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SECRETARY OF THE AIR FORCE**

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**Civil Engineering**

**STORAGE TANK ENVIRONMENTAL  
COMPLIANCE**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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Air Force Instruction (AFI) 32-7044 implements Air Force Policy Directive (AFPD) 32-70, *Environmental Quality*. It provides details of the Air Force Storage Tank Compliance Program. It identifies compliance requirements for storage tanks and associated piping storing petroleum and hazardous substances except hazardous waste. It explains how to assess, attain, and sustain compliance with applicable federal (40 CFR Parts 112 and 280), and applicable state and local environmental regulations, Final Governing Standards (FGS), or the Overseas Environmental Baseline Guidance Document (OEBGD), applicable international agreements, and related Department of Defense (DoD) and Air Force directives. For DoD components at installations outside the United States, its territories, and possessions, i.e. overseas, implement the applicable portions of this AFI in accordance with (IAW) international agreements and the applicable FGS or Environmental Governing Standards or, in their absence, the OEBGD. Any paragraph identified with an asterisk (\*) does not apply to overseas installations (see also Section 1.4.4). Unless otherwise noted, the guidance and procedures outlined in this instruction apply to all Air

Force installations within the United States, its territories, and in foreign countries. Additionally, this AFI applies to the Air Force Reserve, the Air National Guard, Government-Owned Contractor-Operated facilities, and Direct Reporting Units (DRU) and Field Operating Agencies (FOA) not located on Air Force installations. Further, the ANG or AFRC will support the intent of this Air Force Instruction, and where needed may prepare an appropriate policy, supplement, guidance, and/or procedural document reflecting its unique legal status, resources, and structure, as recognized by the reserve component authorities of Title 10 of the United States Code, Air Force Doctrine and other governing authorities. The authorities to waive wing/unit level requirements in this publication are identified with a Tier (“T-0, T-1, T-2, or T-3”) number following the compliance statement. See AFI 33-360, *Publications and Forms Management*, Table 1.1 for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the Publication OPR for non-tiered compliance items. Ensure all records created as a result of processes prescribed in this publication are maintained IAW Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System Records Disposition Schedule. Send comments and suggested improvements on Air Force (AF) Form 847, *Recommendation for Change of Publication*, through channels, to Headquarters, United States Air Force, Energy and Environment Division (AF/A4CE), 1260 Air Force Pentagon, Washington, D.C. 20330-1260. Any organization may supplement this instruction. Major Commands (MAJCOM), FOA and DRU send one copy of each supplement to AF/A4CE; other commands send one copy of each supplement to the next higher headquarters. See Attachment 1 for a glossary of references and supporting information.

**(341MW)** This publication supplements AFI 32-7044, 13 November 2003, and defines specific details of the Air Force Storage Tank Compliance Program. It applies to all personnel, military, civilian, or contractors, assigned to or contracted with Malmstrom AFB. It does not apply to the US Air Force Reserve or Air National Guard who are not permanent party to Malmstrom AFB. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using AF Form 847, **Recommendation for Change of Publication**; route AF Form 847 through the wing publishing office. Records created as a result of prescribed processes in this publication are maintained in accordance with applicable AFIs, and disposed of as indicated in the Records Disposition Schedule available at <https://afrims.amc.af.mil>.

### ***SUMMARY OF CHANGES***

This document revises AFI 32-7044, *Storage Tank Environmental Compliance*. This is the fourth publication of AFI 32-7044, and it revises the third 2012 publication. Highlights of changes include an update to responsibilities to incorporate AF Program Action Directive (PAD) 12-03 *Implementation of Enterprise-Wide Civil Engineer Transformation*; addition of Tier waiver authority for compliance items as required per AFI 33-360, *Publications and Forms Management*; identification of a standard database system for recording storage tank inventories; and clarification of roles for programming for Defense Logistics Agency (DLA) environmental funds.

(341MW) This publication is updated to properly reflect the current designations (341st Missile Wing and OPR of 341 CES/CEANQ).

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## Chapter 1

### INTRODUCTION

#### *Section IA—Overview*

**1.1. Concept.** Storage tanks, properly operated and maintained IAW environmental regulatory requirements, perform an essential function in support of the Air Force mission. Where petroleum and hazardous substances are necessary for use by the Air Force mission, they may be stored in regulatory compliant underground and aboveground storage tanks. Tank systems are operated and maintained to comply with the more stringent applicable federal, state, or local regulations and this AFI requirement.

**1.2. Scope.** This AFI describes the environmental and engineering requirements for underground and aboveground storage tanks and associated piping storing petroleum and hazardous substances. This AFI addresses the environmental compliance requirements associated with Title 40, Code of Federal Regulations (CFR) Parts 112, *Oil Pollution Prevention*, and 280, *Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (USTs)*, or overseas equivalent; see AFI 23-502, *Recoverable Fuel*, and AFI 23-204, *Organizational Fuel Tanks*, for instructions on managing organizational fuel storage tanks. This AFI does not address storage of wastes other than oils. Hazardous waste storage is addressed in AFI 32-7042, *Waste Management*, and Air Force Pamphlet (AFPAM) 32-7043, *Hazardous Waste Management Guide*.

**1.3. Objectives.** This instruction provides MAJCOMs, FOAs, DRUs, and installations with a framework for complying with regulatory requirements for storage tanks and associated piping storing petroleum and hazardous substances except hazardous and radioactive waste. In the United States and its territories, use this instruction with applicable federal, state, and local standards for storage tanks. For Air Force organizations at installations outside the United States, its territories, and possessions, implement the applicable portions of this AFI (i.e., all paragraphs except those with asterisks) IAW the applicable FGS or, in their absence, the OEBGD.

**1.4. Applicable Standards and Regulations.** The Air Force complies with applicable federal, state, and local laws and regulations; Executive Orders (E.O.); DoD and Air Force publications, technical orders, and policies; and, overseas, with the OEBGD, appropriate FGS, international agreements, through applicable portions of this AFI. Air Force activities in overseas locations must implement this AFI IAW the appropriate FGS or, in their absence, the OEBGD. Provisions of this AFI marked by an asterisk “\*” do not apply in overseas locations. The following description of regulations applicable to storage tanks describes only the principal requirements and is not intended to be exhaustive. Air Force personnel are expected to comply fully with the underlying regulatory requirements of Title 40 CFR Parts 112 and 280, and the applicable state programs. Other requirements may apply to storage tanks under the *Clean Air Act (CAA)*, the *Emergency Planning and Community Right-to-Know Act (EPCRA)* to the extent authorized by Executive Order 13514, *Energy Policy Act of 2005* Title XV, Subtitle B titled *Underground Storage Tank Compliance Act of 2005*, and other environmental laws, Occupational Safety and Health Administration (OSHA) regulations and the national codes and standards listed in Attachment 2 to this AFI.

#### 1.4.1. Underground Storage Tanks (UST).

1.4.1.1. The *Resource Conservation and Recovery Act* (RCRA), Title 42, United States Code (U.S.C.), Section 6901, *et seq.* regulates USTs containing regulated substances. Regulated substances are defined at 40 CFR Part 280.12 and include hazardous substances regulated under the *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA), 42 U.S.C. 9601 *et seq.*, which are not otherwise regulated as RCRA hazardous waste, and petroleum and petroleum-based substances.

1.4.1.2. The federal UST standards are found in 40 CFR Parts 280 and 281 (for approval of state UST programs.).

1.4.1.3. Facility Response Plans. *The Clean Water Act* (CWA), 33 U.S.C. 1251 *et seq.*, *Spill Prevention, Control and Countermeasures* (SPCC) plan and *Facility Response Plan* (FRP) requirements, found in 40 CFR Part 112, do not apply to USTs regulated under and complying with applicable portions of 40 CFR Parts 280 and 281, except that USTs need to be included in the facility diagram [as provided in 40 CFR Part 112.7(a)(3)] or if the Environmental Protection Agency (EPA) Regional Administrator otherwise requires the USTs to be included in the SPCC Plan [as provided in 40 CFR Part 112.1(f)]. Section 311(j) of the *Clean Water Act* requires facilities which because of their location could reasonably be expected to cause “substantial harm” to the environment by a discharge of oil to develop and implement a FRP. Substantial harm facilities are defined in 40 CFR Part 112.

1.4.1.4. The CAA requirements in 40 CFR Part 60, Subpart Kb, *Standards of Performance for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*, apply to USTs as pertinent.

#### 1.4.2. Aboveground Storage Tanks (AST).

1.4.2.1. The SPCC and FRP requirements, discussed in paragraph 1.4.1.3, generally apply to ASTs located where a discharge could reasonably be expected to reach navigable waters (including sewer pathways) unless both: (i) the completely buried storage capacity of installation facility has a total aggregate of 42,000 gallons or less of oil (see Attachment 1); and (ii) the total aggregate aboveground storage capacity of the installation is 1,320 gallons or less of oil. Tanks which are 55 gallons or larger and store petroleum, oil or lubricants are subject to SPCC regulatory requirements. Refer to the EPA definition of ‘oil’ in Attachment 1, Terms.

1.4.2.1.1. The SPCC Plan is the document required by 40 CFR Part 112.3 detailing the equipment, workforce, procedures and steps to prevent, control, and provide adequate countermeasures for a potential discharge. The relevant requirements for preparing a SPCC Plan are located in 40 CFR Parts 112.3 – 112.8.

1.4.2.1.1.1. **(Added-341MW)** The Spill Prevention, Control, and Countermeasure (SPCC) Plan documents the procedures for the prevention, response, control and reporting of spills and must be complied with by all SPCC organizations associated with Malmstrom AFB.

1.4.2.1.1.2. **(Added-341MW)** A SPCC organization is an organization that

stores or uses oil in containers or equipment with a capacity of 55 gallons or more. This includes Malmstrom AFB organizations, as well as tenants and contractors. All contractors are required to have their own SPCC plans if they exceed the SPCC oil storage capacity thresholds. SPCC organizations are required to engage in spill prevention activities, which include but are not limited to routine inspections of equipment and storage containers. SPCC organizations are required to engage in spill response and cleanup activities for small spills that they are capable of safely working. A SPCC organization must verify its inventory in the SPCC and notify 341 CES/CEANQ when purchasing or installing new storage containers for oil or taking containers out of service.

1.4.2.1.1.3. **(Added-341MW)** SPCC organizations must designate a person responsible for the management of oil within their organization. This designated person is referred to as the SPCC coordinator. The SPCC coordinator must ensure that personnel who handle oil receive spill prevention training on an annual basis.

1.4.2.1.1.4. **(Added-341MW)** All SPCC organizations are responsible for understanding the SPCC plan. Contact 341 CES/CEANQ, the SPCC plan office of primary responsibility, to obtain a copy.

1.4.2.1.2. A facility shall also determine, IAW 40 CFR Part 112.20, whether, because of its location, a spill of oil could cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines. (\*note: does not apply in overseas locations)

1.4.2.1.2.1. If the installation (“facility” as defined by 40 CFR Part 112) determines it does meet the substantial harm criteria, it shall prepare a FRP as provided in 40 CFR Part 112 Appendix F or as required by the EPA Regional Administrator. (\* note: does not apply in overseas locations)

1.4.2.1.2.2. If the installation (“facility” as defined by 40 CFR Part 112) determines it does not meet the substantial harm criteria, it shall complete and maintain certification that the criteria do not apply. Even if the substantial harm criteria are not met, the EPA administrator has the discretion to require an FRP. (\* note: does not apply in overseas locations)

1.4.2.2. ASTs containing used oil, as defined in 40 CFR Part 279.1, must also meet the applicable RCRA used oil management requirements of 40 CFR Part 279. (\* note: does not apply in overseas locations)

1.4.2.3. IAW 40 CFR Part 112 SPCC Plans must include schedules and requirements defined for “periodic” inspections of Shop-Built ASTs (see paragraph 2.3.3.). 40 CFR Part 112.3 (d) (1) (iii) also requires the SPCC plan has been prepared IAW good engineering practice including consideration of applicable industry standards.

1.4.2.4. The CAA requirements in 40 CFR Part 60, Subpart (K) (b), *Standards of Performance for Volatile Organic Liquid Vessels for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984* and Part 81 *Designation*

*of Areas for Air Quality Planning Purposes* apply to ASTs as pertinent. (\* note: does not apply in overseas locations)

1.4.3. States may adopt or enact storage tank regulations as long as those regulations are at least as stringent as federal storage tank regulations. Air Force installations must comply with state or local (a) UST regulations: and (b) AST requirements where sovereign immunity has been waived. Installations should consult with the installation Staff Judge Advocate to obtain guidance on whether state or local regulations are applicable to installation ASTs.

