VOLUME 18

"STORAGE TANK MANAGEMENT"

SUMMARY OF VOLUME 18 CHANGES

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The original publication date of this Marine Corps Order (right header) will not change unless/until a full revision of the MCO has been conducted.

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REFERENCES

(a) Public Law 99-499, "Superfund Amendments and Reauthorization Act," October 17, 1986
(b) 42 U.S.C. 6901
(c) Public Law 109-58, "Energy Policy Act of 2005," August 8, 2005
(d) Part 112 of Tile 40, Code of Federal Regulations (40 CFR 112)
(e) 40 CFR 260
(f) 40 CFR 264 Subpart J
(g) 40 CFR 280
(h) 42 U.S.C. 2011
(i) EPA, "Guidance on Compatibility of UST Systems with Ethanol Blends Greater than 10 Percent and Biodiesel Blends Greater than 20 Percent," June 2011
(j) 40 CFR 302
(k) 40 CFR 110
(l) 33 U.S.C. 1251
(m) National Response Team, "The National Response Team's Integrated Contingency Plan Guidance," June 5, 1996
(n) 40 CFR 300 (also known as "National Oil and Hazardous Substance Pollution Contingency Plan")
(o) EPA, "SPCC Guidance for Regional Inspectors," August 2013
(p) 40 CFR 109
(q) Clean Water Act Service Steering Committee, "Joint Services Spill Prevention, Control, and Countermeasure (SPCC) Plan Template," April 2004
(r) Clean Water Act Service Steering Committee, "Joint Services Spill Prevention, Control, and Countermeasure (SPCC) Plan Frequently Asked Questions," April 2004
(s) SECNAV M-5210.1
(t) 29 CFR 1910.1200
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(v) MCO 4450.12A
(w) MCO 10330.2D
(x) MCO P11000.5G Ch. 2
(y) MCO P11000.12C Ch. 1
(z) DoD Manual 4715.20, "DERP Management," March 9, 2012
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VOLUME 18: CHAPTER 1

"SCOPE"

SUMMARY OF SUBSTANTIVE CHANGES

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CHAPTER 1

SCOPE

0101 PURPOSE

This Volume establishes Marine Corps policy and responsibilities for compliance with statutory requirements for storage tanks containing all types of oil and hazardous substances (HSs).

0102 APPLICABILITY

See Volume 1 paragraph 0102.

0103 BACKGROUND

010301. Underground Storage Tanks (USTs)

Public Law 99-499, "Superfund Amendments and Reauthorization Act" (Reference (a)) amended Sections 6901 et seq. of Title 42, United States Code (42 U.S.C. 6901 et seq.) (also known and referred to in this Order as "Resource Conservation and Recovery Act," (RCRA) as amended) (Reference (b)) to include provisions to prevent releases from USTs, mandating a comprehensive regulatory program. Public Law 109-58, "Energy Policy Act of 2005" (Reference (c)) further amended Reference (b) to include provisions regarding inspections, operator training, delivery prohibition, secondary containment and financial responsibility, and cleanup of certain releases. While USTs are primarily regulated under these references, Part 112 of Tile 40, Code of Federal Regulations (40 CFR 112) (Reference (d)) provides policies and requirements for USTs that are excluded or exempted from all or certain requirements of 40 CFR 260 (Reference (e)). A 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).

010302. Aboveground Storage Tanks (ASTs)

ASTs are regulated under (Reference (d)), which includes provisions to prevent any discharge of oil into navigable waters or adjoining shorelines and regulates facilities that are non-transportation-related; have an aggregate aboveground storage capacity greater than 1,320 gallons (gal) or a completely buried storage capacity greater than 42,000 gal; and have a reasonable expectation of a discharge into or upon navigable waters of the United States or adjoining shorelines. In addition, 40 CFR 264 Subpart J (Reference (f)) provides general standards and operating requirements for ASTs.

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VOLUME 18: CHAPTER 2

"AUTHORITY"

SUMMARY OF SUBSTANTIVE CHANGES

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CHAPTER 2

AUTHORITY

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020102. Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499).

020103. Energy Policy Act of 2005 (Public Law 109-58).

020104. Clean Water Act of 1972 (33 U.S.C. 1251 et seq.).

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VOLUME 18: CHAPTER 3

"REQUIREMENTS"

SUMMARY OF SUBSTANTIVE CHANGES

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CHAPTER 3

REQUIREMENTS

0301 GENERAL UNDERGROUND STORAGE TANK (UST) STANDARDS AND OPERATING REQUIREMENTS

UST regulations applicable to federal installations are found in subparts A-G of 40 CFR 280 (Reference (g)). Effective October 2015, the EPA published new UST regulations for 40 CFR 280. Installations are responsible for implementing the new regulations to comply with the deadlines set by the EPA. A brief description of the requirements follows:

030101. In Reference (g), subpart A gives the definitions for the UST program and applicability of the regulations to each system.

030102. Federal UST regulations, Reference (g) apply to both existing and new tanks and associated piping networks. Tank standards stipulated under these regulations, including corrosion protection, spill/overfill prevention, and release detection, are applicable for all tanks. Appendix B of this Volume contains a summary of basic UST system requirements. Tanks unable to meet federal UST standards shall be closed in compliance with subpart G of Reference (g).

030103. Wastewater treatment tank systems, USTs containing radioactive material governed by 42 U.S.C. 2011 et seq., also known and referred to in this Order as "Atomic Energy Act," (Reference (h)), 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, until 2008, from the requirements of Reference (g) except for subpart F governing release response and corrective action requirements.

030104. UST owners/operators will monitor transfer operations to ensure that spilling or overflowing does not occur.

030105. UST owners/operators will maintain and inspect corrosion protection measures, including cathodic protection, to ensure proper operation.

