NAVAL AIR STATION CORPUS CHRISTI
CORPUS CHRISTI, TEXAS

SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

Prepared for:
Naval Facilities Engineering Command Southeast
Jacksonville, Florida

Prepared under:
Contract N62470-10-D-3000
Delivery Order JM18

Prepared by:

Michael Baker Jr., Inc.
Virginia Beach, Virginia

Date:
June 2014

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Management Approval

This Spill Prevention Control & Countermeasure (SPCC) Plan has the full approval of management at Naval Air Station Corpus Christi (NAS CC), at a level of authority to commit the necessary resources to fully implement the plan. Management will use personnel, equipment, and materials as necessary to prevent and control spills, and to implement SPCC requirements as set forth in this Plan. By virtue of my office, I have the authority to approve this document on behalf of the facility, and to commit resources to implement the corrective actions and improvements as needed, to comply with applicable federal and state laws.

Signature	Date
Printed Name	Title

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Record of Plan Reviews/Amendments

In accordance with 40 CFR 112.3 and 112.5 of the SPCC Plan regulations, there are two events that require an amendment to the Naval Air Station Corpus Christi SPCC Plan. The dates listed below are based on a final rule effective 14 October 2010 (75 Federal Register [FR] 63093) (i.e., extension of SPCC Plan amendment and implementation deadlines in 40 CFR 112.3(a) and (b)).

Event A

The owner or operator of a facility that has oil in:

(1) Any aboveground container;
(2) Any completely buried tank as defined in §112.2;
(3) Any container that is used for standby storage, for seasonal storage, or for temporary storage, or not otherwise "permanently closed" as defined in §112.2; or
(4) Any "bunkered tank" or "partially buried tank" as defined in §112.2, or any container in a vault, each of which is considered an aboveground storage container for purposes of this part

must review and amend the SPCC Plan when there is a change in the facility design, construction, operation, or maintenance that materially affects its potential for a discharge of oil into or upon the navigable waters of the United States or adjoining shore lines or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Magnuson Fishery Conservation and Management Act).

Examples of changes that may require amendment of the SPCC Plan include, but are not limited to the following: commissioning or decommissioning containers; replacement, reconstruction, or movement of containers; reconstruction, replacement, or installation of piping systems; construction or demolition that might alter secondary containment structures; changes of product or service; or revision of standard operation or maintenance procedures at a facility. Any amendment made under this section must be prepared **within 6 months**, and implemented as soon as possible, but **not later than 6 months** following preparation of the amendment.

Event B

The facility owner or operator must complete a review and evaluation of the SPCC Plan at least **once every 5 years** from the date your last review was required under this part. As a result of this review and evaluation, you must amend your SPCC Plan **within 6 months** of the review to include more effective prevention and control technology if the technology has been field-proven at the time of the review and will significantly reduce the likelihood of a discharge as described in §112.1(b) from the facility. For any amendment made to the SPCC Plan, you must implement the amendment as soon as possible, but **not later than 6 months following** preparation of any amendment. You must document your completion of the review and evaluation, and must sign a statement as to whether you will amend the SPCC Plan, either at the beginning or end of the SPCC Plan, or in a log or an appendix to the SPCC Plan. The following words will suffice:

I have completed review and evaluation of the SPCC Plan for Naval Air Station Corpus Christi on (date), and will (will not) amend the SPCC Plan as a result.

A Licensed Professional Engineer must review and certify **any technical amendments** to this SPCC Plan for it to be effective to satisfy the SPCC Rules.

Owner/Operator Record of SPCC Plan Five-Year Reviews

I have completed a review and evaluation of the SPCC Plan for Naval Air Station Corpus Christi on the date indicated below, and will (will not) amend the plan as a result.

Signature of Reviewer	Date of Review	Will Amend the Plan	Will Not Amend the Plan

Owner/Operator Record of SPCC Plan Amendments

If applicable, briefly describe the type of amendment (i.e., administrative or technical). State how the amendment was completed (i.e., page change, addendum, etc.). Provide the date of the amendment and the printed name/position of the person responsible for the amendment. A Licensed Professional Engineer must review and certify all technical amendments. For any amendment to this SPCC Plan after 6 June 2014, Naval Station Corpus Christi must implement the amended plan within 6 months (except as noted on the Management Approval page).

Description of Change (Administrative or Technical)	Date Entered	Posted By

A Licensed Professional Engineer must review and certify **any technical amendments** to this SPCC Plan for it to be effective to satisfy the SPCC Rules.

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Licensed Professional Engineer's Certification

I hereby certify that I or my agent has visited and examined the facility, and being familiar with the provisions of 40 CFR 112, *Environmental Protection Agency Regulations on Oil Pollution Prevention*, attest that the SPCC Plan for Naval Air Station Corpus Christi has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part; that procedures for required inspections and testing have been established; and that, with the correction of the listed deficiencies, the SPCC Plan is adequate for Naval Air Station Corpus Christi – 40 CFR 112.3 (d).

Furthermore, this SPCC Plan update supersedes the previous Naval Air Station Corpus Christi SPCC Plan dated October 2009.

_____ _____

Signature Date
John C. Davis, Professional Engineer
Texas License 114799

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Executive Summary

The Spill Prevention, Control, and Countermeasure (SPCC) Rule (Title 40 Code of Federal Regulations [CFR] 112) applies to owners or operators of facilities that drill, produce, gather, store, process, refine, transfer, distribute, use, or consume oil or oil products, and might reasonably be expected to discharge oil in quantities that may be harmful into or upon the navigable waters of the United States (U.S.) or adjoining shorelines. Naval Air Station Corpus Christi (NASCC) is subject to these regulations based on capability to contain oil in above and underground storage tanks exceeding the thresholds defined in 40 CFR 112. Furthermore, U.S. Navy Office of the Chief of Naval Operations Instruction (OPNAVINST) 5090.1D, Chapter 11, Oil Management Ashore, requires NASCC to have a SPCC Plan that establishes procedures, methods, equipment, and other requirements to prevent the discharge of oil into or upon navigable waters. The Plan must also have full approval of management and must assess the potential for discharge of oil, as well as containment procedures and equipment to prevent oil spills into or upon a navigable waterway or shoreline of the U.S. This SPCC Plan supersedes the previous plan dated October 2009.

Inspections of the NASCC oil storage and handling sites were conducted by members of Michael Baker Jr., Inc.'s planning team between 9 and 13 September 2013. Areas maintaining bulk fuel and storage containers were inspected throughout the facility, including the Aviation Fuel Facility, Corpus Christi Army Depot Fuel Facility, Government Fuel Facility, Navy Exchange (NEX) Gas Station and other storage tank site areas. In addition, inspections were conducted at Out-Lying Fields (OLFs) Cabaniss, OLF Goliad and OLF Waldron. Separate Tier I Qualified SPCC plans have been prepared for each OLF that meets the applicability criteria in 40 CFR 112.3(g).

As a result of these inspections, specific regulatory deficiencies were identified, based on SPCC planning requirements, as described in 40 CFR 112. These deficiencies are provided to ensure that the facility owner and operator are fully aware of specific requirements so that spill prevention, control, and countermeasure items can be addressed. Where deficiencies exist, the owner or operator must take appropriate corrective action to ensure compliance with the requirements. Unless noted as a deficiency, all EPA regulated bulk fuel and oil storage tanks were evaluated and verified to have secondary containment of adequate capacity, which is sufficiently impervious to contain discharged oil until cleanup occurs, as required by 40 CFR

112.8(c)(2). Regulatory deficiencies, corrective actions and best engineering practice recommendations as presented in this SPCC Plan are listed in the table on the following pages:

2013 SPCC Plan Compiled Deficiencies and Recommendations
40 CFR 112.8(c), Liquid Level Sensing Devices
Regulatory Deficiencies
• The following tanks have inadequate liquid level devices: 10-1, 35-1, 41-A, 41, 50-1, 50-2, 50-3, 104-1, 121-1, 216-1, 232, 233, 1423-1, 1700-1, 1717, 1737-1, 1740-1, H100-A, H106, 9002-B.
Recommended Corrective Actions
• Short term: Utilize calibrated gauging stick, frequently inspecting level while fueling. • Long term: Repair or replacement liquid level device compliant with NFPA 30.
Best Management Practices
• Tanks 50-1, 50-2 level gauges are removed during fuel receipts. It is recommended that a direct vision gauge be installed in addition to direct communication between the tank gauge and the fuel operator. • AST 55-1 fill piping is located outside of building, recommend install direct vision gauge.
40 CFR 112.7(c), Discharge Prevention, Diversionary Structures and Containment
Regulatory Deficiencies
• There is inadequate secondary containment for the following tanks: 35-1, 44A, 44B, 44C, 216-1, and 1804-1. • There is inadequate secondary containment for the following drum sites: 28, 255, 339, 350, 355, 1722, HGR 44, and HGR 57. • There is inadequate fill connection spill containment for the following tanks: 41, 50-1, 50-2, 50-3, 50-4, 55-1, 216-1, 340-1, 1797G, 1804-1, 1848-1, and H100-A.
Recommended Corrective Actions
• Short term: Maintain fixed spill kit nearby; conduct weekly visual inspection for leaks. • Long term: Improve secondary containment to contain volumes listed in Appendix G.
Best Management Practices
• Mobile generators 44A, 44B, 44C, and MG-4 should be parked in containment area. • Stage spill kits at each fuel loading area and storage facility.
40 CFR 112.7(e), Inspection, Tests, and Records
Regulatory Deficiencies
• Refer to Table 11-1 for incomplete field-erected tank inspection records.
Recommended Corrective Actions
• Short term: Conduct an API 653 inspection on Tank 1720-2 as soon as practical.
40 CFR 112.7(g)(5), Lighting Adequate to Detect and Deter Spills
Regulatory Deficiencies
• The following tanks have inadequate area lighting: 1260, 1757-1, 47-1, 47-2, 47-3, 47-4, and 47-5.
Recommended Corrective Actions
• Short term: Evaluate area lighting during non-daylight hours. • Short term: For areas with confirmed inadequate lighting, either limit night time activities or provide temporary lighting. • Long term: For areas with confirmed inadequate lighting, provide permanent lighting.

2013 SPCC Plan Compiled Deficiencies and Recommendations
40 CFR 112.7(h)(1), Adequate Secondary Containment for Vehicles
Regulatory Deficiencies
• Government Fuel Facility truck offload dike volume is insufficient for fuel transfer operation. Discharge is directed to an out-of-service oil water separator and discharges to sanitary sewer. • Aircraft refueling tanker truck parking area apron surface is cracked and in poor condition. Discharge from containment area is directed to an out-of-service Oil/Water separator and discharges to sanitary sewer.
Recommended Corrective Actions
• Short term: None. • Long term: Construct adequate truck offload/loading containment with adequate freeboard for precipitation. Repair concrete and seams. Affected seams require refurbishment with an oil-resistant flexible-joint sealant to restore impermeability to the secondary containment structure.
Best Engineering Practices
• Stage spill kits near truck loading racks.
40 CFR 112.7(i), Brittle Fracture Evaluation for Field-Erected ASTs
Regulatory Deficiencies
• Refer to Table 11-1 for past-due field-erected tank inspections.
Recommended Corrective Actions
• Conduct API 653 inspection on Tank 1720-1 as soon as practical.
40 CFR 112.8(b)(1), Drainage from Diked Storage Areas
Regulatory Deficiencies
• Hangar 47 aircraft defueling dike is not equipped with drainage valve. Dead vegetation and debris have collected in the sump.
Recommended Corrective Actions
• Short term: Remove dead vegetation. • Long term: Install drain valve in dike.
40 CFR 112.8(c)(1), Tank Compatibility with its Content
Regulatory Deficiencies
• The following tanks were not documented as being constructed with relevant industry standards as listed by NFPA 30: 35-1 and 1717.
Recommended Corrective Actions
• Short term: Maintain aboveground storage tanks (ASTs) out of service until corrective action is conducted. • Long term: Remove AST 1717 from NASCC. Provide replacement AST for emergency generator 35-1.
40 CFR 112.8(c)(2), Diked Area Construction and Containment Volume for Storage Tanks
Regulatory Deficiencies
• AST 1804-1 is not UL-rated for secondary containment and is considered a single-wall tank. The existing secondary containment structure is inadequate.
Recommended Corrective Actions
• Replace AST 1804-1.

40 CFR 112.8(d)(1) Buried Piping Installation, Protection and Examination
Regulatory Deficiencies
• Piping associated with AST 1742-1 is equipped with unprotected underground copper tubing
Recommended Corrective Actions
• Replace the underground copper tubing associated with AST 1742-1 with compliant piping
40 CFR 112.8(d)(3), Pipe Supports Design
Regulatory Deficiencies
• The following tanks have inadequate pipe supports: 7-1, 10-1, 55-1, 62-1, 68-1, 154-1, 154-2, 235, 236, 252, 1238-1, 1241, 1742-1, 1804-1, 1833, 2607, and W-1-1.
Recommended Corrective Actions
• Short term: Evaluate pipe supports to be adequate for minimizing abrasion and corrosion, and to allow for expansion and contraction and severe weather. • Long term: Repair or provide pipe supports that minimizes abrasion and corrosion, and allows for expansion and contraction and severe weather.
40 CFR 112.8(d)(5), Aboveground Piping Protection From Vehicular Traffic
Regulatory Deficiencies
• The following tanks have inadequate piping protection: 11-1, 41, 62-1, 1260, 1700-2
Recommended Corrective Actions
• Short term: Provide cautionary tape or traffic cones to signal vulnerable piping. • Long term: Repair or provide piping protection.

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Acronyms and Abbreviations

ACI	American Concrete Institute
AFHE	Automated Fuel Handling Equipment
API	American Petroleum Institute
App.	Appendix
ASME	American Society of Mechanical Engineers
AST	Aboveground Storage Tank
BPA	Blanket Purchase Agreement
Cat.	Category
CCAD	Corpus Christi Army Depot
CCAOSAC	Corpus Christi Area Oil Spill Control Association
CFR	Code of Federal Regulations
CRDM	Continuous Release Detection Method
DLA-E	Defense Logistics Agency – Energy
DoD	Department of Defense
DPRP	Discharge Prevention and Response Plan
DWTP	Domestic Wastewater Treatment Plant
EOC	Emergency Operations Center
°F	Degrees Fahrenheit
F-24	Jet Fuel North Atlantic Treaty Organization Code number
FIC	Facility Incident Commander
FR	Federal Register
FRP	Facility Response Plan
FRP	Fiberglass Reinforced Plastic
FRT	Facility Response Team
gal.	gallons
GOCO	Government Owned, Contractor Operated
gpm	gallons per minute
GTPCC	Greater Than Primary Tank Capacity
HDPE	High Density Polyethylene
IAW	In accordance with
IC	Incident Commander
ID	Identification
IES	Illuminating Engineering Society
IWTP	Industrial Wastewater Treatment Plant
MTR	Marine Transportation Related
MWR	Morale, Welfare and Recreation

NASCC	Naval Air Station Corpus Christi
NAVFAC-SE	Naval Facility Engineering Command, Southeast
NEC	National Electric Code
NEX	Navy Exchange
NFPA	National Fire Protection Association
NOAA	National Oceanic and Atmospheric Administration
NOSC	Navy On-Scene Coordinator
NPDES	National Pollutant Discharge Elimination System
NRC	National Response Center
NTR	Non-transportation-related
OFOE	Oil-Filled Operational Equipment
OPNAVINST	Office of the Chief of Naval Operations Instruction
OSPRA	Oil Spill Prevention and Response Ace
OWS	Oil/Water Separator
P.E.	Professional Engineer
POL	Petroleum, Oils, and Lubricants
QI	Qualified Individual
RA	Regional Administrator
RP	Recommended Practice
RQ	Reportable quantity
SFO	Senior Fire Officer
SMT	Spill Management Team
SOP	Standard Operating Procedure
SOPA	Senior Officer Present Afloat
SPCC	Spill Prevention, Control, and Countermeasure
STI	Steel Tank Institute
SUPSALV	Supervisor of Salvage and Diving
TAC	Texas Administrative Code
TGLO	Texas General Land Office
TX	Texas
UCOT	Used Cooking Oil Tank
UL	Underwriters Laboratories
ULSD	Ultra-Low Sulfur Diesel
U.S.	United States
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
WWTP	Wastewater Treatment Plant

1.0 INTRODUCTION

The Naval Air Station Corpus Christi (NASCC) Spill Prevention, Control, and Countermeasure (SPCC) Plan has been prepared to establish and implement those measures at NASCC that will meet the requirements of Title 40 Code of Federal Regulation (FR) 112, Oil Pollution Prevention (40 Code of Federal Regulations [CFR] 112). All oil delivery, storage, and handling practices must comply with 40 CFR 112 regulations.

40 CFR 112 establishes the "procedures, methods and equipment, and other requirements for equipment to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon the navigable waters of the United States or adjoining shorelines." This part applies to "owners or operators of non-transportation-related onshore or offshore facilities engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, using, or consuming oil and oil products, and which, due to their location, could reasonably be expected to discharge oil in quantities that may be harmful, as defined in 40 CFR 110."

NASCC petroleum, oils, and lubricants (POL) storage capacity and operations fall into a number of the applicable categories; therefore, an SPCC Plan must be developed and implemented. Furthermore, United States (U.S.) Navy Office of the Chief of Naval Operations Instruction (OPNAVINST) 5090.1D, Chapter 11, Oil Management Ashore, Section 11-4.3, SPCC Plans, requires NASCC to have an SPCC Plan that mirrors the requirements of 40 CFR 112.

1.1 PLAN UPDATE AND AMENDMENT

This SPCC Plan will be reviewed by the owner or operator **every 5 years** as outlined in the Owner/Operator Record of SPCC Plan Five-Year Review page (page v). Furthermore, the SPCC Plan should be amended within 6 months and changes implemented within one year of any material changes to the facility. Any technical amendments to the SPCC Plan must be reviewed and certified by a licensed professional engineer (P.E.) (also as noted on page v). Furthermore, an amendment of the SPCC Plan should be completed and implemented within 6 months of any major facility improvement or whenever there is a change in facility operation or maintenance practices that materially affects the potential for discharging oil into a navigable waterway. A written report must be submitted to the U.S. Environmental Protection Agency (USEPA) Regional Administrator if the installation discharges from an SPCC-regulated container 1,000 gallons of oil in a single discharge or 42 gallons of oil in each of two discharges,

into navigable waters, adjoining shorelines, etc. (as described in 40 CFR Part 112.1(b)) in a 12-month period.

This SPCC Plan reflects all of the revisions enacted in the issuance of Final SPCC Rules promulgated by the USEPA on 1 July 2012.

1.2 PLAN PURPOSE

The purpose of the SPCC Plan is to establish procedures, methods, equipment, and other criteria to prevent the discharge of oil products from non-transportation-related onshore and offshore facilities into or upon navigable waters of the U.S. or adjoining shorelines.

At a minimum, the SPCC Plan will address the following:

- *Spill Prevention* – System components and characteristics, and operating procedures to prevent the occurrence of oil spills.
- *Spill Control* – Control measures to prevent a spill from entering navigable waters.
- *Spill Countermeasures* – Countermeasures to contain, clean up, and mitigate the effects of an oil spill that could impact navigable waters.

This plan is organized by key elements required in a SPCC Plan. Where applicable, regulatory requirements listed in 40 CFR 112 are cited in the section or subsection heading. A discussion regarding conformance with the regulatory requirement is presented followed by listing regulatory deficiencies and best engineering practice recommendations as warranted. State regulations including Texas Administrative Codes (TACs) Title 30 Chapter 334 Underground and Aboveground Storage Tanks, Title 30 Chapter 327 Spill Prevention and Control, Title 31 Chapter 19 Oil Spill Prevention and Response and industry standards such as American Petroleum Institute (API) standards, National Fire Protection Association (NFPA), Steel Tank Institute (STI) and other recommended practices are referenced as necessary throughout the SPCC Plan.

1.3 PLAN FOCUS

This SPCC Plan is designed to address oil-containing structures at NASCC except for any container with capacity less than 55 gallons and the pole-mounted electrical transformers. However, the major or high-risk oil-containing structures (i.e., bulk fuel storage tanks) will

receive special attention to expedite and simplify SPCC Plan development, implementation and amendment. Low-risk oil-containing structures, such as drums, are addressed as well, but not at the level of detail as the bulk fuel storage tanks and fueling operations. The level of detail is intended to be commensurate with the level of risk (i.e., potential for oil release and subsequent harm/damage to navigable waterways or sensitive environments).

