC (LFL) and the CMC (LFF) project documentation and funding requests for UST systems that are required to maintain compliance with applicable existing and emerging regulations and permits. Program and budget for personnel, equipment, materials, training, and monitoring required to comply with UST requirements.

a. Ensure that all required Federal, state, and local permits are applied for and obtained. Sign certifications and permit applications, as required, for construction of all UST projects. Pay appropriate Federal, state, and local fees.

b. Ensure that notification forms for UST's are completed and forwarded to the EPA or the appropriate state agency. Ensure that an accurate UST inventory is maintained.

c. Ensure that the environmental management hierarchy is employed, pollution prevention alternatives evaluated, and life-cycle cost impacts assessed, in evaluating and selecting projects that address compliance requirements (see MCO P5090.2a chapter 15).

d. Accomplish leak detection and product inventory requirements, record keeping, and operation of monitoring systems required by Federal, and applicable state, and local UST laws and regulations.

e. Comply with Federal, and applicable state, and local laws and regulations concerning the construction of new UST's, the upgrading of existing tanks, and the removal and closure of abandoned/unneeded tanks.

f. Identify resources required to meet the UST requirements in the Program Objective Memorandum, budget submittals, and the Annual Operational Plan.

g. Develop and implement a comprehensive, written UST management plan to facilitate compliance, and to reduce long-term costs associated with compliance.

h. When necessary, request technical assistance for UST management from the Naval Facilities Engineering Command Engineering Field Divisions/ Activities or other available agencies for leak detection assistance, design assistance for new USTs, and estimation of resource requirements for corrective actions. Ensure that coordination occurs as appropriate with the Safety Office in matters relating to UST cleaning and removals.

i. AC/S, MCCS. As the Operator of the USTs, will maintain, operate, keep records, perform required checks to assure compliance with all applicable laws and the requirements of this order.

j. FMD. Will maintain facilities in compliance by performing all required maintenance activities in addition to requisite testing by certified UST contractors.

APPENDIX 1

ENVIRONMENTAL COMPLIANCE AND PROTECTION MANUAL

MINIMUM REQUIREMENTS FOR UNDERGROUND STORAGE TANKS

A. GENERAL. The following information concerning underground storage tank (UST) requirements was adopted from a document published by the United States Environmental Protection Agency (EPA) Office of Underground Storage Tanks in August 1988. It includes minimum requirements and important deadlines.

B. WHAT DO YOU HAVE TO DO?

LEAK DETECTION	
NEW TANKS+ (40 CFR 280.41(a)(1)) Three choices	1. Monthly monitoring* 2. Monthly inventory control & tightness test every 5 years 3. Monthly manual tank gauging & tightness test every 5 years (only for tanks holding 2,000 gallons or less); (Can use tightness test methods for only 10 years after installation or upgrading.)
EXISTING TANKS++ (40 CFR 280.41(a)(2)) Two choices	1. Monthly monitoring* 2. Monthly inventory control & annual tightness test (Can use tightness test methods only until 1998 when tank must be upgraded or permanently closed. If upgraded, follow requirements for new tanks.)
ALL TANKS WITH CAPACITIES OF 550 GALLONS OR LESS (40 CFR 280.41a)(3)) Two choices	1. Methods listed above 2. Weekly manual tank gauging
NEW & EXISTING PRESSURIZED PIPING (40 CFR 280.41(b)(1)) One choice from each set	1. Automatic flow restrictor 2. Automatic shutoff device 3. Continuous alarm and 4. Annual line tightness test 5. Applicable monthly monitoring*
NEW & EXISTING SUCTION PIPING (40 CFR 280.41(b)(2)) Three choices	1. Line tightness test every 3 years 2. Applicable monthly monitoring 3. None if: a. Piping sloped back to tank b. Only one check valve present just below pump c. Piping operates at below atmospheric pressure

