



UNITED STATES MARINE CORPS

MARINE CORPS BASE

PSC Box 20004

Camp Lejeune, North Carolina 28542-0004

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BEMD

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BASE ORDER 11162.1A

From: Commanding General

To: Distribution List

Subj: MANAGEMENT OF UNDERGROUND STORAGE TANKS (USTs)

Ref: (a) 1984 Hazardous and Solid Waste Amendments

(b) 40 CFR Part 280

(c) 15A NCAC 2N

(d) 15A NCAC 2L

(e) 15A NCAC 2D

(f) MCO P5090.2A

(g) 15A NCAC 2Q

(h) 40 CFR Part 60

Encl: (1) UST Registration Form

(2) UST Installation/Closure/Change-in-Service

(3) Common Terms and Definitions

1. Situation. The Marine Corps Underground Storage Tank (UST) Program policy is to comply with all Federal and applicable State and local regulations pertaining to the operation and management of USTs. 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. In order to adhere to this policy, it is the purpose of this Order to promulgate information concerning the daily operating requirements of UST systems at the Marine Corps Base (MCB), Camp Lejeune/Marine Corps Air Station (MCAS), New River complex, hereafter referred to as the Installation unless otherwise noted. It is furthermore the purpose of this Order to establish policy and procedures for the Installation's UST Management Program, which includes release detection, record-keeping and reporting, inventory control, release response, corrective action, and closure for UST systems.

2. Mission

a. MCB, Camp Lejeune and MCAS, New River, operate a large

number of UST systems for the purpose of storing petroleum products. Reference (a) mandated that the Environmental Protection Agency (EPA) develop standards to regulate USTs containing petroleum and hazardous substances. References (b), (c), (d), (e), (f), (g), and (h) establish the technical standards (e.g. design, construction, Installation), operating standards, and corrective action requirements of the owners and operators of UST systems. These regulations are fully applicable to USTs aboard the Installation.

b. The Commanding General, MCB, Camp Lejeune, is the designated owner of all UST systems aboard the Installation. These requirements are applicable to all organizations aboard the Installation to include: any command, active, or reserve component; staff organization; or supporting agency which is affiliated with the United States Marine Corps (USMC), Department of the Navy (DoN), or Department of Defense (DoD). This section also applies to organizations organic to or tenanted aboard the Installation, contractors, and those in transit or otherwise temporarily resident because of training or mobilization commitments.

c. All regulated USTs listed have been upgraded to provide full compliance with references (b), (c), and (d) and to minimize risk of release of petroleum fluids to the environment and associated cleanup costs.

d. Independent of this Order, a Tank Management Plan will be developed and implemented in accordance with reference (f) by the Base Environmental Management Division (EMD). The primary objective of the Tank Management Plan is to serve as a reference tool for continuously achieving and maintaining compliance with Federal, State, DoD, and USMC regulations, policies, and directives. A secondary objective of this management plan is to allow the Installation to utilize UST systems as efficiently as possible, thereby reducing environmental risks and minimizing costs associated with compliance.

e. The Clean Air Act mandated that the EPA develop standards to regulate air emissions from new and modified sources. Reference (h) outlines federal regulatory requirements applicable to storage vessels containing volatile organic liquids (including petroleum). In addition to federal regulatory guidance, references (e) and (g) establish vapor recovery system requirements for North Carolina. The Installation's USTs are subject to these regulations based on the size of the tank and the type of product being stored. Air

Quality requirements applicable to any UST systems; including permitting, recordkeeping, emissions reporting, and maintenance are included in the procedures established by this order for UST systems.

3. Execution

a. Registration

(1) All commands, active, or reserve component; staff organizations; or supporting agencies which are affiliated with the United States Marine Corps (USMC), Department of the Navy (DoN), or Department of Defense (DoD); organizations organic to or tenanted aboard the Installation; contractors; and those in transit or otherwise temporarily resident because of training or mobilization commitments, shall promptly inform Director, EMD of any USTs that are not registered with the EMD and ensure that any proposed UST construction is promptly reported to the EMD. This will ensure the required regulatory records are forwarded to the appropriate Division of the North Carolina Department of Environment and Natural Resources (hereafter referred to as the Implementing Agency) prior to Installation of any USTs.

(2) EMD will register regulated USTs with the Implementing Agency. EMD will also register any non-regulated/commercial USTs that require an operating permit issued by the Implementing Agency.

(3) The EMD shall renew operating permits annually with the Implementing Agency for all registered UST systems on the Installation.

(4) To meet regulations in references (e), (g), and (h), all commands and tenants of MCB Camp Lejeune and MCAS New River will notify EMD of any proposed UST construction 6 months prior to project execution to ensure air permitting requirements are completed by the Implementing Agency.

b. Installation

(1) Non-Regulated UST Systems

(a) Non-regulated UST systems are those systems that are exempt from Federal and State regulations.

(b) The requirements of sections 3.B(2)(F) through 3.B(2)(J) of this Order must be followed when installing an exempt

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UST system. Refer to the MCB Camp Lejeune/MCAS New River Tank Management Plan for UST installation requirements.

(2) Regulated UST Systems

(a) Regulated UST systems must be constructed such that they will remain structurally sound and free of corrosion for their operating life. Also, these UST systems must be constructed of, or lined with, materials compatible with the substance stored.