1.4 PLAN ORGANIZATION AND REGULATORY REFERENCES

In general, this SPCC Plan follows the sequence of the regulatory requirements for SPCC Plans outlined in 40 CFR 112.7 and 112.8 and discusses the facility's conformance to the applicable regulatory requirements of that section. Document references used throughout this plan are listed below and for sections with regulatory references, the federal SPCC regulatory cross-references requirements are listed in Table 1-1, page 1-6.

1.5 RELATIONSHIP WITH THE FACILITY RESPONSE PLAN

This plan is consistent with information and practices described in the Facility Response Plan (FRP) that has been prepared for the NASCC. The SPCC Plan is a management and planning tool that addresses how to avoid, prevent, and control spills through good engineering and management practices. The FRP, on the other hand, specifically addresses how to respond to spills and how to conduct cleanup and recovery. Thus, the FRP encompasses, in large part, the "countermeasures" portion of this plan. The Certification of Substantial Harm Determination form is included in the NASCC FRP, Section 2, Response Plan Cover Sheet and is incorporated by reference.

1.6 PLAN DOCUMENT REFERENCES

<u>Federal Regulations</u>

33 CFR 154 Title 33 Code of Federal Regulations 154: Facilities Transferring Oil or Hazardous Material in Bulk

40 CFR 109 Title 40 Code of Federal Regulations 109: Criteria for State, Local and Regional Oil Removal Contingency Plans

40 CFR 110 Title 40 Code of Federal Regulations 110: Discharge of Oil

40 CFR 112 Title 40 Code of Federal Regulations 112: Oil Pollution Prevention

40 CFR 143 Title 40 Code of Federal Regulations 143: National Secondary Drinking Water Regulations

40 CFR 280 Title 40 Code of Federal Regulations 280: Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (UST)

40 CFR 281 Title 40 Code of Federal Regulations 281: Approval of State Underground Storage Tank Programs

49 CFR 172 Title 49 Code of Federal Regulations 172: Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, Training Requirements, and Security Plans

49 CFR 177 Title 49 Code of Federal Regulations 177: Carriage by Public Highway

49 CFR 180 Title 49 Code of Federal Regulations 180: Continuing Qualification and Maintenance of Packagings

75 FR 63093 Volume 75 Federal Register, No. 195, 14 October 2010: Final Rule

State Regulations

30 TAC 327 Spill Prevention and Control

30 TAC 334 Underground and Aboveground Storage Tanks

31 TAC 19 Oil Spill Prevention and Response

Military Manuals / Guidance / Standards

Navy OPNAVINST 5090.1D: Environmental Readiness Program Manual (18 July 2011)

Naval Air Station Corpus Christi Facility Response Plan

Industry Standards

ACI 350R-89 American Concrete Institute Standard 350: Code Requirements for Environmental Engineering Concrete Structures, 1989

ACI 224R-89 American Concrete Institute Standard 224: Control of Cracking in Concrete Structures, 1989

API 570 American Petroleum Institute Standard 570: Piping Inspection Code: In-service Inspection, Repair, and Alteration of Piping Systems, Third Edition

API 650 American Petroleum Institute Standard 650: Welded Tanks for Oil Storage, Twelfth Edition

API 653	American Petroleum Institute Standard 653: Tank Inspection, Repair, Alteration, and Reconstruction, Fourth Edition, Includes Addendum 1 (2010), Addendum 2 (2012)
API 2350	American Petroleum Institute Standard 2350: Overfill Protection for Storage Tanks in Petroleum Facilities, Fourth Edition
API 2610	American Petroleum Institute Standard 2610: Design, Construction, Operation, Maintenance, and Inspection of Terminal & Tank Facilities, Second Edition
API RP 651	American Petroleum Institute Standard Recommended Practice 651: Cathodic Protection of Aboveground Petroleum Storage Tanks, Third Edition
API RP 1110	American Petroleum Institute Standard Recommended Practice 1110: Recommended Practice for the Pressure Testing of Steel Pipelines for the Transportation of Gas, Petroleum Gas, Hazardous Liquids, Highly Volatile Liquids, or Carbon Dioxide, Sixth Edition
ASME B31.4	American Society of Mechanical Engineers Standard B31.4: Pipeline Transportation Systems for Liquids and Slurries
IES HB-10-11	The IES Lighting Handbook, Tenth Edition
NFPA 30	National Fire Protection Association Standard 30: Flammable and Combustible Liquids Code, 2012 Edition
NFPA 30A	National Fire Protection Association Standard 30A: Motor Fuel Dispensing Facilities and Repair Garages, 2012 Edition
NFPA 70	National Fire Protection Association Standard 70: National Electrical Code (NEC), 2011 Edition
NFPA 385	National Fire Protection Association Standard 385: Standard for Tank Vehicles for Flammable and Combustible Liquids, 2012 Edition
NFPA 704	National Fire Protection Association Standard 704: Identification of the Fire Hazards of Materials for Emergency Response, 2012 Edition
STI SP001	Steel Tank Institute Standard SP001: Standard for the Inspection of Aboveground Storage Tanks, Fifth Edition
UL 142	Underwriters Laboratories Standard 142: Steel Aboveground Tanks for Flammable and Combustible Liquids, 2006
UL 2085	Underwriters Laboratories Standard 2085: Insulated Aboveground Tanks for Flammable and Combustible Liquid, 1997

Table 1-1 Regulatory Cross Reference		
Citation	**Brief Description**	**Plan Location**
40 CFR Part 112.7		
	Petroleum Storage Information	3.0, Table 3-1
(a)(3)	Physical Layout of the Facility	3.1, Figures B-1, B-2, B-3, B-4
(a)(3)(i)	Petroleum Storage Inventory	3.2, App. C
(a)(3)(ii)	Discharge Prevention Measures	5.0, 14.0, App. C
(a)(3)(iii)	Discharge or Drainage Controls	13.1
(a)(3)(iv)	Countermeasures for Discharge Recovery	3.3, FRP
(a)(3)(v)	Methods of Disposal for Recovered Materials	3.4
(a)(3)(vi)	Contact List and Phone Numbers	2.2, 8.2
(a)(4)	Discharge Reporting Responsibilities	3.5, FRP
(a)(5)	Discharge Emergency Response Procedures	FRP
(b)	Potential Spill Predictions, Volumes, Rates, and Control	4.0, App. C
(c)	Discharge Prevention, Diversionary Structures and Containment	5.0
(d)	Impracticality of Secondary Containment	6.0
(e)	Inspection, Tests, and Records	7.0
(f)(1-3)	Personnel Training and Discharge Spill Prevention Procedures	8.0
(f)(1)	Personnel Instructions	8.1
(f)(2)	Designated Person Accountable for Discharge Prevention	8.2
(f)(3)	Discharge Prevention Briefings	8.3
(g)(1-5)	Site Security	9.0
(g)(1)	Fencing and Gates	9.1, Figure B-1
(g)(2)	Flow and Drain Valves Secured	9.2
(g)(3)	Starter Controls Secured	9.3
(g)(4)	Pipeline Loading/Unloading Connections Secured	9.4
(g)(5)	Lighting Adequate to Detect and Deter Spills	9.5
(h)(1-3)	Loading/Unloading Operations	10.0
(h)(1)	Adequate Secondary Containment for Vehicles	10.1, App. C, App. G
(h)(2)	Warning or Barrier System for Vehicles	10.2
(h)(3)	Vehicles Examined for Lowermost Drainage Outlets	10.3
(i)	Brittle Fracture or Other Catastrophe of Field-Constructed Tanks	11.0
(j)	Conformance with Other Applicable Requirements	12.0
(k)	Qualified Oil-filled Operational Equipment	2.3.7, 6.0
40 CFR Part 112.8		
(b)(1-5)	Drainage Control	13.0
(b)(1)	Drainage from Diked Storage Areas	13.1
(b)(2)	Valves Used on Diked Storage Areas	13.2

Table 1-1 Regulatory Cross Reference		
Citation	**Brief Description**	**Plan Location**
(b)(3)	Plant Drainage Systems from Undiked Areas	13.3
(b)(4)	Final Discharge of Drainage	13.4
(b)(5)	Facility Drainage Systems and Equipment	13.5
(c)(1-11)	Bulk Storage Tanks/Secondary Containment	14.0
(c)(1)	Tank Compatibility with Its Contents	14.1
(c)(2)	Diked Area Construction and Containment Volume for Storage Tanks	14.2, App. G
(c)(3)	Diked Area Inspection and Drainage of Rainwater	14.3
(c)(4)	Corrosion Protection of Buried Metallic Storage Tanks	14.4
(c)(5)	Corrosion Protection of Partially Buried Metallic Tanks	14.5
(c)(6)	Aboveground Tank Periodic Integrity Testing	14.6
(c)(7)	Control of Leakage Through Internal Heating Coils	14.7
(c)(8)	Liquid Level Sensing Devices	3.2. 14.8
(c)(9)	Observation of Disposal Facilities for Effluent Discharge	14.9
(c)(10)	Visible Oil Leak Corrections from Tank Seams and Gaskets	14.10
(c)(11)	Appropriate Position of Mobile or Portable Oil Storage Tanks	14.11
(d)(1-5)	Facility Transfer Operations, Piping, and Pumping	15.0
(d)(1)	Buried Piping Installation Protection and Examination	15.1
(d)(2)	Not-In-Service and Standby Service Terminal Connections	15.2
(d)(3)	Pipe Supports Design	15.3
(d)(4)	Aboveground Valve and Pipeline Examination	15.4
(d)(5)	Aboveground Piping Protection from Vehicular Traffic	15.5
	Spill Report Guidelines	16.0
40 CFR Part 112.4(a) 112.4(c)	Amendment of SPCC Plans by Regional Administrator	16.1

1.7 KEY DEFINITIONS

Oil

Oil refers to oil of any kind or in any form, including, but not limited to: fats, oils or greases of animal, fish, or marine mammal origin; vegetable oils, including oil from seeds, nuts, fruits, or kernels; and other oils and greases, including petroleum, fuel oil sludge, synthetic oils, mineral oils, oil refuse, or well mixed with wastes other than dredge oil.

Oil-Handling Personnel

Under the SPCC regulations, "oil-handling personnel" means any employee engaged in the operation and maintenance of oil storage containers or the operation of equipment related to storage containers and emergency response personnel. The term is not interpreted to include administrative staff or other personnel who are never involved in operation or maintenance activities related to oil storage or equipment, oil transfer operations, emergency response countermeasure functions, or similar activities.

Container

For the purposes of this SPCC plan, a container is defined as any drum, tote, AST or other storage device with a capacity of 55 gallons or more.

Bulk Storage Containers versus Oil-Filled Equipment

This SPCC Plan is designed to address all oil-filled containers at NASCC, except for any container with a capacity less than 55 gallons. As discussed in the preamble of the final SPCC rule published 2009, the following types of oil-filled equipment are specifically excluded from the USEPA definition of "bulk storage container":

- Electrical equipment (i.e., transformers, circuit breakers, and capacitors);
- Operating equipment (i.e., lawn mowers, snow blowers, elevator lifts, motive items [the latter being large construction equipment such as bull dozers and graders, government passenger vehicles, and aircraft]); and
- Manufacturing equipment (i.e., hydraulic presses, hydraulic fluid reservoirs, and enclosed lube systems).

In the final rule, USEPA clearly differentiated between the bulk storage of oil and the operational use of oil. Facilities with equipment containing "operational use" oil are not required to comply with the strict provisions of 40 CFR 112.8(c) such as secondary containment, testing and inspection, and fuel level gauges. The intent of 40 CFR 112.8(c) is to ensure oil spill prevention provisions are effectively in place for facilities that practice the bulk storage of oil (≥ 55 gallons). However, oil-filled electrical and operational equipment must meet other SPCC requirements such as the general oil spill prevention requirements as described in 40 CFR 112.7(c) to provide appropriate containment and/or diversionary structures (i.e., dikes, curbing, culverts, weirs/barriers, retention ponds, drainage systems, and sorbent material) and

the more specific requirements of 112.8(b) to prevent discharged oil from reaching a navigable waterway or affecting certain natural resources.

Throughout this SPCC Plan, the prevention of potential oil releases associated with oil-filled electrical and operational equipment is discussed via containment/diversionary controls.

High-Risk Facilities

Specific evaluations are included for sites which were considered to pose the highest risks. The risk determination was based on factors such as volume of stored product and proximity to open waters and environmentally sensitive areas.

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2.0 FACILITY INFORMATION

2.1 FACILITY OWNER/OPERATOR, ADDRESS, AND TELEPHONE

Facility Owner/Operator:	Commanding Officer, U.S. Navy
Facility Name:	Naval Air Station Corpus Christi
Address:	11001 D Street
	Corpus Christi, Texas 78419-5021
Telephone:	361-961-2332

2.2 FACILITY CONTACT(S)

112.7(a)(3)(vi): You must also address in your plan a contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors with whom you have an agreement for response, and all appropriate federal, state, and local agencies who must be contacted in case of a discharge as described in 112.1(b).

Following is a primary list of installation, federal, state, and local agencies that require notification in the event of a spill incident. Refer to the Facility Response Plan / Discharge Prevention and Response Plan (FRP/DPRP) for a complete list of the emergency notification phone numbers. The NASCC Fire Department or Emergency Operations Center (EOC) will make all necessary notifications for response resources. The Environmental Division will make all required notifications for spill reporting (e.g., National Response Center [NRC]) and community notification (e.g., Local Emergency Planning Committee, hospitals, utilities, etc.). The NASCC Public Affairs Office will notify local news outlets, as required. The FRP/DPRP is maintained in the Environmental Division in Building #19, 8851 Ocean Drive, Naval Air Station Corpus Christi, Texas.

Agencies to Contact When a Discharge of Hazardous Material and/or Oil Occur

Name	Phone
NAS Corpus Christi Fire Department (Facility Response Team)	911 on base 911 off base or cell phone
National Response Center (NRC)	1-800-424-8802
Texas General Land Office	1-800-832-8224
Response Contractors (Corpus Christi Area Oil Spill Control Association)	361-882-2656
All Appropriate Federal, State, and Local Agencies	Facility Response Plan

Primary Contacts for SPCC Plan

Title	Phone
Public Works Officer (Qualified Individual)	361-961-3665 (day) 361-385-6568 (24-hr)
Environmental Engineer	361-961-5356 (Day) 210-667-0687 (24-hr)
Environmental Director	361-961-5353 (Day) 361-947-1155

2.3 FACILITY DESCRIPTION

NASCC is in Corpus Christi, Texas, and is located approximately 10 miles southeast of downtown Corpus Christi on the Encinal Peninsula. NASCC is bordered on the north by Corpus Christi Bay, on the west by Oso Bay, on the east by Laguna Madre and the Crane Islands, and on the south by the town of Flour Bluff and Texas Highway 358 (South Padre Island Drive).

The facility was commissioned as an air training station in March 1941 and flight training began in May 1941. NASCC maintains and operates facilities to provide service and material to support operations of aviation facilities and units of the Naval Air Training Command and other major tenants. The largest tenant command is the Corpus Christi Army Depot (CCAD), which occupies approximately 140 acres. CCAD is the Army's largest helicopter repair, overhaul, and maintenance center in the U.S.

2.3.1 Aviation Fuel Facility

The government-owned, contractor-operated (GOCO) bulk fuel facility supports flight operations. The fuel facility is equipped with two single-walled, 250,000-gallon, field-constructed, aboveground storage tanks (ASTs) containing F-24 Jet Fuel that are located within concrete secondary containment dikes. The fuel facility is equipped with a loading/unloading rack which is used to receive commercial fuel deliveries and dispense fuel to tank trucks for on-station use. See Appendices A and E for additional information, diagrams, and photographs.

2.3.2 Navy Morale, Welfare, and Recreation Marina

There is a Navy Morale, Welfare, and Recreation (MWR) Marina located on the Laguna Madre that is equipped with a 2,000-gallon Underwriter Laboratory (UL) 2085 listed tank and associated piping to an overwater dispenser. Station personnel may conduct overwater fueling of their boats under the observation of MWR Marina personnel. Sizes of boats that are refueled vary, but should not exceed 25 feet in length; typically 12- to 15-foot fishing boats and personal water craft are expected to be present. The Laguna Madre is too shallow to support any water craft larger than this. Over-water fueling is only conducted at this location and includes the transfer of fuel from the storage tank through double-walled high-density polyethylene piping underneath the dock to the dispenser and into the vessel. See Appendices A and E for additional information, diagrams, and photographs.

Due to the fact that NASCC stores more than 42,000 gallons of fuel and conducts over-water fueling, it is considered a non-transportation-related (NTR) facility and is subject to USEPA's response planning regulations described in 40 CFR 112, Sections 20 and 21. Despite the presence of over-water fueling, the MWR Marina does not fall under regulation by USCG requirements for marine transportation-related facilities (MTRs). In other words, the MWR Marina does not transfer, or have the ability to transfer, more than 250 barrels of oil over water. The fueling operations at the MWR Marina are strictly confined to MWR personnel fueling their personal boats and watercraft. Texas General Land Office (TGLO) requirements apply to NASCC as it is a waterfront property that stores and transfers oil.

2.3.3 Government Fueling Facility

The GOCO Government Fuel Facility provides automotive gasoline and on-road diesel to authorized government vehicles. The 4,000-gallon gasoline and the 8,000-gallon diesel ASTs are UL 2085 listed tanks and are supplied by over-the-road tanker trucks. The fueling station is equipped with a truck loading/offloading platform. Two vehicle dispensers provide vehicle fueling capability. See Appendices A and E for additional information, diagrams, and photographs.

2.3.4 Navy Exchange (NEX) Gas Station

The Navy Exchange (NEX) operates a gas station at NASCC that stores diesel and gasoline in bulk for retail sale to authorized personnel. The NEX Gas Station is located at Building 1263 along Lexington Boulevard near the intersection of 1st Street. The site consists of a convenience store, six fuel-dispensing islands (two pumps at each island) and three USTs. See Appendices A and E additional information, diagrams, and photographs.

2.3.5 CCAD Fuel Facility

The CCAD Fuel Facility provides F-24, varsol, turbine oil and preservation oil to the maintenance CCAD maintenance shops. Three 10,000-gallon F-24, two 2,000-gallon varsol, one 2,000-gallon turbine oil, and one 2,000-gallon preservation oil tanks are UL 2085 listed ASTs. The tanks are equipped with interstitial monitoring and automatic tank gauging to aid in leak detection. All seven ASTs are contained in a fenced and locked concrete containment area. A containment sump collects any spilled oil products. The truck, offload, single-wall, carbon-steel piping is located in the containment area. The aboveground piping that connects the ASTs to the maintenance shops in Building #8 are single-walled and are located outside the

secondary containment area. The single-walled pipelines are viewed in sufficient light from all sides and inspected monthly for signs of deterioration. See Appendices A and E for additional information, diagrams, and photographs.

2.3.6 Ancillary ASTs

There are numerous smaller ASTs ranging in size from 83 gallons to 10,000 gallons at NASCC. These tanks serve various purposes and contain diesel, gasoline, lube oil, preservation oil, and used oil. See Appendix B-1 for locations.

2.3.7 Oil-Filled Operational Equipment (OFOE)

NASCC maintains numerous types of oil-filled operational equipment (OFOE), including hydraulic machinery, elevators, and pole-mounted and pad-mounted transformers at various locations throughout the installation. See Appendix B, Figure B-3 for locations.

As defined under the 40 CFR 112.2, OFOE is excluded from the definition of a “bulk storage container” and, therefore, from the bulk storage container requirements. However, 40 CFR 112.7(a)(3) requires SPCC plans to include an inventory of all oil storage containers (which includes OFOE) with the location, contents, and oil capacity. If secondary containment is not provided for qualified OFOE in accordance with 40 CFR 112.7(c), the facility may implement an inspection and monitoring program, develop an oil spill contingency plan, and provide a written commitment of resources to control and remove oil discharges that may be harmful. When the alternative to the general secondary containment requirement is met by 40 CFR 112.7(k), the facility is not required to prepare an impracticability determination for OFOE.