030106. UST systems shall be made of, or lined with, materials compatible with substances stored in the UST system.

A. The chemical and physical properties of ethanol and biodiesel blends differ from petroleum products and, therefore, have different requirements for materials compatibility with UST system components. All UST system components in contact with ethanol or biodiesel blends shall be materially compatible with that fuel.

B. UST owners/operators shall demonstrate compatibility pursuant to section 32 of Reference (g) as described in EPA, "Guidance on Compatibility of UST Systems with Ethanol Blends Greater than 10 Percent and Biodiesel Blends Greater than 20 Percent," June 2011 (Reference (i)).

030107. UST owners/operators will conduct repairs to UST systems in accordance with 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. Also, UST owners/operators will test repairs to spill or overfill equipment and secondary containment areas within 30 days.

030108. UST owners/operators will maintain written records demonstrating compliance with federal, state, and local regulations.

030109. The owner/operator shall report all existing USTs, installation certifications, and change of ownership notification for UST systems to the appropriate regulatory agency. Owners/operators shall also report releases, spills, and corrective actions planned in cleanup procedures.

0302 RELEASE DETECTION

030201. In addition to compliance with tank standards identified under sections 20 and 21 of Reference (g), subpart D of Reference (g) identifies release detection requirements for all new and existing tanks and associated piping. Sections 40 and 41 of Reference (g) describe release detection requirements specific to petroleum and HS UST systems, respectively, including requirements pertaining to secondary containment, double-walled tanks, external liners, and underground piping. Section 42 of Reference (e) requires UST owners/operators to install secondary containment for all new and replaced tanks, piping, and under-dispenser containment for all new dispenser systems.

030202. Specific types of release detection methods to be employed are defined in subpart D of Reference (g) (see Appendix B). The owner/operator shall choose from the options outlined in these regulations; release detection will consist of one of the monthly monitoring methods as defined under section 43(d)-(h) of Reference (g) or tank tightness testing in combination with monthly inventory control. Tank tightness testing at intervals of 5 years is allowed for new tanks up to 10 years after installation. The employment of release detection methods required under subpart D of Reference (g) is necessary for the life of the tank and piping system.

030203. UST owners/operators will maintain records documenting compliance with release detection requirements for five years or a length of time to be determined by the appropriate regulatory agency.

0303 RELEASE REPORTING, INVESTIGATION, AND CONFIRMATION

030301. Subpart E of Reference (g) outlines release reporting, investigation, and confirmation requirements.

030302. A suspected release from a UST system shall be reported to the appropriate regulatory agency within 24 hours. Exceptions to the reporting requirement include the following:

when tank system dispensing/pumping equipment is found to be defective but not leaking and can be replaced or repaired immediately; in the case of inventory control, if the second month of data does not confirm the initial results; or when the monitoring device is found to be defective and is immediately repaired or replaced and recalibrated, and additional monitoring does not confirm the initial results. Follow the guidance in Volume 7 of this Order for reporting HS releases.

030303. The regulatory agency may require offsite impact determinations under certain circumstances, such as those described in section 51 of Reference (g).

030304. Suspected releases of regulated substances shall be investigated and confirmed within 7 days by conducting a UST system test or another confirmation procedure established by an appropriate regulatory agency. Further investigation is not required if a system test indicates a leak does not exist and no environmental contamination is present. If system testing indicates that no leak exists but environmental contamination is the cause for suspecting a release, a site check, in accordance with section 52(b) of Reference (g), is required.

030305. UST system spills or overfills shall be immediately contained, cleaned, and reported to the appropriate regulatory agency within 24 hours for spills or overfills of:

A. Release of an amount specified by the appropriate regulatory agency, or release causing a petroleum sheen on nearby surface water for tanks containing petroleum products.

B. HS exceeding reportable quantities as defined by the appropriate regulatory agency.

030306. Spills and overfills resulting in the release of petroleum that are less than the amount required for reporting to the appropriate regulatory agency shall be contained immediately and removed within 24 hours of the discovery.

030307. If cleanup cannot be accomplished within 24 hours, immediately notify the appropriate regulatory agency.

030308. A release of a HS equal to or in excess of its reportable quantity shall be reported immediately to the National Response Center (NRC) pursuant to 40 CFR 302 (Reference (j)) and to appropriate regulatory agencies pursuant to Reference (a).

030309. A release of petroleum in such quantities as may be harmful as defined by section 3 of 40 CFR 110 (Reference (k)) shall be reported immediately to the NRC, Coast Guard, or U.S. Environmental Protection Agency (EPA) predesignated on-scene coordinator pursuant to section 6 of Reference (k).

0304 RELEASE RESPONSE AND CORRECTIVE ACTION

030401. Subpart F of Reference (g) outlines release response and corrective action requirements.

030402. Upon confirmation of a release, owner/operators shall stop further release of the regulated substance from the UST system and identify and mitigate fire, explosion, and vapor hazards.

030403. Owners and operators shall notify the appropriate regulatory agencies in accordance with paragraph 0303 upon discovery of a confirmed or suspected release. Suspected releases shall be confirmed within 7 days of the initial discovery, in accordance with section 280.52 of Reference (g).

030404. The following initial abatement measures are required for a confirmed release, as defined in section 62 of Reference (g):

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

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

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

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

E. 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 shall comply with applicable federal, state, and local regulations regarding disposal or treatment of these substances.

F. Report initial abatement steps within 20 days to the appropriate regulatory agency (EPA or state agency per their respective regulations).

030405. The EPA or appropriate state regulatory agency require 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.

030406. The site characterization report shall be submitted within the timeframe specified by the regulatory agency.

030407. If free product is discovered, the owner/operator shall begin abatement of it as soon as possible and to the maximum extent practicable. All free product abatement and disposal practices shall comply with those listed in section 64 of Reference (g).