1.4.4. ASTs with underground piping that is 10% or more of the volume of the AST may have additional regulatory requirements similar to UST regulatory requirements. Verify federal, state and local regulatory requirements, identify ASTs in this category and manage according to applicable regulatory requirements.

1.4.5. Guidance on the construction and operation of petroleum storage tanks are governed by Unified Facility Criteria (UFC) 3-460-01, *Design: Petroleum Fuels Facilities*, UFC 3-460-03, *Operation and Maintenance: Maintenance of Petroleum Systems*, and DoD standard design AW 78-24-27, *Standard Fueling Systems; Aboveground Vertical Fuel Tanks with Floating Pan and Fixed Roofs*, and from other sources including some of the national codes and standards listed in Attachment 2 to this AFI.

1.4.6. The following AFIs provide policy and procedures as developed by the AF Logistics Readiness Division for AF fuels operations which cross reference this AFI.

1.4.6.1. AFI 23-201 *Fuels, Management* provides managers at all AF activities with policy and procedures for fuel operations. The instruction applies to all Active Duty, Reserve, Guard, and Civil Air Patrol personnel that receive, store, issue, perform quality control, and/or account for aviation fuels, ground fuels, cryogenic fluids, and missile propellants.

1.4.6.2. AFI 23-204, *Organizational Fuel Tanks*, provides guidance and procedures for establishing and operating organizational fuel tanks and applies to all Active Duty, Reserve, Guard, and civil Air Patrol personnel using and managing organizational fuel tanks.

1.4.6.3. AFI 23-502, *Recoverable Fuel*, provides guidance for Recoverable Fuel (Jet, Aviation Gasoline [AVGAS], Unleaded, Diesel and Heating Oil). It requires Headquarters United States Air Force (HQ USAF) offices to provide oversight, and Guard, Reserve, MAJCOMs, along with subordinate activities to establish and implement operating and accounting procedures in connection with recovering and disposing of these products.

## ***Section 1B—Responsibilities***

### **1.5. Secretary of the Air Force (SAF).**

1.5.1. The Deputy Assistant Secretary of the Air Force for Environment, Safety and Infrastructure (SAF/IEE) is the principal Air Force representative on storage tank compliance-related issues with the Office of the Secretary of Defense (OSD) staff, other Services and federal agencies, and the Congress. SAF/IEE:

1.5.1.1. Is responsible for providing guidance, direction and oversight of all matters pertaining to storage tank compliance.

1.5.1.2. Coordinates Air Force storage tank compliance efforts with those of other Services to identify common areas of interest and prevent duplication of effort.

1.5.2. The Deputy General Counsel Installations, Energy, and Environment (SAF/GCN) provides legal services to the HAF and the major commands, including the Air Force Reserve Command and the Air National Guard, and provides guidance and counsel to all Air Force lawyers regarding environmental compliance, energy, real property, and installation management requirements that affect operational, transactional, and litigation matters.

## **1.6. The Air Staff.**

1.6.1. Headquarters, United States Air Force, Deputy Chief of Staff for Logistics, Installations, & Mission Support - Director of Civil Engineers (HQ USAF/A4C) implements approved policies and guidance, allocates resources, and monitors execution of storage tank compliance programs throughout the Air Force. AF/A4C will:

1.6.1.1. Coordinate the Air Force storage tank compliance program with other AF offices.

1.6.1.2. Evaluate the performance of storage tank compliance programs throughout the Air Force and report results to SAF/IEE, MAJCOMs, and appropriate FOAs and DRUs.

1.6.1.3. Review and advocate for environmental funding through the Planning, Programming, Budgeting, and Execution (PPBE) process in support of appropriate storage tank compliance requirements.

1.6.1.4. Designate lead MAJCOMs or FOAs for special projects and studies on storage tank compliance.

1.6.1.5. Advocate for storage tank research and development (R&D) requirements identified by MAJCOMs.

1.6.1.6. Assign validated R&D requirements to Air Force Materiel Command.

1.6.2. The Judge Advocate General (AF/JA) will:

1.6.2.1. Provide legal advice and guidance on all aspects of the storage tank compliance program through the Air Force Legal Operations Agency, Environmental Law and Litigation Division, Field Support Center (AFLOA-JACE/FSC).

1.6.2.2. Provide legal advice on regional storage tank compliance issues through AFLOA/JACE legal staff.

1.6.3. The Surgeon General (AF/SG) advises AF/A4C on health matters related to storage tanks. AF/SG will:

1.6.3.1. Provide occupational and environmental health (OEH) risk surveillance and support associated with public health assessments for the storage tank compliance program with AF/A4C, SAF/IEE, and MAJCOMs.

1.6.3.2. Align requirements of this AFI with AFIs issued by AF/SG.

1.6.4. Air Force Safety (AF/SE) will:

1.6.4.1. Coordinate applicable OSHA; 29 CFR Part 1910, *Occupational Safety and Health Standards*; and Air Force Occupational Safety and Health (AFOSH) requirements for storage tanks with AF/A4C, SAF/IEE, and MAJCOMs.

1.6.4.2. Align requirements of this AFI with AFIs issued by AF/SE.

1.6.5. Headquarters, United States Air Force, Deputy Chief of Staff for Logistics, Installations, & Mission Support - Director of Logistics (HQ USAF/A4L) is the office of primary responsibility for issues concerning the storage of bulk petroleum products on Air Force installations. AF/A4L will:

1.6.5.1. Coordinate bulk petroleum issues with DLA Energy through the Air Force Petroleum Office (AFPET).

1.6.5.2. Issue instructions and Management Internal Control Toolset self-assessment checklist for managing organizational fuel tanks (AFI 23-204) IAW AFI 90-201, *The Air Force Inspection System*.

## 1.7. FOAs and MAJCOMs.

1.7.1. Air Force Civil Engineer Center (AFCEC) provides environmental and operational technical support, guidance, contracting services, and training to address petroleum, oil and lubricants (POL) tank compliance. **(T-0)**

1.7.1.1. Air Force Civil Engineer Center, Operations Directorate (AFCEC/CO) will:

1.7.1.1.1. Provide Air Force wide technical assistance and consultation regarding facilities, utilities, infrastructure, and Civil Engineer Squadron operations and maintenance.

1.7.1.1.2. Establish technical standards and implementing guidance for the construction, operation, and maintenance of ASTs and USTs.

1.7.1.1.3. Serve as the technical Subject Matter Expert for AF storage tanks.

1.7.1.1.4. Provide full-service execution support, including design and construction management activities, when funded by MAJCOMs or Defense Logistics Agency (DLA).

1.7.1.2. The Air Force Civil Engineer Center, Environmental Directorate (AFCEC/CZ) will:

1.7.1.2.1. Provide Air Force wide technical consultation, implementing guidance and scientific and other support. AFCEC/CZ will provide the following comprehensive storage tank compliance services to AF/A4C, MAJCOMs and installations:

1.7.1.2.1.1. Identify compliance requirements for new storage tank construction and assist in coordinating new projects or modifications with appropriate EPA or other federal, state, or local regulators. **(T-0)**

1.7.1.2.1.2. Provide regional liaison, upon installation or MAJCOM request, to EPA, state and local regulatory authorities to resolve compliance and permitting issues. **(T-0)**

1.7.1.2.1.3. Advise AF/A4C of the impacts of new storage tank requirements on

Air Force operations. **(T-0)**

1.7.1.2.1.4. Provide technical assistance to AF/A4C on implementation issues involving storage tank environmental policy. **(T-2)**

1.7.1.2.1.5. Perform special projects and studies on storage tank compliance at the request of AF/A4C or MAJCOMs. **(T-2)**

1.7.1.2.1.6. Identify and monitor applicable federal and state storage tank regulations, compliance requirements, and enforcement policies. **(T-0)**

1.7.1.2.1.7. Conduct data collection, reporting and analysis for storage tank compliance IAW AFI 32-7047, *Environmental Compliance Tracking and Reporting*. **(T-1)**

1.7.1.2.2. The AFCEC/CZ; AFCEC/CZO for CONUS, or AFCEC/CFE for USAFE, or AFCEC/CFP for PACAF will maintain regional media experts and the intermediate environmental function (IEF) between the installation and HQ USAF. The Air National Guard (ANG) Installations and Mission Support Directorate, Environmental Branch (NGB/A7AN) will conduct the IEF for the ANG. The IEF shall:

1.7.1.2.2.1. Provide direct installation support by ensuring storage tank environmental requirements are programmed IAW AF guidance using AF approved project management software (i.e. Automated Civil Engineer System – Project Management [ACES-PM], Enterprise External Business System [EEBS]) for environmental quality (EQ), pollution prevention and DLA-Environmental funding as appropriate. **(T-3)**

1.7.1.2.2.2. Provide oversight and evaluate installation's storage tank compliance. **(T-3)**

1.7.1.2.2.3. Ensure storage tanks are tracked under the appropriate CE asset management plan and incorporated into the installation Environmental Management System (EMS) IAW AFI 32-7001 to allow for sustainment, adequate risk management, and resources for maintaining compliance or process improvement. **(T-3)**

1.7.1.2.2.4. Assist installations in their command to comply with applicable federal, state, and local storage tank requirements.

1.7.1.2.2.5. Identify R&D requirements for storage tank compliance. **(T-3)**

1.7.1.2.2.6. Determine permit and variance requirements, obtain data, and complete storage tank permit applications, if requested and funded by MAJCOMs. **(T-3)**

1.7.1.3. Air Force Civil Engineer Center, Facility Engineering Directorate (AFCEC/CF):

1.7.1.3.1. Provide full-service execution support, including design and construction management activities, when funded by MAJCOMs. **(T-3)**

- 1.7.1.3.2. Assist installations on request with the development of required preconstruction and construction permit applications for storage tank projects using project funds as requested by MAJCOMs or DLA. **(T-3)**
- 1.7.2. AFPET coordinates DLA Energy Sustainment, Restoration and Modernization (SRM) and Military Construction (MILCON) programs with MAJCOMs and installations for DLA capitalized fuels infrastructure. See AFI 23-201, *Fuels Management*, or additional information.
- 1.7.3. DLA Energy is responsible for funding environmental requirements associated with DLA Energy capitalized fuels.
- 1.7.4. MAJCOMs provide execution guidance and manage implementation of storage tank MILCON and SRM programs at their installations. All references to MAJCOMs in this AFI include the Air National Guard Readiness Center and other agencies designated as "MAJCOM equivalent" by AF.
- 1.7.4.1. MAJCOM Installation Mission Support provides direct installation support by ensuring MILCON and SRM requirements are programmed IAW AF guidance using AF approved project management software (i.e. ACES-PM, EEBS) for AF MILCON and SRM as well as DLA-SRM and DLA-MILCON funding as appropriate. **(T-2)**
- 1.7.4.2. Air Force Medical Operations Agency (AFMOA) will:
- 1.7.4.2.1. Coordinate and allocate Installation BE resourcing means to acquire equipment and manpower to conduct occupational health surveillance and health risk assessment, including sampling and analysis, when a storage tank release to the environment poses a potential threat to AF worker and community health. **(T-1)**
- 1.7.4.2.2. Validate and provide execution guidance regarding occupational and environmental health support for storage tanks. **(T-1)**
- 1.7.4.3. MAJCOM Safety (SE) will conduct occupational safety assessments associated with the environmental contamination from storage tanks. Establishes a planning, programming and budgeting mechanism to distribute funds to conduct occupational and environmental health risk assessments associated with storage tanks. **(T-1)**
- 1.7.4.4. MAJCOM Staff Judge Advocate (JA), in coordination with the MAJCOM/A7, will provide legal advice and guidance on all aspects of the storage tank compliance program to the MAJCOM Vice Commander, and the Environment Safety and Occupational Health Council. **(T-2)**

## **1.8. Installations.**

- 1.8.1. Wing Commanders, or equivalents, are ultimately responsible for all aspects of the installation's storage tank management programs, including approval and installation of new storage tanks and closure of existing storage tanks. Installation roles and responsibilities shall also comply with AFI 32-7001, *Environmental Management*. Installation Commanders or equivalents will:
- 1.8.1.1. Ensure installation units, subordinate organizations and tenants' storage tanks are compliant with applicable federal, state and local regulations. For overseas

installations, comply with international agreements and the applicable FGS or Environmental Governing Standards, or in their absence the OEBGD. **(T-0)**

1.8.1.2. Ensure applicable registration, permits and notifications are completed for all storage tanks, including Army and Air Force Exchange Service (AAFES) and Morale Welfare and Recreation (MWR) facilities. **(T-0)**