OFOE, by design, does not consume or burn oil during normal operation, and does not require periodic refilling with oil, so OFOE is considered a low risk for oil spills. The NASCC FRP satisfies the 40 CFR 109 requirements for an oil spill contingency plan, which is needed whenever a facility has qualified OFOE in service (with at least a 55-gallon capacity) without secondary containment.

2.3.8 Mobile Tanks and Drum Areas

A variety of mobile tanks are used by installation personnel and contractors throughout the installation in support of NASCC operations. These tanks include intermediate bulk containers, and various other portable tanks used for temporary storage and transport of fuel, used oil, or

other wastes by tenants' maintenance activities. These tanks are single-walled steel containers and range in size up to 500 gallons. These tanks vary in configuration, single or multi-compartmental, wheeled, or placed on the concrete.

Drums containing petroleum, oil, lubricants, solvents, and other substances are stored at numerous activities and locations throughout the installation. The number of drums on the installation varies, see Appendix B, Figure B-4 for established storage locations and refer to Appendix C for oil spill contingency plan.

2.3.9 Used Cooking Oil

Animal fat and/or vegetable oil are used at several activities throughout the installation. Clubs, restaurants, and snack bars store these oils in small quantities for use in cooking and food preparation activities. Used cooking oil is collected in bulk storage containers which are emptied off site of the installation by third-party vacuum-truck waste hauler. There are three used cooking oil storage tanks on base, refer to Appendix B, Figure B-1 for locations.

2.3.10 Texas General Land Office

TGLO Oil Spill Prevention and Response Program certifies oil industry facilities along the Texas coast to ensure compliance with state laws preventing oil spills. According to the 1991 Oil Spill Prevention and Response Act (OSPRA), a facility must be certified by the Land Office if it is employed in handling, storing, or transferring oil, and any portion of the facility property is within 100 yards of tidally influenced coastal waters. NASCC is defined as a "large waterfront facility" (i.e., a facility that transfers oil through pipelines, flow lines, gathering lines, or trunk lines with a line diameter greater than 12 inches or that has the capacity to store more than 250,000 gallons of oil) under the Texas Oil Spill Prevention and Response regulation, and in accordance with 31 TAC 19.14, NASCC is required to "report annually any changes in the information submitted to the TGLO in their applications for certificates. See Appendix D for the TGLO operating certificate for NASCC.

2.4 SITE DRAINAGE

NASCC is a well-developed military facility, with most areas containing structures, impervious paved roads, and parking lots. However, there are also natural land areas within the installation, with grass and trees, and a coastal waterfront. The variety within the installation translates into a large and varied drainage system, including interconnected ditches and swales,

infiltration areas, storm water inlets, pipes, and other flow structures; oil-water separators; and storm water ponds. According to the NASCC Stormwater Pollution Plan (Lucas Engineers, Inc., July 2000), NASCC is divided into 25 storm water drainage basins. Basins A, C, G, H, Q, and R drain the industrial areas. Basins A, C, and H drain eventually to Corpus Christi Bay. Basin G drains into Basin F, which eventually drains into Corpus Christi Bay. NASCC has the ability (in accordance with the FRP) to deploy absorbent booms to the outfalls in the event that an oil release has the potential to reach the bays. No Oil/Water Separators (OWS) are associated with these storm water outfalls.

The NASCC Storm Water Drainage Diagram located in Appendix B, Figure B-2, shows the locations of all the basins, outfalls, and industrial areas and other relevant site characteristics.

2.5 CLIMATE

NASCC is located along the southern shore of Corpus Christi Bay, approximately 118 miles north of the Mexico-Texas border. This area experiences a humid subtropical climate with mild springs and autumns, warm winters, and hot summers. The average annual mean temperature for NASACC is 71 degrees Fahrenheit (°F). The average temperature during the summer months is 83°F, with record extremes of 58°F and 109°F. The average temperature during the winter months is 58°F, with record extremes of 13°F and 97°F. NASCC averages 110 days per year with temperatures above 90°F. Subfreezing temperatures occur an average of 6 days per year[1]. Rainfall in the region is evenly distributed throughout the year with an average annual rainfall of 32.26 inches. The 25-year, 24-hour storm event[2] is approximately 9 inches for Corpus Christi, TX.

[1] National Weather Service Forecast Office, NOWData, http://www.nws.noaa.gov/climate, 2013.

[2] United States Department of Commerce, Weather Bureau, Technical Paper No. 40: Rainfall Frequency Atlas of the United States for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years, dated May 1961

3.0 PETROLEUM STORAGE INFORMATION

3.1 FACILITY DIAGRAM

112.7(a)(3): Describe in your Plan the physical layout of the facility and include a facility diagram, which must mark the location and contents of each container. The facility diagram must include completely buried tanks that are otherwise exempted from the requirements of this part under §112.1(d)(4). The facility diagram must also include all transfer stations and connecting pipes.

Records of storage tank system installations, replacements, and upgrades are maintained by the Public Works Department, Environmental Section. Figures of facility oil storage, and storm water drainage diagrams were generated from records and field-verified which are shown in Appendix B. These figures detail the location of oil storage containers with respect to major buildings, roadways, and drainage paths. In addition, these figures show storm water drainage features, drains and outfalls, security fencing, and access points.

- Figure B-1 – Storage Tank Location Map
- Figure B-2 – Storm Water Drainage Diagram
- Figure B-3 – Oil-Filled Operational Equipment Layout Map
- Figure B-4 – Drum Storage Location Map

Regulatory Deficiencies
• None

3.2 OIL STORAGE

112.7(a)(3)(i): You must also address in your Plan the type of oil in each container and its storage capacity.
112.8(c)(8): Engineer or update each container installation in accordance with good engineering practice to avoid discharges. You must provide a liquid level sensing device or a person must be present to monitor gauges and the overfilling of bulk storage containers.

Table 3-1 summarizes the oil storage containers at NASCC that are subject to SPCC requirements and unique oil storage containers that may pose additional spill risk. Appendix C contains information on the type of oil in each container and containment storage capacities. Details are included on container construction, good engineering practices, and potential spill predictions and containment/diversion measures. Appendix E contains a list of all AST and drum storage locations at NASCC and photographs of each AST.

Table 3-1 Summary of Oil Storage Containers			
Container Type	**Quantity**	**Total Oil Storage Capacity (gal.)**	**Additional Details**
Bulk Field-erected AST	2	500,000	Refer to Appendix C, Table C-1 for detailed information on each container.
Shop-fabricated AST	59	94,520	Refer to Appendix C, Table C-2 for detailed information on each container.
Mobile / Portable Storage	15	42,838	Refer to Appendix C, Table C-3 for detailed information on each mobile container and Appendix C, Table C-4 for detailed information on each mobile refueler.
Drum Storage	46	2,530	Refer to Appendix C, Table C-5 for detailed information on each drum storage facility
Oil-Filled Operational Equipment		45,725	Refer to Appendix C, Table C-6 for detailed information on each container.
UST	3	30,000	Refer to Appendix C, Table C-7 for detailed information on each container.
Total Oil Storage Capacity (gal.)		**715,613**	-

ASTs[3] installed at NASCC shall have the following:

- Level Gauge with Audible Alarm; and
- Automatic Shut Off Valve; and
- 5-Gallon Spill Bucket on Fill/Pump Out Port(s); and
- Double Walled Tanks with Leak Detection

Existing fuel storage tanks will be upgraded as practical to include these devices to aid in the prevention of spills. Shop-fabricated fuel storage tanks installed at NASCC must meet current industry standards (i.e., UL142, UL2085, and NFPA 30/30A).

[3] ASTs are also subject to the requirements of 30 TAC 334

INDUSTRY STANDARD CONSIDERATIONS (NFPA 30):

- Construct tank supports in accordance with recognized engineering standards or approved equivalents.
- Adequately vent tanks to prevent development of vacuum pressure that exceeds the designed pressure of the tank when filling or emptying the tank.
- Ensure that internal diameter of tank vent is equal to or greater than 1.25 inches wide.
- Equip all tanks with emergency relief vents (*Exception: Class IIIB liquid ≥ 12,000 gallons not within dike with Class I or II).
- Ensure that tank foundation is designed to minimize possibility of uneven settling and to minimize corrosion in any part of the tank resting on the foundation.
- Position tanks greater than 5 feet to nearest building.
- Equip tanks with anti-siphon equipment, where applicable.
- Protect tank shell from vehicle impact damage, either by tank shell design or collision barriers.
- Anchor tanks or attach to a foundation to resist movement in areas subject to flooding.
- Ground or bond all tanks to prevent electrostatic ignition.
- Affix proper sign or marking meeting NFPA 704 requirements onto tank or near tank where it can be readily seen.
- Support piping system and protect against physical damage and stresses from settlement, vibration, or expansion/contraction.
- Protect piping from external corrosion (paint or coat).
- Ensure that vent piping outlets on tanks storing Class I liquid (e.g., gasoline, JP-4, avgas, and E-85) are at least 12 feet above the adjacent ground level.
- Provide portable fire extinguishers as needed for special hazards of product storage and operations.

Regulatory Deficiencies
• The following tanks have inadequate liquid level devices: 10-1, 35-1, 41-A, 41, 50-1, 50-2, 50-3, 104-1, 121-1, 216-1, 232, 233, 1423-1, 1700-1, 1717, 1737-1, 1740-1, H100-A, H106, 9002-B.

Recommended Corrective Actions
• Short term: Utilize calibrated gauging stick, frequently inspecting level while fueling. • Long term: Repair or replacement liquid level device compliant with NFPA 30

Best Management Practices
• Tanks 50-1, 50-2 level gauges are removed during fuel receipts. It is recommended that a direct vision gauge be installed in addition to direct communication between the tank gauge and the fuel operator. • AST 55-1 fill piping is located outside of building, recommend install direct vision gauge.

3.3 COUNTERMEASURES

112.7(a)(3)(iv): Countermeasures for discharge discovery, response, and cleanup (both the facility's capability and those that might be required of a contractor).

Refer to THE RED PLAN within the FRP for a description of initial emergency procedures and reporting/notification requirements. For a comprehensive description of base-wide emergency procedures, refer to the NASCC FRP.

3.4 DISPOSAL

112.7(a)(3)(v): Methods of disposal of recovered materials in accordance with applicable legal requirements.

Disposal of recovered materials from spill cleanup shall be handled in accordance with the OPNAVINST 5090.IC. Both hazardous and non-hazardous wastes are transferred to the Hazardous Waste Storage Facility (Building 355). The facility operates under a Resource Conservation and Recovery Act (RCRA) Part B permit and serves as the main hazardous waste storage and segregation facility for NASCC.

The methods of disposal for recovered materials from a discharge include the following:

- In the event of large spill, the Facility Incident Commander (FIC) or Qualified Individual (QI) assesses the spill and notifies the Naval Facilities Engineering Command, Southeast (NAVFAC-SE) regional operations center, cnrseroc1@navy.mil (904-542-3118). If the determination is made by the FIC or QI that the response exceeds the installation capabilities, the Navy On-scene Coordinator (NOSC) will provide additional support by either contractual support or additional personnel and equipment within the region.
- If a private construction contractor has a spill on base, they are responsible for removing spill material with the guidance of Public Works Department, Environmental.

Regulatory Deficiencies
• None

3.5 SPILL REPORTING

112.7(a)(4): Unless you have submitted a response plan under §112.20, provide information and procedures in your Plan to enable a person reporting a discharge as described in §112.1(b) to relate information on the exact address or location and phone number of the facility; the date and time of the discharge, the type of material discharged; estimates of the total quantity discharged; estimates of the quantity discharged as described in §112.1(b); the source of the discharge; a description of all affected media; the cause of the discharge; any damages or injuries caused by the discharge; actions being used to stop, remove, and mitigate the effects of the discharge; whether an evacuation may be needed; and the names of individuals and/or organizations who have also been contacted.

In Texas, upon determining that a reportable discharge has occurred, the responsible party must notify the state. The reportable quantity depends on the type of substance released and where released, (e.g. into water or land) different spills are subject to different provisions of state rules.

30 TAC 327 from petroleum storage tanks onto land, 25 gallons or equal to the RQ under 40 CFR 302

30 TAC 334 from petroleum storage tanks into water enough to create a sheen.

In accordance with the NASCC FRP and Section 16.2 of this plan, spill reporting is handled as follows:

3.5.1 Land-Based Spills

The Facility Response Team (FRT) is the NASCC Fire Department and will respond immediately upon discovery or notification of an oil spill. The Senior Fire Officer (SFO) on site at a discharge serves as the Incident Commander (IC) until the Spill Management Team (SMT) is activated. Whereas the FRT is comprised of the NASCC Fire Department, the SMT is the comprehensive response component at NASCC that involves personnel and organizations from across the facility. Once the SMT is activated, the NASCC Fire Department and SFO become part of the response Operations Section. The QI takes over the role of the IC for discharge response and/or cleanup, and reports updates and resource requirements to the FIC (the NASCC Commanding Officer or Executive Officer). The primary responsibility of the FRT is to mitigate any discharged petroleum product and ensure that fire hazards are controlled. The SMT is responsible for any clean-up required after response actions have been completed.

3.5.2 Waterborne Spills

If an on-water spill occurs, or if petroleum product migrates into one of the surrounding bodies of water, the on-water response contractor will be notified. When an on-water response occurs, the NASCC Fire Department maintains its role as the FRT and ensures protection against fire hazards. Both the NASCC Fire Department and the on-water response contractor become part of the Operations Section with the activation of the SMT.

NASCC is a member of the Corpus Christi Area Oil Spill Control Association (CCAOSCA) and has access to other contractors through a Blanket Purchase Agreement (BPA). An inter-agency agreement between NASCC and the Navy Supervisor of Salvage and Diving (SUPSALV) has also been established to provide oil spill response equipment. In the event of an extremely large spill, multiple contractors may be activated (refer to Appendix F).

Regulatory Deficiencies
• None

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4.0 POTENTIAL SPILL PREDICTIONS, VOLUMES, RATES, AND CONTROL

112.7(b): Where experience indicates a reasonable potential for equipment failure (such as loading or unloading equipment, tank overflow, rupture, or leakage, or any other equipment known to be a source of a discharge), include in your Plan a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each type of major equipment failure.

Appendix C, Tables C-1 through C-6, lists the regulated oil storage structures and the type of failure that each structure could be subject to. Appendix C, Table C-8, provides the maximum and most likely release volumes for the following scenarios: overfills, out-of-tank transfers, and hose and pipe failures. A list of spill history statistics for NASCC is currently on record at the Environmental Division Office of the Public Works Department and in the FRP.

Additionally, Appendix C, Tables C-1 through C-6, lists release flow direction and initial receptor from the storage structure assuming the secondary containment device (where present) is functional. The estimated capacity of the secondary containment device is also included. The secondary containment capacity estimates are based on rough field measurements and/or information provided by facility personnel. Secondary containment calculations are detailed in Appendix G.

4.1 FAILURE SCENARIOS

There are typically four major equipment failure scenarios for field-fabricated bulk storage containers: tank rupture, pipeline rupture, overfill, and transfer out of the tank. See Table C-1 to view potential types of failure which are most likely for each tank and a prediction of spill flow direction, in case the secondary containment is breeched.

The potential for a catastrophic tank rupture is unlikely. However, all field-fabricated bulk storage tanks are located within concrete dikes lined with high-density polyethylene (HDPE), which are constructed to hold the maximum capacity of each tank and sufficient freeboard to contain precipitation.

The potential spills or failures during transfer in the tanks are unlikely because all connections are hard piped with no open transfer of liquid. All pipelines within the concrete dikes are contained within a passive method of secondary containment.

Overfill of the field-fabricated bulk storage containers is a potential discharge scenario if the liquid level sensing devices were to malfunction. All field-fabricated bulk storage containers are located within concrete dikes that are measured to withhold the amount of any single container.

Details related to potential spill rate of flow and total quantity of oil, which could be discharged as a result of each type of equipment failure, are presented in Appendix C.

4.2 FUEL TRANSFER AREAS

This section addresses typical equipment failure modes and secondary containment requirements for fuel transfer areas. The most common fuel transfer areas are those located at the point of fuel transfer to ancillary containers (i.e., end-use containers such as generators or small ASTs), and aircraft fueling from the mobile refuelers on the aircraft operating area.

Information presented in this section is intended to provide owners, operators, and inspectors a reference which indicates the expected failure scenarios and associated general secondary containment compliance measures required under 40 CFR 112.7(b) and 40 CFR 112.7(c).

4.2.1 Ancillary Containers

There are typically four major equipment failure scenarios for fuel transfer operations to ancillary containers: tank rupture, tanker rupture, overfill, and hose retrieval. See Table C-1 to view potential types of failure which are most likely for each tank and a prediction of spill flow direction. Details related to potential spill rate of flow and total quantity of oil, which could be discharged as a result of each type of equipment failure, are presented in Appendix C.

Secondary containment requirements will generally be the same for all ancillary containers. A tank rupture is not likely as most of the tanks are double-walled. Those tanks that are not double-walled are within a dike enclosure that is large enough to contain the spill.

A tanker rupture during fuel transfer operations is also not likely as tankers are inspected on a regular basis; however, most of the ancillary container locations do not have a passive method of containment for tanker trucks. Therefore, a spill response team will need to be called should a tanker rupture.

Overfill of the containers is a potential discharge scenario for all ancillary containers without an overfill prevention valve. A spill bucket is a measure to prevent a discharge from tank overfilling. However, if neither of these items are present on an ancillary tank, an active method of containment in compliance with 40 CFR 112.7(c), such as a spill kit, must be present in the immediate vicinity.

Hose retrieval after filling a container is a likely failure mode. All tanker trucks have spill kits; therefore, active measures, such as a spill kit, will be used should there be a spill.

4.2.2 Refueler to Aircraft

There are typically four major equipment failure scenarios for fuel transfer operations from a tanker truck to an aircraft: tank rupture, tanker rupture, overfill, and hose retrieval. All operations of this type are located on the airfield. There are several storm drains on the tarmac that discharge to surface waters. Therefore, storm drains will need protection if there were a fuel spill on the tarmac. Details related to potential spill rate of flow and total quantity of oil, which could be discharged as a result of each type of equipment failure, are presented in Appendix C.

The potential for a tank rupture on the aircraft wing tank is unlikely. However, a collision or crash with another vehicle on the airfield is a possibility. Secondary containment is provided by the airfield pavement.

A tanker rupture during fuel transfer operations is also not likely as tankers are inspected on a regular basis; however, most of the ancillary container locations do not have a passive method of containment for tanker trucks. Therefore, a spill response team will need to be called should a tanker rupture.

Overfill of an aircraft is a typical discharge scenario. Assuming the rate of flow from a tanker truck to an aircraft is 150 gallons per minute (gpm), the total quantity of oil which could be discharged is approximately 150 gallons. This quantity would be contained on the aircraft apron.

Hose retrieval is also a typical discharge scenario. All tanker trucks have spill kits; therefore, active measures, such as a spill kit, will be used should there be a spill.

4.2.3 Transfer Out of a Tank

There are typically two major equipment failure scenarios for fuel transfer operations out of a tank: dispensing fuel into a motor vehicle, and emptying a used engine oil or reclaimed fuel tank. Details related to potential spill rate of flow and total quantity of oil, which could be discharged as a result of each type of equipment failure, are presented in Appendix C.

The potential for a spill from a fuel transfer out of a tank through a dispenser is a typical discharge scenario. There are three areas where dispensers are located: the Government Fuel Facility, NEX Service Station, and MWR Marina have dispensers with connections for motor vehicles. The dispensers are equipped with breakaway nozzle fittings installed in the flexible hoses, and shear valves installed in the piping inside the dispenser cabinet; and the ASTs at the Government Fuel Facility and the MWR Marina are equipped with anti-siphon valves installed at the high point in the fuel outlet piping. Therefore, a spill at these service stations will be relatively small and will require minor spill cleanup.

Each of the three areas is properly equipped with a spill kit nearby, and the offloading areas for the Government Fuel Facility and NEX service stations have concrete pads. However, the construction at the MWR Marina is incomplete. Active secondary containment for this fuel transfer area should be improved with a spill kit.