030408. Submission of a corrective action plan 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. The regulatory agency may either approve the plan or make modifications prior to implementation.

030409. Public notification shall be made for each confirmed release that requires a corrective action plan, and the plan shall be available to the public upon request. Additionally, the public shall be notified in a manner that complies with part (a) of section 67 in Reference (g) if the selected corrective action plan fails to meet the established cleanup goals and termination of that plan is under consideration by the appropriate regulatory agency.

0305 OUT-OF-SERVICE UST SYSTEMS AND CLOSURE

030501. The regulations applicable to this section are located in subpart G of Reference (g).

030502. 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.

030503. Temporary closure of 3 months or more requires that vent lines be left open and all other lines, pumps, manways, and ancillary equipment be capped and secured.

030504. Temporary closure of more than 12 months requires permanent closure of the UST system if it does not meet any new UST performance standards. The appropriate regulatory agency may grant an extension of the 12-month, temporary closure period.

030505. Owners/operators shall notify the appropriate regulatory agency (EPA or state 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."

030506. USTs shall be emptied and properly cleaned prior to permanent closure or change-in-service. Closed tanks shall be removed or filled with an inert solid, and all tank openings shall be capped.

030507. Owners/operators shall perform a site assessment on USTs that undergo permanent closure or change-in-service. The site assessment shall measure for the presence of contaminants in the places where they most likely will be present and detected.

030508. USTs that are operating in accordance with the applicable requirements and are currently using proper groundwater or external vapor monitoring systems may not need to perform a site assessment if no release is detected at closure/change-in-service.

030509. Maintain records documenting compliance with closure requirements for three years after closure.

0306 ENVIRONMENTAL COMPLIANCE

See Volume 4 of this Order 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.

0307 SPILL PREVENTION, COUNTERMEASURE, AND CONTROL PLANS

030701. Statutory Requirements

A. 33 U.S.C. 1251 et seq. (also known and referred to in this Order as "Clean Water Act," (CWA) as amended) (Reference (l)) requires regulated Marine Corps-owned and -operated activities to develop and implement spill prevention, countermeasure, and control (SPCC) plans. SPCC plan requirements may be incorporated into an Integrated Contingency Plan (ICP) (i.e., "One Plan") in accordance with "The National Response Team's Integrated Contingency Plan Guidance," June 5, 1996 (Reference (m)). Refer to Volume 7 of this Order for more information on ICP guidance.

B. 40 CFR 300 (also known and referred to in this Order as "National Oil and Hazardous Substance Pollution Contingency Plan") (Reference (n)) requires regulated installations to develop and implement SPCC plans and oil and HSs pollution prevention and contingency programs.

030702. Purpose

SPCC plans have two primary purposes:

A. To establish procedures to prevent an oil spill into waters of the United States.

B. To document existing oil spill prevention structures, procedures, and equipment and to recommend additional containment structures if needed.

030703. Facilities Required to Prepare Spill Prevention, Countermeasure, and Control (SPCC) Plans

A. EPA regulations in section 3(a) in Reference (d) require owners or operators of onshore and offshore non-transportation-related facilities that have discharged or, due to their location, might discharge oil in harmful quantities into or upon navigable waters of the United States or adjoining shorelines to prepare an SPCC plan in accordance with requirements provided in section 7 of Reference (d). Reference (d) defines facility, which is further clarified in EPA, "SPCC Guidance for Regional Inspectors," August 2013 (Reference (o)).

B. EPA regulations in section 3 of Reference (d) require Department of Defense (DoD) organizations that deploy portable, tactical refueling equipment, such as sixcons and collapsible fabric tanks, to prepare and implement SPCC plans. For these portable facilities, the SPCC plan may be a general plan prepared using good engineering practices pursuant to section 7 of Reference (d). A new SPCC plan need not be prepared each time the facility is moved to a new site.

When the equipment is redeployed to a new site, it shall be located and installed using the spill prevention practices outlined in the SPCC plan for the facility. The SPCC plan applies only when the portable facility is in a fixed operating mode. During training exercises or deployments within the United States, mobile or portable facilities subject to this regulation shall not operate unless the SPCC plan has been implemented.

C. EPA does not require SPCC plans for onshore fixed or portable facilities if:

1. The facility has an aggregate aboveground storage capacity of 1,320 gal or less of oil and has a total underground storage capacity of 42,000 gal or less.

2. The facility, due to its location, is not expected to discharge oil into or upon the navigable waters of the United States or adjoining shorelines. This determination is based solely upon consideration of the geographical and locational aspects (e.g., proximity to navigable waters or adjoining shorelines, land contour, drainage patterns, proximity to fish and wildlife and sensitive environments) of the facility and shall exclude man-made dikes or other structures that would serve to hinder, contain, or otherwise prevent an oil discharge from reaching navigable waters or adjoining shorelines.

030704. Plan Contents

Section 7 of Reference (d) provides general requirements for the preparation and implementation of SPCC plans. The SPCC plan should be carefully considered and should follow the sequence outlined below; if it does not follow the below sequence, then the SPCC shall provide a cross-reference describing where these topics are covered:

A. Describe the physical layout of the facility.

B. Include a facility diagram marking the location and contents of each tank, including completely buried tanks, transfer stations, and connecting pipes.

C. Identify the type of oil in each container and its storage capacity.

D. Detail discharge prevention measures, including procedures for routine handling or products (e.g., loading, unloading, and facility transfers).

E. Detail discharge or drainage controls, such as secondary containment, around containers and other structures and equipment, and procedures for the control of a discharge.

F. Describe countermeasures for discharge discovery, response, and cleanup (both the facility's capability and those that might be required of a contractor).