(b) All new tanks and piping must be properly installed in accordance with industry standards and with the manufacturer's instructions and to standards established as Best Management Practices in the MCB Camp Lejeune/MCAS New River Tank Management Plan. To verify that UST systems have been installed in accordance with industry standards, tank owners must provide a certification of compliance when registering tanks with the Implementing Agency.

(c) Regulated deferred UST systems may not be installed to store regulated substances unless they meet the requirements of Section 3.B(2)(A) of this Order.

(d) USTs that store fuel solely for use by emergency power generators are only deferred from the requirements for release detection listed in 3.B(2)(I) of this order.

(e) It is a Best Management Practice to follow the requirements of sections 3.B(2)(F) through 3.B(2)(J) of this Order when installing deferred UST systems. Refer to the MCB Camp Lejeune/MCAS New River Tank Management Plan for UST installation requirements.

(f) No UST system shall be installed within 100 feet of a well serving a public water system, as defined in references (b) and (c) or within 50 feet of any other well supplying water for human consumption, unless the system meets the performance requirements of paragraphs (A), (B), (G), and (H) of this section. The replacement UST system may not be located nearer to the water supply source than the UST system being replaced.

(g) Except as prohibited in paragraph (F) of this section, the UST system must have adequate secondary containment if the system is installed within:

(1) 500 feet of a well serving a public water supply or within 100 feet of any other well supplying water for human consumption,

(2) 500 feet of any surface water classified as High Quality Water, Outstanding Resource Waters, Class WS-I, Class WS-II, or Class SA,

(3) A location determined by the Implementing Agency to be unsuitable for conventional Installation based on an evaluation of the site by personnel from that agency.

(h) Regulated USTs are required to be fitted with equipment that will prevent spilling and overflowing associated with product transfer to the UST system. All regulated USTs aboard the Installation must also be equipped with spill catch basins or buckets that will prevent a release of product to the environment when the transfer hose is detached from the fill pipe. These buckets must be kept free of spilled product, stormwater, and other debris.

(i) Regulated USTs are required to provide a method, or combination of methods of release detection that will detect a release from any portion of the tank and connected underground piping that contains product.

(1) The method of leak detection that has been provided at each of the Installation's regulated UST systems is the Veeder Root TLS-350 automatic tank gauging (ATG) system. These systems provide a daily Continuous Statistical Leak Detection (CSLD) record that will alert the operator if there has been a potential release to the environment. This ATG system also provides a daily inventory report that can be used to verify that the CSLD record is accurate. The ATG system automatically prints the daily CSLD record and inventory report at 0800 hours each morning. The UST operator must maintain these records in the UST Management Binder provided to each UST site by Base EMD.

(2) If the UST system is not equipped with a Veeder Root TLS-350 ATG system, or if the ATG system is inoperable, contact the Base EMD for instructions on proper procedures for leak detection at 451-5068.

(j) Release detection systems must be installed, calibrated, operated, and maintained in accordance with the manufacturer's instructions. Performance standards for each method of release detection must be documented.

c. Stage I Vapor Recovery. Gasoline UST systems must operate and maintain stage I vapor recovery systems in accordance with reference (e). Specifically, gasoline shall not be transferred from any delivery vessel to any stationary storage tank at a service station and/or dispensing facility unless the following requirements are met:

(1) The tank is equipped with a submerged fill pipe (also referred to as a drop tube), and the vapors displaced from the storage tank during filling are controlled by a vapor control system.

(2) The vapor control system is in good working order and is connected and operating with a vapor tight connection.

(3) The vapor control system is properly maintained and all malfunctioning components or elements of design are repaired, replaced or modified.

d. Operation, Maintenance, and Repairs

(1) The operator of the unit's UST system is responsible for the daily operation of the Veeder Root system. It is the unit's responsibility to ensure that alarms associated with this system are reported to the proper Base personnel. The UST operator should refer to the appropriate Veeder Root Operators Manual located in the UST Management Binder provided to each UST site by Base EMD for guidance. The manual has an alarm message quick reference index. Alarm messages that appear on the front panel display of the Veeder Root system consoles are listed alphabetically in the Operators Manual index. Use the help tables in this index to determine causes and recommended corrective actions.

(2) The Veeder Root Operations Manual will identify the corrective action for each alarm. The action required will normally instruct the operator to call for service or follow local instructions. These instructions are located in the UST Management Binder provided to the UST Operator.

(3) Regulated UST systems constructed of steel must employ a corrosion protection system that continuously operates

to provide protection to the metal components that routinely contain regulated substances and are in contact with the ground. A qualified cathodic protection tester must routinely inspect cathodic protection systems for proper operation in accordance with industry standards.

(4) Repairs to UST systems must prevent releases due to structural failure or corrosion as long as the UST system stores regulated substances. Repairs may be performed by the manufacturer's authorized representative, in conformance to the manufacturer's specifications, or in accordance with a code of practice developed by a nationally recognized association. Copies of the repair records must be maintained on-site and the original record submitted to the Base EMD; these records must be maintained for the entire life of the tank.

(5) Validation that the repairs were successful must be achieved through tightness testing, internal inspection or another approved method that is conducted in accordance with industry standards.

(6) Stage I vapor recovery systems shall be maintained in proper working order and the Base EMD shall retain the following records:

(a) The scheduled date for maintenance or the date that a malfunction was detected;

(b) The date the maintenance was performed or the malfunction corrected; and

(c) The component or element of design of the control system repaired, replaced, or modified.

e. Spill and Overfill Control

(1) Operators must prevent the occurrence of releases due to spillage and overfilling during fuel transfer operations. This requirement will be achieved by:

(a) Checking the product level of the UST prior to the transfer operation. This action will ensure the volume available in the tank is greater than the volume of the product to be transferred.