The potential for a spill from emptying a used engine oil or reclaimed fuel tank is a typical discharge scenario. A truck may connect a hose to the tank to pump or suck out the contents within the tank. The most likely potential for a discharge is at the connection point on the tank. A spill kit will be available on the truck during emptying procedures in case there is a spill.

Industry Standards Considerations:

All transporters of oil to and from this facility are required to meet the minimum requirements and regulation established by the Department of Transportation. Loading/unloading procedures of hazardous materials, as defined in 49 CFR 172, at this facility are to meet the requirements of 49 CFR 177 Subpart B. Transporters who load/unload material at this facility must comply with the following requirements:

- Provide a qualified person to be in attendance at all times when a tank truck is loaded/unloaded.

- The attendant must be awake, have an unobstructed view of the tank truck, and be within 25 feet of the tank truck throughout the event.
- The attendant must be aware of the nature of the hazardous material which is to be loaded/unloaded, trained on the procedures to be followed in emergencies, authorized to move the tank truck, and have a means to move the tank truck.
- Manholes and valves must be closed and secured during transport.

Unless the engine of the tank truck vehicle is to be used for the operation of a pump, the engine will not be running during the loading/unloading of the material.

4.3 DRUM STORAGE AREAS (INCLUDING USED COOKING OIL CONTAINERS)

There are a variety of secondary containment methods used for drum storage areas. These include plastic over-pack containers that can be used to store and completely cover the drums. The base of these containers has adequate volume to contain the contents of one drum of material in the event of a leak or spill. Drums can also be stored in a secondary containment area or on spill pallets. The secondary containment must be equipped with a drain and a discharge valve that is maintained in the closed position. Storm water that may accumulate in the containment area must be inspected for contamination prior to discharge. The containment areas are inspected daily for leaks and for containment and drum integrity. Pallets are properly sized to contain a complete spill of a drum.

NASCC oil drum storage sites are listed in Table C-5.

There are typically three major equipment failure scenarios for drum storage areas: drum failure, filling drum, and emptying drum. Details related to potential spill rate of flow and total quantity of oil, which could be discharged as a result of each type of equipment failure, are presented in Appendix C.

The potential for a drum rupture is not reasonable because the drums are not stored near vehicle traffic, do not stay outside long enough for corrosion to become significant, and are unlikely to be damaged during handling. However, the containment provided for all drums should be of sufficient size to contain the standard 55-gallon drum, as required.

Filling a drum is a likely discharge scenario. Although all drums should be stored in secondary containment, thus preventing a release during an overfill situation, absorbent materials are available at all drum storage areas to address any release during filling operations.

Emptying a drum is a likely discharge scenario. Although all drums are stored with adequate secondary containment, absorbent materials are available at all drum storage areas.

4.4 MOBILE EQUIPMENT

This section addresses typical equipment failure modes and secondary containment requirements for mobile equipment with an internal oil storage capacity of greater than 55 gallons of non-motive power oil. This type of mobile container includes aviation ground support equipment such as mobile.

Information presented in this section is intended to provide owners, operators, and inspectors a reference which indicates the expected failure scenarios and associated general secondary containment compliance measures required under 40 CFR 112.7(b) and 40 CFR 112.7(c). Associated drainage controls are shown in Appendix C.

4.5 MOBILE REFUELERS

This section addresses secondary containment requirements associated with parking and staging of mobile refueler equipment. Containment requirements for fuel transfers into mobile refuelers are addressed in Section 10. Containment requirements for fuel transfers out of mobile refuelers are addressed in Sections 5.4.

Information presented in this section is intended to provide owners, operators, and inspectors a reference which indicates the typical location of mobile refueler equipment, the type of oil stored, and the expected failure scenarios and associated general secondary containment compliance measures required under 40 CFR 112.7(b) and 40 CFR 112.7(c). Associated drainage control locations are shown in Appendix B-2.

As the GOCO operator, Doss Aviation operates the fuel transfer equipment under contract with Defense Logistics Agency-Energy (DLA-E). The facility operates the following:

- Eight 5,000-gallon Jet Fuel F-24 tanker trucks
- One 2,000-gallon Jet Fuel F24 tanker truck. The 2,000-gallon tanker truck is divided into two 1,000-gallon compartments; one for gasoline and the other for diesel.

The Aviation Fuel Facility truck rack, Government Fuel Facility, and the Truck Parking Area include curbed and sloped areas designed to provide secondary containment for fuel trucks which connects to trench drains with isolation valves. There are typically three major equipment failure scenarios for tanker trucks: tanker rupture, fuel expansion/overfill, and valve leakage. If there were a spill, the direction of flow would head towards the trench drains. As the areas are sloped, direction will vary depending upon specific location, but in all instances towards the isolated trench drains.

The potential for a tanker rupture is not reasonable because the mobile refueler is inspected regularly. Also, should the tanker rupture while in the parking area, the trench drains will be able to contain the entire tanker capacity.

If fuel expansion due to temperature change were to happen resulting in an overfill situation, any spills created will be contained in the parking area and into the trench drains. Likewise, if the tanker were to overfill during loading operations, oil will spill into the same trench drains. See Appendix G for secondary containment capacities at the Aviation Fuel Facility Truck rack, Government Fuel Facility, and the Building 28 Truck Parking area.

Valve leakage on a truck is also a typical discharge scenario. If the leak is detected during normal work hours when the truck parking area is attended, the rate of flow would be approximately one gpm, which means the total quantity of oil which could be discharged is approximately 10 gallons before being corrected. The entire capacity of the truck would not leak out unless the failure goes undetected for an extended period of time. If such a failure were to occur, the trench drains would be able to contain the entire contents of the tanker truck.

4.6 ABOVEGROUND PIPELINES

This section addresses typical failure modes and secondary containment requirements for aboveground single-wall pipelines that are not contained within passive method containment. These areas include, but are not limited to, the CCAD Fuel Facility, MWR Marina AST, and the

Aviation Fuel Facility (outside the containment berms), and all stand-alone tanks that supply fuel to emergency generators.

There are typically two major equipment failure scenarios for aboveground pipelines: rupture and corrosion. Pipe rupture due to impact with a heavy object or vehicle collision is not a likely occurrence, but it can result in a large spill rate. Pipe failure due to slow buildup of corrosion usually occurs at threaded or flanged connections. Corrosion failure is a likely occurrence if the maintenance is not performed as needed and usually results in a small spill rate. The potential for pipe failure depends upon the conditions at each site and the types of inspections performed. Details related to potential spill rate of flow and total quantity of oil, which could be discharged as a result of each type of equipment failure, are presented in Appendix C.

Regulatory Deficiencies
• Refer to Section 5.0 for oil storage tanks with inadequate secondary containment devices.

5.0 DISCHARGE PREVENTION, DIVERSIONARY STRUCTURES, AND CONTAINMENT

112.7(c Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in §112.1(b), except as provided in paragraph (k) of this section for qualified oil-filled operational equipment, and except as provided in §112.9(d)(3) for flowlines and intra-facility gathering lines at an oil production facility. The entire containment system, including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary containment system, such as a tank, will not escape the containment system before cleanup occurs. In determining the method, design, and capacity for secondary containment, you need only to address the typical failure mode, and the most likely quantity of oil that would be discharged. Secondary containment may be either active or passive in design. At a minimum, you must use one of the following prevention systems or its equivalent: (1) For onshore facilities:

- (i) Dikes, berms, or retaining walls sufficiently impervious to contain oil;
- (ii) Curbing;
- (iii) Culverting, gutters, or other drainage systems;
- (iv) Weirs, booms, or other barriers;
- (v) Spill diversion ponds;
- (vi) Retention ponds; or
- (vii) Sorbent materials.

(2) For offshore facilities:

- (i) Curbing or drip pans; or
- (ii) Sumps and collection systems.

All tanks and drum storage areas, except certain ASTs, and used cooking oil tanks identified in the deficiency list of this section are equipped with appropriate containment and/or diversionary structures to prevent discharged oil from reaching a navigable watercourse. Appendix C lists the secondary containment/diversion structure for each storage container at NASCC. Appendix G provides calculations for secondary containment areas. Table G-1 provides calculations for secondary containment systems for single walled tanks only. All double walled tanks are considered to have Greater Than Primary Container Capacity (GTPCC), where the interstitial space is not accessible to be measured, and it is assumed to contain at least 110 percent of the fuel tank capacity.

In addition to secondary containment dikes, berms, or drainage systems, each fuel loading area and storage facility is located within an acceptable range of spill response equipment or personnel, and signs are posted indicating an emergency number to call should a release occur. NASCC spill response training, procedures, equipment and notification procedures are discussed in greater detail in the FRP. Fuel loading operations are detailed in Section 10.0.

40 CFR 112.7(c) is a general secondary containment requirement which applies to all fuel storage tanks and systems on the facility. However, it must be supplemented by additional specific sized containment requirements, which take precedence for certain types of tanks and equipment as follows:

- 40 CFR 112.8(c)(2) is a containment requirement specifically for stationary bulk storage tanks, which must include the capacity of a tank, plus sufficient freeboard for precipitation (9 inches). See section 14.2 of plan.
- 40 CFR 112.8(c)(11) is a containment requirement specifically for portable storage containers (except mobile refuelers), including 55 gal drum storage areas, which must include the capacity of a container, plus sufficient freeboard for precipitation (9 inches). See section 14.11 of plan.
- 40 CFR 112.7(h)(1) is a containment requirement specifically for truck loading / unloading racks, which must include the capacity of the largest mobile refueler, but does not include freeboard for precipitation. See section 10.2 of plan.
- General secondary containment, with no specific size requirement, applies to fuel piping and flexible hoses, fuel transfer areas (other than loading / unloading racks), fill port spill containments, and mobile refueler parking areas. Either an Active or Passive means of containment may be used, to control the most likely quantity of oil that may be discharged

NASCC provides both passive and active containment measures depending on the type of tank, piping and typical failure mode. These actions are also referred to as spill countermeasures. Passive containment measures (such as concrete dikes or berms) remain in place regardless of the facility operations and therefore do not require an action by facility personnel. Active containment measures involve a certain action by facility personnel before or after the discharge occurs. Active measures may include, but are not limited to:

- Placing a properly designed storm drain cover over a drain to contain a potential spill in an area where a transfer occurs, prior to the transfer activity.
- Placing a storm drain cover over a drain in reaction to a discharge, before the oil raches the drain.
- Using spill kits in the event of an oil discharge.
- Use of spill response capability (spill response teams) in the event of an oil discharge.
- Closing a valve that controls drainage from an undiked area prior to a discharge.

5.1 FIELD FABRICATED BULK STORAGE TANKS

The aviation fuel facility is equipped with two single-walled 250,000-gallon field-constructed ASTs containing F-24 that are located within lined concrete secondary containment dikes. The

dikes are constructed with sufficient secondary containment for the entire capacity of the largest single container, plus sufficient freeboard to contain precipitation from a 25-year, 24-hour storm event. Secondary containment calculations are detailed in Appendix G.

5.2 SHOP FABRICATED STORAGE TANKS

Where a secondary containment–type tank is used to provide spill control, the tank shall meet all of the requirements of NFPA 30 Section 22.11.4.1 through 22.11.4.10.

- The capacity of the listed primary tank shall not exceed the capacities given in Table 22.11.4.1.
- All piping connections to the tank shall be made above the maximum liquid level.
- Means shall be provided to prevent the release of liquid from the tank by siphon flow.

Table 22.11.4.1 Maximum Capacities for Secondary Containment Type Aboveground Storage Tanks

Liquid Classification	Capacity	
	Gal	L
I	12,000	45,400
II and IIIA	20,000	75,700

- Means shall be provided for determining the level of liquid in the tank. This means shall be accessible to the delivery operator.
- Means shall be provided to prevent overfilling by sounding an alarm when the liquid level in the tank reaches 90 percent of capacity and by automatically stopping delivery of liquid to the tank when the liquid level in the tank reaches 95 percent of capacity.
- In no case shall these provisions restrict or interfere with the functioning of the normal vent or the emergency vent.
- Spacing between adjacent tanks shall be not less than 3 ft. (0.9 m).
- The tank shall be capable of resisting the damage from the impact of a motor vehicle, or collision barriers shall be provided.
- Where the means of secondary containment is enclosed, it shall be provided with emergency venting in accordance with Section 22.7.
- Means shall be provided to establish the integrity of the secondary containment, in accordance with Chapter 21.
- The secondary containment shall be designed to withstand the hydrostatic head resulting from a leak from the primary tank of the maximum amount of liquid that can be stored in the primary tank.

5.3 OIL-FILLED OPERATIONAL EQUIPMENT

OFOE is discussed in Section 6.1 which details its impracticality for secondary containment at NASCC. An inventory of OFOE is listed in Appendix C, Table C-6.

5.4 FUEL TRANSFER AREAS

This section addresses secondary containment requirements for fuel transfer areas. The most common fuel transfer areas are those located at the point of fuel transfer to ancillary containers (i.e., end-use containers such as generators or small ASTs), and aircraft fueling from the mobile refuelers on the aircraft operating area.

Information presented in this section is intended to provide owners, operators, and inspectors a reference which indicates the expected failure scenarios and associated general secondary containment compliance measures required under §112.7(b) and §112.7(c).

For discharges that occur only during the transfer of fuel, an active measure may be appropriate, provided that the measure is capable of containing the likely volume of a typical release. Active measures may complement passive measures to reduce the potential for an oil discharge to reach navigable waters. For example, sorbent material may be effective in preventing small quantities of oil escaping a bermed area during a fuel transfer operation.

5.4.1 Ancillary Containers

There are typically four major equipment failure scenarios for fuel transfer operations to ancillary containers: tank rupture, tanker rupture, overfill, and hose retrieval. See Table C-2 to view potential types of failure which are most likely for each tank and a prediction of spill flow direction. Details related to potential spill rate of flow and total quantity of oil, which could be discharged as a result of each type of equipment failure, are presented in Appendix C.

Secondary containment requirements will generally be the same for all ancillary containers. A tank rupture is not likely as most of the tanks are double-wall. Those tanks that are not double-walled are within a dike enclosure that is large enough to contain the spill.

A tanker rupture during fuel transfer operations is also not likely as tankers are inspected on a regular basis; however, most of the ancillary container locations do not have a passive method

of containment for tanker trucks. Therefore, a spill response team will need to be called should a tanker rupture.

Overfill of the containers is a potential discharge scenario for all ancillary containers without an overfill prevention valve. A spill bucket is a measure to prevent a discharge from tank overfilling. However, if neither of these items are present on an ancillary tank, an active method of containment in compliance with §112.7(c), such as a spill kit, must be present in the immediate vicinity.

Hose retrieval after filling a container is a likely failure mode. All tanker trucks have spill kits; therefore, active measures, such as a spill kit, will be used should there be a spill.

5.4.2 Refueler to Aircraft

There are typically four major equipment failure scenarios for fuel transfer operations from a tanker truck to an aircraft: tank rupture, tanker rupture, overfill, and hose retrieval. All operations of this type are located on the airfield. There are several storm drains on the tarmac that discharge to surface waters. Therefore, storm drains will need protection if there were a fuel spill on the tarmac. Details related to potential spill rate of flow and total quantity of oil, which could be discharged as a result of each type of equipment failure, are presented in Appendix C.

The potential for a tank rupture on the aircraft wing tank is unlikely. However, a collision or crash with another vehicle on the airfield is a possibility. Secondary containment is provided by the airfield pavement.

A tanker rupture during fuel transfer operations is also not likely as tankers are inspected on a regular basis; however, most of the ancillary container locations do not have a passive method of containment for tanker trucks. Therefore, a spill response team will need to be called should a tanker rupture.

Overfill of an aircraft is a typical discharge scenario. Assuming the rate of flow from a tanker truck to an aircraft is 150 gpm, the total quantity of oil which could be discharged is approximately 150 gallons. This quantity would be contained on the aircraft apron.

Hose retrieval is also a typical discharge scenario. All tanker trucks have spill kits; therefore, active measures, such as a spill kit, will be used should there be a spill.

5.4.3 Transfer Out of a Tank

There are typically two major equipment failure scenarios for fuel transfer operations out of a tank: dispensing fuel into a motor vehicle, and emptying a used engine oil or reclaimed fuel tank. Details related to potential spill rate of flow and total quantity of oil, which could be discharged as a result of each type of equipment failure, are presented in Appendix C.

The potential for a spill from a fuel transfer out of a tank through a dispenser is a typical discharge scenario. There are three areas where dispensers are located: the Government Fuel Facility, NEX Fueling Station, and MWR Marina have dispensers with connections for motor vehicles. The dispensers are equipped with breakaway nozzle fittings installed in the flexible hoses, and shear valves installed in the piping inside the dispenser cabinet; and the ASTs at the Government Fuel Facility and the MWR Marina are equipped with anti-siphon valves installed at the high point in the fuel outlet piping. Therefore, a spill at these fueling stations will be relatively small and will require minor spill cleanup.

Each of the three areas are properly equipped with a spill kit nearby, and the dispenser fueling areas for the Government Fuel Facility and NEX fuel stations have concrete pads.

The potential for a spill from emptying a used engine oil or reclaimed fuel tank is a typical discharge scenario. A truck may connect a hose to the tank to pump or suck out the contents within the tank. The most likely potential for a discharge is at the connection point on the tank. A spill kit will be available on the truck during emptying procedures in case there is a spill.

5.4.4 Underground Storage Tank Fuel Loading

All fuel transfer areas next to UST fill ports are SPCC regulated by 40 CFR 112.7(c). This is due to the risk of spilling fuel aboveground during transfer operations, when a UST is filled by a mobile refueler without adequate containment. UST systems are also regulated by 30 TAC 334 for overfill control requirements. Regardless of regulation, USTs will be inventoried and addressed in the SPCC plan, to satisfy the OPNAVINST 5090.1D requirement for a tank management plan. Product is typically delivered via truck tankers ranging in size from 5,000 to

7,500 gallons with a discharge capacity of 50-60 gpm. The following outlines loading guidelines for USTs:

- Prior to transferring product into the UST, ensure that the tanker is positioned close enough to the fill ports so that the transfer hose is not stretched or kinked and inspect the hose for damage. Set the parking brake. Document the amount of product in the tanker. Verify correct tank number to receive product and that the tank is in-service. Verify tank level with tank gauge or calibrated stick to ensure sufficient volume is available for transfer.
- While transferring product into the container the operator maintains visual monitoring of the hose and fill port. If an overfill looks eminent, transfer is stopped.
- After transferring product into the UST, the tanker hose, and fill openings are secured. Care should be taken to minimize drips from nozzle and hose. Any drips that may have occurred are promptly cleaned up. Document amount of product transferred.

Should the largest maximum spill occur (Appendix C, Table C-8, 60 gallons from hose retrieval) active response measures shall require the deployment of mobile spill kit maintained onboard mobile refueler. Should an unlikely spill occur (i.e., mobile refueler rupture) NASCC's Red Plan located in the FRP should be followed immediately.

5.4.5 Drum and Used Cooking Oil Transfer

All operations associated to drums and used cooking oil is completed manually by transferring from bucket to container. The maximum size bucket for manual pouring is 5 gallons or less. The following outlines loading operational guidelines:

- Prior to transferring product into the container, the tank level is visually verified by calibrated stick to ensure sufficient volume is available for transfer.
- While transferring product into the container, the operator maintains visual monitoring of fill opening. If an overfill looks eminent, transfer is stopped.
- After transferring product in the container, the fill opening is secured and any drips that may have occurred are promptly cleaned up.

Typically drums store new or used oil; new oil is dispensed via hand-operated pump and used oil is not dispensed. The following outlines unloading operational guidelines for drums:

- Prior to transferring product out of the drum, ensure that the dispensing hose/system is in good working order and that the dispensing nozzle is inserted into the receiving nozzle. Additionally the operator should understand at what rate the pump dispenses product and how large the receiving container is to ensure overfills are avoided.
- While transferring product into the receiving container, the operator maintains visual monitoring of receiving container fill opening. If an overfill looks eminent, transfer is stopped.
- After transferring product in the receiving container, the fill opening is secured and any drips that may have occurred are promptly cleaned up.

Should a likely spill occur (refer to Appendix C, Tables C-5 and C-8), active response measures shall require the deployment of the fixed spill kit maintained nearby at the drum storage area. Should an unlikely spill occur (i.e., drum rupture) NASCC's Red Plan located in the FRP should be followed immediately.