CORROSION PROTECTION	
NEW TANKS (40 CFR 280.20 (a)) Three choices	1. Coated & cathodically protected steel 2. Fiberglass-reinforced plastic 3. Steel-fiberglass-reinforced plastic composite
EXISTING TANKS (40 CFR 280.21 (b)) Three choices	1. Add interior liner with periodic inspections 2. Add cathodic protection system after proving tank is tight and not corroded 3. Add interior liner & cathodic protection system
NEW PIPING (40 CFR 280.20 (b)) Three choices	1. Coated & cathodically protected steel 2. Fiberglass-reinforced plastic 3. Piping approved by the regulatory agency
EXISTING PIPING (40 CFR 280.21 (c)) Two choices	1. Upgrade to new piping standards 2. Add cathodic protection system
SPILL/OVERFILL PREVENTION	
ALL TANKS** (40 CFR 280.20 (c), 40 CFR 280.21 (d)) One choice from each set	1. Spill catchment basin 2. Automatic shutoff device (approved by the regulatory agency) 3. Overfill alarm 4. Ball float valve

Monthly tank gauging (40 CFR 280.43(d) through (h)) includes:
Automatic monitoring
Vapor monitoring
Interstitial monitoring
Groundwater monitoring
Other approved methods
[†]New tanks are those installed after December 1988
[††]Existing tanks are those installed before December 1988
** Spill/overfill prevention devices are not required for tanks filled by transfer of 25 gallons or less.

C. WHEN DO YOU HAVE TO ACT?

IMPORTANT DEADLINES

TYPE OF TANK AND PIPING	LEAK DETECTION (40 CFR 280.40)	CORROSION PROTECTION (40 CFR 280.21	SPILL/OVERFLOW PREVENTION (40 CFR 280.21(a))
New Tanks and Piping*	At Installation of System	At Installation of System	At Installation of System
Existing tanks installed:	December	December 1998	December 1998
Before 1965 or unknown	1989 December	December 1998	December 1998
1965-1969	1990 December	December 1998	December 1998
1970-1974	1991 December	December 1998	December 1998
1975-1979	1992 December		
1980-1988	1993		
Existing piping**	December	December 1998	Does not apply
Pressurized/suction	1990 Same as existing tanks	December 1998	Does not apply

* New tanks and piping are those installed after December 1988
** Existing tanks and piping are those installed before December 1988

Secondary Containment Requirement (SC R 61-92, 280.25)

Not later than December 22, 2018, all UST systems located within 100 feet of an existing water supply well, a coastal zone critical area, or state navigable waters must comply with one of the following requirements:
Secondary containment requirements of Section 280.20(g); or
Closure requirements under Subpart G of Part 280.

APPENDIX 2

ENVIRONMENTAL COMPLIANCE AND PROTECTION MANUAL RELEASE REPORTING REQUIREMENTS

1. RELEASE REPORTING REQUIREMENTS. All confirmed leaks, suspected leaks based on monitoring, or spills or overfills of fuels exceeding 25 gallons must be reported to the EPA or proper state agency within 24 hours. All spills or leaks of any size must be contained and cleaned up.

2. RELEASE INVESTIGATION AND CONFIRMATION. Immediate investigation using the following methods (or methods specified by the state EPA):

a. Inventory check;
b. Tank or pipeline isolation and monitoring system recheck;
c. If a leak is still suspected, a tightness or hydrostatic test must be used to locate the leak;
d. If the system fails a tightness test, soil coring or groundwater sampling should be conducted;
e. When conducting an evaluation of immediate risk to drinking water, explosive vapors, etc., the Installation Restoration program method or an updated risk assessment method should be used; and
f. Reporting of investigation results to the implementing agency.

3. A separate set of corrective actions is required for petroleum products versus hazardous substances. The procedures are listed in 40 CFR 280.60 to 280.67, but will vary based on state requirements and risk.

4. Small leaks can be cleaned up without removing the tank or pipeline. Often, even if loose joints and connections are causing the small leaks, the general condition of the tank is still good. In such cases, the tank or pipeline must be repaired in accordance with 40 CFR 280.33 and the UST upgraded to meet new tank standards.