(b) Continually monitoring the transfer operation.

(2) Operators must report any above ground release or overflow release of a regulated substance to the Fire Protection Division (FPD) by dialing 911. FPD will notify the Base EMD and initiate response actions. The Base EMD will ensure that any required reports are made to the Implementing Agency, other external regulatory authorities, and to higher headquarters. Operators will clean up and properly manage released product as directed by FPD/EMD.

(3) Fill ports must remain capped and locked when not in use.

f. Suspected UST Releases

(1) UST system operators must contact the Base EMD at 451-5068 in any of the following circumstances:

(a) Releases of regulated substances were found at the UST site or in the surrounding area (such as the presence of free product or vapors in soils, basements, sewer and utility lines, and nearby surface waters). The FPD must be notified prior to the Base EMD in this situation by dialing 911.

(b) Unusual operating conditions were observed, such as the erratic behavior of dispensing equipment or a sudden loss of product, unless it is determined that the problem lies in the equipment, but it is not leaking and is immediately repaired or replaced.

(c) Monitoring results indicate a possible release (i.e. CSLD records from the Veeder Root ATG system indicate a failure).

(2) The Base EMD will report suspected releases to the Implementing Agency (and any other cognizant regulatory agency) within 24 hours.

(3) All suspected releases of regulated substances that require reporting must be investigated and confirmed.

g. Confirmed UST Releases

(1) The Base EMD shall report all confirmed releases from petroleum or hazardous substance UST's to the Implementing Agency (and any other cognizant regulatory agency) within 24 hours.

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(2) The investigation and remediation of soil and groundwater contamination must be performed upon direction from the Implementing Agency.

h. Changes in Service or Closure

(1) UST systems, which are temporarily out of service, must have continued operation and maintenance of any corrosion protection equipment and/or release detection systems. Release detection systems are not necessary if the tank is empty (no more than one inch of residue or 0.3 percent by weight of the total capacity of the UST system remains in the tank).

(2) If the UST has been out of service for three months or more, owners and operators must ensure that the following requirements are met:

(a) Vent lines are open and functioning.

(b) Cap and secure all other lines, pumps, manways, and ancillary equipment.

(3) UST systems are permanently closed by either removal from the ground or by filling the UST with an inert solid material and sealing or capping all tank openings. Refer to the MCB Camp Lejeune/MCAS New River Tank Management Plan for UST closure requirements.

(4) Prior to a change-in-service, USTs must be emptied and cleaned and, if required, a site assessment conducted. Continued use of the UST system to store a non-regulated substance is considered a change-in-service.

(5) The operator shall request UST closure or change-in-service by completing the UST Installation, Closure or Change-in-Service form in enclosure (2) and forwarding to the Director, EMD. The Base EMD will ensure that the Implementing Agency is notified of the UST closure or change-in-service. A reputable Environmental Contractor will conduct all UST closures with a Professional Engineer (P.E.) or Geologist.

(6) Prior to completion of permanent closure or change-in-service activities, owners must assess the UST site for the presence of a release where contamination is most likely to be present. This assessment must be performed in accordance with the protocol set forth in the MCBCL Tank Management Plan.

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4. Administration and Logistics

a. Recordkeeping/Documentation

(1) Owners are required to keep records of the following activities that apply to their UST sites:

(a) Installation and upgrade records,

(b) A corrosion expert's analysis of site corrosion potential if corrosion protection equipment is not used,

(c) Certification of the proper operation of a corrosion protection system upon completion of testing,

(d) Certification of compliance with the requirements for leak detection contained in reference (b) and (c),

(e) Documentation of repairs,

(f) Closure records, and

(g) Results of any site investigations associated with a release or discharge from the UST system.

(2) Operators are required to maintain the UST Management Binder prepared and provided by the Base EMD. The UST Management Binder shall be stored in a single location designated by the Base EMD and shall be readily available for inspection by federal, state, and local regulatory agencies. The UST Management Binder will include, at a minimum, the following:

(a) A copy of this Order and a written standard operating procedure (SOP) describing tank specific leak management, detection, and monitoring procedures, and UST transfer operations;

(b) A current UST information form;

(c) A current UST facility diagram;

(d) Daily CSLD and inventory reports for the previous twelve months;

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(e) A maintenance and repair log for each work request initiated by the operating unit; certification of UST repairs must be documented as well;

(f) UST calibration charts;

(g) EPA document "Doing Inventory Right";

(h) Veeder Root Systems' Operator's Manual TLS-350 and TLS-350R Monitoring, Environmental, and Inventory Management Systems Manual.

b. Responsibilities. The purpose of this section is to identify the command and staff requirements, and responsibilities for the implementation and management of this Order. Note that requirements of (3) above apply to all commands and tenants aboard MCB, Camp Lejeune and MCAS, New River.

(1) Commanding General, MCB, Camp Lejeune. The Commanding General is responsible for the overall compliance of the UST management program.

(2) Assistant Chief of Staff, Business, Logistics Support Department

(a) Provides various petroleum products for UST systems except Marine Corps Community Service Department facilities and Marine Corps Air Station facilities associated with the Rapid Refueler station.