Typically used cooking oil is removed from storage container by a third-party vacuum-truck waste hauler in an area without secondary containment where the transfer is occurring. The ultimate party responsible for safe and clean unloading of used cooking oil is NASCC DPW. Personnel familiar with this SPCC Plan should ensure that third-party waste haulers are familiar with the requirements of removing used cooking oil or supervise such transfers. The following outlines unloading operational guidelines for used cooking oil:

- Prior to transferring product into the vacuum truck, ensure vacuum truck is positioned close enough to the container so that the transfer hose is not stretched or kinked and inspect the hose for damage. Set the parking brake. Document the amount of product already in vacuum truck cargo tank.
- While transferring product into the vacuum truck the operator maintains visual monitoring of vacuum truck tank gauge. If an overfill looks eminent, transfer is stopped.
- After transferring product into the vacuum truck, the vacuum truck nozzle, hose, and container pump-out opening are secured. Care should be taken to minimize drips from nozzle and hose. Any drips that may have occurred are promptly cleaned up. Document amount of product transferred.

Should a likely spill occur (refer to Appendix C, Tables C-2 and C-8) active response measures shall require the deployment of mobile spill kit maintained onboard vacuum truck. Should an unlikely spill occur (i.e., vacuum truck rupture) NASCC's Red Plan located in the FRP should be followed immediately.

5.5 MOBILIE REFUELER PARKING

Appendix C, Table C-4 contains a list of mobile tank and trucks at NASCC. Mobile refueling trucks are used in daily operations at this facility. They are used to fuel aircraft and ancillary ASTs. Mobile trucks are parked at the truck fill stand parking area when not in use. The tanker truck parking area has secondary containment.

INDUSTRY STANDARD CONSIDERATION:

Relevant industry standards related to portable tanks/tank vehicles include the following:

1. All tank vehicles be designed and constructed in accordance with NFPA 385. These standards offer detailed information regarding thickness of material for tank construction versus tank capacities, etc.
2. Tank vehicles shall not be parked or left unattended on any street, highway, avenue, or alley except for necessary stops. Tank vehicles shall not be parked out-of-doors at any one point for longer than 1 hour, except at flammable liquid bulk terminals, bulk plants, and other approved locations.
3. Tank vehicles shall not be parked or garaged in any structure, except structures specifically approved for such purpose.
4. Each tank vehicle shall be provided with at least one portable multi-use fire extinguisher with a minimum 2A, 20B, C rating. The "A" indicates suitability for ordinary combustibles (wood, trash, etc.), "B" indicates suitability for flammable liquids, and "C" indicates suitability for electrical fires.
5. The driver, operator or attendant of any tank vehicle shall not remain in the vehicle cab and shall not leave the vehicle while being filled or discharged. If loading/unloading is performed without a power pump, the tank truck motor shall be shut down throughout such operations.

Regulatory Deficiencies
• There is inadequate secondary containment for the following tanks: 35-1, 44A, 44B, 44C, 216-1, and 1804-1. • There is inadequate fill connection spill containment for the following tanks: 41, 50-1, 50-2, 50-3, 50-4, 55-1, 216-1, 340-1, 1797G, 1804-1, 1848-1, and H100-A.

Recommended Corrective Actions
• Short term: Maintain fixed spill kit nearby; conduct weekly visual inspection for leaks. • Long term: Improve secondary containment to contain volumes listed in Appendix G.

Best Management Practices
• Mobile generators 44A, 44B, 44C, and MG-4 should be parked in containment area. • Stage spill kits at each fuel loading area and storage facility.

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6.0 IMPRACTICALITY OF SECONDARY CONTAINMENT

112.7(d): If you determine that the installation of any of the structures or pieces of equipment listed in 40 CFR §112.7 (c) and (h)(1), and §112.8(c)(2), §112.8(c)(11), … to prevent a discharge as described in 112.1(b) from any onshore or offshore facility is not practicable, you must clearly explain in your Plan why such measures are not practicable; for bulk storage containers, conduct both periodic integrity testing of the containers and periodic integrity and leak testing of the valves and piping; and, unless you have submitted a response plan under 112.20, provide in your Plan the following:

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

(2) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.

NASCC has an oil spill response contingency action plan in accordance with 40 CFR 109 as identified in the FRP. Copies of NASCC's FRP are located at the Fire Department, Aviation Fuel Facility, CCAD, and the Environmental Office (Building 19). NASCC's FRP provides a written commitment of manpower, equipment, and materials required to expeditiously control and remove a release of oil.

6.1 OIL-FILLED OPERATIONAL EQUIPMENT

As defined under 40 CFR 112.2, OFOE is excluded from the definition of a "bulk storage container" and, therefore, from the bulk storage container requirements. As such, secondary containment is not required for OFOE. However, general SPCC requirements (as defined in 40 CFR 112.7) must be met, including the preparation of an oil spill contingency plan that includes a regular inspection and monitoring program to prevent discharges. NASCC completes an extensive preventative maintenance program of semi-annual external inspections and weekly condition checks to ensure that equipment is well-maintained and monitored. In the event of a spill from OFOE, spill response and absorbent materials will be used as the primary means of containment. Appendix B, Figure B-3, provides a layout map of all OFOE. Appendix C, Table C-6, provides a listing of all OFOE.

Secondary containment is deemed impractical for OFOE, such as pad-mounted transformers, which are factory-sealed electrical components that contain mineral oil for cooling purposes. The USEPA rules do not require secondary containment for OFOE because they do not meet the definition of a bulk storage container in 40 CFR 112.2. However, oil must still be prevented from reaching navigable waterways.

The USEPA allows flexibility in managing runoff from undiked oil-filled equipment containers. The minimum criterion is to prevent oil from being released from the facility. This can be done through the installation of drainage barriers and other diversionary structures; however, it can

also be accomplished through the use of spill response equipment and spill contingency procedures. For the purposes of meeting this requirement, it is expected that the facility will continue to maintain a periodic inspection program for the oil-filled transformers, and respond promptly to spills or leaks. NASCC completes an extensive preventive maintenance program of annual external inspections and operational checks to ensure that all transformers are well maintained and monitored.

Transformers are considered low risk for potential spills based on their design, operation, and preventative maintenance program completed by electrical contractors. This program helps ensure that all electrical equipment is maintained and monitored. Any identified leaks would be reported and corrected promptly, or monitored frequently until they can be repaired. The facility conducts routine equipment inspections and has an inventory of all transformers which includes oil capacity. Any transformer that is at risk for damage by vehicles must have bollards or posts installed for crash protection. Additional rationale for the facility's ability to rely on spill response to satisfy this requirement is included below:

- There is no documented case of oil from a transformer reaching navigable waters at a NAVFAC-SE facility. If a transformer or other high voltage electrical equipment were to fail causing a leakage of oil, the affected electrical systems would be shut down. Thus, operating personnel would immediately know that transformer damage or oil leakage may have occurred, and would react expeditiously to inspect the area and control any oil leaks.
- Secondary containment is not provided for outdoor high-voltage electrical equipment because it would represent a potential safety hazard for personnel who must enter these areas. Standing rain water, which is a common occurrence in diked areas, poses an unreasonable risk of electrical shock to maintenance employees.
- The facility is manned by security personnel and the Fire Department, 24 hours per day, 365 days per year. Personnel are trained to make the proper notifications if an oil release is discovered. The facility has an adequate spill response program for addressing such discoveries.

6.2 ABOVEGROUND PIPING

This section addresses typical failure modes and secondary containment requirements for aboveground single-wall pipelines that are not contained within passive method containment. These areas include, but are not limited to, the CCAD Fuel Facility, MWR Marina, and the Aviation Fuel Facility, and all stand-alone tanks that supply fuel to emergency generators. Aboveground pipelines, while not required to have sized secondary containment, is subject to general secondary containment SPCC requirements as defined in 40 CFR 112.7. All aboveground piping at NASCC is inspected by the tank custodians on a monthly basis for leaks, as well as for pitting and corrosion. In the event of a discharge from aboveground piping at the CCAD Fuel Facility, MWR Marina, or the Aviation Fuel Facility, alarms would indicate a loss of pressure, allowing rapid detection of the release. A discharge from the piping would likely pool on the surrounding areas, where facility personnel could detect the fuel and respond according to Section 3.5. If the spill cannot be stopped, NASCC's FRP provides a written commitment of manpower, equipment, and materials required to expeditiously control and remove a release of oil.

Table 6-1 Active Measures for Single Wall Piping Outside Secondary Containment describes a strategy that includes periodic inspections of the piping and the contents of the spill kit at the site. The piping inspection will document the surface coating of the single wall piping outside containment and the severity of corrosion. The inspection will also document the contents of the spill kit to contain a release of the volume of the single wall piping.

Table 6-1
Active Measures for Single Wall Piping Outside Secondary Containment

Distance to Drainage Inlet	Less than 10 feet from Surface Waters	Tank System operates at greater than 100 psi and 100 GPM	More than 10 feet from Surface Water and operates less than 100 psi and 100GPM
Active Measures	Weekly Inspection *AND* Spill Kit	Weekly Inspection *AND* Spill Kit	Monthly Inspection

To ensure that a potential spill will not reach a navigable watercourse, NASCC has categorized oil storage containers with aboveground piping out of secondary containment by severity of spill risk. The two categories of risk are:

- **HIGH**: High risk tank systems with aboveground piping outside of secondary containment that normally operate under 100 pounds per square inch and flow under 100 gallons per minute and have proximity of 10-feet or closer to surface waters or normally operate over 100 pounds per square inch and flow over 100 gallons per minute.
  - Low Flow Probable spill volume (0.1 gallons per hour x 7 days x 24 hours) of ~17 gallons.
  - High Flow Probable spill volume (0.5 gallons per hour x 7 days x 24 hours) of ~84 gallons.

- **LOW**: Low risk tank systems with aboveground piping outside of secondary containment that normally operate under 100 pounds per square inch and flow under 100 gallons per minute and are more than 10-feet from surface waters.
  - Probable spill volume (0.1 gallons per hour x 30 days x 24 hours) of 72 gallons.

The MWR Marina qualifies as high risk due to the proximity to Surface Waters and the Aviation Fuel Facility is subject to the high risk category due to high flow conditions. High risk tank systems should be inspected for visible leaks weekly and prior to fueling and have permanently staged spill kits. Low risk tank systems should be inspected for visible leaks monthly and prior to fueling.

Regulatory Deficiencies
• None

7.0 INSPECTION, TESTS, AND RECORDS

112.7(e): Conduct inspections and tests required by this part in accordance with written procedures that you or the certifying engineer develop for the facility. You must keep these written procedures and a record of the inspections and tests, signed by the appropriate supervisor or inspector, with the SPCC Plan for a period of three years. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.

The following table summarizes the inspections for NASCC. Additional details and inspection forms are included in Appendix I.

Table 7-1
Inspection Schedule

Type of Inspection	Frequency	Responsible Person	Regulatory Drivers[7]	Inspection Form	Record Retention
Bulk Tanks (Field-erected ASTs at Aviation Fuel Facility)					
External Visual (routine)	Monthly	Fuels Personnel	40 CFR 112	Form 1	3 yr.
External Visual (non-routine)	IAW API 653 6.3.2.1	API 653 Authorized Inspector	40 CFR 112	_____	Indefinite
External Ultrasonic[1] (non-routine)	IAW API 653 6.3.3.1	API 653 Authorized Inspector	40 CFR 112	_____	Indefinite
Internal (non-routine)	IAW API 653 6.4.2	API 653 Authorized Inspector	40 CFR 112	_____	Indefinite
Cathodic Protection System					
External (non-routine)	IAW API RP 651	IAW API RP 651	40 CFR 112	_____	Indefinite
General (non-routine)	Within 6 months of installation/repair and annually thereafter	Corrosion Professional[2] or Cathodic Protection Tester	40 CFR 112	Form 4	Indefinite
Product Piping					
External Visual[3] (routine)	Monthly	Fuels Personnel	40 CFR 112	Form 1	3 yr.
Operational (routine)	During fuel transfer	Fuels Personnel	NASCC SOP	_____	3 yr.
Leak Detection Device	Annually	Qualified Inspector	40 CFR 112		Indefinite
Tank Truck Fuel Loading Stations					
External Visual (routine)	Weekly	Fuels Personnel	40 CFR 112	Form 3	3 yr.
Ancillary Tanks (All other tanks, including diesel, fuel oil, used oil, lube oil, and gasoline)					
External Visual (routine)	Monthly	Tank Custodian	40 CFR 112	Form 1	3 yr.
Test Sensors and Gauges	Annually	Tank Custodian	40 CFR 112	Form 2	3 yr.

Table 7-1
Inspection Schedule

Type of Inspection	Frequency	Responsible Person	Regulatory Drivers[7]	Inspection Form	Record Retention
Non-routine Inspection	Refer to Section 14.6	Qualified Inspector	40 CFR 112	_____	Indefinite
Generators					
External Visual (routine)	Monthly[1]	Tank Custodian	40 CFR 112	Form 1	3 yr.
Operations Check	Weekly	Tank Custodian	Contract Requirement	_____	3 yr.
Load Test	Annually	Tank Custodian	Contract Requirement	_____	3 yr.
Test Sensors and Gauges	Annually	Tank Custodian	40 CFR 112	Form 2	3 yr.
Non-routine Inspection	Refer to Section 14.6	Qualified Inspector	40 CFR 112	_____	Indefinite
Transformers					
External Visual (routine)	Annually	DPW	40 CFR 112 Contract Requirement	_____	3 yr.
Drums and Used Cooking Oil Containers					
External Visual (routine)	Monthly	Container Custodian	40 CFR 112	Form 6	3 yr.

Notes:

1 Internal (non-routine) inspection may substitute for external ultrasonic inspection **IF** API 653 6.3.3.3 is met
2 Inspector must be knowledgeable about cathodic protection system and impressed current principles and operation
3 Refer to Section 6 for piping category description and applicability.

routine Inspection can be performed by a qualified NASCC or Contract personnel.
non-routine Inspection is performed by qualified personnel in accordance with regulatory requirements and/or industry accepted standards

In addition to the inspection schedule and associated record retention period, Table 7-2 identifies state-required recordkeeping to be maintained for UST and AST systems and activities associated with petroleum contact water that are regulated by 31 TAC 19.13(e).

Table 7-2
State-Required Recordkeeping

Type of Activity/Asset	Record Requirements	Responsible Person	Regulatory Drivers	Record Retention
Texas General Land Office Large Coastal Facilities	(a) Discharge Prevention and Response Plan (b) A log documenting when the annual drill was conducted and the facility personnel who participated	PWD/ Environmental Department	31 TAC 19.14	Annual review of application information via internet or mail
UST Systems	Original and amended registration documents, in accordance with §334.7	PWD/ Environmental Department	30 TAC 334	Operational life of UST system
	Original and amended certifications for UST installations and financial assurance, in accordance with §334.8	PWD/ Environmental Department	30 TAC 334	
	Records demonstrating compliance with technical standards and installation standards for new UST systems, in accordance with §334.45(f)	PWD/ Environmental Department	30 TAC 334	
	Operation and maintenance records, in accordance with §334.48(g)	PWD/ Environmental Department	30 TAC 334	
	Release detection records, in accordance with §334.50(e)	PWD/ Environmental Department	30 TAC 334	
	Spill and overfill control records, in accordance with §334.51(c)	PWD/ Environmental Department	30 TAC 334	
	Records for repairs and relining of a UST system, in accordance with §334.52(d)	PWD/ Environmental Department	30 TAC 334	
	Legible copies of previous and current registration and self-certification forms required to be filed annually with the agency under §334.8(c), as well as UST delivery certificates, must be maintained for at least five years from the original date of submittal.	PWD/ Environmental Department	30 TAC 334	
	Records for permanent removal of UST systems from service, in accordance with §334.55(f)	PWD/ Environmental Department	30 TAC 334	
AST Systems	Installation notification in accordance with §334.126	PWD/ Environmental	30 TAC 334.130	Operational life
	Registration of ASTs and changes in information, in accordance with §334.127	PWD/ Environmental	30 TAC 334.130	
	Payment of annual facility fees for ASTs, in accordance with §334.128	PWD/ Environmental	30 TAC 334.130	
	All reports, plans, and certifications related to actions taken in response to suspected and confirmed releases of petroleum products, in accordance with §334.129	PWD/ Environmental	30 TAC 334.130	
	Owners and operators of ASTs must comply with the same general recordkeeping requirements applicable	PWD/ Environmental	30 TAC 334.130	

Table 7-2 State-Required Recordkeeping				
Type of Activity/Asset	**Record Requirements**	**Responsible Person**	**Regulatory Drivers**	**Record Retention**
	to underground storage tanks, as prescribed in §334.10(b)(1)			
	Installation notification in accordance with §334.126	PWD/ Environmental	30 TAC 334.130	

Regulatory Deficiencies
• Refer to Table 11-1 for incomplete field-erected tank inspection records.

Recommended Corrective Actions
• Short term: Conduct an API 653 inspection on Tank 1720-2 as soon as practical.

8.0 PERSONNEL TRAINING AND DISCHARGE PREVENTION PROCEDURES

8.1 PERSONNEL INSTRUCTIONS

112.7(f)(1): At a minimum, train your oil-handling personnel 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.

30 TAC 334 establishes training requirements for different classes of underground storage tank (UST) facility operators to enhance the protection of the state's groundwater and surface water resources from environmental contamination that could result from any releases of harmful substances stored in such systems, and to minimize threats to human health and safety which could result from the improper operation of a UST facility.

Section 1524 of the Energy Policy Act of 2005 states that EPA, in coordination with states, must develop training guidelines for three distinct classes of operators who operate and maintain federally regulated underground storage tank systems.

NASCC provides spill training (prevention, awareness, and response) to all new employees involved with oil equipment operation, maintenance or oversight. Annual refresher training and exercises/drills are also completed as part of the FRP requirements. Intermediate training sessions are conducted for affected personnel when a process or procedure changes. These training sessions are also given to new employees who are responsible for the implementation of any portion of the SPCC Plan. See Appendix H for SPCC training slides.

REQUIRED TRAINING TOPICS

- Discussion of applicable pollution control laws, rules, and regulations
- Operation and maintenance of equipment to prevent oil discharges
- Discharge prevention protocols
- Purpose and overview of SPCC plan
- General facility operations

OTHER TRAINING TOPICS

- Review of potential spill areas and drainage routes
- Review of emergency response procedures
- Review of spill cleanup equipment locations and the use of the equipment
- Recent spill events, subsequent response and corrective action.

Specific individuals, who are designated as SPCC inspection personnel, are also trained on the inspection procedures to be employed, the frequency of inspections, record keeping requirements, and procedures for reporting and correcting detected problems.

No later than August 8, 2012, owners or operators of UST facilities must designate at least one Class A, Class B, and Class C operator for each facility who has completed an acceptable operator training course as specified in 30 TAC 334.603.

- Class A - Class A operator of a UST facility is an individual who typically has primary responsibility for ensuring the proper operation and maintenance of the UST systems, particularly in the capacity of managing resources and personnel necessary to achieve and maintain compliance with all UST regulations.

- Class B – Class B operator of a UST facility is an individual who ensures the implementation of all applicable requirements of these regulations in the field and implements the day-to-day aspects of the operation and maintenance of, and recordkeeping for, UST systems.
- Class C – Class C operator of a UST facility is an individual designated by the UST system owner who typically controls the dispensing of fuel at the facility and is responsible for initial response to alarms, releases, spills, overfills or threats to the public or to the environment.

The NEX facility manager has completed Class A training and ensures that each employee receives the appropriate level of training for operator training.

Regulatory Deficiencies
• None.

8.2 DESIGNATED PERSON ACCOUNTABLE FOR DISCHARGE PREVENTION

112.7(f)(2): Designate a person at each applicable facility who is accountable for discharge prevention and who reports to facility management.

The Environmental Coordinator is the designated person accountable for spill prevention at NASCC. The alternates to the Environmental Coordinator are noted in Section 2.2.

Title	Telephone
Environmental Protection Specialist	361-961-5356 (Day)

Regulatory Deficiencies
• None

8.3 DISCHARGE PREVENTION BRIEFINGS

112.7(f)(3): Schedule and conduct discharge prevention briefings for your oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan for that facility. Such briefings must highlight and describe known discharges as described in §112.1(b) or failures, malfunctioning components, and any recently developed precautionary measures.