1.8.1.3. Ensure enforcement actions or notices of violations are promptly reported, tracked and managed IAW AFI 32-7047. **(T-1)**

1.8.1.4. Ensure EMS tank aspects are properly ranked for significance and develop management plans to maintain compliance and reduce burden. **(T-0)**

1.8.1.5. Ensure squadrons who own mobile tanks, such as flight-line bowzers; operate, maintain and store these tanks to prevent releases per 40 part CFR 112. **(T-0)**

1.8.1.6. Establish a POL tank cross-functional team (CFT) to coordinate inspection responsibilities for all installation units, tenant units, and nonappropriated funds units with storage tanks. As a minimum, the CFT will include civil engineering, environmental, fuel management personnel and applicable tenants. The CFT will meet at least quarterly and report status to the Wing leadership. **(T-2)**

1.8.1.7. Ensure Wing Inspector General coordinates required exercises IAW AFI 90-201 and AFI 32-7001 as appropriate and as required to meet applicable federal, state and local environmental regulations. **(T-1)**

1.8.2. The Installation CE will:

1.8.2.1. Ensure enforcement actions or notices of violations are promptly reported, tracked, and managed until closed IAW AFI 32-7047. **(T-1)**

1.8.2.2. Ensure an accurate storage tank inventory is maintained in the real property record and in the AF network approved Storage Tank Accounting and Reporting (STAR) system or other AF/A4C approved system for AF-wide implementation. Inventory information shall include data described in Attachment 4. **(T-1)**

1.8.2.3. Coordinate on environmental aspects of petroleum system requirements. **(T-0)**

1.8.2.4. Ensure certified strapping charts are provided for all procured tanks IAW UFC 460-01, Chapter 8. **(T-0)**

1.8.2.5. Appoint a POL Tank Compliance program manager to track compliance of ASTs and USTs IAW applicable environmental regulations. **(T-1)**

1.8.3. The CE Installation Management Flight (CEI) or equivalent will:

1.8.3.1. Act as the single point of contact, as well as liaison office for, storage tank compliance issues in consultation with the MAJCOM and AFCEC to the EPA or other federal, state or local regulators. (\* note: does not apply in overseas locations) **(T-0)**

1.8.3.2. Ensure storage tank management programs are in compliance with all applicable federal, state, and local requirements. Provide technical expertise with regard to environmental regulatory storage tank requirements. Environmental Management offices (CEIE) may perform the same functions as CEI. **(T-0)**

1.8.3.3. Identify to the proponent of the action environmental requirements (including sampling, analysis and monitoring) to support storage tank compliance associated with new tanks, repairs, maintenance, calibration, and removal or replacement. **(T-0)**

1.8.3.4. Assist AFCEC/CZO IST (CONUS), AFCEC/CFE (Europe), or AFCEC/CFP (Pacific) in developing and submitting funding requests for storage tank environmental compliance requirements. **(T-1)**

1.8.3.5. Review and coordinate all designs and drawings, including AAFES and MWR, to ensure compliance with all applicable environmental regulations. Assist construction management personnel when requested to ensure environmental compliance with applicable federal, state, and local requirements. For overseas installations, comply with international agreements and the applicable FGS or Environmental Governing Standards, or in their absence, the OEBGD. **(T-0)**

1.8.3.5.1. Notify appropriate regulatory agency of all new ASTs/USTs IAW applicable agency rules and regulations. Ensure notification accurately describes the tank system. **(T-0)**

1.8.3.5.2. Make appropriate update to installations SPCC plan as required. Coordinate with AFCEC/CZO, AFCEC/CFE, or AFCEC/CFP as appropriate to ensure 5-year update to SPCC is programmed with appropriate environmental funds. **(T-0)**

1.8.3.6. Identify storage tank compliance project requirements and keep records for documentation. Document project requirements for tanks in STAR. **(T-0)**

1.8.3.7. Maintain an accurate storage tank inventory, in coordination with all installation units, and provide the same to higher headquarters when requested. Maintain information on the locations and physical characteristics of Air Force storage tanks, including key features of variances and compliance orders. Unless otherwise designated by AF/A4C, the STAR system shall be used for maintaining an accurate storage tank inventory. **(T-1)**

1.8.3.8. Prepare, modify and obtain variances, authorized exceptions to permit requirements, for required permits. **(T-0)**

1.8.4. The CE Operations flight (CEO) will:

1.8.4.1. Maintain and repair petroleum storage and dispensing systems including appurtenances IAW all federal, State, local requirements and per UFC 3-460-03, Operations and Maintenance: Maintenance of Petroleum Systems. **(T-0)**

1.8.4.2. Ensure cathodic protection for tank systems are operated and maintained in accordance with AFI 32-1054, *Corrosion Control*. **(T-0)**

1.8.5. Hazardous Material (HAZMAT) Emergency Planning and Response Teams will ensure adequate preparation and necessary resources for responding to emergency releases IAW AFI 10-2501, *Air Force Emergency Management (EM) Program Planning and Operations*. **(T-0)**

1.8.6. Logistics Readiness Squadron (LRS) will:

1.8.6.1. Administer tank custodian and escort training IAW AFI 23-204. **(T-2)**

- 1.8.6.2. Operate fuels facilities storing DLA-Energy capitalized product in accordance with the requirements prescribed by AFI 23-201 and DLA contracted facilities according to DLA Energy policy and procedures and applicable federal, state and local environmental regulations. **(T-0)**
- 1.8.6.3. Coordinate mishap reports with potential release to Waters of the United States with CEIE. **(T-0)**
- 1.8.6.4. Inspections conducted by LRS Quality Assurance as outlined in AFI 23-204 and AFI 20-112 will report discrepancies to the Organizational Commander, Wing Safety and BCE. Coordinate discrepancy reporting with CEI and the POL tank CFT. **(T-1)**
- 1.8.7. The BE provides equipment and manpower to conduct occupational health surveillance and health risk assessment, including sampling and analysis, when a storage tank release to the environment poses a potential threat to AF worker and community health. The BE assists with assigning RACs when occupational/environmental health risks are associated with storage tanks. **(T-0)**
- 1.8.8. Chief of SE will ensure all storage tank management procedures comply with applicable safety requirements and installation storage tank locations have equipment meeting safety standards. Risk Assessment Codes (RACs) are assigned by base level Safety, Fire and Health personnel. If RACs are going to be assigned to Environmental issues, they shall be put on the Base Master Hazard Abatement plan and tracked. **(T-1)**
- 1.8.9. The Installation JA will:
- 1.8.9.1. Review for legal sufficiency the installation SPCC and related documents pertaining to storage tank management and funding. **(T-0)**
- 1.8.9.2. Provide legal advice on local storage tank compliance issues in coordination with MAJCOM/JA environmental liaison officer (AFLOA/JACE-FSC) or NGB-JA for ANG facilities. **(T-2)**
- 1.8.10. Installation Public Affairs (PA) in compliance with AFI 35-108, *Environmental Public Affairs*, will:
- 1.8.10.1. Provide communication counsel and guidance to commanders and staff agencies involved with storage tanks. **(T-2)**
- 1.8.10.2. Be the Air Force point of contact for public and media queries. **(T-2)**
- 1.8.10.3. Release all public announcements on storage tank issues after appropriate coordination with environmental, legal and health offices, and commanders. **(T-2)**
- 1.8.10.4. Ensure notification of local community, political, health, and environmental leaders prior to public release of information, if appropriate. **(T-0)**
- 1.8.11. Air Force Installation Tenants. Tenants owning, operating or procuring any storage tanks on the installation will comply with all federal, state or local requirements applicable to the installation per host tenant agreements, and will coordinate with the Wing Commander, BE, CE, Communications Squadron, SE, HAZMAT Emergency Planning and Response Teams, LRS (Fuels Management Team), JA and other applicable units. As required by AFI 23-204, tenants will notify the Fuels Management Team (FMT) prior to procuring storage tanks. Notification will be provided to the CFT prior to procuring storage tanks. **(T-1)**

1.8.12. Unit Organization Tank Custodians will:

1.8.12.1. Manage the operation of organization tanks IAW AFI 23-204. **(T-2)**

1.8.12.2. Ensure organization tanks comply with security, safety, accountability and environmental protection requirements IAW all applicable technical directives and applicable federal, state and local environmental regulations. Keep inventory information up to date in STAR. Program, budget and seek funds for procurement for significant changes and repairs to unit organizational tanks. **(T-0)**

1.8.12.3. Coordinate all requests for establishing organizational tanks through the local FMT and CEI (via the POL tank CFT) IAW AFI 23-204. Notify FMT and CEI when the tank is operational. **(T-1)**

1.8.12.4. Coordinate the purchase, demolition, relocation and significant changes (e.g. change in storage material, significant repairs or replacement, etc.) of their organizational tank(s) with CEI. **(T-0)**

1.8.12.5. Organizational tank custodians monitor tanks and associated piping for leaks. The monitoring will include recurring inspections and documentation of inspections in STAR. The organization tank custodian reports suspected leaks to CEI immediately upon discovery. **(T-0)**

1.8.12.6. The organization tank custodian coordinates the establishment or acquisition of new organization tanks with CEI. **(T-0)**

1.8.12.7. The organization tank custodian keeps CEI informed of significant changes (change in storage material, significant repairs or replacement, etc.) to the organization tank. **(T-0)**

1.8.12.8. The organization tank custodian obtains, and completes training as required per AFI 23-204 and EPA UST training for federal facilities. **(T-0)**

1.8.12.9. For equipment containing integral tanks requiring compliance with this AFI and federal, state and local environmental regulations, the organization which owns the equipment shall be the organizational tank custodian for the purposes of compliance with this AFI. **(T-1)**

1.8.12.10. For inspections conducted per AFI 23-204, report discrepancies to the Organizational Commander, Wing Safety and BCE. Coordinate discrepancy reporting with CEI and the POL tank CFT. **(T-1)**

1.8.13. AAFES Tanks.

1.8.13.1. Installations will support storage tanks at AAFES service stations, IAW AFI 32-1022, *Planning and Programming Nonappropriated Fund Facility Construction Projects*. **(T-2)**

1.8.13.2. Installations need to consider appropriate funding for performance of activities with respect to installation-owned AAFES service station storage tanks. Environmental Quality (EQ) Funds are not authorized to be used for anything except for actions IAW Table 3.4 of AFI 32-1022 and AFI 65-106, *Appropriated Fund Support of Morale, Welfare and Recreation (MWR) and Nonappropriated Fund Instrumentalities (NAFIS)*. **(T-2)**

1.8.13.3. Installations are responsible for obtaining and making initial payment for any registrations, permits, or fees required for AAFES service station storage tanks, subject to reimbursement by AAFES. **(T-2)**

1.8.13.4. AAFES responsibilities include:

1.8.13.4.1. Payment for activities outlined in Table 3.4 of AFI 32-1022. **(T-2)**

1.8.13.4.2. Reimbursements for costs initially paid by installations for registrations, permits, or fees required for AAFES service storage tanks. **(T-0)**

1.8.13.4.3. Purchase, installation, monitoring, and repair or replacement of monitoring devices for AAFES service storage tanks. **(T-0)**

1.8.13.4.4. Installation and construction of new tanks, and costs for replacement of tanks and lines to increase or decrease capacity or enhance other tank features not required by new environmental regulations. **(T-1)**

## Chapter 2

### COMPLIANCE REQUIREMENTS FOR STORAGE TANKS AND ASSOCIATED PIPING

#### 2.1. Tank System Requirements.

2.1.1. All tank systems (existing and new) containing oils must comply with 40 CFR Part 112 or 40 CFR Part 280, applicable state and local regulations, and the requirements listed in this paragraph. Overseas installations must comply with the OEBGD or FGS as well as the requirements listed below. UFC 3-460-01, *Design: Petroleum Fuels Facilities* is the Air Force standard for UST and AST construction. All fuel tanks shall be managed IAW applicable Air Force manuals developed by the offices of A4C and A4L.