(b) When Business Logistics Support Department refuelers deliver to the UST system, the operator of that vehicle shall ensure that above ground releases due to spilling or overfilling during product transfer do not occur.

(c) Confirms the UST operator has ensured that the volume available in a tank is greater than the volume of product to be transferred to the tank before a product transfer is made, that the transfer operation is monitored constantly to prevent overfilling and spilling, and that the water content is tested before and after filling the tank.

(d) Ensures that Stage I vapor recovery and vapor balance systems are utilized properly in accordance with applicable bulk gasoline plants and gasoline dispensing facility

requirements specified in reference (e). Records will be maintained as outlined in 3.D(6) of this Order.

(e) Ensures that the product to be transferred into a tank is compatible with the materials of the tank.

(f) Immediately notifies the Fire Protection Division (FPD) of an overfill release or Aboveground Release by calling extension 911. The UST Operator's Environmental Compliance Officer (ECO) will also be notified.

(g) Assists in the containment and cleanup of any spill or overfill of petroleum or hazardous substance which occurs during product transfer operations to the maximum extent practical within the constraints of existing health and safety regulations.

(h) Maintains accurate and detailed records of all product transfer operations. Records should include, at a minimum, the following information:

- (1) Tank I.D. number,
- (2) Amount and type of product transferred,
- (3) Date and time of transfer, and
- (4) Any unusual operating conditions observed.

(i) Provides technical assistance to Installation activities and tenant commands to implement inventory control measures.

(3) Assistant Chief of Staff, Marine Corps Community Services Department/Director, Marine Corps Community Services (MCCS), MCAS, New River

(a) Ensures MCCS contracts are reviewed by the Base EMD and the Resident Officer in Charge of Construction and that MCCS contractors are held accountable through written contract clauses for aboveground release, overfill release, damage to tanks or piping, and any other ancillary equipment.

(b) Ensures that USTs operated by MCCS are temporarily or permanently closed upon notification of releases or violation of the current state and federal regulations.

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(c) Ensures that any fuel distributors contracted by MCCS to supply gasoline to USTs operated by MCCS comply with all gasoline vapor recovery requirements listed in reference (d).

(e) Ensures that any new UST system is installed according to guidelines established in the MCB Camp Lejeune/MCAS New River Tank Management Plan.

(f) Shall designate in writing a responsible person with sufficient rank/grade as UST Operator. An appointment letter shall be forwarded to the Director, EMD. A UST Operator is any person in control of, or having responsibility for, the daily operation/use of the UST system.

(g) Will ensure commanders and managers within their cognizance give high priority to the prevention of overfills and to the conduct of routine UST leak detection monitoring, record keeping and reporting requirements of this Order.

(h) Maintains accurate and detailed records of all product transfer operations. Records should include, at a minimum, the following information:

- (1) Tank I.D. number,
- (2) Amount and type of product transferred,
- (3) Date and time of transfer, and
- (4) Any unusual operating conditions

observed.

(4) AC/S, Installation Security and Safety Department

(a) Provides technical advice regarding worker health and safety issues. Advises Installation personnel on the health and safety concerns/requirements of confined space entry, respirator training, lower explosive limit and upper explosive limit monitoring and soil vapor monitoring during UST construction activities and/or release response.

(b) Provides technical support as required and initial emergency response for product spill/overfill incidents,

tank cleaning or tank removal incidents, or any UST related emergency situation. Additionally, the Fire Protection Division Chief or his representative shall act as the On-Scene Commander for emergency response.

(c) Provides technical support for the location of new USTs in accordance with National Fire Protection Association codes.

(5) Assistant Chief of Staff, Installations and Environment (I&E) Department

(a) Ensures that all construction, maintenance, and repair contracts at the Installation include provisions for the proper management of UST systems. UST removals, Installations, tightness testing, corrosion protection system testing, release detection system testing, designs, vapor recovery systems, and construction operations must be in accordance with applicable federal and state regulations and guidelines, and the American Petroleum Institute (API) and Petroleum Engineers Institute (PEI) standards. The MCB Camp Lejeune/MCAS New River Tank Management Plan outlines these requirements.

(b) Serves as the CG, MCB's representative regarding ownership of all UST systems aboard the Installation.

(6) Environmental Management Division (EMD), I&E Department

(a) Responsible for the resolution of conflicting and overlapping authority issues regarding UST management and compliance responsibilities.

(b) Provides UST Operators with the UST Management Binder for maintaining inventory control, release detection, and maintenance and repair records.

(c) Conducts Environmental Compliance Evaluations (ECEs) of Installation activities and tenant commands for compliance with applicable laws, regulations, and directives, and makes recommendations for improving the UST compliance program. A written report of any discrepancies noted during an evaluation along with any other findings will be forwarded to the Operator via the chain of command.

(d) Maintains a complete list of Environmental

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Compliance Coordinators (ECC), ECO and UST Operators

(e) Maintains UST inventory, certification of UST Installation, documentation of operation and testing of the corrosion protection equipment, documentation of compliance with release detection requirements, documentation of gasoline vapor recovery requirements, results of all UST annual tank and/or line tightness testing, maintenance and repair reports, site investigation reports, and closure reports.

(f) Initiates and coordinates projects to assure that all UST systems are removed, replaced, or upgraded to comply with UST regulations.

(g) Obtains concurrence from the Facility Planning, I&E Department, for any planned UST Installations or removals.