G. Describe methods of disposal of recovered materials in accordance with applicable legal requirements.

H. Provide a contact list and phone numbers for the facility response coordinator, NRC, cleanup contractors with whom the facility has an agreement for response, and all appropriate regulatory agencies who shall be contacted in case of a discharge.

I. If the implementation of appropriate containment measures or diversionary structures is not practicable, section 7(d) of Reference (d) requires that the facility owner or operator clearly explain such impracticability and provide to the EPA Regional Administrator the following:

1. An oil spill contingency plan following the provisions of 40 CFR 109 (Reference (p)).

2. A written commitment to manpower, equipment, and materials required for the expeditious control and removal of any harmful quantity of discharged oil.

030705. Plan Certification

A. As specified in section 3(d) of Reference (d), SPCC plans shall be certified initially by a registered professional engineer (PE). As specified in section 5(c) of Reference (d), amendments to SPCC plans shall be certified by a PE.

B. The owner or operator of a qualified facility can prepare and self-certify an SPCC plan rather than have a PE review and certify the plan in accordance with section 6 of Reference (d). Tier I qualified facilities may complete and self-certify an SPCC plan based on the template in Appendix G of Reference (d). Tier II qualified facilities may self-certify an SPCC plan.

030706. Plan Availability

A complete copy of each SPCC plan shall be maintained at the subject facility pursuant to section 3(e) of Reference (d). The SPCC plan also shall be available to EPA representatives for onsite review during normal working hours.

030707. Plan Amendments

A. Pursuant to section 4 in Reference (d), the EPA Regional Administrator may require the owner or operator of a facility to revise its SPCC plan if the facility, within any 12-month period, has discharged more than 1,000 gal of oil in a single discharge, or has discharged more than 42 gal of oil in each of two discharges into or upon United States navigable waters.

B. Pursuant to section 5(a) of Reference (d), the owner or operator of a facility shall amend its SPCC plan whenever there is a change in facility design, construction, operation, or maintenance that materially affects the facility's potential for discharging oil. The amendments shall be fully implemented no later than 6 months after such change occurs.

C. Pursuant to section 5(b) of Reference (d), the owner or operator of a facility shall review and evaluate the SPCC plan at least once every 5 years and amend the SPCC plan within 6 months of the review to include more effective prevention and control technology, if the

technology has been field-proven at the time of the review and will significantly reduce the likelihood of a discharge.

030708. Guidance

To prepare and implement oil SPCC plans, activities can use Clean Water Act Service Steering Committee, "Joint Services Spill Prevention, Control, and Countermeasure (SPCC) Plan Template," April 2004 (Reference (q)) and Clean Water Act Service Steering Committee, "Joint Services Spill Prevention, Control, and Countermeasure (SPCC) Plan Frequently Asked Questions," April 2004 (Reference (r)), prepared by the DoD Clean Water Act Services Steering Committee and available on the Defense Environmental Network Information Exchange.

0308 RESPONSE TRAINING AND EXERCISES

030801. Training Requirements for Spill Prevention, Countermeasure, and Control (SPCC) Plans

Pursuant to section 7(f) of Reference (d), owners/operators shall train personnel regarding operation and maintenance of equipment to prevent the discharge of oil; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and the contents of the facility SPCC plan.

030802. Facility Response Plan Exercises

Reference (d) does not specify exercise requirements for facilities with SPCC plans. Refer to Volume 7 of this Order for information on facility response plans.

030803. Personnel Training and Discharge Prevention Procedures

Designate a person(s) at each applicable facility who is accountable for discharge prevention and reports to management. Schedule and conduct discharge prevention briefings for oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan for that facility. These briefings shall highlight and describe known discharges as described in Reference (d), as well as, failures, malfunctioning components, and recently developed precautionary measures.

0309 COMPLIANCE WITH STORAGE TANK REQUIREMENTS

The Marine Corps storage tank program policy is to comply with all federal, state, and local regulations and DoD policy pertaining to the operation and management of storage tanks. Additionally, Marine Corps installations shall develop long-term management plans to establish procedures for achieving and maintaining compliance, as well as to prioritize corrective actions against environmental risk.

0310 COMPLIANCE WITH MAINTAINING A STORAGE TANK INVENTORY

Marine Corps installations shall maintain a complete and accurate storage tank inventory. Complete inventories shall have all applicable data elements listed for each system record. Update data

elements to reflect significant changes in the storage tank condition, especially at critical points during the useful life of each storage tank (e.g., following installation, when upgraded or repaired, if a release occurs, at closure). Such information is necessary not only to develop and maintain a rational storage tank compliance strategy, if applicable, but also to apply accurate, appropriate funding sources to required actions.

0311 COMPLIANCE WITH STORAGE TANK MANAGEMENT

031101. Compliance with storage tank regulations and policy is necessary to reduce environmental liability but results in far-reaching management and cost implications to the Marine Corps. A long-term approach to reducing liability and the associated costs requires the development of installation management plans. These require Marine Corps installations to look beyond the specific regulatory compliance tasks and consider a comprehensive approach to effectively reduce environmental risk stemming from storage needs. Installations may incorporate this storage tank management plan into an existing management plan to ensure the content in this Order is addressed.

031102. The primary goal of the storage tank management plan is to design a strategy to achieve and maintain compliance with regulatory requirements. An important secondary objective of the management plan is to allow installations to use storage tank systems as efficiently as possible, thereby reducing environmental risk while minimizing costs associated with compliance. Marine Corps storage tank management plans should include the following:

A. A general storage tank inventory description and goal statement.

B. A consolidation and reduction plan of existing storage tank systems to meet storage needs while minimizing environmental risk.

C. An evaluation of alternate storage vessels. Management plans should include economic considerations during the discussion of storage alternatives.