NASCC schedules and conducts spill prevention briefings as part of their annual SPCC training. The purpose of the briefings is to discuss: (1) recent spill events, (2) causes of the spill, and (3) corrective action to prevent reoccurrence of similar spills. These briefings may be performed in conjunction with hazardous waste training, storm water pollution prevention training,

petroleum storage tank monitoring training, or other similar training. The following personnel typically are included in the SPCC briefings: personnel responsible for the oil storage areas/inspections, contractors' representatives, and spill response personnel.

In addition, the completed inspection checklists cited in this plan will be reviewed quarterly by the Environmental Protection Specialist, and additional "case-specific" spill prevention briefings will be conducted and documented with appropriate personnel if deficiencies are noted in the inspection logs. The purpose of this oversight is to address recurring incidents, if responsible individuals are addressing any, with proper corrective action, and to ensure that the Environmental Division is apprised of facility-wide inspection results.

Regulatory Deficiencies
• None

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9.0 SITE SECURITY

9.1 FENCING AND GATES

112.7(g)(1): Fully fence each facility handling, processing, or storing oil, and lock and/or guard entrance gates when the facility is not in production or is unattended.

NASCC is fully fenced and security personnel are present at the facility 24 hours per day, 365 days per year. The facility has controlled access through manned security gates and conforms to the industry standard outlined for fencing and security (API 2610). The entrances to the facility are only accessible to employees and visitors who have been cleared by security at NASCC. Access to NASCC is controlled by two entrance gates. The list of gates and times of operation are listed below:

- **South Gate** (located off Lexington Blvd)
  Open 24 Hours
- **North Gate** (located on Ocean Drive)
  Open morning and afternoon during high traffic hours

Both entrances require base personnel to show government-issued identification prior to entry and visitors must obtain and display temporary visitor identification and vehicle passes. These access points are guarded by U.S. Navy or civilian security personnel 24 hours per day, 7 days per week.

Some ASTs, generators, and low-voltage transformers are also secured within their own fence and locked-gate compound. Any security fencing at NASCC associated with oil storage locations generally conforms to the industry standard outlined for fencing and security (API 2610), which recommends the following:

INDUSTRY STANDARD CONSIDERATION:

1. Fencing around the entire site should be employed to maintain facility security and prevent product loss and vandalism. The location of the fence line in relation to the property line shall conform to local code requirements.
2. A review of the security requirements for the terminal facility should be included during the design consideration. The review should include physical security, disaster recovery planning, security incidents, and security technology.
3. Perimeter lighting may be provided to illuminate fences, access and egress gates, employee and truck parking, tank farm and manifold areas, loading racks, and marine docks. Refer to the *IES Lighting Handbook* or other applicable state or local code.

Regulatory Deficiencies
• None

9.2 FLOW AND DRAIN VALVES SECURED

112.7(g)(2): Ensure that the master flow and drain valves and any other valves permitting direct outward flow of the container's contents to the surface have adequate security measures so that they remain in the closed position when in non-operating or non-standby status.

The flow valves of the Aviation Fuel Facility storage tanks are maintained in a closed position and locked by the Automated Fuel Handling Equipment System (AFHE) when in non-operating or non-standby status. Access to the AFHE system is limited to authorized Doss Aviation personnel. Bulk tank bottom water drain valves remain locked in a closed position via padlock and chain, except during supervised tank bottom-water drainage events.

Master flow valves, drain valves, and other valves connected to ancillary / non-AFHE system tanks that permit direct outward flow of a tank's content to the surface are secured in the closed position when tanks are in non-operating or non-standby status.

The NEX Gas station turns off power at the USTs when the facility is closed. During working hours, customers must purchase gas before pumping is authorized. The MWR Marina flow valves are maintained in closed, locked positions when not in use.

Regulatory Deficiencies
• None

9.3 STARTER CONTROLS SECURED

112.7(g)(3): Lock the starter control on each oil pump in the "off" position and locate it at a site accessible only to authorized personnel when the pump is in a non-operating or non-standby status.

The starter controls for fuel pumps in the Aviation Fuel Facility tanks are maintained in an "off" position and locked by the AFHE system. Access to starter controls is limited to authorized NASCC personnel only. All starter controls are located in a secure area of the control building.

Starter control on oil pumps connected to ancillary / non-AFHE system tanks are secured in the "off" position or located at a site accessible only to authorized personnel when the pumps are in a non-operating non-standby status. Access to starter controls is limited to authorized personnel only. All starter controls are located in a secure area of the facility and usually within a fenced enclosure or inside a locked building adjacent to the associated AST. Only authorized personnel

have access to keys to the pump houses and starter controls. Generator panels are kept locked to prevent access.

Regulatory Deficiencies
• None

9.4 PIPELINE LOADING/UNLOADING CONNECTIONS SECURED

112.7(g)(4): Securely cap or blank-flange the loading/unloading connections of oil pipelines or facility piping when not in service or when in standby service for an extended time. This security practice also applies to piping that is emptied of liquid content either by draining or by inert gas pressure.

All loading/unloading connections are securely capped or blank-flanged when not in service or standby service. Designated NASCC personnel who observe loading/unloading activities verify that these connections are properly capped following each loading/unloading event.

Regulatory Deficiencies
• None

9.5 LIGHTING ADEQUATE TO DETECT AND DETER SPILLS

112.7(g)(5): Provide facility lighting commensurate with the type and location of the facility that will assist in the:
(i) Discovery of discharges occurring during hours of darkness, both by operating personnel, if present, and by non-operating personnel (the general public, local police, etc.); and
(ii) Prevention of discharges occurring through acts of vandalism.

Adequate security lighting is provided throughout NASCC (except as noted under Regulatory Deficiencies, page 9-4). Sufficient lighting is provided at all tank truck loading racks and all primary oil storage facilities to identify a release, should one occur. In general, lighting at NASCC conforms to the industry standard (API 2610), which recommends the following:

INDUSTRY STANDARD CONSIDERATION:

1. Use high intensity discharge lamps such as mercury vapor or high pressure sodium lighting.
2. Intersperse incandescent lighting fixtures in areas that require immediate return of lighting after power clips or outages.
3. Consider photoelectric cell control where automatic switching of yard and rack lighting is required.
4. Install explosion proof lighting in areas containing Class I liquids (those with a flash point below 100° F and having a vapor pressure not exceeding 40 pounds per square inch) conforming with NFPA 70 and maintained in good condition.

The facility is manned 24 hours per day, 7 days per week, and security is provided at all times, thereby greatly reducing the likelihood of spills occurring through acts of vandalism.

Regulatory Deficiencies
• The following tanks have inadequate area lighting: 1260, 1757-1, 47-1, 47-2, 47-3, 47-4, and 47-5.

Recommended Corrective Actions
• Short term: Evaluate area lighting during non-daylight hours. • Short term: For areas with confirmed inadequate lighting either limit night time activities or provide temporary lighting. • Long term: For areas with confirmed inadequate lighting provide permanent lighting.

10.0 LOADING/UNLOADING OPERATIONS

40 CFR 112.7(h)(1-3): Facility tank car and tank truck loading/unloading rack (excluding offshore facilities).

(1) Where loading/unloading rack drainage does not flow into a catchment basin or treatment facility designed to handle discharges, use a quick drainage system for tank car or tank truck loading/unloading racks. You must design any containment system to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility.

(2) Provide an interlocked warning light or physical barrier system, warning signs, wheel chocks or vehicle brake interlock system in the area adjacent to a loading/unloading rack, to prevent vehicles from departing before complete disconnection of flexible or fixed oil transfer lines.

(3) Prior to filling and departure of any tank car or tank truck, closely inspect for discharges the lowermost drain and all outlets of such vehicles, and if necessary, ensure that they are tightened, adjusted, or replaced to prevent liquid discharge while in transit.

10.1 GENERAL LOADING AND UNLOADING OPERATIONS FOR BULK STORAGE TANKS

For the purpose of this section of the SPCC Plan, a fuel loading/unloading station is defined as a tanker truck fueling area where fuel is transferred to “and” from large bulk ASTs and USTs. This section does not apply to intra-facility transfer of fuel by government vehicles. Fuel transfer areas, such as transfer of fuel to ancillary containers (i.e., end-use containers such as generators or small ASTs), and mobile refueler failure modes and secondary containment requirements are discussed in Section 5.4.

NASCC receives oil products (i.e., fuel – unleaded gasoline, diesel, aviation fuel) via commercial tanker trucks. After passing a safety inspection at a security-controlled entrance gate, the tanker trucks are directed to one of four facilities: (1) the Aviation Fuel Facility (Building 1717 compound), (2) the NEX fuel station (Building 1290), (3) the CCAD Fuel Farm (Building 8), or (4) Government Fueling Facility.

The facility has developed formal written procedures for all commercial fuel deliveries. These procedures include properly grounding the truck prior to fuel transfer and ensuring the vendor knows how much fuel to place in the tank to prevent an overfill. In addition, at the Aviation Fuel Facility, Government Fuel Facility, and the CCAD Fuel Facility, personnel assist the driver by spotting the truck on and off the loading/unloading rack and assist with hose connections, valve positioning, and walking the fuel-transfer piping to ensure there are no obvious signs of release. The Fire Department is always informed of fuel truck entry into the installation.

Spill prevention practices for fuel transfer from a tanker truck to bulk tanks maintained across the NASCC adhere to the following spill prevention protocols:

GENERAL FUEL — TRANSFER PROCEDURES

- **Before fuel transfer**
  - Use a spotter during backing of tank truck
  - Use a spotter during movement of truck at or near loading/unloading rack
  - Set parking brake
  - Ground truck electrically
  - Ensure female Cam-Loc is wired or locked shut and valve is closed, if applicable
  - Set fuel meters to zero
  - Use dead-man switch, if equipped on truck
  - Ensure tank valves are open prior to fuel transfer
  - Ensure driver is aware of fuel transfer amount — no overfills

- **During fuel transfer**
  - Pump fuel
  - Monitor the transfer of fuel

- **After fuel transfer**
  - Evacuate fuel hose after fuel transfer and prior to hose roll-up
  - Close and lock tank caps
  - Record fuel transfer amount
  - Inspect lowest drain and outlets and ensure they are secure to prevent liquid discharge while in transit.

Commercial vendors transferring fuel to base tanks are monitored by base personnel. Extreme caution is taken to prevent spills from trucks due to faulty connections or hose ruptures. The following procedures are followed during all fuel deliveries:

- Exercise extra precautions and diligence for deliveries during rainy weather. Fuel migration rates increase in water-filled ditches and rain-saturated soil and a reduced spill response time remains to prevent a spill from reaching waterways or sensitive ecological areas.
- Gauge tanks prior to filling to ensure adequate space is available in the tanks for the product being delivered. A tank is never to be topped off completely; adequate headspace at the top of the tank must be left to allow for product expansion.
- Storm drains in the immediate vicinity of the fueling operation are to be covered with a flexible mat during fueling operations.
- Spill containment equipment shall be readily accessible and prepared for deployment during fueling operations.

U.S. Department of Transportation Regulations

All NASCC truck fuel loading and unloading operations meet the minimum requirements and regulations established by U.S. Department of Transportation. Tank truck unloading and loading is conducted in accordance with standard operating procedures described throughout this SPCC Plan.

If a discharge occurs outside of containment areas, other than approved rainwater discharges from secondary containment, the Fire Department will be notified and the appropriate spill control procedures will be promptly implemented.

INDUSTRY STANDARD CONSIDERATION
Transporters who load/unload material at this facility must comply with the following requirements: All transporters of oil to and from this facility are required to meet the minimum requirements and regulation established by the U.S. Department of Transportation. Loading/unloading procedures of hazardous materials, as defined in 49 CFR 172, at this facility are to meet the requirements of 49 CFR 177 Subpart B. Transporters who load/unload material at this facility must comply with the following requirements:

- Provide a qualified person to be in attendance at all times when a tank truck is loaded/unloaded.
- The attendant must be awake, have an unobstructed view of the tank truck, and be within 25 feet of the tank truck throughout the event.
- The attendant must be aware of the nature of the hazardous material which is to be loaded/unloaded, trained on the procedures to be followed in emergencies, authorized to move the tank truck, and have a means to move the cargo tank.
- Manholes and valves must be closed and secured during transport.

These additional requirements apply when the transporter is loading/unloading materials with flash points below 140°F. These materials meet the U.S. Department of Transportation definition of a Class 3 flammable liquid. Combustible materials with flash points from 140 to 200°F are not subject to these requirements.

- Unless the engine of the tank truck vehicle is to be used for the operation of a pump, the engine will not be running during the loading/unloading of the material.
- Bonding and grounding procedures for tanks trucks and containers during the transfer of material are to be implemented according to 49 CFR 177.837 (b) and (c). The current process for loading/unloading meets these requirements.
- Furthermore, NASCC follows extensive standard operating procedures for all fuel transfer operations as described in their operations manual.

Regulatory Deficiencies
• None

Recommended Corrective Actions
• None

10.2 ADEQUATE SECONDARY CONTAINMENT FOR VEHICLES

112.7(h)(1): Where loading/unloading rack drainage does not flow into a catchment basin or treatment facility designed to handle discharges, use a quick drainage system for tank car or tank truck loading and unloading racks. You must design any containment system to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility.

Table 10-1 summarizes the Tank Truck Loading/Unloading Areas at NASCC. 40 CFR 112 defines the term "loading/unloading rack" as "a fixed structure (such as a platform, gangway) necessary for loading or unloading a tank truck or tank car, which is located at a facility subject to the requirements of this part. A loading/unloading rack includes a loading or unloading arm, and may include any combination of the following: piping assemblages, valves, pumps, shut-off sensors, overfill sensors, or personnel safety devices." All active loading/unloading racks for tank trucks have adequate secondary containment (except as noted in Regulatory Deficiencies, page 10-8) to contain the maximum storage capacity for the tank truck. Furthermore, the following operational procedures are employed during fuel-loading activities to prevent a release from entering navigable waterways:

- Designated facility personnel observe each loading event in its entirety. Facility personnel ensure that the proper procedures are employed, that correct material is being loaded, and that the appropriate personnel are notified immediately if a release occurs (as previously described). Because the installation operates 24 hours per day, 7 days per week, emergency response personnel are available on site. Prior to the initiation of loading activities, designated facility personnel will ensure that the appropriate secondary containment drains are closed and locked. The purpose of this task is to ensure that if a release does occur, it will be prevented from entering the storm water drainage system.
- Designated facility personnel have access to a radio or other device to notify emergency response personnel if a release occurs. The designated employee who observes the loading event is trained in the SPCC Plan training discussed in Section 8.0.

- Should a release occur during a loading event, the designated employee who observed the procedure notifies appropriate personnel to vacuum the contents of the secondary containment structure beneath the fuel transfer valves for off-site disposal.

Table 10-1
Tank Truck Loading Racks

Location	Potential Spill Volume (Gallons)	Containment Volume (Gallons)	Potential Release Discharge Point
Aviation Fuel Facility Truck Loading/Offloading Racks	< 5,000[1]	42,100	Truck load/offload rack trench drains to emergency containment basin to oil/water separator. Oil/water separator discharges to storm water or sanitary sewer as needed.
Government Fuel Facility Truck Offloading Racks	< 5,000[1]	3,872	Truck containment drains to out of service oil/water separator and discharges to sanitary sewer.
CCAD Fuel Facility	< 5,000[1]	27,000	CCAD truck offload connection contained in facility dike that drains to sump discharging to wastewater treatment.

Note:
[1] Based on maximum capacity of any single compartment in tank truck in accordance with 40 CFR 112.7(h)(1)

INDUSTRY STANDARD CONSIDERATION:

The fuel loading operations are in general conformance with industry standards. NFPA 30 specifies that "loading and unloading facilities shall be provided with drainage systems or other means to contain spills" and API 2610 specifies that "spill containment for truck loading rack areas *should* include concrete pavement with a raised edge (curbing) or other spill containment method provided around the loading rack perimeter. The raised edge *should* be sloped or rounded to facilitate truck access. Concrete joints *should* be sealed with petroleum resistant sealants to prevent leaks to subgrade. Pavement *should* be sloped toward catch basins and drains that are piped to containment or treatment facilities."

Regulatory Deficiencies

- Government Fuel Facility truck offload dike volume is insufficient for fuel transfer operation. Discharge is directed to an out-of-service oil water separator and discharges to sanitary sewer.
- Aircraft refueling tanker truck parking area apron surface is cracked and in poor condition. Discharge from containment area is directed to an out-of-service Oil/Water separator and discharges to sanitary sewer.

Recommended Corrective Actions

- Short term: None.
- Long term: Construct adequate truck offload/loading containment with adequate freeboard for precipitation. Repair concrete and seams. Affected seams require refurbishment with an oil-resistant flexible-joint sealant to restore impermeability to the secondary containment structure.

Best Engineering Practices
• Stage spill kits near truck loading racks.

Except for the loading/unloading racks listed in Table 10-1 (Aviation Fuel Facility, Government Fuel Facility, and CCAD Fuel Facility Truck Loading Rack), all other loading/unloading areas at NASCC are considered "transfer areas" that do not meet USEPA's definition of a loading/unloading rack, and are subject to the general secondary containment requirements of 40 CFR 112.7(c). The most probable spill for all transfer areas at NASCC would be an overfill of a container. To prevent overfill, direct visual contact between personnel filling the containers and personnel operating the refueler is maintained at all times. In addition, most tanks are equipped with spill boxes. Other spills could occur at transfer areas, such as a leak from the fuel hose line. To handle spills during fuel transfer, refuelers are equipped with quick response equipment (small spill kits and radios) and are adequately trained in spill notification and response procedures. General secondary containment at transfer areas varies throughout the installation and consists of control measures listed in 40 CFR 112.7(c), including local spill response equipment/materials with absorbent socks/pads, curbing, drip pans, sumps, or drain covers.

10.3 WARNING OR BARRIER SYSTEM FOR VEHICLES

112.7(h)(2): Provide an interlocked warning light or physical barrier system, warning signs, wheel chocks, or vehicle break interlock system in loading/unloading areas to prevent vehicles from departing before complete disconnection of flexible or fixed oil transfer lines.

The wheels are chocked and designated personnel are present throughout the fuel loading process. The personnel verify that all fuel lines have been properly disconnected, and all valves properly closed prior to vehicular departure.

Regulatory Deficiencies
• None

10.4 VEHICLES EXAMINED FOR LOWERMOST DRAINAGE OUTLETS BEFORE LEAVING

112.7(h)(3): Prior to filling and departure of any tank car or tank truck, closely inspect for discharges the lowermost drain and all outlets of such vehicles, and if necessary, ensure that they are tightened, adjusted, or replaced to prevent liquid discharge while in transit.

At all fuel loading stations, designated personnel are present during the loading process. Following each delivery, the area and tank truck connections are examined for leakage. Before tank truck departure, the contractor and tank custodian perform a walk-around inspection of the tanker to verify that all transfer lines have been disconnected and properly stowed and that drains and valves are closed.

Regulatory Deficiencies
• None

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11.0 BRITTLE FRACTURE EVALUATION FOR FIELD-ERECTED ASTs

112.7(i): If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or a change in service that might affect the risk of a discharge or failure due to brittle fracture or other catastrophe, or has discharged oil or failed due to brittle fracture failure or other catastrophe, evaluate the container for risk of discharge or failure due to brittle fracture or other catastrophe, and as necessary, take appropriate action.

Two field-erected/constructed tanks that are located at the Aviation Fuel Facility, 1716-1 and 1720-2 (250,000-gallon, JP-5) were field-erected in 1987. These two vertical ASTs are fixed-roof welded steel. NASCC has an inspection and maintenance program consistent with the standards and protocols established with API 653 – Tank Inspection, Repair, Alteration, and Reconstruction. The program addresses all aspects associated with maintenance, inspections, repair, alteration, relocation, and reconstruction of tanks, as applicable.

The program assesses and confirms suitability for continued service in instances where tank inspections indicate a change of service from original physical condition has occurred.

The inspection program incorporates procedures for the assessment of tanks for suitability for continued operation or change of service with respect to brittle fracture. Brittle fracture assessment considerations employ decision tree logic as outlined within API 653.