(h) Initiates projects to perform annual tightness testing for all nonconforming UST's.

(i) Acts as official liaison between federal, state, and local environmental regulatory agencies and the Installation and its tenant commands.

(j) Notifies the state agency of any petroleum product spill or hazardous substance spill as required by references (b) and (c).

(k) Conducts follow-on assessment and remediation, in compliance with references (c) and (d), at any site where a release has been documented.

(l) Develops site-specific inventory control and reconciliation forms and instructions that are available to UST operators.

(m) Provides observation of contracted UST Installation and/or repair operations.

(n) Secures contracts through the Atlantic Division of the Naval Facilities Engineering Command for preliminary site investigations, comprehensive site assessments, corrective action plans, and design and construction of remediation systems. Monitors contractor fieldwork, and reviews draft contractor reports.

(o) Secures facility support contracts through the Installations and Environment Department, Public Works Division for operation and maintenance of remediation systems and ancillary equipment.

(p) Submits required reports and notifications pertaining to UST Installation, maintenance and repair, corrosion protection and release detection system testing, upgrades, change-in-service, and closures to the Implementing Agency.

(q) Submits required reports pertaining to site investigations and remediation system design, construction, operation, and maintenance to the Implementing Agency.

(r) Annually submits the required applications to renew UST operating permits with the Implementing Agency for all registered UST systems aboard the Installation. Determines applicability of air quality regulations outlined in references (e) and (g) to include air quality permitting requirements.

(s) Ensures inclusion of all UST air emissions in the Installations Annual Air Emissions Inventory.

(t) Will service used oil collection facilities, to include pumping out oil storage tanks at regular intervals, and initiating action required to maintain and repair tanks, and related signs, funnels, gauges, and drain lines.

(u) Ensures that project action sponsor completes environmental review and documentation. This effort includes the submission of a completed request for environmental impact review (REIR), for all proposed UST Installation and removal projects, to the Environmental Conservation Branch, for review by environmental staff to determine the presence of sensitive resources, such as threatened and endangered species, wetlands, or cultural resources, and the need for subsequent National Environmental Policy Act (NEPA) documentation.

(7) Public Works Maintenance Operations Branch,
Installations and Environment Department

(a) Ensures that corrosion protection systems are maintained to continuously provide corrosion protection to the metal components of that portion of the tank and piping that routinely contain regulated substances and are in contact with the ground. Tests corrosion protection equipment for all steel

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UST's in accordance with the requirements of reference (b) and (c), and submits the original testing data to the Director, EMD.

(b) Tests accuracy of product dispensing meters annually to ensure that the inventory control records are accurate for all Installation USTs.

(c) Ensures that automatic tank gauging systems utilized for release detection are maintained to ensure that such systems are able to automatically monitor product levels within the tank with a detection accuracy of 0.2 gallons per hour leak rate from any portion of the tank that routinely contains product, with a probability of detection of 0.95 and a probability of false alarm of 0.05.

(d) Performs routine and emergency maintenance at all Installation UST sites and provides maintenance and repair records to the Operator and to the Director, EMD.

(8) Officer in Charge of Construction (OICC)/Resident Officer in Charge of Construction (ROICC), Public Works Division, Installations and Environment Department

(a) Ensures Base EMD is consulted and/or notified of all contracts administered by the OICC/ROICC that perform storage tank work to include removal, replacement, and/or upgrade activities. This requirement also applies to work involving all parts of the tank system including transfer piping.

(b) Obtains all UST Installation, change-in-service, and removal notification forms required by applicable federal and state regulations and guidelines, API, and PEI for all UST systems that are installed under contracts administered by the OICC/ROICC and submits the original forms to the Director, EMD.

(c) Obtains a certified UST Installation checklist for all UST systems that are installed under contracts administered by the OICC/ROICC, plus records of any tests performed on UST systems during Installation, and submits the original checklist to the Director, EMD.

(d) Obtains the UST closure report for all UST's that are removed under contracts administered by the OICC/ROICC and submits the original closure report to the Director, EMD. All UST closure reports-unless directed otherwise by the Base

EMD-shall be in the GW/UST-12 format developed by the Implementing Agency.

(e) Coordinates Base support for contractors doing site investigation and remedial work to include underground utility location services to design contractors, drilling operations, and subsurface remediation and construction operations.

(f) Administers remediation contracts for construction, operation, and maintenance of remediation systems.

(9) Installation Development Division, Installations and Environment Department

(a) Ensures that project action sponsor completes environmental review and documentation. This effort includes the submission of a completed request for environmental impact review (REIR), for all proposed UST Installation and removal projects, to the Environmental Conservation Branch, for review by environmental staff to determine the presence of sensitive resources, such as threatened and endangered species, wetlands, or cultural resources, and the need for subsequent National Environmental Policy Act (NEPA) documentation.

(b) Reviews and provides concurrence or non-concurrence on EMD plans regarding UST Installations or removals.

(10) Safety and Environmental Affairs, MCAS, New River

(a) Provides technical advice regarding worker health and safety issues. Advises Installation personnel on the health and safety concerns/requirements of confined space entry, respirator training, lower explosive limit and upper explosive limit monitoring and soil vapor monitoring during UST construction activities and/or release response.