2.1.1.1. Diking and Containment. Diking and containment for storage tanks will be constructed IAW UFC 3-460-01 to contain leaks or spills and prevent releases to the environment. **(T-0)**

2.1.1.1.1. New USTs, or those requiring replacement, will have double wall construction with interstitial monitoring. **(T-0)**

2.1.1.1.2. ASTs will have internal (self-diking) or external secondary containment and/or diversionary structures. All determinations under this paragraph need to be documented in the SPCC Plan. **(T-0)**

2.1.1.1.2.1. Self-diking storage tanks must be capable of containing the entire capacity of the inner tank if it fails within (a) the interstitial space; (b) a secondary containment system; or (c) both. Tanks with concrete outer shells shall have testable secondary containment with manual or electronic interstitial leak detection. **(T-0)**

2.1.1.1.2.2. External secondary containment includes dikes, containment curbs, pits or drainage trenches (remote containment) and must be sufficient to hold the entire capacity of the largest single container and sufficient freeboard to contain annual precipitation events, as certified by the professional engineer for existing construction. For new diking and containment construction see UFC 3-460-01. **(T-0)**

2.1.1.2. Corrosion Protection. Storage tanks and piping will include provisions for corrosion protection IAW AFI 32-1054 and this paragraph.

2.1.1.2.1. Tank Systems. Prevent corrosion by installing tanks constructed of one of the following **(T-0)**:

2.1.1.2.1.1. Fiberglass-reinforced plastic (for USTs).

2.1.1.2.1.2. Coated cathodically protected steel (for USTs and vaulted tanks).

2.1.1.2.1.3. Steel-fiberglass-reinforced plastic composite (ASTs and USTs).

2.1.1.2.1.4. Coated steel (for ASTs).

2.1.1.2.2. Corrosion Protection for Piping. Use fiberglass-reinforced plastic or cathodically protected, coated steel piping. Specialty products (i.e., double wall

systems using a flexible carrier pipe for service stations) may be used. For aviation fuel piping, see UFC 3-460-01. See applicable state and local requirements and Attachment 2 for national codes and standards. **(T-0)**

#### 2.1.1.3. Release Detection.

2.1.1.3.1. Release Detection for Tanks. All USTs and ASTs, where required by state or local requirements, must have at least one of the following release detection monitoring systems: **(T-0)**

2.1.1.3.1.1. Automatic tank gauging.

2.1.1.3.1.2. Vapor monitoring.

2.1.1.3.1.3. New groundwater monitoring systems in areas with no known prior contamination.

2.1.1.3.1.4. Continuous monitoring of the interstitial space between the tank system and a secondary barrier.

2.1.1.3.1.5. Other effective methods compliant with environmental regulations.

#### 2.1.1.3.2. Release Detection for Piping.

2.1.1.3.2.1. Non-aviation fuel piping: Install automatic line-leak detection with all new pressurized piping. Suction piping operating at less than atmospheric pressure and drains the contents back into the tank, with a single check valve immediately below the suction pump, does not require release detection. Suction piping not having leak detection must either be subject to an appropriate line tightness test annually or monitor this piping monthly using a release detection monitoring method that detects piping leaks. Follow applicable state and local requirements, and the appropriate national codes and standards in Attachment 2. Underground piping for hazardous substances must be equipped with secondary containment (e.g., trench liners, jacketing or double-walled pipe.) Automatic line leak detection for pressurized lines may not be available from all manufacturers. At some locations, only interstitial monitoring may be available for line leak detection for ASTs. Ensure line leak detection system is installed as recommended to avoid interference with operation of AST anti-siphon device. **(T-0)**

2.1.1.3.2.2. Aviation fuel piping: See UFC 3-460-01.

#### 2.1.1.4. Spill and Overfill Prevention.

2.1.1.4.1. Tank equipment shall be designed to prevent spills when the transfer hose detaches. **(T-0)**

2.1.1.4.2. Overflow provisions for USTs shall include:

2.1.1.4.2.1. A spill bucket for USTs is required. The spill bucket will be sized to capture 100% of the delivery hose volume; however in no case will the spill bucket for USTs be less than 10 gallons. **(T-0)**

2.1.1.4.2.2. A fill pipe that will:

2.1.1.4.2.2.1. Alert the operator by triggering a high level alarm before tank is 90% full; and **(T-0)**

2.1.1.4.2.2.2. Automatically shuts off flow into the tank before the tank level reaches 95% full. **(T-0)**

2.1.1.4.3. Overflow provisions for ASTs shall include:

2.1.1.4.3.1. Level indicating devices observable from the filling point in order to monitor tank level during filling. For vertical upright ASTs, see UFC 3-460-01. **(T-0)**

2.1.1.4.3.2. A fill pipe that will:

2.1.1.4.3.2.1. Alert the operator by triggering a high level alarm before tank is 90% full; and **(T-0)**

2.1.1.4.3.2.2. Automatically shuts off flow into the tank before the tank level reaches 95% **(T-0)**

2.1.1.4.3.2.3. For vertical upright ASTs, see UFC 3-460-01 **(T-0)**

2.1.1.5. Regulatory Agency Notification and Certification for Construction for new storage tanks. The project proponent and its contractor in consultation with CEI must:

2.1.1.5.1. Obtain proper notification and certification forms including necessary construction and operating permits from the appropriate regulatory agency. **(T-0)**

2.1.1.5.2. Send state or local agencies a notice of intent, when required, to install a tank before starting construction. **(T-0)**

2.1.1.5.3. Notify the appropriate regulatory agency of all new ASTs/USTs within 30 calendar days after use of a newly installed AST/UST commences. Ensure notification accurately describes the tank system. **(T-0)**

2.1.1.5.4. Obtain certification from tank installer that tank was installed according to applicable codes and standards. Maintain as-built drawings in appropriate files. **(T-0)**

2.1.1.5.5. Notify the regulator in advance if the installation cannot meet a regulatory deadline. **(T-0)**

2.1.1.5.6. Obtain certified strapping charts from tank installer. Strapping charts shall be as per UFC 3-460-01. **(T-0)**

2.1.1.6. Anchor all parts of USTs, vaulted tanks, and cylindrical ASTs to prevent floating in floods or dislocation in earthquakes or other conditions. USTs and vaulted tanks must not be installed at a site located in a 25-year flood plain. **(T-0)**

## **2.2. Monitoring for Releases.**

2.2.1. Tank owners, operators, including installation personnel and tenant storage tank custodians, must periodically check tank systems for leaks. **(T-0)**

2.2.1.1. USTs. Check leak detection systems of USTs every 30 days to verify proper function per 40 CFR 280.41. **(T-0)**

2.2.1.2. Vertical ASTs require integrity and leak testing when material (major) repairs are accomplished. Major repairs are as defined in American Petroleum Institute (API) Standard 653, *Tank Inspection, Repair, Alteration, and Reconstruction* and include removing the annular plate ring; replacement of the container bottom; jacking of a container shell; installation of a 12-inch or larger nozzle in the shell; a door sheet, tombstone replacement in the shell, or other shell repair; or, such repairs that might potentially change the potential for oil to be discharged from the tank. **(T-0)**

2.2.1.3. New and Existing Aviation Fuel Pressurized Piping. Perform a line tightness test annually or monitor this piping monthly using a release detection monitoring method that detects 0.1 gallon per hour. See UFC 3-460-03. **(T-0)**

2.2.1.4. New and Existing Underground Piping for USTs. Perform a line tightness test or use an approved monthly monitoring method IAW 40 CFR Part 280 and/or state and local requirements. **(T-0)**

### **2.3. Operating, Maintaining and Inspecting Tanks.** (\*note: does not apply in overseas locations)

#### 2.3.1. Corrosion Protection for Steel USTs and Steel ASTs in Direct Contact with Soil.

2.3.1.1. Have a qualified cathodic protection specialist (i.e., a person certified by the National Association of Corrosion Engineers International), design and construct new cathodic protection systems IAW AFI 32-1054. **(T-0)**

2.3.1.2. Inspect impressed current cathodic protection systems every 60 calendar days and galvanic cathodic protection systems annually. **(T-0)**

#### 2.3.2. Repairs.

2.3.2.1. Use qualified personnel licensed by state agencies to perform repairs on all USTs if required by state regulations and authorized inspectors to certify repairs were performed on ASTs. **(T-0)**

2.3.2.2. Perform tightness testing of USTs, including piping, within the state-specified time of completing repairs to any UST or underground piping. **(T-0)**

2.3.2.3. Perform Integrity testing of a UST, including piping when major repairs are accomplished on cathodic protection system before the tank system is returned to service IAW 40 CFR Part 280 and/or state and local requirements. **(T-0)**

#### 2.3.3. Tank Inspections.

2.3.3.1. Shop Fabricated ASTs (including organizational tanks) shall be inspected monthly using checklist at Attachment 5. Documentation of inspections shall be recorded in STAR. **(T-0)**

2.3.3.2. Shop Fabricated ASTs (including organizational tanks) shall be inspected annually by CE personnel using the checklist at Attachment 6. Documentation of inspections shall be recorded in STAR. **(T-0)**

2.3.3.3. Formal internal and external inspections of all shop-fabricated tanks shall be conducted by an authorized inspector. The frequency and types of inspections shall be

IAW Steel Tank Institute Specification 001 (STI-SP001). The dates of STI-SP001 inspections shall be documented in the installation SPCC. **(T-0)**

2.3.3.3.1. For overseas installations inspections shall be conducted by an authorized inspector IAW the FGS for the specific country. **(T-0)**

2.3.3.4. Formal internal and external inspections of all field erected ASTs shall be inspected IAW API 653 and by an authorized inspector. See UFC 3-460-03 for inspection frequencies. The dates of API 653 inspections shall be documented in the installation SPCC. **(T-0)**

2.3.3.5. Inspections from a centralized contract or from a regional support team contract will be coordinated through the installation gatekeeper IAW AFI 90-201. **(T-3)**

## **2.4. Training.**

2.4.1. Personnel training under the SPCC Regulation (40 CFR Part 112.7 (f)) is intended to reduce the potential of spills by reducing human error. The Regulation allows flexibility in designing training programs reflecting site-specific needs. Oil-handling personnel shall be trained in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan. Personnel training for UST system operators must be in compliance with 40 CFR Part 280. Training programs shall also be conducted IAW AFI 32-7001. Tank owners ensure their oil-handling personnel obtain the regulatory required training in specific topics, including: **(T-0)**

2.4.1.1. Operations and maintenance of equipment to prevent discharges,

2.4.1.2. Discharge procedure protocols,

2.4.1.3. Applicable pollution control regulations,

2.4.1.4. General facility operations,

2.4.1.5. The content of the facility SPCC Plan and any associated response plans.

2.4.2. Schedule and conduct discharge prevention briefings for oil-handling personnel at least once a year or more frequently if required by local or state regulatory agencies. Training briefings are required to assure adequate understanding of the SPCC Plan, highlighting known discharges, failures, malfunctioning components, and any recently developed precautionary measures. Training should be designed to address site-specific needs regarding the Regulation, potentials for releases, types of oils stored on site and types of equipment. It may be necessary to implement training at an appropriate level to tailor all requirements to the activities specific to groups of oil-handling personnel. **(T-0)**

## **2.5. Release Response, Cleanup, and Reporting.**

2.5.1. Suspected Releases.

2.5.1.1. Suspected releases from USTs must be reported to the regulators within 24 hours, as per 40 CFR Part 280.50, *Underground Storage Tanks*, and appropriate investigation and confirmation steps taken. The following are considered suspected releases: (\*note: does not apply in overseas locations) **(T-0)**

- 2.5.1.1.1. The discovery of regulated substances at the UST site or in the surrounding area (such as free product or vapors in soils, basements, sewer and utility lines and near surface water). **(T-0)**
- 2.5.1.1.2. The system. (Note that mechanical automatic line leak detectors and some electronic line leak detectors unusual operating conditions, such as the erratic behavior of dispensing equipment, the sudden loss of product from the system, or an unexplained loss of product from detectors signal a suspected line leak by greatly slowing down the flow of product in the distribution line. This can appear as erratic operation of dispensing equipment.) Any of these conditions are considered a suspected release unless system equipment is found to be defective but not leaking within the 24 hour period allowed for reporting suspected releases and is immediately repaired or replaced. **(T-0)**
- 2.5.1.1.3. Monitoring results from a required tank or line release detection method that indicate a release may have occurred must be reported as a suspected release unless the following conditions can be met within the allowed 24-hour period. These conditions are: the monitoring device is found to be defective and is immediately repaired, recalibrated, or replaced and additional monitoring does not confirm the initial result. **(T-0)**
- 2.5.1.1.4. If inventory control shows excessive variance (that is, monthly reconciliations using the EPA leak check comparison of book inventories versus tank measurements exceeds 1% of tank throughput plus 130 gallons), a suspected release must be reported and followed up if there are two consecutive months of excessive variances. See 40 CFR Part 280.43(a). **(T-0)**
- 2.5.1.1.5. Additional release detection methods are available in 40 CFR Part 280.43.
- 2.5.2. Responding to Releases.
- 2.5.2.1. If a release of a regulated substance stored in a tank system is suspected, take immediate action to investigate and confirm the release using the following steps: **(T-0)**
- 2.5.2.1.1. Perform a tightness test of the system. **(T-0)**
- 2.5.2.1.2. If a release is suspected because of the discovery of environmental contamination in the vicinity of the tank but a leak is not detected in the tank system, perform a site check by sampling and measuring for contamination at the tank site. **(T-0)**
- 2.5.2.2. If a release from a tank system is confirmed:
- 2.5.2.2.1. Ensure the safety of personnel and follow requirements in paragraph 2.5.2.2.4. Remove as much of the regulated substances from the tank as necessary to prevent any further release. **(T-0)**
- 2.5.2.2.2. Inspect visually for evidence of any above ground or below ground releases. **(T-0)**
- 2.5.2.2.3. Prevent further migration of the regulated substance release to the surrounding soils and groundwater. **(T-0)**