D. A plan-of-action and milestones to replace/upgrade active storage tanks and to properly close those that are abandoned. Management plans should include a discussion of specific projects necessary to meet management goals.

E. Procedures to ensure continued compliance into the future. Plans should assign responsibilities to parties who will carry out compliance tasks such as inventory control, leak detection maintenance, corrosion protection maintenance, release reporting, and follow-up.

F. A description of recordkeeping practices to be maintained on all aspects of storage tank management. Records shall document the useful life of the storage tank and include installation, registration (if applicable), maintenance, upgrades, closure, operator training, and release reporting from discovery through cleanup and AST or UST closure. These records shall be retained pursuant to Standard Subject Identification Code (SSIC) 5090.4 in SECNAV M-5210.1 (Reference (s)).

031103. In reference to the management of deferred UST systems, as defined by section 10(c) of Reference (g), section 11 of Reference (g) applies:

A. No person may install a UST system listed in section 10(c) of Reference (g) for the purpose of storing regulated substances unless the UST system (whether of single- or double-wall construction):

1. Will prevent releases due to corrosion or structural failure for the operational life of the UST system.

2. Is cathodically protected against corrosion, constructed of non-corrodible material, steel clad with a non-corrodible material, or designed in a manner to prevent the release of any stored substance.

3. Is constructed or lined with material that is compatible with the stored substance.

B. A UST system without corrosion protection may be installed at a site that is determined not to be corrosive enough to cause it to have a release due to corrosion during its operating life.

C. Owners and operators shall maintain records that demonstrate compliance with the requirements of this paragraph for the remaining life of the tank. These records shall be retained pursuant to SSIC 5090.4 in Reference (p) or the remaining life of the tank, if longer.

031104. Proper management of AST systems requires:

A. Maintenance of safety data sheets (formerly "material" safety data sheets) on file onsite for hazardous material contained in ASTs pursuant to section (f)(5) of 29 CFR 1910.1200 (Reference (t)).

B. Written notification to the appropriate regulatory agency for construction, reconstruction, or modification of petroleum ASTs or terminals; and maintenance of these records for 3 years pursuant to section 7(a)(1) 40 CFR 60 (Reference (u)).

C. Compliance with the facility drainage, bulk storage container, and facility transfer operations, pumping, and facility process requirements of sections 8 and 12 of Reference (d).

031105. For guidance on storage of flammable liquids and other hazardous materials, see MCO 4450.12A (Reference (v)).

031106. For guidance on storage of liquefied petroleum gases and other compressed gasses, see MCO 10330.2D (Reference (w)).

031107. For guidance on new source performance standards related to petroleum liquids and volatile organic liquid storage vessels, see Volume 6 paragraph 030201 of this Order.

031108. Adhere to the AST standards and operating procedures of Reference (f) for guidance on storage of hazardous waste, including policies and guidance for assessing existing tank

systems, designing and installing new tank systems, containment and detection of releases, inspections, responses to leaks or spills, and closures.

0312 FUNDING CATEGORIES

031201. Primary Funding Categories for Storage Tank Closures, Replacements, Upgrades

A. Operations and Maintenance

Includes locally managed funds for repair and construction projects (M1/R1) and centrally managed funds for major repair and minor construction projects (M2/R2). Refer to MCO P11000.5G Ch. 2 (Reference (x)) and Volume 3 of this Order for further information.

B. Military Construction (MILCON)

Used for projects that exceed minor construction limits. Includes entire tank replacement for existing "contamination-free" sites or new tank construction in accordance with MCO P11000.12C Ch. 1 (Reference (y)).

C. Defense Logistics Agency (DLA) Energy

Used for projects that involve DLA Energy-owned fuel; DLA Energy funds can be used for environmentally-related minor construction, major repair, and MILCON projects, as well as certain recurring costs.

D. Defense Environmental Restoration Program (DERP)

If the contamination is otherwise DERP-eligible in accordance with DoD Manual 4715.20 (Reference (z)), the installation shall coordinate with Naval Facilities Engineering Command (NAVFAC) to use the Environmental Restoration, Navy account to fund the response action. For current releases, working capital is used for response actions to address spills associated with operational fuel distribution via DLA infrastructure transporting DLA Energy fuel.

E. Base Realignment and Closure

Used only when tank projects are related to the closure or realignment of an installation.

F. Japanese Facility Improvement Program

Used only at Japanese installations when a UST action is related to a project approved by Japanese officials with the purpose of improving conditions for local citizens.

031202. Primary Funding Categories for Release Detection and Maintenance

Release detection and regular maintenance is an ongoing compliance requirement for tank systems. Installation funding requests to address these requirements will compete with all other similar requests. Therefore, to ensure that adequate funds are available, each installation should budget needed funds locally.

031203. Primary Funding Categories for Release Response

Anticipated studies, such as site characterization for closing storage tanks, should be budgeted for during development of the removal/replacement projects. Initial response abatement and free product removal actions are viewed as similar to emergency response. Therefore, resultant costs of these actions shall be absorbed by local installation operating funds.

0313 COMPLIANCE WITH STORAGE TANK CLOSURE DOCUMENTATION

031301. Proper documentation of AST or UST removals and in-place closures is very important to ensure compliance, reduce environmental liability, avoid duplicative effort, and show progress and due diligence.

031302. Marine Corps installations shall record and maintain specific, detailed information for every AST or UST taken out of service. Such information should be organized into a written AST or UST closure report following the requirements of the applicable regulatory agencies.

031303. Permanently closed ASTs shall have all liquid and sludge removed from each container and connecting line, all connecting lines and piping disconnected from the container and blanked off, all valves (except for ventilation valves) closed and locked, and conspicuous signs posted on each container stating that it is a permanently closed container and noting the date of closure.