APPENDIX 3

ENVIRONMENTAL COMPLIANCE AND PROTECTION MANUAL UNDERGROUND STORAGE TANKS OPTIONS FOR RELEASE DETECTION

1. INTRODUCTION

a. The most immediate and demanding requirements of 40 CFR 280 concern the release-detection methods that must be implemented or installed on the Marine Corps UST systems. A synopsis of 40 CFR 280.40 to 280.45 follows.

b. The type of release-detection method used will vary with the type and age of the tank or pipeline. Furthermore, USTs used to store fuel for emergency generators are deferred from meeting the requirements for release detection. Emergency generator fuel tanks must comply with all other parts of this requirement..

2. RELEASE DETECTION FOR TANKS

a. Option 1-Combination of Precise Inventory Control and Tightness Testing. If USTs meet the new tank standards in 40 CFR 280.20, operators must conduct monthly inventory control and a tightness test every 5 years until 1998 or 10 years after upgrading.

b. Option 2-Combination of Precise Inventory Control and an Automated Gauging Device. The automatic gauging device must be able to detect a leak of 0.2 gallon/hour.

c. Option 3-Vapor Monitoring in Soils Surrounding Tanks. These monitoring requirements include:

(1) Only in sandy and gravely soils,

(2) Monthly soil gas sampling,

(3) Must detect vapors above background levels,

(4) Groundwater must not impede monitoring, and

(5) Sufficient number of vapor monitoring wells.

d. Option 4-Groundwater Monitoring Near Tanks. Monitoring requirements include:

(1) Stored liquid must be immiscible in water and have a specific gravity less than one,

(2) Groundwater must be within 20 feet of the ground surface,

(3) Soils must have a hydraulic conductivity of 0.01 cm/sec or greater,

(4) Proper monitoring well design and proper number of wells, and

(5) Use of an automatic or manual method capable of detecting a 1/8-inch layer of floating fuel.

e. Option 5-Interstitial Monitoring. This method applies only to USTs surrounded by a secondary containment barrier. Monitoring wells must be placed between the primary tank and the containment barrier when the barrier is within the excavation zone. For double walled tanks and tanks fitted with internal liners (" bladders"), the interstitial space must be monitored.

f. Option 6-Another Method Approved by the Implementing Agency. The method must be able to detect a 0.2 gallon/hour leak or 150 gallons/month release with a 95 percent probability of detection and a 5 percent probability of false positives.

3. PIPING RELEASE MONITORING. EPA regulations place more stringent requirements on pipes that convey liquids under pressure. The following release detection requirements apply:

a. Pressurized Piping

(1) Must be equipped with automatic line leak detection (e. g., automatic flow restrictor, continuous alarm, or automatic shutoff capabilities).

(2) Must have annual tightness test or monthly monitoring system.

b. Suction Piping. Tightness test every 3 years or monthly monitoring. European suction piping requires no leak detection.

APPENDIX 4

ENVIRONMENTAL COMPLIANCE AND PROTECTION MANUAL UNDERGROUND STORAGE TANKS OUTLINE OF PERMANENT CLOSURE REPORT

1. EXECUTIVE SUMMARY

2. INTRODUCTION AND PURPOSE

   a. Brief statement of report purpose and scope

   b. Identify contractors involved and UST owner/operators

3. SITE DESCRIPTION AND UST IDENTIFICATION

   a. Identify and describe facility related to USTs and general setting

   b. Identify and describe USTs included in the report

   c. Scaled site drawings

4. NOTIFICATION AND PERMITTING

   a. Regulatory notification/permits

   b. Contractor certification/licensing

   c. UST CLOSURE PROCEDURES

   d. Residual liquid removal

   e. Tank/pipe cleaning and closure preparation

   f. Tank/pipe removal or in-place closure

   g. Excavated soil management

   h. Safety measures and considerations

5. SITE ASSESSMENT PROCEDURES

   a. Describe appropriate environmental conditions and factors

   b. Visual observations

   c. Field analyses and checks

d. Soil/water sampling procedures and Quality Assurance/Quality Control (QA/QC)