(b) Ensures that project action sponsor completes environmental review and documentation. This effort includes the submission of a completed request for environmental impact review (REIR), for all proposed UST Installation and removal projects, to the Environmental Conservation Branch, for review by environmental staff to determine the presence of sensitive resources, such as threatened and endangered species, wetlands, or cultural resources, and the need for subsequent National Environmental Policy Act (NEPA) documentation.

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(11) Commanding Generals of Tenant Commands, Heads of Tenant Organizations, and Commanding Officer MCAS, New River

(a) Will ensure commanders and managers within their cognizance give high priority to the prevention of above ground or overflow releases and conduct routine UST leak detection monitoring, record keeping and reporting requirements of this Order.

(b) Shall ensure that the cognizant (ECC) is tasked with monitoring UST compliance relative to this order.

(12) Environmental Compliance Coordinator

(a) Cooperates with the Base EMD to ensure that all USTs operated by the Command are registered with the Base EMD. The ECC must ensure that all USTs are registered with the Base EMD and if not will complete the appropriate form in enclosure (1) or enclosure (2) and the form forwarded to the Director, EMD.

(b) Oversees the development and implementation of Command procedures and training programs required to ensure proficiency of Officers-in-Charge and Operators of USTs in leak detection monitoring, spill prevention, and the related record keeping and reporting requirements of this Order.

(c) Participates in the ECEs of UST systems by the EMD to assess compliance with this Order, Marine Corps Order P5090.2A, and Federal and State regulations. Will conduct quarterly, internal evaluations of the USTs operation within the Command to ensure compliance with this Order.

(d) Ensures that all personnel involved in daily monitoring and operation of regulated USTs shall be familiar with this Chapter.

(e) Ensures that the ECO has contacted Installation Services Division personnel and the Base EMD when the Veeder Root monitoring system is in an alarm state. Follows the appropriate guidelines in the UST Management Binder established for maintenance actions.

(f) Trains all personnel working with petroleum products and other hazardous substances in spill notification, inventory control, and leak detection procedures.

(13) Commanding Officers of Tenant Command/MCB Units and MCB Department Head

(a) Shall designate in writing a responsible person with sufficient enough rank/grade as UST Operator. An appointment letter shall be forwarded to the Director, EMD. A UST Operator is any Military or Civilian personnel that have control of or having responsibility for, the daily operation of the UST system.

(b) Takes actions required to ensure all unit/department personnel cooperate with the unit's ECO efforts to provide oversight required to ensure the following:

(1) Compliance with this Order.

(2) Full cooperation with inspections, monitoring, and testing conducted by federal or state regulatory agencies, as well as requests for document submission, testing, and monitoring requested by the Base EMD for all UST operated by the Unit.

(3) Participation in the Environmental Compliance Evaluations (ECEs) performed by the Base EMD for USTs operated by the Unit.

(4) Cooperates with contractors performing repairs/site investigations and remedial action and contacts the Base EMD when contractors are on-site to perform any work on the UST systems.

(14) Environmental Compliance Officer

(a) Oversee the development and implementation of Command procedures and training programs required to ensure proficiency of Officers-in-Charge and Operators of USTs in leak detection monitoring, spill prevention, and the related record keeping and reporting requirements of this Order.

(b) Participates in the ECEs of UST systems by the Base EMD to assess compliance with this Order, Marine Corps Order P5090.2A, and Federal and State regulations. Provides corrective action reports of any deficiencies noted during the ECEs as requested. Will conduct monthly, internal evaluations of the USTs operation within the Command to ensure compliance with this Order.

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(c) Cooperates with the Commands ECC to ensure that all regulated and non-regulated commercial UST's not on the inventory are registered with the Director, EMD by completing the appropriate form in enclosure (1) or (2) for each tank and submitting the forms through the cognizant ECO.

(d) Submits in writing any requests for tank Installation or closure/change-in-service by completing the form in enclosure (2) and submitting the forms through the cognizant ECC.

(e) Immediately contacts the ECC, the appropriate Installation Services Division personnel, and the Base EMD when the Veeder Root monitoring system is in an alarm state. Follows the appropriate guidelines in the UST Management Binder established for maintenance actions. If the monitoring system is inoperable contact the Base EMD for instructions on leak detection requirements.

(f) Immediately notifies the Base EMD (451-5068) and the ECC in the event that the inventory control measures, CSLD records, or other information indicate the possibility of a leak from the UST system or any other violation of the UST related environmental standard. The Base EMD must also be notified if any unusual operating conditions are observed.

(g) Training of all personnel working with petroleum products and other hazardous substances in spill notification, inventory control, and leak protection procedures.

(15) UST System Operators

(a) Ensures that all personnel involved in daily monitoring and operation of regulated UST's shall be familiar with this Order.

(b) Ensures that the UST Management Binder provided by the EMD is properly maintained. The UST Management Binder shall be stored in a single location designated by the Base EMD and shall be readily available for inspection by federal and state regulatory agencies. The UST Management Binder will include, at a minimum, the following:

(1) A copy of this Base Order and a written standard operating procedure (SOP) establishing responsibilities for personnel in the Command, describing tank specific leak

management, detection and monitoring procedures, and UST transfer operations.

(2) A current UST information form

(3) A current UST facility diagram.

(4) Daily CSLD and inventory reports for the previous twelve months.

(5) A maintenance and repair log for each work request initiated by the operating unit; certification of UST repairs must be documented as well.

(6) All records of all aboveground releases/overflow release incidents.

(7) UST calibration charts

(8) EPA document "Doing Inventory Right."