0314 CONTINGENCY PLANNING

Marine Corps tactical units that transport oil in bulk packaging or operate mobile facilities shall provide a copy of the EPA-required SPCC plan, as appropriate, to the host installation's environmental office. Units deployed to another installation for training shall provide a copy of the plan to that installation's environmental office upon arrival.

VOLUME 18: CHAPTER 4

"RESPONSIBILITIES"

SUMMARY OF SUBSTANTIVE CHANGES

Hyperlinks are denoted by ***bold, italic, blue and underlined font*****.**

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CHAPTER 4

RESPONSIBILITIES

0401 CMC (LF)/COMMANDER MCICOM (GF)

CMC (LF)/Commander MCICOM (GF) shall:

040101. Inform and advise installation commanders regarding proposed and final rules and regulations pertaining to storage tanks, and uniformly apply Marine Corps policy as set forth in the Order.

040102. Monitor installation compliance with upcoming upgrade requirements.

040103. Assist installations in resolving disputes with appropriate regulatory agencies as required.

040104. Conduct special environmental compliance and protection studies with regard to storage tanks to assist in establishing policy or initiating actions.

040105. Ensure, through field self-audits and the Environmental Compliance Evaluation Program, Marine Corps cooperation and compliance with appropriate regulatory agencies with regard to regulations.

0402 COMMANDING GENERAL MARINE CORPS EAST, WEST, PACIFIC, AND NATIONAL CAPITAL REGION

CG Marine Corps East, West, Pacific, and National Capital Region shall Identify and promote opportunities for regional environmental initiatives and contracting support to gain efficiencies. Create environmental program efficiencies by collectively funding studies, coordinating common training programs, developing appropriate Memorandums of Agreement between stakeholders (e.g., Marine Corps Training and Engineering Command bases, Marine Aircraft Wings, Resident Officer In Charge of Construction offices, etc.) and the Region, and facilitating mutual support between installations as practicable.

0403 COMMANDING GENERAL/COMMANDING OFFICER OF MARINE CORPS INSTALLATIONS AND COMMARFORRES

CG/CO of Marine Corps Installations and COMMARFORRES shall:

040301. Identify and submit to the Commandant of the Marine Corps, Facilities and Services Division (CMC (LF))/Marine Corps Installation Command, Facilities Division (MCICOM (GF)) project documentation and funding requests for storage tank 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 appropriate requirements.

040302. Ensure that all required federal, state, and local permits are obtained. Sign certifications and permit applications, as required, for construction of all storage tanks projects. Pay appropriate federal, state, and local fees.

040303. Ensure that notification forms for USTs (and ASTs, if required) are completed and forwarded to the appropriate regulatory agency. Ensure that an accurate inventory is maintained.

040304. Ensure that the environmental management hierarchy is employed, pollution prevention alternatives are evaluated, and life-cycle cost impacts are assessed in evaluating and selecting projects that address compliance requirements.

040305. Accomplish leak detection and product inventory requirements, recordkeeping, and operation of monitoring systems required by applicable federal, state, and local laws and regulations.

040306. Comply with applicable federal, state, and local laws and regulations concerning the construction of new storage tanks, the upgrading of existing tanks, and the removal and closure of abandoned/unneeded tanks.

040307. Identify resources required to meet the requirements in the Program Objective Memorandum, budget submittals, and the annual operational plan.

040308. Develop and implement a comprehensive, written management plan to facilitate compliance and to reduce long-term costs associated with compliance.

040309. When necessary, request technical assistance for storage tank management from the NAVFAC Environmental Field Division/Environmental Field Activity or other available agencies for leak detection assistance, design assistance for new storage tanks, and estimation of resource requirements for corrective actions.

040310. Ensure that coordination occurs as appropriate with the Safety Office in matters relating to storage tank cleaning and removals.

040311. Ensure that a base or station order is written to implement specifications set forth in this Volume. This requirement can be accomplished either by writing an environmental compliance and protection standard operating procedure to implement all environmental requirements or by writing a separate base order to implement specifications of this Volume alone.

040312. Ensure that SPCC plans are up-to-date, reviewed at least every 5 years, and recertified by a PE if structural changes affecting the facility's potential to discharge were made.

0404 UNIT/TENANT COMMANDERS

Unit/Tenant Commanders shall Prepare and implement an SPCC plan for all off-base use of portable, tactical refueling equipment, such as sixcons and collapsible fabric tanks in accordance with paragraph 030703 of this Volume.

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VOLUME 18: APPENDIX A

"FEDERAL STATUTES, FEDERAL REGULATIONS, EXECUTIVE ORDERS, AND DOD POLICIES"

SUMMARY OF SUBSTANTIVE CHANGES

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APPENDIX A

FEDERAL STATUTES, FEDERAL REGULATIONS, EXECUTIVE ORDERS, AND DOD POLICIES

1 FEDERAL STATUTES

a. Hazardous and Solid Waste Amendments (HSWA) of 1984, Public Law 98-616

The HSWA extended and strengthened the provisions of the Solid Waste Disposal Act as amended by RCRA. Subtitle I of HSWA provides for the development and implementation of a comprehensive regulatory program for USTs containing HS, petroleum products, and releases of those substances into the environment. HS regulated under subtitle I include any substance listed in section 101(14) of CERCLA.

b. Superfund Amendments and Reauthorization Act (SARA) of 1986, Public Law 99-499

Section 205 of SARA amended the Solid Waste Disposal Act by defining the term "petroleum" to mean petroleum, including crude oil or any fraction thereof, that is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute). Also, section 205 of SARA added provisions related to state UST inventories and financial responsibility for UST owners (i.e., the EPA/state authority for corrective actions, the EPA/state cost recovery for remedial actions, and state/political subdivision rights to adopt and enforce more stringent requirements than federal requirements on USTs).

c. Energy Policy Act of 2005, Public Law 109-58

Subtitle B of the Energy Policy Act of 2005 amended the Solid Waste Disposal Act with provisions regarding inspections, operator training, delivery prohibition, secondary containment and financial responsibility, and cleanup of releases that contain oxygenated fuel additives.

d. Clean Water Act of 1972, 33 U.S.C. 1251 et seq.