2.5.2.2.4. Coordinate with the Fire Department, SE, and BE to identify and mitigate fire, explosion, and vapor hazards. **(T-1)**

2.5.2.2.5. Report the release as provided in paragraph 2.5.5. **(T-0)**

2.5.3. Cleaning Up Releases. Coordinate these actions with appropriate regulatory authorities: **(T-0)**

2.5.3.1. Corrective Action for Petroleum or Hazardous Substance Tanks. The installation must take corrective action in response to a confirmed release from a tank as follows: (\*note: does not apply in overseas locations)

2.5.3.1.1. For tanks located at installations with a RCRA hazardous waste permit take corrective action IAW RCRA Subtitle C requirements (40 CFR Parts 264.101, 264.552, and 264.553), and any more stringent and applicable state hazardous waste regulations. **(T-0)**

2.5.3.1.2. For tanks located at installations without a RCRA hazardous waste permit, take corrective action IAW 40 CFR Part 280 Subpart F, and any more stringent and applicable state hazardous waste regulations. **(T-0)**

2.5.3.1.3. Remove Free Product. If the presence of free product outside the tank system is confirmed, as soon as possible remove this regulated substance to the maximum extent practicable. **(T-0)**

2.5.3.1.4. Investigate Soil and Groundwater. Determine the extent and location of contaminated soil and groundwater. Comply with requests from the regulatory agency for additional information or a corrective action plan to clean up contaminated soil, surface water or groundwater. **(T-0)**

2.5.3.1.5. For ASTs take corrective action to clean up releases and make notifications as required in section 2.5.5. Ensure response resources are kept up to date in the SPCC IAW 40 CFR Part 112. **(T-0)**

2.5.4. Site Remediation. Remediation, post emergency response, of petroleum releases from underground or above ground storage tanks to protect human health and the environment are managed and funded IAW AFI 32-7020 *Air Force Environmental Restoration Program*. Site remediation uses Defense Environmental Restoration Account funds. **(T-0)**

2.5.4.1. For overseas installations, follow the remediation policy in Department of Defense Instruction (DoDI) 4715.08, *Remediation of Environmental Contamination Outside the United States*. Overseas remediation requirements will be funded using Environmental Quality (O&M) funding if valid. **(T-0)**

2.5.5. Reporting Releases.

2.5.5.1. Release Notification. Notify the regulatory agency consistent with the applicable federal, state, local requirements or for overseas locations FGS or OEBGD. **(T-0)**

2.5.5.2. Notice of a release is generally required if:

2.5.5.2.1. A release is discovered from a tank system. **(T-0)**

2.5.5.2.2. Unusual conditions occur, such as apparent erratic behavior of equipment, loss of product, unexplained water in tanks or product in the interstitial space. **(T-0)**

- 2.5.5.2.3. A spill or overflow of petroleum occurs exceeding 25 gallons or causes a sheen on nearby surface water. **(T-0)**
- 2.5.5.2.4. A spill or overflow of a hazardous substance to the environment equal to or exceeding the reportable quantity for the spilled substance. **(T-0)**
- 2.5.5.2.5. A spill or overflow from an UST of petroleum less than 25 gallons or of a hazardous substance resulting in a release to the environment less than its reportable quantity, as per 40 CFR Part 302.4, *List of Hazardous Substances and Reportable Quantities*, where the cleanup cannot be accomplished within 24 hours or other time period established by the implementing agency. **(T-0)**
- 2.5.6. Notice of a release is required: (\*note: does not apply in overseas locations)
- 2.5.6.1. For releases or discharges of oil or a hazardous substance in a reportable quantity or greater: **(T-0)**
- 2.5.6.2. Immediately notify the National Response Center. See 40 CFR Part 300.125(c). **(T-0)**
- 2.5.6.3. Immediately notify the emergency first responder, or if there is none, notify the relevant local emergency response personnel. See 40 CFR Part 355.40(b)(1). **(T-0)**
- 2.5.6.4. For any spill or overflow from an UST of petroleum in excess of 25 gallons or of a hazardous substance resulting in a release to the environment equal to or exceeding its reportable quantity, notification also is to be provided within 24 hours or other reasonable time period to the appropriate regulatory agency. If discharge is over 25 gallons and spill is Defense Working Capital Fund Class III Bulk Petroleum products, report must be submitted to DLA through AFPA, IAW DLA Fuel Spill/Leak reporting policy. See 40 CFR Part 280.53 (a). **(T-0)**
- 2.5.6.5. For any spill or overflow from an UST of petroleum less than 25 gallons or of a hazardous substance resulting in a release to the environment less than its reportable quantity where the cleanup cannot be accomplished within 24 hours or other time period established by the implementing agency, notification is to be provided immediately to the appropriate regulatory agency. See 40 CFR Part 280.53(b). **(T-0)**
- 2.5.7. Notification. Notification of a confirmed release is to be provided to MAJCOM and AF/A4CE according to AFI 10-206, *Operational Reporting*, and AFI 32-7047. Releases are reportable to the Air Force Enforcement Actions, Spills, and Inspections (EASI) system within 24 hours. Overseas locations will report in EASI a spill or overflow of petroleum in excess of 25 gallons or that causes sheen on nearby surface water. **(T-0)**
- 2.5.8. Release Reporting. Unless the regulatory agency directs otherwise, submit a report of initial abatement actions promptly after confirming a release consistent with the applicable federal, state, or local requirements (e.g. 40 CFR Part 280.62(b) requires this report to be submitted within 20 calendar days while 40 CFR Part 110.6 requires reports to the NRC be made “as soon as he or she has knowledge of any discharge”). Submit a detailed follow-up report consistent with the applicable federal, state, or local requirements (e.g. 40 CFR Parts 280.63(b) and 280.64 requires submission within 45 calendar days) that includes: (\*note: does not apply in overseas locations)
- 2.5.8.1. Name of the installation point of contact. **(T-0)**

- 2.5.8.2. Nature and estimated quantity of release. **(T-0)**
- 2.5.8.3. Information on surrounding population, water quality, use and locations of potentially affected wells, subsurface soil conditions, locations of sewers, climatic conditions, and land use. **(T-0)**
- 2.5.8.4. Results of initial site check. **(T-0)**
- 2.5.8.5. Cause of release. **(T-0)**
- 2.5.8.6. Results of free-product investigation. **(T-0)**
- 2.5.8.7. Estimated quantity, type, and depth of any free product. **(T-0)**
- 2.5.8.8. Type of recovery system. **(T-0)**
- 2.5.8.9. Location of on-site or off-site discharges. **(T-0)**
- 2.5.8.10. Type of treatment and effluent quality. **(T-0)**
- 2.5.8.11. Steps taken to obtain the necessary permits. **(T-0)**
- 2.5.8.12. Methods or plan to recycle, reclaim or dispose of any recovered free product, contaminated soil, or groundwater. **(T-0)**

## **2.6. Record keeping.**

2.6.1. Record keeping shall be managed IAW AF standards including AFI 32-7001, and AFMAN 33-363. CE keeps these records readily available for inspection at the installation:

2.6.1.1. Tank Inventories. See Attachment 4, Table 4.1, for listing of minimum data requirements. **(T-0)**

2.6.1.1.1. Update data when tank systems are added, removed, replaced, upgraded, or closed. **(T-0)**

2.6.1.1.2. The CEI or EM office maintains installation storage tank inventory of tanks for environmental compliance and makes these records available for inspection. **(T-0)**

2.6.1.1.3. Tank system asset information is maintained in the real property records for the installation and reconciled. **(T-2)**

2.6.1.2. Documentation of:

2.6.1.2.1. Corrosion protection equipment operation and inspection. CE must keep records showing performance of required inspections and tests of installation corrosion protection system, IAW AFI 32-1054. Corrosion control records shall be kept for a minimum of 3 years. **(T-0)**

2.6.1.2.2. Tank repairs and upgrades. **(T-0)**

2.6.1.2.3. USTs: CE must keep records showing a repaired or upgraded UST system was properly repaired or upgraded, and the record of the repairs shall be kept for the life of the storage tank, as per 40 CFR Part 280.33(f). STAR may be used to archive required tank records in addition to federal recordkeeping requirements. **(T-0)**

2.6.1.2.4. ASTs: CE must keep records showing a repaired or upgraded AST system was properly repaired or upgraded, and the record of the repairs shall be kept for the life of the storage tank, as per 40 CFR Part 112. STAR may be used to archive required tank records in addition to federal recordkeeping requirements. **(T-0)**

2.6.1.2.5. Recent compliance with release detection requirements. CE must keep records of leak detection performance and maintenance including: **(T-0)**

2.6.1.2.5.1. Prior year monitoring results and the most recent tightness test for at least 1 year or until the next test is performed. **(T-0)**

2.6.1.2.5.2. Copies of performance claims, including third party certifications, provided by leak detection equipment manufacturers shall be kept for a minimum of 5 years, as per 40 CFR Part 280.40. **(T-0)**

2.6.1.2.5.3. Records of the most recent maintenance, repairs, and calibration of on-site leak detection equipment shall be kept for a minimum of 3 years. **(T-0)**

2.6.1.2.5.4. Monthly monitoring of release detection systems in log entry or annotation on site records such as automatic tank gauging-print-out shall. **(T-0)**

2.6.1.2.5.5. Responses to all leak detection alarms must be documented in site records. **(T-0)**

2.6.1.2.5.6. Where tank leak detection is performed with an automatic tank gauge, records of monthly inventory reconciliation should be kept for at least the previous year to demonstrate compliance with 40 CFR Part 280.43(d)(2). **(T-0)**

2.6.1.2.6. All tank records be maintained for 25 years or the operational life of the tank whichever is longer. These records are available for official use. **(T-2)**

2.6.1.2.7. The results of the site investigation conducted during permanent closure. For at least three years after closing an UST, CE must keep records of the site assessment results required for permanent closure. **(T-0)**

## **2.7. Budgeting and Funding for Storage Tanks.**

2.7.1. Environmental Quality (EQ) fund-eligible storage tank requirements shall be programmed IAW AFI 32-7001. Funding requirements that are associated with the operations and maintenance of the storage tanks should be programmed IAW SRM guidelines in AFI 32-1032, *Planning and Programming Appropriated Funded Maintenance, Repair and Construction Projects*. **(T-0)**

2.7.2. The DLA funding authorities.

2.7.2.1. DLA funds all operation and maintenance, operational environmental permits or fees, and other environmental-related costs for storage tanks storing DLA capitalized products.

2.7.2.2. AFCEC/CZO IST provides relevant environmental funding requirements to DLA through their RST and the AFPET. **(T-2)**

2.7.2.3. The funding authorities for Nonappropriated Fund Activities including AAFES station storage tanks are detailed in AFI 65-106 and AFI 32-1022.