(9) Veeder Root Systems' Operator's Manual TLS-350 and TLS-350R Monitoring, Environmental, and Inventory Management Systems.

(c) Ensures that each regulated UST is appropriately monitored to provide early leak detection as by performance of the following:

(1) Collecting the daily CSLD record. This record is dispensed at the automatic tank gauging (ATG) console daily at 0800 hours. The CSLD record will indicate if the ATG has detected a 0.2 gallon per hour or greater leak rate from any portion of the tank.

(2) Obtaining a daily record of UST inventory volume measurements. This record is also dispensed at the ATG system console daily at 0800 hours.

(3) Attaching the CSLD and daily inventory records to appropriate monthly inventory record in the UST Management Binder.

(4) Immediately contacts the ECO when the Veeder Root monitoring system is in an alarm state. If the monitoring system is inoperable contact the Command ECO and the Base EMD for instructions on leak detection requirements.

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(d) Maintains an inventory control program for each regulated UST.

(1) Calculates that total daily (gal/day) and monthly (gal/month) throughput.

(e) Completes visual checks of the overall condition of the fill area (fill pipe and spill containment box) at the time of product transfer and maintain the area such that no water, product, debris, or sludge accumulate in the spill containment box.

(f) Immediately notifies the ECO in the event that the inventory control measures, CSLD records, or other information indicate the possibility of a leak from the UST system or any other violation of the UST related environmental standard. The ECO must also be notified if any unusual operating conditions are observed. Contact the Base EMD at 451-5068 if the cognizant ECO is not available.

5. Command and Signal

a. Signal. This Order is effective the date signed.

b. Command. This Marine Corps Order is applicable to the Marine Corps Total Force.



A. J. KARLE, JR.
Chief of Staff

DISTRIBUTION: A

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UST REGISTRATION

Command: _____

Unit: _____

Building Number where UST is
located: _____

Storage capacity: _____

Product stored: _____

Date Installed: _____

Tank Dimensions: _____

Yearly throughput (proposed): _____

Has the UST previously stored a product
other than the one listed above? If so,
please specify the product
type: _____

Environmental Compliance Officer

Date

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UST INSTALLATION/CLOSURE/CHANGE-IN-SERVICE

Command:

Unit:

Type of Action Requested:

Reason for request:

Building No. where UST is (*will be*) located:

Storage capacity (*for Installation requests, estimate the necessary capacity based on monthly throughput*):

Product (*to be*) stored:

Environmental Compliance Officer

Date

Enclosure (2)

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COMMON TERMS AND DEFINITIONS

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

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

3. Bulk Gasoline Plant. A gasoline storage and distribution facility which has an average daily throughput of less than 20,000 gallons of gasoline and which usually receives gasoline from bulk terminals by trailer transport, stores it in tanks, and subsequently dispenses it via account trucks to local farms, businesses, and service stations.

4. Cathodic Protection. An engineering technique to prevent corrosion of a metal surface by making that surface the cathode of an electrochemical cell.

5. 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.

6. 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.

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7. 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.

8. Continuous Statistical Leak Detection (CSLD). CSLD is a form of leak detection that that MCBCL has adopted. CSLD provides 24-hour leak detection utilizing the Veeder Root Monitoring system. During each idle time period in the tank, data is collected and combined with information from other idle periods to form a highly accurate leak detection database. This allows the operator of the tanks to continue working since no scheduled down time is required to perform the test.

9. Deferred UST. USTs that are not required to comply with select requirements in reference (b) and (c). Even though these regulated tanks are deferred from select subparts of reference (b) and (c) they are considered regulated because the tanks contain a regulated substance. All deferred USTs must still be evaluated for references (e) and (g) applicability.

a. Deferrals; Subparts B, C, D, E and G of reference (b) and (c) do not apply to any of the following types of UST systems.

(1) Wastewater treatment tank systems,

(2) Any UST systems containing radioactive material that is regulated under the Atomic Energy Act of 1954,

(3) Any UST system that is a part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR 50,

(4) Airport hydrant fuel distribution systems, and

(5) UST system with field-constructed tanks.

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b. Deferrals; Subpart D of reference (b) and (c) does not apply to any UST system that store fuel solely for use by emergency power generators.

10. Delivery vessel. A tank truck or trailer equipped with a storage tank and used to transport petroleum products from sources of supply to stationary storage tanks of petroleum dispensing facilities.

11. De minimis Concentration. That amount of a regulated substance, which does not exceed one percent (1%) of the capacity of the tank, excluding piping and vents.

12. 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.

13. Exempt Tank System. The following UST systems are excluded from the requirements of references (b) and (c):

a. Any UST system holding hazardous wastes listed or identified under Subtitle C of the Solid Waste Disposal Act, or a mixture of such hazardous waste and other regulated substances.

b. Any wastewater treatment tank system that is part of a wastewater treatment facility regulated under section 402 or 307(b) of the Clean Water Act-including USTs connected by piping to oil and water separators.

c. Equipment or machinery that contains regulated substances for operational purposes such as hydraulic lift tanks and electrical equipment tanks.

d. Any UST system whose capacity is 110 gallons or less.

e. Any UST system that contains a de minimis concentration of regulated substances; however, these systems are subject to the requirements for permanent closure.