This Act is a compilation of decades of federal water pollution control legislation. The Act amended the FWPCA and requires federal agency consistency with state nonpoint source pollution abatement plans. The CWA is the major federal legislation concerning improvement of the Nation's water resources. The Act was amended in 1987 to strengthen enforcement mechanisms and to regulate stormwater runoff. The Act provides for the development of municipal and industrial wastewater treatment standards and a permitting system to control wastewater discharges to surface waters. The CWA contains specific provisions for the regulation of dredge soil disposal within navigable waters and for the placement of material into wetlands. Permits are required under sections 401, 402, and 404 for proposed actions which involve wastewater discharges and/or dredging/placement of fill in wetlands or navigable waters. These permits are required prior to the initiation of proposed actions. Certain proposed actions may implicate state review and water quality

certification jurisdiction under section 401 of the Act, resulting in the imposition of conditions designed to ensure consistency with state water quality standards.

VOLUME 18: APPENDIX B

"MINIMUM REQUIREMENTS FOR UNDERGROUND STORAGE TANKS (USTS)"

SUMMARY OF SUBSTANTIVE CHANGES

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APPENDIX B

MINIMUM REQUIREMENTS FOR UNDERGROUND STORAGE TANKS (USTS)

1 GENERAL

The following tables organize the minimum requirements for UST systems to prevent and detect releases of regulated substances to the environment.

2 REQUIREMENTS

Table B-1.--UST System Corrosion Protection

UST Component	Options to Meet Requirement	Part of 40 CFR 280
TANKS	1. Coated & cathodically protected* steel, or 2. Fiberglass-reinforced plastic, or 3. Steel-fiberglass-reinforced plastic composite.	20(a)
PIPING	1. Coated & cathodically protected* steel, or 2. Fiberglass-reinforced plastic, or 3. Other piping, approved by implementing agency.	20(b)

*Tanks and piping may be constructed of metal without corrosion protection if a corrosion expert has determined the site is not corrosive enough to cause a release during the life of the UST system, and if approved by the appropriate regulatory agency.

Table B-2.--Spill and Overfill Prevention

Equipment	Options to Meet Requirement	Part of 40 CFR 280
SPILL PREVENTION+	Must be designed to prevent the release of product to the environment after transfer hose is detached (e.g., spill catchment or method approved by appropriate regulatory agency).	20(c)
OVERFILL PREVENTION	1. Automatic shutoff device at 95% tank capacity, or 2. Alert System at 90% tank capacity high level alarm.	20(c)

+Tanks filled via transfers of no more than 25 gallons at a time do not require spill prevention equipment.

Table B-3.--Release Detection

Equipment	Options to Meet Requirement	Part of 40 CFR 280
TANKS OVER 2000 GALLONS	1. Monthly monitoring** using one of the methods in 40 CFR 280 part 44(d)-(h), or 2. Monthly inventory control (per 43(a)) and tank tightness testing (per 43(c)) conducted every 5 years for up to 10 years after installation. After 10 years, monthly monitoring** is required.	41(a)
TANKS 2000-551 GALLONS	1. Monthly monitoring** using one of the methods in 40 CFR 280 part 44(d)-(h), or 2. Monthly inventory control (per 43(a)) and tank tightness testing (per 43(c)) conducted every 5 years for up to 10 years. After 10 years, monthly monitoring** is required. Or 3. Manual tank gauging (per 43(b)) and tank tightness testing (per 43(c)) conducted every 5 years for up to 10 years. After 10 years, monthly monitoring** is required.	41(a)
TANKS 550 GALLONS OR LESS	1. Monthly monitoring** using one of the methods in 40 CFR 280 part 44(d)-(h), or 2. Manual tank gauging (per 43(b)).	41(a)
UST SYSTEM CAPACITY 110 GALLONS OR LESS	Exempt from UST Requirements-	10(a)
PRESSURE PIPING	Automatic line leak detection** (per 44(a)) and 1. Annual line tightness testing** (per 44(b)), or 2. Monthly monitoring (per 44(c)	41(b)
SUCTION PIPING	1. Line tightness testing** (per 44(b)) every 3 years, or 2. Monthly monitoring** (per 44(c)), or 3. Exempt if the following requirements are met: a. Piping operates at less than atmospheric pressure; b. Below grade piping drains back to storage tank; c. Each suction line has only one check valve which is located directly below the suction pump; and d. Method is provided that allows compliance with items (b) and (c) to be readily determined.	41(b)
TANKS AND PIPING FOR	USTs holding hazardous substances must meet the same requirements as petroleum USTs in addition to meeting	42(a) and (b)

Table B-3.--Release Detection

Equipment	Options to Meet Requirement	Part of 40 CFR 280
HAZARDOUS SUBSTANCES	secondary containment requirements part 42(b) of 40 CFR 280.	

**A monitoring method with individual requirements described in parts 43(a)-44(c) of 40 CFR 280 and summarized in Table B-4.