NASCC employs the services of an authorized API inspector to establish the inspection frequency schedule for each tank that includes non-routine in-service external inspections and also addresses nondestructive testing options and protocols as outlined in API 653 (i.e., non-routine out-of-service internal inspections). Inspection frequencies established by the authorized API inspector are based on historical inspection records and known or projected tank bottom corrosion rates. After each tank subject to API 653 has been evaluated, the authorized API inspector identifies suitability for service actions and determines when the next API inspection is required for the respective tank. Inspection frequencies vary between 5 and 10 years, and possibly 20 years. Refer to Table 7-1.

Construction, inspection, and repair/alteration history records and reports consistent with API 653 will be maintained for the life of the tank system. Only authorized API-certified inspectors will support these non-routine inspection and maintenance actions.

Table 11-1 summarizes the API inspection schedule for all NASCC field-erected tanks.

Table 11-1
API Inspection Schedule for Field-Erected ASTs

Tank	Status	Last API 653	API 653 IS/VIS	API 653 IS/EXT Due	API 653 OS/INT Due
1716-1	Out of Service	July 2012	July 2017	July 2017	July 2022
1720-2	In Service	June 2004	June 2009	June 2019	June 2024

Notes:
IS/VIS In Service, Visual Inspection
IS/EXT – In Service, External Ultrasonic Shell Inspection
OS/INT – Out of Service, Internal

Regulatory Deficiencies
• Refer to Table 11-1 for past-due field-erected tank inspections.

Recommended Corrective Actions
• Conduct scheduled API 653 External Visual Inspection on AST 1720-2

12.0 CONFORMANCE WITH OTHER APPLICABLE REQUIREMENTS

112.7(j): In addition to the minimal prevention standards listed under this section, include in your Plan a complete discussion of conformance with the applicable requirements and other effective discharge prevention and containment procedures listed in this part or any applicable more stringent State rules, regulations, and guidelines.

Discussions regarding conformance with the requirements of 30 TAC 334, 31 TAC 19, 31 TAC 327, API, NFPA and STI standards, and other industry standards are integrated where applicable throughout this SPCC Plan.

Appendix K - Naval Air Station Corpus Christi Reportable Quantity describes the lead agency's role in responding to spills of petroleum substances.

Regulatory Deficiencies
• As addressed in other relevant sections of the SPCC Plan.

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13.0 DRAINAGE CONTROL

13.1 DRAINAGE FROM DIKED STORAGE AREAS

112.8(b)(1): Restrain drainage from diked storage areas by valves to prevent a discharge into the drainage system or facility effluent treatment system, except where facility systems are designed to control such discharge. You may empty diked areas by pumps or ejectors; however, you must manually activate these pumps or ejectors and must inspect the condition of the accumulation before starting, to ensure no oil will be discharged.

All field-constructed ASTs are located in diked storage areas with drainage valves and/or sumps. Manually operated normally closed drainage valves secure all fuel tank diked storage areas. Smaller shop fabricated tanks may also be located in diked areas (i.e., curbed structures) with drainage pipes and manually operated, normally sealed closed control valves.

The Hangar 47 defuel dike area is not equipped with a dike drain, but is emptied with portable suction pumps after each rain event. The pumps are manually operated only by operators with SPCC awareness training. Detailed information regarding diked areas is presented in Table 13-1.

Table 13-1
Secondary Containments with Drain Valves

Tank/Site ID	Building
1716-1	Aviation Fuel Facility
1717	Aviation Fuel Facility
1720-2	Aviation Fuel Facility
1757-1	1757
1804	1804
2607	1237
GM-1	DRMO
GM-2	DRMO
HGR 47 Defuel Dike	Hangar 47

All containment valves are manually operated and kept locked.

Regulatory Deficiencies
• Hangar 47 aircraft defueling dike is not equipped with drainage valve. Dead vegetation and debris have collected in the sump.

Recommended Corrective Actions
• Short term: Remove dead vegetation. • Long term: Install drain valve in dike.

13.2 VALVES USED ON DIKED STORAGE AREAS

112.8(b)(2): Use valves of manual, open-and-closed design, for the drainage of diked areas. You may not use flapper-type drain valves to drain diked areas. If your facility drainage drains directly into a watercourse and not into an on-site wastewater treatment plant, you must inspect and may drain uncontaminated retained storm water, as provided in 112.8(c)(3)(ii), (iii), and (iv).

Refer to Table 13-1 for listing of secondary containments with drain valves. All drainage valves on secondary containments are manual gate or ball valves. They are locked in the closed position except during supervised secondary containment draining events. All accumulated rainwater is inspected prior to discharge.

Regulatory Deficiencies
• Refer to Section 13.1.

13.3 PLANT DRAINAGE SYSTEMS FROM UNDIKED AREAS

112.8(b)(3): Design facility drainage systems from undiked areas with a potential for a discharge (such as where piping is located outside containment walls or where tank truck discharges may occur outside the loading area) to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility. You must not locate catchment basins in areas subject to periodic flooding.

Not Applicable. For the containers included in this Plan, the Facility has chosen to meet the applicable secondary containment requirements under 40 CFR 112.7(c) and 40 CFR 112.8(c) as discussed in Section 5.0 of this Plan. NASCC does not use the facility drainage system to meet general secondary containment requirements.

Regulatory Deficiencies
• None

13.4 FINAL DISCHARGE OF DRAINAGE

112.8(b)(4): If facility drainage is not engineered as in 112.8(b)(3), equip the final discharge of all ditches inside the facility with a diversion system that would, in the event of an uncontrolled discharge, retain oil in the facility.

Not applicable. NASCC does not use the facility drainage system to meet general secondary containment requirements. Other than where specifically noted in this section of the SPCC Plan, the existing system complies with 40 CFR 112.7(c)(1). Therefore, there is no additional requirement to have a “diversion system” to “return the oil to the plant” in an uncontrolled spill.

Regulatory Deficiencies
• None

13.5 FACILITY DRAINAGE SYSTEMS AND EQUIPMENT

112.8(b)(5): Where drainage waters are treated in more than one treatment unit and such treatment is continuous, and pump transfer is needed, provide two "lift" pumps and permanently install at least one of the pumps. Whatever techniques you use, you must engineer facility drainage systems to prevent a discharge as described in §112.1(b) in case there is an equipment failure or human error at the facility.

Not applicable. NASCC does not use the facility drainage system to meet general secondary containment requirements.

Regulatory Deficiencies
• None

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14.0 BULK STORAGE TANKS/SECONDARY CONTAINMENT

14.1 TANK COMPATIBILITY WITH ITS CONTENTS

112.8(c)(1): You must not use a container for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature.

All aboveground oil storage tanks are made of material (i.e., steel) that is compatible with its contents (i.e., F-24 Jet Fuel, Ultra-Low Sulfur Diesel [ULSD], unleaded gasoline, used oil, lubrication oil) and constructed with relevant industry standards (e.g., UL142, UL2085, API650) as listed by NFPA 30/30A (except those listed in Regulatory Deficiencies, page 14-1). Appendix C provides tank specific details such as: content, capacity, tank and pipe material, year installed and good engineering practices (i.e., overfill and leak alarms).

Regulatory Deficiencies
• The following tanks were not documented as being constructed with relevant industry standards as listed by NFPA 30/30A: 35-1 and 1717.

Recommended Corrective Actions
• Short term: Keep ASTs 35-1 and 1717 out of service • Long term: Provide stand-alone storage tank for the emergency generator 35-1. Remove AST 1717 from the facility.

14.2 DIKED AREA CONSTRUCTION AND CONTAINMENT VOLUME FOR STORAGE TANKS

112.8(c)(2): You must construct all bulk storage container installations so that you provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must ensure that diked areas are sufficiently impervious to contain discharged oil. Dikes, containment curbs, and pits are commonly employed for this purpose. You may also use an alternative system consisting of a drainage trench enclosure that must be arranged so that any discharge will terminate and be safely confined in a facility catchment basin or holding pond.

Appendix C summarizes the secondary containment capacities requirements for each tank, drum storage area, and truck parking area. Secondary containment capacity calculations are presented in Appendix G.

Except as noted in Regulatory Deficiencies, Section 5.0, all bulk storage tanks are constructed so that secondary containment is provided for the largest single tank plus sufficient freeboard for precipitation (25-year, 24-hour storm event or 9 inches of freeboard) in accordance with 40 CFR 112.8.

Regulatory Deficiencies
• Refer to Section 5.0.

14.3 DIKED AREA INSPECTION AND DRAINAGE OF RAINWATER

112.8(c)(3): You must not allow drainage of uncontaminated rainwater from the diked area into a storm drain or discharge of an effluent into an open watercourse, lake, or pond, bypassing the facility treatment system unless you:

(i) Normally keep the bypass valve sealed closed.
(ii) Inspect the retained rainwater to ensure that its presence will not cause a discharge as described in §112.1(b).
(iii) Open the bypass valve and reseal it following drainage under responsible supervision; and
(iv) Keep adequate records of such events, for example, any records required under permits issued in accordance with 40 CFR §122.41(j)(2) and 40 CFR §122.41(m)(3).

Refer to Table 13-1 for listing of diked areas with drain valves.

All drainage valves on diked areas are manual gate or ball valves. They are locked in the closed position except during supervised secondary containment draining events. All accumulated rainwater is inspected prior to discharge and documented with Form 5: Secondary Containment Drainage Log, refer to Appendix I. All dike areas are inspected at least once a month, and do not exceed 35 days between inspections.

Following each major rainfall event, designated facility personnel, who are trained in SPCC Plan procedures, inspect diked areas to determine if the rainwater needs to be removed from the structure, and to assess whether an oil sheen is present. Designated facility personnel inspect the rainwater collected in the containments, opens the drain valve if there is not a sheen, and drains the area. The date, time, location, and name of individual that performed the operation are logged into the secondary containment drainage log (Appendix I, Form 5). Logs are maintained with each tank custodian.

If free product or a sheen is observed, the designated facility personnel determines the source of the sheen (i.e., overfill or leak) and notifies the Environmental Coordinator. The contaminated rainwater is removed and disposed of properly.

For the ancillary tanks, the tenant is responsible for conducting weekly visual inspections for signs of rainwater or liquids collected within the diked containment areas. Procedures are conducted in accordance with the SPCC training and the Stormwater Pollution Prevention BMPs. All rainwater that does not have a sheen is either released to the ground through drainage valves or pumped into the storm water drainage system. If oil or a sheen is observed, the designated facility personnel should determine the source. Once the source of the sheen is determined, appropriate corrective measures are taken. A drainage log (Appendix I, Form 5) is completed whenever the containment drainage is opened.

For drums exposed to precipitation, following each rain event or at a minimum once a week, the designated contractor or facility personnel who are trained in SPCC Plan procedures, inspect the dike area to determine if the rainwater needs to be removed from the structure, and to assess whether an oil sheen or discoloration is present. Designated facility personnel inspect the rainwater collected in the containments, and remove the water if there is not a sheen or discoloration present. If free product, sheen or discoloration is observed, the designated facility personnel determines the source of the sheen (i.e., overfill or leak) or discoloration and makes repairs/adjustments. The contaminated rainwater is removed and disposed of properly. The date, time, location, and name of individual that performed the operation are logged into the secondary containment drainage log (Appendix I, Form 5). Logs are maintained at each facility.

Regulatory Deficiencies
• None

14.4 CORROSION PROTECTION AND LEAK TESTING OF BURIED METALLIC STORAGE TANKS

112.8(c)(4): You must protect any completely buried metallic storage tank installed on or after January 10, 1974 from corrosion by coatings or cathodic protection compatible with local soil conditions. You must regularly leak test such completely buried metallic storage tanks.

Not Applicable. There are no tanks at NASCC that meet these criteria.

Regulatory Deficiencies
• None

14.5 CORROSION PROTECTION OF PARTIALLY BURIED METALLIC TANKS

112.8(c)(5): You must not use partially buried or bunkered metallic tanks for the storage of oil, unless you protect the buried section of the tank from corrosion. You must protect partially buried and bunkered tanks from corrosion by coatings or cathodic protection compatible with local soil conditions.

Not Applicable. There are no tanks at NASCC that meet these criteria.

Regulatory Deficiencies
• None

14.6 ABOVEGROUND TANK PERIODIC INTEGRITY TESTING

112.8(c)(6): You must test each aboveground container for integrity on a regular schedule, and whenever you make material repairs. The frequency of and type of testing must take into account container size and design (such as floating roof, skid-mounted, elevated, or partially buried). You must combine visual inspection with another testing technique such as hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or another system of non-destructive shell testing. You must keep comparison records and you must also inspect the container's supports and foundations. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.

14.6.1 Field-Erected Tanks

All field-erected storage tanks included in this SPCC Plan must be inspected, either in the normal preventive maintenance system (i.e., routine - daily) or by API 653 inspectors (i.e., non-routine - periodically). Routine inspections are visually completed by trained NASCC personnel. Non-routine inspections require qualified and certified inspectors who complete extensive and detailed inspections and integrity testing in accordance with API 653 standard for field-erected tanks and industry standards (STI SP001 for shop-fabricated tanks). Tables 7-1 and 11-1 provide additional information. Table 7-1 summarizes the required integrity testing and inspection program for NASCC.

14.6.2 Shop-Fabricated Tanks

For all shop-fabricated, fixed-position ASTs, with 55 gallons capacity and greater, but less than 50,000 gallons capacity, including generator belly tanks, monthly and annual visual inspections must be performed to satisfy the periodic inspection requirements of STI standard SP001, 5th edition, which is the applicable industry standard recognized by USEPA for inspection of shop-fabricated steel and concrete ASTs, refer to Appendix I for example forms.

The Monthly inspection can be performed by anybody who works at the facility (government employee or contractor), who is briefed or trained on how to conduct an AST inspection using the STI checklist. Monthly AST inspections can be conducted by a building tank custodian, Base Operating Services (BOS) contractor, Public Works employee, tenant organization employee, or the Environmental tank manager. The person who is designated to perform AST inspections, shall document the inspection results on a signed and dated checklist.

The Annual inspection has more checklist items, which require more time and special tools to perform, and more inspector experience is needed, when compared to the Monthly inspection. SP001 section 4.1 requires the inspector to be knowledgeable of the facility operations, types of ASTs and associated components, and characteristics of the liquid stored. Formal STI

certification is not required for Annual inspections. However, it is recommended that either an employee with advanced AST inspector experience, or a professional tank inspection contractor, should perform the Annual inspection.

SP001 has a portable container Monthly inspection checklist, which applies to any storage area where 55 gallon drums, mobile generators, bowsers, or fuel tanker trucks are located. An inspection is required, if at any time during the month, an area has at least one portable container with 55 gallons capacity or greater, that is holding oil based products in liquid form that could spill. The container does not have to be full, because it is potential capacity which is counted. Use one checklist form per storage area (not per container). There is no Annual inspection required.

Additionally, each aboveground shop-fabricated tank has been assigned an AST category as defined in STI Standard SP001.

- Category 1: ASTs with spill control[4] and with CRDM[5]
- Category 2: ASTs with spill control and without CRDM
- Category 3: ASTs without spill control and without CRDM

Each aboveground shop-fabricated tank has been assigned an AST category as defined in STI Standard SP001; refer to Appendix C, Table C-2.

The AST categories establish routine and non-routine inspection schedules based upon risk to discharge. See Table 14-1 below for inspection schedules per STI Standard SP001.

[4] STI SP001 defines spill control as a passive means of preventing a release of liquid to the environment, including adjoin property and waterways (e.g. remote impounding, secondary containment dike/berm, secondary containment AST, or secondary containment system)

[5] STI SP001 defines Continuous Release Detection Method (CRDM) as a passive means of detecting a release of liquid through inherent design. Liquid releases are visually detected by facility operators (e.g. secondary containment, elevated AST, or release prevention barrier under AST)

Table 14-1 STI Inspection Schedule for Shop-Fabricated ASTs			
Size (gallons)	**Category 1**	**Category 2**	**Category 3**
0 - 1100	P	P	P, E&L(10)
1101 – 5000	P	P, E&L(10)	P, E&L(5), I(10) or P, L(2), E(5)
5001 – 30000	P, E(20)	P, E(10), I(20) or P, E(5), L(10)	P, E&L(5), I(10) or P, L(1), E(5)
30001 – 50000	P, E(20)	P, E&L(5), I(15)	P, E&L(5), I(10)

Table 14-1 Designations:

P – Periodic (routine) AST inspection
E – Formal External Inspection by Certified Inspector
I – Formal Internal Inspection by Certified Inspector
L – Leak test by owner or owner's designee
( ) – Indicates maximum inspection interval in years

Category I ASTs greater than 5,000 gallons require a 20 year Formal External Inspection by a Certified Inspector. ASTs 154-2, 227, 228 and 229 will require the formal external inspection in 2016.

The STI SP001 AST inspection requirement does not apply to OFOE, such as transformers and hydraulic elevator tanks. OFOE shall be inspected at least once annually to check for physical damage including corrosion and to detect oil leakage. There is not an STI SP001 checklist for OFOE.

14.6.3 Record Maintenance

All of these inspections are documented per Section 7.0 of this SPCC Plan, and the records are maintained at the facility (lifetime of the storage tank system for non-routine inspection records, and 3 years minimum for all other inspection records).

Regulatory Deficiencies
• Refer to Section 7.0.

14.7 CONTROL OF LEAKAGE THROUGH INTERNAL HEATING COILS

112.8(c)(7): You must control leakage through defective internal heating coils by monitoring the steam return and exhaust lines for contamination from internal heating coils that discharge into an open watercourse, or pass the steam return or exhaust lines through a settling tank, skimmer, or other separation or retention system.

Not Applicable. There are no internal heating coils used at NASCC.

Regulatory Deficiencies
• None

14.8 LIQUID LEVEL SENSING DEVICES

112.8(c)(8): You must engineer or update each container installation in accordance with good engineering practice to avoid discharges. You must provide at least one of the following devices:

(i) High liquid level alarms with an audible or visual signal at a constantly attended operation or surveillance station. In smaller facilities an audible air vent may suffice.
(ii) High liquid level pump cutoff devices set to stop flow at a predetermined container content level.
(iii) Direct audible or code signal communication between the container gauger and the pumping station.
(iv) A fast response system for determining the liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If you use this alternative, a person must be present to monitor gauges and the overall filling of bulk storage containers.
(v) You must regularly test liquid level sensing devices to ensure proper operation.

Appendix C provides specific tank information regarding liquid level sensing devices. Following are good engineering practices in place for each tank category:

Aviation Fuel Facility

- Automatic Tank Gauge
- Automated Fuel Handling Equipment System
- Low-Level Alarm
- High-Level Alarm
- High / High-Level Alarm
- System Shut-Off
- Leak Detection
- Cathodic Protection
- Direct Communications between Tank Gauge and the Fuel Provider

Shop Fabricated ASTs (Except internal generator tanks)

- Level Gauge
- Automatic Shut-Off Valve
- Leak Detection
- Direct Communications between Tank Gauge and the Fuel Provider

Generator ASTs (internal tanks), Used Cooking Oil Tanks and Test Cell Tanks

- Direct Communications between Tank Gauge and the Fuel Provider

INDUSTRY STANDARD CONSIDERATIONS:

In addition to the general fuel loading guidelines outlined in Section 10, NS Corpus Christi personnel should be cognizant of the following overfill protection guidelines outlined in API 2350:
(1). If an electrical or mechanical failure occurs that affects the level detectors, product receipt shall stop and not recommence until (a) the detectors are functioning properly or (b) manual operations and procedures are implemented (as outlined in Section 10).
(2). When only one detector is used, this high-high level detector shall be located at or above the safe fill levels and shall alarm/signal to provide sufficient time to shut off or divert product flow before the overfill is reached.
(3). When used for overfill protection, the high-high level detector shall be independent of the automatic tank gauge system to provide greater reliability and to comply with the requirements of NFPA 30.
(4). If a tank is to be filled above its normal fill level (normal capacity) up to its safe fill level (tank rated capacity), a trained and qualified person shall be assigned by the operator to be present at the tank. *API does not recommend routinely filling a tank above the safe fill level due to the increase in overfill risk.*
Any shutdown or diversion procedures should be compatible with the transporter's operations to prevent consequential damage such as hydraulic shock or over pressuring the piping system.

Regulatory Deficiencies
• Refer to Section 3.2.