2.7.2.4. The funding requirements for organizational tanks are addressed in paragraph 1.8.10.

## 2.8. Closing Storage Tanks.

### 2.8.1. USTs

2.8.1.1. Temporary Closure. When a UST system is temporarily closed, as per 40 CFR Part 280.70, installations must continue to operate and maintain corrosion protection systems and, if the UST is not empty, operation and maintenance of the release detection systems is also required. If the UST system is temporarily closed for 3 months or more, leave vent lines open and cap and secure other lines, pumps, manways, and equipment. Some state regulatory agencies may require permits for temporary closures at 3 months. When an UST system is temporarily closed for more than 12 months, it must undergo permanent closure unless one of the following occurs: **(T-0)**

2.8.1.1.1. The UST meets the standards in paragraphs 2.1 and 2.2, except that spill and overflow prevention are not required. **(T-0)**

2.8.1.1.2. The regulatory agency approves an extension of the 12 month temporary closure period.\* **(T-0)**

2.8.1.2. Permanent Closure. As per 40 CFR Part 280.71, notify the regulatory agency before permanently closing a UST system or effecting a change in service consistent with the applicable federal, state, or local requirements (e.g. 40 CFR Part 280.71(a) requires at least 30-day advance notice). Determine if the UST system leaked by sampling for a release where contamination was most likely to occur. Basic guidance pertaining to closure procedures may be found in UFC 3-460-01, Chapter 14 and API Recommended Practice 1604, *Closure of Underground Petroleum Storage Tanks*.\* **(T-0)**

2.8.1.2.1. If a release is discovered, begin corrective action as provided in paragraph 2.5.3\* **(T-0)**

2.8.1.2.2. If no release is found, empty and clean the tank IAW UFC 3-460-03. Manage the materials IAW applicable regulatory requirements, in consultation with CEI.\* **(T-0)**

2.8.1.2.3. Except as provided in 2.8.2.4, no UST system shall be closed in place. A UST system subject to closure shall be properly removed and disposed of consistent with applicable federal, state and local requirements. The tank custodian's unit, whether a Wing organization or tenant, is responsible for funding UST removal and disposal, including soil testing. EQ funds are not to be used for this purpose. In the event of contamination, units shall consult with the environmental restoration program (AFCEC/CZR, AFCEC/CFE, or AFCEC/CFP) for possible cleanup funding. The removal and disposal cost should be an integrated cost of the closing unit, organization, or tenant. **(T-0)**

2.8.1.2.4. USTs may be permissible to be closed in place under extenuating circumstances (for example, for UST located under a building) if regulatory and AFCEC approval is obtained. Storage tanks closed in place must be managed IAW 40 CFR Part 280.71(b) and applicable state and local regulatory requirements. **(T-0)**

### 2.8.2. ASTs

2.8.2.1. Meet applicable federal, state and local regulatory requirements for temporary deactivation and permanent closure. Overseas aboveground storage tanks inactivated for 12 months or longer shall be disconnected to prevent loading or unloading of petroleum products. See UFC 3-460-01, Chapter 13 for temporary deactivation. **(T-2)**

2.8.2.2. Follow UFC 3-460-01, Chapter 14 for permanent removal and deactivation of AST systems. **(T-0)**

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**(341MW)**

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**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

- AFPD 32-70, Environmental Quality, 20 July 1994
- AFI 10-206, Operational Reporting, 6 Sep 2011
- AFI 10-2501, Air Force Emergency Management (EM) Program Planning and Operations, 24 January 2007
- AFI 23-201, Fuels Management, 20 June 2014
- AFI 23-204, Organizational Fuel Tanks, 24 July 2012
- AFI 23-502, Recoverable Fuel, 25 August 2011
- AFI 32-1032, Planning And Programming Appropriated Funded Maintenance, Repair, And Construction Projects, 15 October 2003
- AFI 32-1054, Corrosion Control, 1 March 2000
- AFI 32-1022, Planning and Programming Nonappropriated Fund Facility Construction Projects, 20 May 2009
- AFI 32-7001, Environmental Management, 4 Nov 11
- AFI 32-7020, Environmental Restoration Program, 7 February 2001
- AFI 32-7042, Waste Management, 15 April 2009
- AFI 32-7047, Environmental Compliance Tracking and Reporting, 15 February 2012
- AFI 35-108, Environmental Public Affairs, 8 Mar 2010
- AFI 65-106, Appropriated Fund Support of Morale, Welfare and Recreation (MWR) and Nonappropriated Fund Instrumentalities (NAFIS), 6 May 2009
- AFMAN 33-363, *Management of Records*, 1 Mar 2008
- AFPAM 32-7043, *Hazardous Waste Management Guide*, 1 November 1995
- DoDI 4715.08, *Remediation of Environmental Contamination Outside the United States* (November 1, 2013)
- Final Governing Standards (varies by country)
- 29 U.S.C. 651 *et seq.*, *Occupational Safety and Health Act*
- 33 U.S.C. 1251 *et seq.*, *Clean Water Act*
- 42 U.S.C. 2011 *et seq.*, *Atomic Energy Act of 1954*
- 42 U.S.C. 6901 *et seq.*, *Resource Conservation and Recovery Act*
- 42 U.S.C. 6921 *et seq.*, *Solid Waste Disposal Act*
- 42 U.S.C. 7401 *et seq.*, *Clean Air Act*,

42 U.S.C. 9601 *et seq.*, *Comprehensive Environmental Response, Compensation and Liability Act*

42 U.S.C. 11001 *et seq.*, *Emergency Planning and Community Right-to-Know Act of 1986*

49 U.S.C. App. 1671, *et seq.*, *Natural Gas Pipeline Safety Act of 1968*

49 U.S.C. App. 2001, *et seq.*, *Hazardous Liquid Pipeline Safety Act of 1979*

29 CFR Part 1910, *Occupational Safety and Health Standards*

10 CFR Part 50, *Domestic Licensing of Production and Utilization Facilities*

40 CFR Part 60, Subpart Kb, *Standards of Performance for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*

40 CFR Part 81, *Designation of Areas for Air Quality Planning Purposes*

40 CFR Part 110, *Discharge of Oil*

40 CFR Part 112, *Oil Pollution Prevention*, as amended by 67 Fed. Reg. 47042 (Jul 17, 2002.)

40 CFR Part 264, *Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities*

40 CFR Part 265, *Interim Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities*

40 CFR Part 279, *Standards for Management of Used Oil*

40 CFR Part 280, *Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (USTs)*

40 CFR Part 281, *Approval of state underground storage tank programs*

40 CFR Part 300, *National Oil and Hazardous Substances Pollution Contingency Plan*

40 CFR Part 355, *Emergency Planning and Notification*

API Recommended Practice 1604, *Closure of Underground Petroleum Storage Tanks*

API Standard 650, *Welded Steel Tanks for Oil Storage-Includes Addendum 1 and 2*

API Standard 653, *Tank Inspection, Repair, Alteration, and Reconstruction-Includes Addenda 1-4*

UFC 3-460-01, *Design: Petroleum Fuel Facilities*

UFC 3-460-03, *Operations and Maintenance: Maintenance of Petroleum Systems*

### ***Prescribed Forms***

None

### ***Adopted Forms***

AF Form 2519, *All Purpose Checklist*

AF Form 847, *Recommendation for Change of Publication*

AF Form 332, *Base Civil Engineer Work Request.*

*Abbreviations and Acronyms*

**AAFES**—Army and Air Force Exchange Service

**AFCEC**—Air Force Civil Engineer Center

**AFI**—Air Force Instruction

**AFLOA/JACE**—Air Force Legal Services Agency, Environmental Law & Litigation Division

**AFMAN**—Air Force Manual

**AFMC**—Air Force Materiel Command

**AFPET**—Air Force Petroleum Office

**AFPAM**—Air Force Pamphlet

**AFPD**—Air Force Policy Directive

**AI**—Authorized Inspector

**ANGRC**—Air National Guard Readiness Center

**API**—American Petroleum Institute

**AST**—Aboveground storage tank

**BE**—Bioenvironmental Engineering

**CAA**—Clean Air Act

**CE**—Civil Engineer

**CEC**—Civil Engineering Flight

**CEI**—Civil Engineer Installation Management (includes the Environmental Management Activity if it conducts the CEI function)

**CONUS**—Continental United States

**CERCLA**—Comprehensive Environmental Response, Compensation and Liability Act

**CEV**—Environmental Management

**CFR**—Code of Federal Regulations

**CFT**—Cross-Functional Team

**CS**—Command Surgeon

**COMM**—Communications Squadron

**CWA**—Clean Water Act

**DERA**—Defense Environmental Restoration Account

**DLA**—Defense Logistics Agency

**DoD**—Department of Defense

**DoDI**—Department of Defense Instruction

**DRU**—Direct Reporting Unit

**DWCF**—Defense Working Capital Fund

**E.O.**—Executive Order

**EPA**—Environmental Protection Agency

**EPCRA**—Emergency Planning and Community Right-to-Know Act

**EQ**—Environmental Quality

**FGS**—Final Governing Standards

**FMT**—Fuels Management Team

**FOA**—Field Operating Agency

**FRP**—Facility Response Plan

**FRP**—Fiberglass Reinforced Plastic

**HAZMAT**—Hazardous material

**AF**—Air Force

**AF/A4C**—Air Force Director of Civil Engineers

**AF/A4CF**—Air Force, Environmental Branch, Environment and Energy Division, Deputy Chief of Staff/Logistics, Installations, & Mission Support

**AF/A4L**—Air Force, Directorate of Logistics, Deputy Chief of Staff/ Logistics, Installations, & Mission Support

**AF/JA**—Air Force, The Judge Advocate General

**AF/SG**—Air Force, The Surgeon General

**JA**—Judge Advocate

**MAJCOM**—Major Command

**MILCON**—Military Construction

**MWR**—Morale, Welfare, and Recreation

**NACE**—National Association of Corrosion Engineers

**O&M**—Operation and maintenance

**OCONUS**—Outside Continental United States

**OEBCD**—Overseas Environmental Baseline Guidance Document

**OSD**—Office of the Secretary of Defense

**OSHA**—Occupational Safety and Health Administration

**PCMS**—Projects by Contract Management System

**POL**—Petroleum, oil, and lubricants

**PPBE**—Planning, programming, budgeting and execution

**RAC**—Risk Assessment Codes

**R&D**—Research and development

**RCRA**—Resource Conservation and Recovery Act

**SAF/IEE**—Deputy Assistant Secretary of the Air Force for Environment, Safety and Occupational Health

**SE**—Chief of Safety

**SG**—Surgeon General

**SME**—Subject Matter Expert

**SPCC**—Spill Prevention Control and Countermeasure

**SRM**—Sustainment, restoration, and modernization

**SRM—E**—Sustainment, Readiness, and Modernization Environmental (DLA terminology)

**STI**—Steel Tank Institute

**T.O.**—Technical Order

**UFC**—Unified Facilities Criteria

**U.S.C.**—States Code

**UST**—Underground storage tank

### *Terms*

**Aboveground Storage Tank**—An unburied storage tank, such as a bulk storage tank, and includes any aboveground container containing oil, as provided in Title 40, Code of Federal Regulations (CFR) Part 112.1(b)(1); or bunkered tank or partially buried tank as defined in 40 CFR Part 112.2.

**Authorized Inspector**—An individual who has met the certifying requirements of an authorized state inspection agency and is certified as an aboveground storage tank inspector.

**Automated Line Leak Detectors**—Devices attached to the pressurized piping from a service station type dispenser for detection of 3 gallon per hour product loss. These detectors briefly restrict flow after pump start up by sensing vapor space resultant from lost product in piping during off periods.

**Bulk Storage Tank**—Has the same meaning here as “bulk storage container” in Title 40, Code of Federal Regulations (CFR) Part 112.2. An aboveground storage tank, of 55 gallons or greater capacity, used to store oil, including the storage of oil prior to use, while being used, or prior to further distribution in commerce. Oil-filled electrical, operating, or manufacturing equipment is not a bulk storage container.

**Cathodic Protection**—A technique for preventing corrosion of a metal surface by making the surface the cathode of an electrochemical cell. A tank system can be cathodically protected by applying either galvanic anodes or impressed current.

**Change—In-Service**—Continued use of an underground storage tank system to store an unregulated substance.

**Existing UST**—A tank system containing a regulated substance that was installed on or before 22 December 1988.

**Facility**—“Facility” means any mobile or fixed, onshore or offshore building, structure, installation, equipment, pipe, or pipeline (other than a vessel or a public vessel) used in oil well drilling operations, oil production, oil refining, oil storage, oil gathering, oil processing, oil transfer, oil distribution, and waste treatment. See 40 CFR Part 112.2 for a complete definition of “facility”

**Facility Response Plan**—A plan required to be prepared IAW Title 40, Code of Federal Regulations, Part 112.20 by an owner or operator of a non-transportation related facility that, because of its location, reasonably can be expected to cause substantial harm to the environment through the discharge of oil into or on navigable waters or adjoining shorelines.

**Field Constructed Aboveground Storage Tanks**—Large volume vertical cylindrical tanks constructed on-site. The bottom surface of these tanks is in contact with ground and cannot be visually inspected.

**Final Governing Standards (FGS)**—Country specific substantive provision concerning the environment, typically technical limitations on effluent, discharges, etc., or a specific management practice for Department of Defense (DoD) installations in specific countries.

**Free Product**—A regulated substance that exists as a non-aqueous phase liquid (a liquid that does not dissolve in water).

**Hazardous Substance Underground Storage Tank (UST)**—An UST system containing a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) hazardous substance that is not also a Resource Conservation and Recovery Act (RCRA) hazardous waste.