Table B-4.--Release Detection Method Requirements

Method	Requirement	Part of 40 CFR 280
TANK SPECIFIC MONITORING METHODS (40 CFR 280 PARTS 43(d)-(h))		
AUTOMATIC TANK GAUGING	1. Automatic gauging device must be capable of detecting a 0.2 gallon/hour leak, and 2. Automatic gauging device must perform the monthly inventory.	43(d)
VAPOR MONITORING	1. May only be used in sufficiently porous soils; 2. Stored substance, or added tracer, must be sufficiently volatile to be detectable by monitoring device; 3. Monitoring device must detect vapors above background contamination levels; 4. Monitoring device must not be rendered inoperable by ground water, rainfall, soil moisture, or any other known interference for longer than 30 days; and 5. Monitoring wells must be of sufficient number and position to detect releases from any portion of the tank routinely containing regulated substances.	43(e)
GROUNDWATER MONITORING	1. Stored substance must be immiscible in water and have a specific gravity less than one; 2. Groundwater must be within 20 feet of ground surface; 3. Soils must have a hydraulic conductivity of 0.01 cm/second or greater; and 4. Monitoring wells must be designed to a. Prevent migration of soils while allowing entry of regulated substance into the well under both high and low groundwater conditions, and b. Be in sufficient number and position to detect release from any portion of the tank routinely containing regulated substances	43(f)

Table B-4.--Release Detection Method Requirements

Method	Requirement	Part of 40 CFR 280
INTERSTITIAL MONITORING	1. Method applies only to USTs with a secondary containment barrier; 2. Secondary barrier must be compatible with stored substances and not interfere with cathodic protection (if applicable); 3. Barriers must always be above groundwater level and not located within a 25 year floodplain (unless specifically designed for such conditions); 4. Monitoring wells must be placed between primary tank and the containment barriers with the barrier is within the excavation zone; 5. The sampling and testing method must not be interrupted by groundwater intrusion, soil moisture, or precipitation; and 6. For double walled tanks and tanks fitted with internal liners (“bladders”), the sampling method must be able to detect a release between the tank walls or between the liner and the tank wall.	43(g)
OTHER	1. Method must be approved by the implementing agency; 2. Method must be able to detect 0.2 gallon/hour leak or 150 gallons/month release; and 3. Method must meet 95% probability of detection with 5% probability of false positive.	43(h)
PIPING SPECIFIC MONITORING METHODS		
PIPING AUTOMATIC LINE LEAK DETECTORS	1. Method must alert the operator to the presence of a leak by: a. Automatic shutoff device, or b. Flow restriction, or c. Continuous audible or visual alarm; 2. Must be able to detect leaks of 3 gallons per hour at 10 pounds per square inch line pressure within 1 hour; and 3. Annual testing of the leak detector must be conducted in accordance with manufacturer’s requirements.	44(a)
LINE TIGHTNESS TESTING	Periodic test of piping may be conducted only if able to detect a 0.1 gallon per hour leak rate at one and one-half times the operating pressure.	44(b)

Table B-4.--Release Detection Method Requirements

Method	Requirement	Part of 40 CFR 280
TANK METHODS APPROPRIATE FOR PIPING	Any of the methods in 40 CFR 280 part 43(e) through (h) may be used for piping if they are designed to detect a release from any portion of the underground piping that routinely contains regulated substances.	44(c)
MONITORING METHODS FOR SMALL (LESS THAN 2000 GALLONS) TANKS / TEMPORARY MONITORING		
INVENTORY CONTROL	Product inventory control must be conducted monthly to detect a release of at least 1.0 percent of flow-through plus 130 gallons on a monthly basis in the following manner: 1. Inventory volume measurements for the regulated substance inputs, withdrawals, and the amount still remaining in the tank are recorded each operating day; 2. Equipment used is capable of measuring the level of the product over the full range of tank's height to the nearest one-eighth of an inch; 3. The regulated substance inputs are reconciled with delivery receipts by measurement of the tank inventory volume before and after delivery; 4. Deliveries are made through a drop tube that extends to within one foot of the tank bottom; 5. Product dispensing is metered and recorded within the local standards for meter calibration or an accuracy of 6 cubic inches for every 5 gallons of product withdrawn; and 6. The measurement of any water level in the bottom of the tank is made to the nearest one-eighth inch at least once a month.	43(a)

Table B-4.--Release Detection Method Requirements

Method	Requirement	Part of 40 CFR 280
MANUAL GAUGING	Manual tank gauging must meet the following requirements: 1. Tank liquid level measurements are taken at the beginning and ending of a periods of at least 36 hours during which no liquid is added t or removed from the tank; 2. Level measurements are based on an average of two consecutive stick readings at both the beginning and ending of the period; 3. The equipment used is capable of measuring the level of product over the full range of the tank's height to the nearest one-eighth of an inch; 4. A leak is suspected and subject the requirements of 40 CFR 280 if the variation between beginning and ending measurements exceeds the weekly or monthly standards in Table B-5; and 5. Only tanks of 550 gallons or less may use this as the sole method of release detection.	43(b)
TANK TIGHTNESS TESTING	Tank tightness testing must be capable of detecting a 0.1 gallon/hour leak rate from any portion of the tank that routinely contains product while accounting for the effects of thermal expansion or contraction of the product, vapor pockets, tank deformation, evaporation or condensation, and the location the water table.	43(c)

Table B-5.--Test Standards for Manual Tank Gauging

Tank Size	Minimum Duration of Test	Weekly Standard (1 Test)	Monthly Standard (4-Test Average)
UP TO 550 GALLONS	36 hours	10 gallons	5 gallons
551-1,000 GALLONS(64" DIAMETER)	44 hours	9 gallons	4 gallons
551-1,000 GALLONS (48" DIAMETER)	58 hours	12 gallons	6 gallons
551-1,000 GALLONS (ALSO REQUIRES TIGHTNESS TESTING)	36 hours	13 gallons	7 gallons
1,001-2,000 GALLONS (ALSO REQUIRES TIGHTNESS TESTING)	36 hours	26 gallons	13 gallons