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14. 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.
15. Free Product. A regulated substance that is present as a nonaqueous phase liquid (i.e., liquid not dissolved in water).
17. Gasoline. A petroleum distillate having a Reid vapor pressure of four psia or greater.
18. Gasoline Dispensing Facility. Any site where gasoline is dispensed to motor vehicle gasoline tanks from stationary storage tanks.
19. Gasoline Service Station. Any gasoline dispensing facility where gasoline is sold to the motoring public from stationary storage tanks.
20. Hazardous Substance UST System. Any UST system that contains a hazardous substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) (but not including any substance regulated as a hazardous waste under subtitle C of the Resource Conservation and Recovery Act) or any mixture of such substances and petroleum, and which is not a petroleum UST system.
21. Heating Oil. Petroleum that is No. 1, No. 2, No. 4-light, No. 4-heavy, No. 5-light, No. 5-heavy, or No. 6 technical grades of fuel oil; 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 for the purpose of heating.
22. 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.
23. Implementing Agency. The appropriate Division of the North Carolina Department of Environment and Natural Resources, such as the Division of Waste Management.

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24. Liquid Trap. Sumps, well cellars, and other traps used in association with oil and gas production, and gathering and 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 reinjection into a production or pipeline stream, or may collect and separate liquids from a gas stream.

25. Motor Fuel. Petroleum or petroleum-based substance that is motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any grade of gasohol, and is typically used in the operation of a motor vehicle.

26. New Tank System. A tank system that will be used to contain an accumulation of regulated substances and for which Installation has commenced after December 22, 1988.

27. Non-regulated Commercial UST System. An exempt UST system that is required to have an operating permit issued by the Implementing Agency. Examples of such systems are heating-oil USTs used for non-residential purposes and USTs connected by piping to Oil/Water Separators.

28. Operator. Any Military or Civilian personnel that has control of or having responsibility for, the daily operation of the UST system.

29. 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.

30. Owner. Commanding General, Marine Corps Base, Camp Lejeune.

31. Previously Closed. A UST system is considered previously closed if it is:

a. A UST system from which all regulated substances had been removed using commonly employed practices, the tank filled with a solid inert material, and tank openings were sealed or capped prior to December 22, 1988, or

b. A UST system removed from the ground prior to December 22, 1988.

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32. Regulated Substance. Any substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1990 (but not any substance regulated as a hazardous waste under Subtitle C of the Resource Conservation and Recovery Act) and petroleum, including crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure. The term regulated substance includes but is not limited to petroleum and petroleum based substances comprised of a complex blend of hydrocarbons derived from crude oil, such as motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

33. Regulated UST System. Any UST system that contains a regulated substance.

34. Release. Any spilling, leaking, emitting, discharging, escaping, leaching, or disposing from the UST into groundwater, surface water, or surface soils.

35. Release Detection. A management method and/or monitoring equipment for determining whether a release of regulated substance has occurred from the UST system and its secondary barrier or secondary containment around it.

36. Secondary Containment. A method or combination of methods of release prevention for UST systems that includes but is not limited to:

a. For tanks, double walled construction, external liners (including vaults) or other methods, approved by the DEM, which meet the provisions of reference (b),

b. For underground piping, trench liners, double-walled construction or other methods, approved by the DEM, which meet the provisions of reference (b).

37. 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.

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38. Stage I Vapor Recovery Control System. A system installed on gasoline USTs to reduce hydrocarbon emissions during refueling. Vapors in the tank, which are displaced by the incoming gasoline, are routed through a vapor tight line into the delivery vessel, which is supplying the gasoline, instead of being vented to the atmosphere.

39. Stormwater 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 stormwater and wastewater does not include treatment except where incidental to conveyance.

40. Submerged fill pipe. Any fill pipe with a discharge opening which is entirely submerged when the pipe normally used to withdraw liquid from the tank can no longer withdraw any liquid, or which is entirely submerged when the level of the liquid is six inches above the bottom of the tank.

41. Temporarily Closed. A UST system is considered temporarily closed if it is:

a. Any UST system from which the product has been removed such that not more than one inch of product and residue are present in any portion of the tank, or

b. Any UST system in use as of December 22, 1988 which complies with the provisions of 15A NCAC 2N .0801.

42. Underground Storage Tank. Any tank or combination of tanks (including underground lines) constructed of non-earthen materials (e.g. concrete, steel, plastic) that is used to contain an accumulation of regulated substances and the volume of which (including the volume of underground lines) is ten percent (10%) or more beneath the surface of the ground. The term does not include:

a. Farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes.

b. Tanks used for storing heating oil for consumptive use on the premises where stored.

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- c. Septic tanks.
- d. Pipeline facilities regulated under:
 - (1) The Natural Gas Pipeline Safety Act of 1968,
 - (2) The Hazardous Liquid Pipeline Safety Act of 1979,
 - (3) Which is an intrastate pipeline facility regulated under state laws comparable to the laws referenced in d(1) and d(2).
- e. Surface impoundments, pits, ponds, or lagoons.
- f. Stormwater or wastewater collection systems.
- g. Flow-through process tanks.
- h. Liquid traps or associated gathering lines directly related to oil or gas production and gathering operations.
- i. Storage tanks situated in an underground area if the storage tank is situated upon or above the surface of the floor.

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

44. UST System. A UST, connected underground piping, underground ancillary equipment, and containment system, if any.

45. Vapor Balance System. A combination of pipes or hoses which create a closed system between the vapor spaces of an unloading tank and a receiving tank such that vapors displaced from the receiving tank are transferred to the tank being unloaded.