e. Soil/water analytical procedures and QA/QC

f. Results and conclusions of site assessment

6. NECESSARY ATTACHMENTS AND APPENDICES

a. Contractor certifications and licenses

b. Residual fuel disposal/reuse receipts

c. Tank sludge disposal manifests or receipts

d. Tank wash water disposal manifests or receipts

e. Contaminated soil manifests or receipts

f. UST disposal receipts/certificates of destruction

g. Photographs of site work and conditions

h. Laboratory chain-of-custody forms

i. Laboratory analytical results

j. Removal notifications and permits

k. Related correspondence to/from regulators

l. Well permits, if wells installed

m. Drill cuttings and purged well water manifests, if needed

APPENDIX 5

TERMS AND DEFINITIONS

1. Aboveground Release. Any release of a regulated substance from a UST to the surface of the land or surface water. This includes, but is not limited to, release from the aboveground portion of a UST system and aboveground releases associated with overfill and transfer operations as the regulated substance moves to or from a UST system.

2. Ancillary Equipment. Any devices including, but not limited to, piping, fittings, flanges, valves, and pumps used to distribute, measure, or control the flow of regulated substances to and from a UST.

a. Cathodic Protection. A technique to prevent corrosion of a metal surface by making that surface the cathode of an electrochemical cell. For example, a tank system can be catholically protected through the application of either galvanic anodes or impressed current.

b. Cathodic Protection Tester. A person who can demonstrate understanding of the principles and measurements of all common types of cathodic protection systems as applied to buried or submerged metal piping and tank systems. At a minimum, the person must have education and experience in soil resistivity, stray current, structure-to-soil potential, and component electrical isolation measurements of buried metal piping and tank systems.

c. Connected Piping. All underground piping including valves, elbows, joints, flanges, and flexible connectors attached to a tank system through which regulated substances flow. For the purpose of determining how much piping is connected to any individual UST system, the piping that joins two UST systems should be allocated equally between them.

d. Corrosion Expert. A person who, by reason of thorough knowledge of physical sciences and the principles of engineering and mathematics acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person must be accredited or certified as being qualified by the National Association of Corrosion

Engineers, or must be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control of buried or submerged metal piping systems and metal tanks.

e. Excavation Zone. The volume containing the tank system and backfill material bounded by the ground surface, walls, and floor of the pit and trenches into which the UST system is placed at the time of installation.

f. Existing Tank System. A tank system used to contain an accumulation of regulated substances, or for which the installation has commenced on or before 22 December, 1988. The installation is considered to have commenced if:

(1) The owner or operator has obtained all Federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system; and

(2) Either a continuous on-site physical construction or installation program has begun; or

(3) The owner or operator has entered into contractual obligations, which cannot be canceled or modified without substantial loss, for physical construction at the site or installation of the tank system to be completed within a reasonable time.

g. Flow-through Process Tank. A tank that forms an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of materials during the operation of the process. Flow-through process tanks do not include tanks used for the storage of material prior to their introduction into the production process or for the storage of finished products or byproducts from the production process.

h. Free Product. A regulated substance that is present as a non-aqueous phase liquid (i.e., liquid not dissolved in water).

i. HS UST System. Any UST system that contains an HS defined in section 101(14) of CERCLA (but not including any substance regulated as an HW under subtitle C of RCRA) or any mixture of such substances and petroleum in a UST system that does not constitute a petroleum UST system.

j. Heating Oil. Petroleum that is Nos. 1, 2, 4, and 5 (light and heavy), and 6 (technical grades), other residual fuel oils (including Navy Special Fuel Oil and Bunker C), and other fuels when used as substitutes for one of these fuel oils. Heating oil is typically used in the operation of heating equipment, boilers, or furnaces. Oil, as defined in 40 CFR 122.2, is oil of any kind or in any form including, but not limited to, petroleum, fuel oil, sludge, or oil refuse.

k. Hydraulic Lift Tank. A tank holding hydraulic fluid for a closed-loop mechanical system that uses compressed air or hydraulic fluid to operate lifts, elevators, and other similar devices.

l. Liquid Trap. Sumps, well cellars, and other traps used in association with oil and gas production, and gathering an extraction operations (including gas production plants) for the purpose of collecting oil, water, and other liquids. These liquid traps may temporarily collect liquids for subsequent disposition or re-injection into a production or pipeline stream, or may collect and separate liquids from a gas stream.