**Issue Tank**— A tank used to dispense fuel to vehicles, mobile trailers, ground support equipment, or portable containers.

**New Underground Storage Tank (UST)**—A tank system containing a regulated substance that was installed after 22 December 1988.

**Oil**—Has the meaning provided for “oil” in Title 40, Code of Federal Regulations (CFR) Part 112.2. It generally includes crude oil, fuel oil, gasoline, jet fuel, mineral oil, sludge, oil refuse, greases, oil mixed with wastes other than dredged spoil, or any other kind or form of oil. However, “oil” as used in this Air Force Instruction (AFI) does include “animal oils” such animal, fish or marine mammal fats, oils or greases; and “vegetable oils” such as oils from seeds, nuts, fruits, or kernels to the extent that the latter oils are stored in tanks on Air Force installations.

**Oil Handling Personnel**—Service personnel involved in fueling and transfer operations, and the operations and maintenance of oil storage containers or equipment related to storage containers and emergency response personnel.

**Organization Tanks**—Storage tanks 55 gallons or larger established by organizations that store petroleum products are managed as organizational tanks. There are three types of organizational fuel tanks: support, issue, and portable.

**Overfill Release**—When someone attempts to fill a tank beyond its capacity, resulting in release/discharge of the regulated substance to the environment.

**Overseas**—Any nation, territory or geographic area that is outside the United States and its territories.

**Overseas Environmental Baseline Guidance Document (OEBGD)**—Developed by the Department of Defense (DoD), a set of procedures and minimum criteria for environmental compliance at DoD installations in overseas locations. It is used by the Environmental Executive Agent to establish the Final Governing Standards (FGS), and in the case where no FGS exists, provides the compliance criteria.

**Petroleum Aboveground Storage Tank (AST)**—An AST containing petroleum or a petroleum mixture, including: motor fuels, jet fuels, distillate fuel oils, residential fuel oils, lubricants, petroleum solvents, and used oils.

**Petroleum Underground Storage Tank (UST)**—An UST system containing petroleum or a petroleum mixture, including: motor fuels, jet fuels, distillate fuel oils, residential fuel oils, lubricants, petroleum solvents, and used oils.

**Portable Tank**—Any mobile tank used for mobility maintenance, research and development, or similar purposes. **Regulated Substance**—Has the meaning provided in Title 40, Code of Federal Regulations, Section 280.12 and any more protective state regulation. It generally includes:

(1) Petroleum, including crude oil or any crude oil mixture that remains a liquid at standard temperatures and pressures. "Regulated substances" include petroleum and petroleum based substances composed of a complex blend of hydrocarbons derived from crude oil through separation, conversion, upgrading, and finishing, such as: motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

(2) Any hazardous substance defined in section 101(14) of the *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA) of 1980, but not including any substance regulated as a hazardous waste under subtitle C of the *Resource Conservation and Recovery Act* (RCRA) of 1976.

**Release**—Spilling, leaking, emitting, discharging, escaping, leaching, or disposing of a substance from an underground storage tank into groundwater, surface water, or soil.

**Release Detection**—Confirmation that an underground storage tank (UST) system has released a regulated substance into the environment or into the interstitial space between a UST system and its secondary barrier or secondary containment area. Common release detection methods include:

(1) **Inventory Control**.—A physical accounting system in which records are kept of input, output, and daily tank inventories, including:

(2) **Manual Tank Gauging. Measuring a tank's liquid level at the beginning and end of a 36**—hour time period and calculating the change in volume. Limited to 550-gallon or smaller USTs when manual tank gauging is used alone.

**(3) Tank—Tightness Testing.** Use of any approved technology that can measure very small changes in product volume to find a leak. Civil Engineering (CE) must adjust the results for temperature, structural deformation, trapped air, and so on.

**(4) Automatic Tank Gauging.**—Collecting release detection and inventory information by continuously monitoring the product level.

**(5) Nonvolumetric Tank—Tightness Testing.** Includes a variety of methodologies that apply to piping and tanks of any size. Some involve injecting a tracer gas for monitoring the presence of a release outside the tank. Others track the sound of product or bubbles leaving the tank. In about 50% of the cases, piping leaks are the cause.

**(6) Secondary Containment with Interstitial Monitoring.**—Detects product in the space between the wall of the tank and the secondary containment liner or wall. Applies to piping and tanks of any size.

**(7) Groundwater Monitoring.**—Detects regulated substances in groundwater. The substance must be immiscible in water and have a specific gravity less than 1.0. Applies to piping and tanks of any size.

**(8) Vapor Monitoring.**— Detects fuel vapors in soil above the groundwater table. This test is not always reliable. Applies to tanks of any size and piping.

**(9) Release Detection for Piping.**— Note that automatic line leak detectors are manufactured only for small diameter piping on systems with low flow rates normally associated with submersible pumps and service station dispensers to issue ground fuels. Automatic line leak detectors are not intended for high volume pressurized piping for aviation hydrant systems or truck loading facilities. These systems are excluded from this requirement if the flow rates exceed 10 gallons per minute. Periodic line testing or monitoring may still be required.

**Self—Diking Tanks or Aboveground Secondary Containment (Tanks)**—Small rectangular or horizontal cylindrical aboveground storage tanks (AST) delivered to the site fully constructed with integral secondary containment. Some tanks have a membrane which provides integral secondary containment and interstitial leak detection with an outer concrete shell.

**Shop Fabricated ASTs**—An AST that is factory constructed and provided to a site.

**Spall**—Breaking, damage, cracking or chipping of secondary containment impervious materials

**Spill Bucket (a.k.a. Spill Containment Bucket)**—A containment sump located at the tank fill port to capture or prevent release to the environment in the event of a spill or overflow. A spill bucket is constructed of materials compatible with POL products and in accordance industry recommended practices.

**Spill Prevention, Control and Countermeasure**—Means the Clean Water Act oil pollution prevention procedures provided in Title 40, Code of Federal Regulations, Part 112.

**Storage Tank**—A stationary aboveground or below ground device that contains an accumulation of regulated substances.

**Support Tank**—Any tank that is physically connected, by fixed piping, to a consuming facility or installed piece of equipment such as Generators, Hush Houses, Fuel Test Cells.

**Tank in a Vault (AST-V)**—A tank located above the floor of a subterranean vault.

**Underground Storage Tank (UST)**—Any tank or combination of tanks (including underground pipes connected to the tank) that contains an accumulation of regulated substances, where 10 percent or more of the volume (including underground pipes connected to the tank) lies beneath the ground surface. Definition and exclusions of USTs for regulatory purposes is provided in 40 CFR 280.12.

**Underground Storage Tank (UST) System or Tank System**—Generally means an underground storage tank, connected underground piping, underground ancillary equipment, and any containment system.

**Used Oil**—As defined in 40 CFR Part 279.1, used oil means any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities.

## Attachment 2

### NATIONAL CODES AND STANDARDS

#### A2.1. Fiberglass-Reinforced Plastic Tanks:

A2.1.1. Underwriters Laboratories: Standard 1316, *Standard for Glass Fiber Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures.*

#### A2.2. Corrosion Protection Systems and Interior Linings:

A2.2.1. Steel Tank Institute: *Specification for STI-P3-99, STI-P3 Specification and Manual for External Corrosion Protection of Underground Steel Storage Tanks.*

A2.2.2. Underwriters Laboratories:

A2.2.2.1. Standard 1746, *External Corrosion Protection Systems for Steel Underground Storage Tanks.*

A2.2.2.2. Standard 58, *Standards for Steel Underground Tanks for Flammable and Combustible Liquids.*

A2.2.3. National Association of Corrosion Engineers:

A2.2.3.1. Standard RP-02-85, *Corrosion Control of Underground Storage Tank Systems by Cathodic Protection.*

A2.2.3.2. Standard RP-01-69, *Control of External Corrosion on Underground or Submerged Metallic Pipe Systems.*

A2.2.4. American Petroleum Institute:

A2.2.4.1. Publication 1631, *Recommended Practice for the Interior Lining of Underground Storage Tanks.*

A2.2.4.2. Publication 1632, *Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems.*

A2.2.5. National Leak Prevention Association: Standard 631, *Spill Prevention, Minimum Ten Year Life Extension of Existing Steel Underground Tanks by Lining Without the Addition of Cathodic Protection.*

#### A2.3. Steel-Fiberglass-Reinforced-Plastic Composite:

A2.3.1. Underwriters Laboratories: Standard 1746, *External Corrosion Protection Systems for Steel Underground Storage Tanks.*

A2.3.2. Association for Composite Tanks: ACT-100, *Specification for the Fabrication of FRP Clad Underground Storage Tanks.*

#### A2.4. Fiberglass-Reinforced-Plastic Piping:

A2.4.1. Underwriters Laboratories:

A2.4.1.1. Standard 971, *Nonmetallic Underground Piping for Flammable Liquids.*

A2.4.1.2. Standard 567, *Emergency Breakaway Fittings, Swivel Connectors and Pipe-Connection Fittings for Petroleum Products and LP Gas.*

### **A2.5. Tank and Piping System Installation:**

A2.5.1. American Petroleum Institute: Publication 1615, *Installation of Underground Petroleum Storage System.*

A2.5.2. Petroleum Equipment Institute:

A2.5.2.1. Publication RP100, *Recommended Practices for Installation of Underground Liquid Storage Systems.*

A2.5.2.2. Publication RP 200, *Recommended Practices for Installation of Aboveground Storage Systems for Motor Vehicle Fueling.*

A2.5.2.3. Publication RP 300, *Recommended Practices for Installation and Testing of Vapor Recovery Systems at Vehicle Fueling Sites.*

A2.5.3. American Society of Mechanical Engineers:

A2.5.3.1. B31.3, *Process Piping.*

A2.5.3.2. B31.4, *Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids.*

A2.5.4. National Fire Protection Association:

A2.5.4.1. Standard 30, *Flammable and Combustible Liquids Code.*

A2.5.4.2. Standard 30A, *Motor Fuel Dispensing Facilities and Repair Garages.*

### **A2.6. Spill and Overfill Control:**

A2.6.1. American Petroleum Institute: Publication 1621, *Recommended Practice for Bulk Liquid Stock Control at Retail Outlets.*

A2.6.2. National Fire Protection Association: Standard 30, *Flammable and Combustible Liquids Code.*

### **A2.7. Compatibility:**

A2.7.1. American Petroleum Institute:

A2.7.1.1. Publication 1626, *Storing and Handling Ethanol and Gasoline Ethanol Blends at Distribution Terminals and Service Stations.*

A2.7.1.2. Publication 1627, *Storage and Handling of Gasoline- Methanol/Cosolvent Blends at Distribution Terminals and Service Stations.*

### **A2.8. Allowed Repairs:**

A2.8.1. National Fire Protection Association: *Standard 30, Flammable and Combustible Liquids Code.*

A2.8.2. American Petroleum Institute:

A2.8.2.1. Publication 2200, *Repairing Crude Oil, Liquefied Petroleum Gas, and Product Pipelines.*

A2.8.2.2. Publication 1631, *Recommended Practice for the Interior Lining of Underground Storage Tanks*.

A2.8.3. National Leak Prevention Association: Standard 631, *Spill Prevention, Minimum 10 Year Life Extension of Existing Steel Underground Tanks by Lining Without the Addition of Cathodic Protection*.

#### **A2.9. Water Level Measurement:**

A2.9.1. American Petroleum Institute: Publication 1621, *Recommended Practice for Bulk Liquid Stock Control at Retail Outlets*.

#### **A2.10. Double-Walled Tanks:**

A2.10.1. Steel Tank Institute: *Standard for Dual Wall Underground Storage Tanks Cleaning and Closure Procedures*.

A2.10.2. American Petroleum Institute:

A2.10.2.1. . Recommended Practice 1604, *Closure of Underground Petroleum Storage Tanks*.

A2.10.2.2. Standard 1631, *Interior Lining and Periodic Inspection of Underground Storage Tanks*.

A2.10.2.3. Publication 2015, *Cleaning Petroleum Storage Tanks*.

#### **A2.11. Confined Space Entry:**

A2.11.1. National Institute for Occupational Safety and Health (NIOSH 80-106): *Criteria for a Recommended Standard, Working in Confined Space*.

A2.11.2. AFOSH Standard 91-25, *Confined Spaces*.

#### **A2.12. Aboveground Tank Integrity Testing**

A2.12.1. American Petroleum Recommended Practice 575, *Inspection of Atmospheric and Low Pressure Storage Tanks*.

A2.12.2. Steel Tank Institute SP001-04, *Standard for Inspection of Aboveground Storage Tanks*.

#### **A2.13. Inspections**

A2.13.1. American Petroleum Institute 653, *Tank Inspection, Repair, Alteration, and Reconstruction*.

A2.13.2. Steel Tank Institute SP001-04, *Standard for Inspection of Aboveground Storage Tanks*.

**Attachment 3****REFERENCE WEB SITES**

**A3.1.** The Defense Logistics Agency (DLA) website presently can be found at:

**A3.2.** The Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency UST website presently can be found at: <http://www.epa.gov/swerust1/>

**A3.3.** The U.S. EPA Spill Prevention, Control, and Countermeasure (SPCC) Rule website can be found at: <http://www.epa.gov/emergencies/content/spcc/>

**A3.4.** The Spill Incident Reporting Internet System (SIRIS) is located at:

**A3.5.** Unified Facility Criteria documents are available at:

**A3.6.** The U.S. EPA Office of Underground Storage Tanks (OUST) website can be found at: <http://www.epa.gov/oust/>

## Attachment 4

**TANK INVENTORY MINIMUM DATA FIELD REQUIREMENTS**

Installations maintain an inventory of above ground storage and underground storage tanks. Accurate inventories are essential to environmental regulatory compliance and effective tank management. The minimum essential data required includes, but is not limited to:

**Table A4.1. Tank Inventory Minimum Data Field Requirements.**

DATA FIELD	PURPOSE	DESCRIPTION / EXAMPLE
ID Number	Unique Identification Number to keep track of tank on the installation.	AA-1035-1-AST. Use a standard format where AA – is the organization two letter code assigned by the installation for each organization that has tanks, 1035 is typically the facility number, 1 – is the number of the tank at this location. For example if there were three tanks at this same location this number would be either 1, 2 or 3 to uniquely identify each of the tanks, and finally the letters AST indicate this is an aboveground storage tank. The last three letters would be UST if this tank were an underground storage tank.
Facility No.	The number of the facility where the tank is located or is the closest real property asset where the tank is located.	A number preferably from the installation real property records for the asset, which is a tank. If there is no real property record facility number, use the closest facility number to the tank.
Manufacturer	The name of the manufacturer of the tank	Company name
Date Manufactured	To record date tank system was made. This is not the date the tank was installed	Date (at minimum the year must be inputted)
Serial Number	To uniquely identify the tank	From the name plate data on the tank
Dimensions	To record the physical size of the tank system (L x W x H)	Length by Width by Height in inches or feet, for example: 55” x 42” x 83”
Material	The principal construction material the tank is made	for example, carbon steel; fiberglass
Tank Type	Is this a AST or UST	AST or UST
Roof Type	What is the construction character of the tank roof	for example, flat heads or pressed heads, or NA if a tank is inside a generator cabinet
Piping Type	What is the construction character of the tank piping	for example, threaded elbow to plastic tubing, or threaded steel pipe, or copper

DATA FIELD	PURPOSE	DESCRIPTION / EXAMPLE
		(flexible)
Piping Corrosion Control	What type of corrosion control is used to protect tank piping	for example, epoxy pipe coating, for underground piping – cathodic protection
Tank Corrosion control	What type of corrosion control is used to protect the tank	for example, epoxy paint; or for an underground tank – cathodic protection
Secondary Containment	To record whether the AST tank has the regulatory required secondary containment	Yes or No or NA
Percent Secondary Containment	The percent of the working capacity of the AST the secondary containment system can hold	for example, 125%
Leak Detection	To record whether the tank has the required leak detection system installed	Yes or No or NA
Spill Protection	Document if tank has required spill and overflow protection	Yes or No or NA
Vapor control	Indicate the type of vapor control mechanism for the tank	for example, pressure
SPCC	Is this a regulated tank and included in the SPCC plan	Yes or No
Permit to Operate	Does this tank have a permit to operate	Yes or No
Real Property	Is this tank on the installation real property records	Yes or No
Organization	Is this an organizational tank	Yes or No
Pressure Vessel	Is this a pressured tank system	Yes or No
Air Force Owned	Is this tank owned by the US Air Force	Yes or No
POL	Does this tank contain petroleum, oil or lubricants	Yes or No
STI	What is the Steel Tank Institute Category for this tank (See STI SP 001-Standard for the Inspection of above ground storage tanks)	example, 1, 2 or 3
Latitude	What is geospatial location of the tank	example, 31.426268 degrees
Longitude	What is geospatial location of the tank	example, -100.412724 degrees
Shell Capacity	The shell volume is the nominal interior volume as provided by the tank manufacturer for shop build tanks or the calculated volume for field erected tanks	for example, 500 gallons or 66.8 cubic feet

DATA FIELD	PURPOSE	DESCRIPTION / EXAMPLE
Working Capacity	The capacity of the tank as measured between the high level and low level alarm	Input required only for tanks that a vertical upright of at least 2500 barrels or larger.
Chemical Stored	The type of POL stored in the tank	example, diesel, JP-8, used oil, etc.
CAS	The chemical abstract system number of the chemical stored in the tank	example 668476
Usage	What is the use of this tank; i.e. what mission activity does it support	for example, 'backup generator' or 'AGE fuel tank
Color	What is the exterior painted color of the tank	for example, tan or white, etc.
Primary Contact Name	Primary Emergency Contact Person or Organization	Self explanatory
Primary Contact Phone	Primary Emergency contact Person or Organization phone	Self explanatory
Secondary Contact Name	Secondary Emergency Contact Person or Organization	Self explanatory
Secondary Contact Phone	Secondary Emergency contact Person or Organization phone	Self explanatory
Facility Manager Name	The name of the facility manager where the tank is located	Self explanatory
Facility Manager Phone	The phone number of the facility manager	Self explanatory
Environmental POC Name	The name of the asset or environmental manager responsible for the tank inventory on this installation	Self explanatory
Environmental POC Phone	The phone number of the asset or environmental manager responsible for the tank inventory on this installation	Self explanatory
Environmental POC email	The email address of the asset or environmental manager responsible for the tank inventory on this installation	Self explanatory
POC Date	Date the POC information was last updated for primary contact, secondary contact, facility manager and environmental POC	Date
Repair Cost	The current working estimate to repair the deficiencies identified during the last certified tank inspection	Dollars

DATA FIELD	PURPOSE	DESCRIPTION / EXAMPLE
Risk	A subjective assessment by the installation tank owner or installation tank manager of the risk associated with the deficiencies identified during the last certified tank inspection	for example, High, Medium, or Low
Legible Name Plate	Is there a legible name plate attached to the tank	Yes or No
Date Removed	The date the tank was removed from the installation	Date
Status	Is the tank active, inactive or removed from service	for example, Active, Inactive, or Removed
Comments	A data field to capture current issues, summary of discrepancies, or other relevant information helpful in the management of the tank	Narrative
Photo	Multiple photos of the tank and discrepancies documented during inspection of the tank to assist in the management of the tank	Self-explanatory
Reports	Electronic copies of reports linked to the tank electronic files for easy retrieval	for example, Microsoft ® Word files, pdf report files, etc.

## Attachment 5

**MONTHLY INSPECTION CHECKLIST SHOP FABRICATED AND ORGANIZATIONAL TANKS**

**Table A5.1. Monthly Inspection Checklist Shop Fabricated and Organizational Tanks.**

MONTHLY INSPECTION CHECKLIST				
SHOP FABRICATED AND ORGANIZATIONAL TANKS (AFI 32-7044)				
<i>This checklist is to be completed monthly to comply with 40 CFR 112.8 requirements and AFI 32-7044 for periodic inspections of Shop Fabricated Aboveground Storage Tanks (ASTs) and Organizational ASTs.</i>				
Tank No.				
Tank Location				
Type Fuel Stored				
Tank Capacity (gallons)				
Inspector Name				
Organization				
Inspector Duty Phone				
Date of Inspection				
No	ITEM	YES	NO	N/A
1	Tank Containment -Inspect secondary containment. Are there water accumulations, debris, vegetation, cracks, fire hazards or holes? -Are containment drain valves in working order and closed.			
2	For double wall tanks, is there water or fuel in the tank interstice space? (If water is detected, arrange to have water removed and disposed IAW local, state, and federal environmental regulations. If fuel is detected, contact CE Environmental office (Ref .40 CFR 112.8 d 4))			
3	Are there leaks, broken seals and/or corrosion of manhole covers? (Ref: 40 CFR 112.8 d 4)			
4	Are there any indications of leakage, staining, or seepage around tank shell, concrete pad (40 CFR 112.8d 4)			
5	Are there any indication of leakage, staining, seepage or severe corrosion on --piping, pipe connections, pipe stands --valves --tank supports/saddles. (Ref: 40 CFR 112.8 d 4)			

	Is tank level gage working and readable and can be observed by operator from the fill position location?			
6	Are ladders, platforms, handrails, stairs secure with no indication of severe corrosion and/or damage? (Ref: 40 CFR 112.8 d 4)			
7	Are containment egresses (exits) pathways clear? Are gates/doors operable and in working order? (Ref: 40 CFR 112.8 d 4)			
8	Are fire extinguishers maintained in a serviceable condition and located in the designated area? (Ref: T.O. 37-1-1, para 2.2.a; 3.12.f .1.)			
9	Any deficiency found has been addressed/corrected or has been submitted to CE via AF Form 332 process?			
Inspector Signature		Date		

## Attachment 6

## ANNUAL INSPECTION CHECKLIST SHOP FABRICATED AND ORGANIZATIONAL TANKS

Table A6.1. Annual Inspection Checklist Shop Fabricated and Organizational Tanks.

ANNUAL INSPECTION CHECKLIST				
SHOP FABRICATED AND ORGANIZATIONAL TANKS (AFI 32-7044)				
<i>This checklist is to be completed annually to comply with 40 CFR 112.8 requirements and AFI 32-7044 for periodic inspections of Shop Fabricated Aboveground Storage Tanks (ASTs) and Organizational ASTs.</i>				
Tank No.				
Tank Location				
Type Fuel Stored				
Tank capacity (gallons)				
Inspector Name				
Organization				
Inspector Duty Phone				
Date of Inspection				
No	ITEM	YES	NO	N/A
1	Tank Containment -Inspect secondary containment. Are there water accumulations, debris, vegetation, cracks, fire hazards or holes? -Are containment drain valves in working order and closed.			
2	Tank Foundation and Supports -Is there evidence of tank settlement, foundation washout, or foundation cracking? -Is there any cracking, spalling or severer corrosion of tank supports and/or saddles? -Are ladders, platforms, handrails, stairs secure with no indication of severe corrosion and/or damage?			
3	Tank and Appurtenances -Is the Normal Vent clear and free of obstructions? -Is vent located five feet or more from adjacent buildings? -For class I fuels (i.e. MOGAS, AVGAS), are normal vents located at least 12 feet above grade? -Are there emergency vents for the primary tank? -- Is emergency vent operable (vent cover can be lifted by hand)? -Are there emergency vents for the secondary tank if a double wall tank? -- Is emergency vent operable (vent cover can be lifted by hand)? -Are all valves in working order?			

4	<p>Corrosion Control</p> <ul style="list-style-type: none"> <li>-Is there evidence of paint coating failure or severe corrosion of tank and piping surfaces?</li> <li>-Is there evidence of corrosion at pipestand and piping interfaces (undercutting of pipe) including underside of piping?</li> <li>-Is there cathodic protection for underground metallic piping?</li> <li>--Is cathodic protection working and being checked regularly?</li> </ul>			
5	<p>Level and Overfill Prevention</p> <ul style="list-style-type: none"> <li>-Has the tank level indicating device been tested and is in working order?</li> <li>-Is tank level gage viewable from the filling point?</li> <li>-Has the overflow shutoff mechanism (shut off valve or float valve) been tested and is in working order?</li> <li>-Is the High Level Alarm present and in working order?</li> <li>-Are anti-siphon valves operable (if present)?</li> </ul>			
6	<p>Electrical Wiring and Equipment</p> <ul style="list-style-type: none"> <li>-Is tank grounded?</li> <li>--Are grounding straps secure and in good order?</li> <li>-Are wiring, wiring conduit, junction boxes in good condition? Are electrical components in classified conduit and enclosures as required?</li> </ul>			
7	<p>Tank Site</p> <ul style="list-style-type: none"> <li>-Are traffic bollards and/or protection from vehicle traffic in place where required?</li> </ul>			
8	<p>Any other items of note:</p>			
9	<p>Address/correct any found deficiencies or submit AF Form 332 for further action</p>			
Inspector Signature		Date		