m. New Tank System. A tank system that will be used to contain an accumulation of regulated substances and which installation commenced after 22 December 1988.

n. Operator. Any person in control of or having responsibility for the daily operation of a UST system.

o. Overfill Release. A release that occurs when a tank is filled beyond its capacity, resulting in a discharge of the regulated substance to the environment.

p. Owner. In the case of an UST system in use on 8 November 1984 or brought into use after that date, any person who owns an UST system used for storage, use, or dispensing of a regulated substance; and, in the case of any UST system in use before 8 November 1984, but no longer in use on that date, any person who owned the UST immediately before the discontinuation of its use.

q. Petroleum. Petroleum, including crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (600 F and 14.7 psia).

r. Petroleum UST System. A UST system that contains petroleum or a mixture of petroleum with minimum quantities of other regulated substances. Such systems include those containing motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

s. Regulated Substance

(1) Any substance defined in section 101(14) of CERCLA, but not including any substance regulated as an HW under subtitle C of RCRA.

(2) Petroleum, including crude oil or any fraction thereof, that is
liquid at standard conditions of temperature and pressure (600 F and 14.7 psia).

(3) The term "regulated substance" includes, but is not limited to, petroleum and petroleum-based substances consisting of a complex blend of hydrocarbons derived from crude oil through processes of separation, conversion, upgrading, and finishing, such as motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

t. Release. Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment. The term excludes:

(1) Any release that results in exposure to persons solely within a workplace, with respect to a claim which such persons may assert against the employer of such persons;

(2) Emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine;

3. Release of source, byproduct, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act. If such release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under section 170 of this Act, or for the purposes of section 104 of CERCLA, or any other response action,

any release of source, byproduct, or special nuclear material from any processing site designated under section 102(a)(1) or section 302(a) of the Uranium Mill Tailings Radiation Control Act; and

a. The normal application of fertilizer.

b. Release Detection. Determining whether a release of a regulated substance has occurred from a UST system into the environment or into the interstitial space between the UST system and its secondary barrier or containment.

c. Septic Tank. A watertight, covered receptacle designed to receive or process, through liquid separation or biological digestion, the sewage discharged from a building sewer. The effluent from such a receptacle is distributed through the soil, and settled solids and scum from the tank are pumped out periodically and hauled to a treatment facility.

d. Storm water or Wastewater Collection System. Piping, pumps, conduits, and any other equipment necessary to collect and transport the flow of surface water runoff resulting from precipitation, or domestic, commercial, or industrial wastewater. The collection of storm water and wastewater does not include treatment except where incidental to conveyance.

e. Underground Storage Tanks (USTs). All tank systems containing regulated substances for which the tank volume, including piping, is 10 percent or more beneath the surface of the ground. The following tank systems are excluded from Federal UST regulations:

(1) Any UST system holding an HW listed or identified under subtitle C of RCRA, or a mixture of such an HW and other regulated substances.

(2) Any wastewater treatment tank system that is part of a wastewater treatment facility regulated under sections 402 or 307(b) of the Clean Water Act.

(3) Equipment or machinery that contains regulated substances for operational purposes, such as hydraulic lift tanks and electrical equipment tanks.

(4) Any UST system that has a capacity of 110 gallons or less.

(5) Any UST system that contains a minimum concentration of regulated substances.

(6) Any UST emergency spill or overflow containment system that is expeditiously emptied after use.

(7) Any residential tank containing motor fuel for noncommercial use with capacity of 1,100 gallons or less.

(8) Any tank storing heating oil for consumptive use on the premises.

(9) Any tank system on or above the floor of underground areas, such as basements or tunnels.

(10) Any septic tank, storm water, or wastewater collection system.

(11) Any flow-through process tank.

f. Upgrade. The addition or retrofit of a system with cathodic protection, lining, or spill and overfill controls to improve the ability of an UST system to prevent the release of product.

g. UST System or Tank System. The UST and any connected underground piping, underground ancillary equipment, and containment system, if any.

h. Wastewater Treatment Tank. A tank that is designed to receive and treat influent wastewater through physical, chemical, or biological methods.