Best Management Practice
• Refer to Section 3.2.

14.9 OBSERVATION OF DISPOSAL FACILITIES FOR EFFLUENT DISCHARGE

112.8(c)(9): You must observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge as described in §112.1(b).

Two wastewater treatment plants (WWTPs) are located at NASCC: the Industrial Wastewater Treatment Plant (IWTP) and Domestic Wastewater Treatment Plant (DWTP). The IWTP primarily serves CCAD and Hangar 42. With the exception of Hangar 42, all Navy industrial processes generate pass-through water from oil water separators that is directed through the sanitary sewer lines to the DWTP. The physical condition and effluent of the DWTP is inspected on a daily basis by the WWTP operators. The effluent from the IWTP comingles with the effluent from the DWTP and is then discharged into Corpus Christi Bay. The WWTP operates under a National Pollutant Discharge Elimination System (NPDES) permit. Effluent into Corpus Christi Bay is monitored for oil, grease and other pollutants.

Regulatory Deficiencies
• None

14.10 VISIBLE OIL LEAK CORRECTIONS FROM TANK SEAMS AND GASKETS

112.8(c)(10): You must promptly correct visible discharges which result in a loss of oil from the container, including but not limited to seams, gaskets, piping, pumps, valves, rivets, and bolts. You must promptly remove any accumulations of oil in diked areas.

Visible oil leaks from tank systems are identified during the inspections that are completed in accordance with Table 7-1. Operational personnel are trained and instructed to notify the

individuals listed in Section 2.0 if these conditions are observed. In the event that oil is discharged into a containment area, the accumulation of oil is promptly removed with sorbent material or mechanical recovery devices (e.g., skimmer/vacuum truck), depending on the amount of oil released. All contaminated material is disposed of as stated in Section 3.4 of this plan.

Regulatory Deficiencies
• None

14.11 APPROPRIATE POSITION OF MOBILE OR PORTABLE OIL STORAGE TANKS

112.8(c)(11): You must position or locate mobile or portable oil storage containers to prevent a discharge as described in §112.1(b). Except for mobile refuelers, you must furnish a secondary means of containment, such as a dike or catchment basin, sufficient to contain the capacity of the largest single compartment or container with sufficient freeboard to contain precipitation.

Designated storage areas where portable fuel or oil containers are located, including mobile generators and 55 gallon drums with new or used oil, must be inspected monthly per the STI standard SP001. There is no annual inspection. STI allows one inspection form to be used for each storage area, regardless of how many containers are present within the storage area. The STI SP001 checklists are located in Appendix I. Table C-3 contains a list of mobile generators and Table C-5 contains a list of drum storage sites at NASCC.

Regulatory Deficiencies
• Inadequate secondary parking for the mobile generators 44A, 44B and 44C. • There is inadequate secondary containment for the following drum sites: 28-Parking, 255, 339 Satellite, 1722, and HGR 44,

Recommended Corrective Actions
• Short term: Ensure portable generators are parked in appropriate containment when idle. • Long term: Provide adequate secondary containment for drum storage areas

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15.0 FACILITY TRANSFER OPERATIONS, PIPING, AND PUMPING

15.1 BURIED PIPING INSTALLATION, PROTECTION, AND EXAMINATION

112.8(d)(1): Provide buried piping that is installed or replaced on or after August 16, 2002, with a protective wrapping and coating. You must also cathodically protect such buried piping installations or otherwise satisfy the corrosion protection standards for piping in 40 CFR §280 or a State program approved under 40 CFR §281. If a section of buried line is exposed for any reason, you must carefully inspect it for deterioration. If you find corrosion damage, you must undertake additional examination and corrective action as indicated by the magnitude of the damage.

The NEX USTs and the MWR Marina buried underground lines are flexible nonmetallic piping that complies with 30 TAC 334.45(c), technical standards for new piping. In addition, the pipelines are monitored for a release of regulated substances in accordance with §334.50(b)(2).

The underground piping associated with AST 1742-1 is unprotected copper tubing and is not equipped with release detection.

Regulatory Deficiencies
• Replace the underground copper tubing associated with AST 1742-1 with compliant piping.

15.2 NOT-IN-SERVICE AND STANDBY SERVICE TERMINAL CONNECTIONS

112.8(d)(2): Cap or blank-flange the terminal connection at the transfer point and mark it as to origin when piping is not in service or is in standby service for an extended time.

Terminal connections in the fuel unloading/loading areas are capped when not in use. Fuel origin is marked on all not-in-service and standby service terminal connections. Pipelines that are out of service are evacuated and blank flanged, or a blind/spectacle flange is used.

Regulatory Deficiencies
• None

15.3 PIPE SUPPORTS DESIGN

112.8(d)(3): Properly design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction.

Pipe supports are designed to minimize abrasion and corrosion, and to allow for expansion and contraction (except as noted in Regulatory Deficiencies, page 15-2). As referenced in Section 7.0, all aboveground piping is visually inspected monthly in accordance with the inspection schedule (Table 7-1). Pipe supports are visually evaluated as part of this aboveground piping inspection process.

Regulatory Deficiencies
• The following tanks have inadequate pipe supports: 7-1, 10-1, 55-1, 62-1, 68-1, 154-1, 154-2, 235, 236, 252, 1238-1, 1241, 1742-1, 1804-1, 1833, 2607, and W-1-1.

Recommended Corrective Actions
• Short term: Evaluate pipe supports to be adequate for minimizing abrasion and corrosion, and to allow for expansion and contraction and severe weather. • Long term: Repair or provide pipe supports that minimizes abrasion, corrosion, allows for expansion and contraction and severe weather.

15.4 ABOVEGROUND VALVE AND PIPELINE EXAMINATION

112.8(d)(4): Regularly inspect all aboveground valves, piping, and appurtenances. During the inspection you must assess the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. You must also conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement.

Aboveground valves and pipelines are examined monthly in accordance with the aboveground tank monthly routine inspections outlined in Section 7.0 (Table 7-1). Additionally, operational personnel are trained and instructed to notify the individuals listed in Section 2.0 any time leaks or signs of deterioration are observed.

All buried piping is integrity and leak tested at the time of installation, modification, construction, relocation, or replacement. Buried piping that provides fuel to the NEX dispensers and piers is pressure tested annually (refer to Section 15.1 of this plan).

Regulatory Deficiencies
• None

15.5 ABOVEGROUND PIPING PROTECTION FROM VEHICULAR TRAFFIC

112.8(d)(5): Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations.

All aboveground piping is either located within a secondary containment structure associated with its oil storage device (i.e., not accessible to vehicles), protected by concrete barriers/bollards, located in areas (e.g., next to buildings) not readily accessible to vehicles, or has warning signage to operators of vehicles.

Regulatory Deficiencies
• The following tanks have inadequate piping protection: 11-1, 41, 62-1, 1260, 1700-2
Recommended Corrective Actions
• Short term: Provide cautionary tape or traffic cones to signal vulnerable piping. • Long term: Repair or provide piping protection.

16.0 WRITTEN SPILL REPORT GUIDELINES

This section addresses written spill reporting requirements for government agencies and for internal record keeping requirements.

16.1 AMENDMENT OF SPCC PLANS BY REGIONAL ADMINISTRATOR

112.4(a): … whenever your facility has discharged more than 1,000 gallons of oil in a single discharge … or discharged more than 42 gallons of oil in each of two discharges occurring within any 12-month period, submit the following information to the RA within 60 days … (1) Name of facility; (2) Your name; (3) Location of facility; (4) Max storage/handling capacity and daily throughput; (5) Corrective action taken; (6) An adequate description of the facility with maps and diagrams as necessary; (7) Cause of the discharge and a failure analysis; (8) Additional preventative measures taken/contemplated; and (9) Any other pertinent information.

112.4(c) Send to the appropriate agency or agencies in charge of oil pollution control activities in the State in which the facility is located a complete copy of all information you provided to the Regional Administrator.

A written report must be submitted to the USEPA Regional Administrator if the installation discharges from **an SPCC-regulated container** 1,000 gallons of oil in a single discharge or 42 gallons of oil in each of two discharges, into navigable waters, adjoining shorelines, etc. (as described in 40 CFR Part 112.1(b)) in a 12-month period. A report is not required to the USEPA Regional Administrator for spills occurring from ships as ships are not regulated by the SPCC rules. 40 CFR 112 is contained in Appendix J.

If the conditions above are met, NASCC will submit a written report within 60 days of the date of the spill. The following information will be provided in the report:

- Name of facility
- Name of owner or operator of the facility
- Location of the facility
- Date and year of initial facility operation
- Maximum storage or handling capacity of the facility and normal daily usage throughout
- Description of the facility including maps, flow diagrams, and topographic maps
- A complete copy of the SPCC with amendments
- The cause of the spill including a failure analysis of the system or subsystem in which the failure occurred
- The corrective actions and/or countermeasures taken, including an adequate description of equipment repairs and/or replacement
- Additional preventive measures taken or contemplated to minimize the possibility of reoccurrence

- Such other information as the Regional Administrator may reasonably require pertinent to the plan or spill prevention.

This written report will be sent to the following:

Regional Administrator
U.S. EPA Region 6
1445 Ross Avenue
Suite 1200
Dallas, TX 75202

Regulatory Deficiencies
• None

16.2 STATE OF TEXAS SPILL REPORTING REQUIREMENTS

In Texas, upon determining that a reportable discharge or spill has occurred, the responsible person must notify the state. The threshold quantity that triggers the requirement to report a spill is called the reportable quantity (RQ). The reportable quantity depends on the type of substance released and where released (e.g., into water vs. on land); different kinds of spills are subject to different provisions of state and federal rules.

Table 16-1
Texas Reportable Quantities

Type of Spill	Where Discharged	RQ	Rule
Any oil	Coastal waters	Sheen	Texas General Land Office
Petroleum product, used oil	On land	25 gallons	30 TAC 327
Petroleum product used oil	Directly into water	Sheen	30 TAC 327
Petroleum storage tanks (UST or AST)	Into water	Sheen	30 TAC 334.75-81
Petroleum storage tanks (UST or AST)	Onto land	25 gallons or equal to RQ under 40 CFR 302	30 TAC 327

16.3 DEFENSE LOGISTICS AGENCY - ENERGY SPILL NOTIFICATION

In accordance with DLA-E I-13 policy, DLA-E has a requirement to be notified of all reportable spills involving product owned by the DLA-E at Department of Defense (DoD) facilities worldwide. Spill reports are necessary for a variety of purposes, including the following:

- Informing program managers of fuel spills
- Allocating resources necessary for accomplishing timely and cost effective repairs and cleanups
- Ensuring affected fuel storage and distribution facilities are returned to service as quickly as possible
- Analyzing trends
- Assisting in the programming of the DLA-E environmental budget

Report within 24 Hours of Discovery: DoD facility fuel spills involving DLA-E-owned product of more than 25 gallons or more on land or any waterway discharges that creates a sheen upon the water must be reported to DLA-E. To accomplish this, DLA-E has established a central email address to be used to report fuel spills from DoD facilities worldwide (desc.spillreport@dla.mil). Reports received are reviewed by senior DLA-E environmental protection specialists daily.

Locally used spill report forms are acceptable to DLA-E and can be attached to the email message as long as you include the following information:

- Date and time of spill
- Location and source of spill
- Type of product spilled
- Approximate quantity spilled
- Cause and circumstances of spill
- Environmental impact and potential hazards (fire, explosion, etc.), if any
- Personal injuries or casualties, if any
- Corrective actions being taken to control, contain, and clean up spill
- Name and telephone number for spill cleanup point of contact
- Requirement for DLA-E spill cleanup support and/or funding

Regulatory Deficiencies
• None

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Appendix A:

Naval Air Station Corpus Christi Site Descriptions, Diagrams and Photographs

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Appendix A

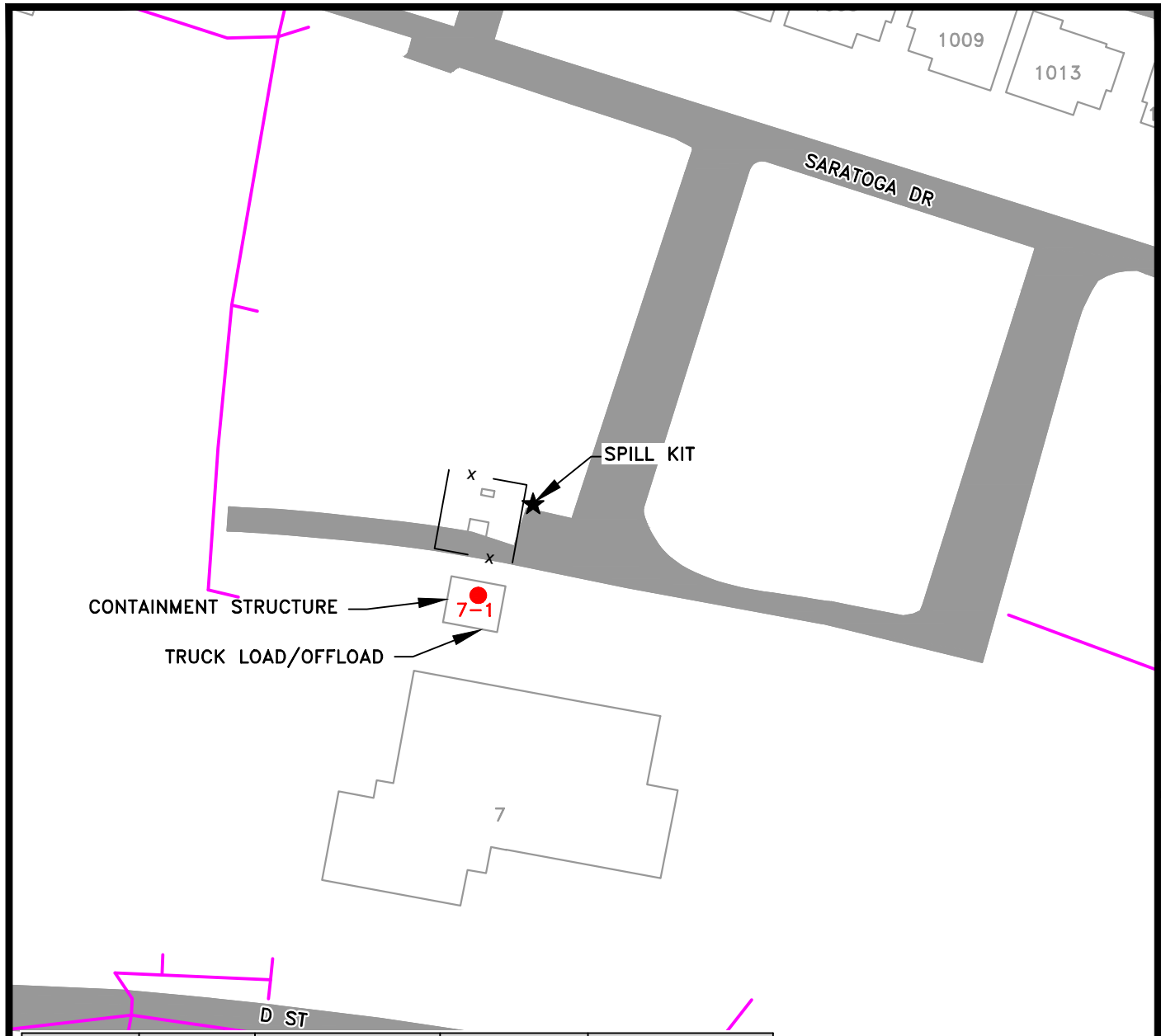
List of Aboveground Storage Tanks

Figure Title	Tank ID	Bldg. #	Container Type	Capacity (gal.)	Contents
AST 7-1	7-1	7	7	4,500	ULSD
AST 10-1	10-1	10	10	2,500	ULSD
AST 11-1 (1846)	11-1 (1846)	1846	AST	500	ULSD
AST 35-1	35-1	35	AST	150	ULSD
AST 41	41	41	AST	1,000	ULSD
ASTs 47-1 , 47-2, 47-3, 47-4, and 47-5	47-1	47	AST	500	Preservation oil
	47-2	47	AST	500	Preservation oil
	47-3	47	AST	500	Preservation oil
	47-4	47	AST	500	Preservation oil
	47-5	47	AST	3,000	JP-8
ASTs 50-1 and 50-2	50-1	250	AST	250	ULSD
	50-2	250	AST	250	ULSD
AST 50-3	50-3	50	AST	630	ULSD
AST 50-4	50-4	50	AST	357	ULSD
AST 55-1	55-1	114	AST	280	ULSD
AST 62-1	62-1	60	AST	1,000	ULSD
AST 68-1	68-1	68	AST	300	ULSD
AST 89-1	89-1	1215	AST	1,000	ULSD
AST 90-1	90-1	90	AST	294	Used Cokking Oil
AST 104-1	104-1	104	AST	80	ULSD
AST 121-1	121-1	121	AST	250	USLD
ASTs 154-1 and 154-2	154-1	380	AST	4,000	gasoline
	154-2	380	AST	8,000	USLD
AST 216-1	216-1	N/A	AST	150	ULSD
ASTs 227, 228, 229, 230, 231, 232, and 233	227	8	AST	10,000	JP-8
	228	8	AST	10,000	JP-8
	229	8	AST	10,000	JP-8
	230	8	AST	2,000	VARSOL
	231	8	AST	2,000	VARSOL
	232	8	AST	2,000	Turbine Oil
	233	8	AST	2,000	Preservation oil
AST 235	235	111	AST	500	USLD
AST 236	236	118	AST	250	USLD
AST 252	252	254	AST	250	USLD
AST 335-1	335-1	335	AST	294	Used Cooking Oil
AST 340-1	340-1	342	AST	200	USLD
AST 1238-1	1238-1	58	AST	1,000	USLD
AST 1241	1241	1241	AST	500	USLD
AST 1260	1260	1260	AST	400	USLD
AST 1289	1289	N/A	AST	130	USLD
AST 1291-1	1291-1	1291	AST	294	Used Cooking Oil
AST 1292	1292	N/A	AST	83	USLD
AST 1700-1	1700-1	UNK	AST	250	USLD
AST 1700-2	1700-2	UNK	AST	450	ULSD
AST 1716-1 and 1720-2	1716-1	1717	AST	250,000	JP-8
	1720-2	1717	AST	250,000	JP-8
AST 1717	1717	1717	AST	5,000	JP-8
AST 1735-1	1735-1	1735	AST	294	Used Cooking Oil
AST 1737-1	1737-1	1737	AST	500	used oil
AST 1740-1	1740-1	1740	AST	294	Used Cooking Oil
AST 1742-1	1742-1	1729	AST	250	USLD
AST 1743-1	1743-1	1757	AST	250	gasoline
AST 1757-1	1757-1	1757	AST	2,000	gasoline
AST 1797G	1797G	1794	AST	194	ULSD
AST 1804-1	1804-1	1804	AST	1,000	USLD
AST 1833	1833	1870	AST	2,000	USLD

Appendix A

List of Aboveground Storage Tanks

Figure Title	Tank ID	Bldg. #	Container Type	Capacity (gal.)	Contents
AST 1848-1	1848-1	1848	AST	425	USLD
AST 2607	2607	1237	AST	500	USLD
ASTs GM-1 and GM-2	GM-1	DRMO	AST	500	USLD
	GM-2	DRMO	AST	500	gasoline
AST H100-A	H100-A	H100	AST	180	USLD
AST H106	H106	H106	AST	4,000	USLD
AST H111	H111	H108	AST	4,000	USLD
AST PAR-1	PAR-1	Flight line	AST	211	USLD
AST W-1-1	W-1-1	Water plant	AST	500	USLD



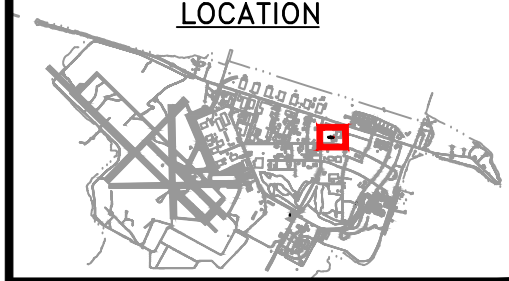
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

100 0 50 100

1 inch = 100 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 7-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
7-1	7	AST	4,500	ULSD

NOTE

- Double walled AST

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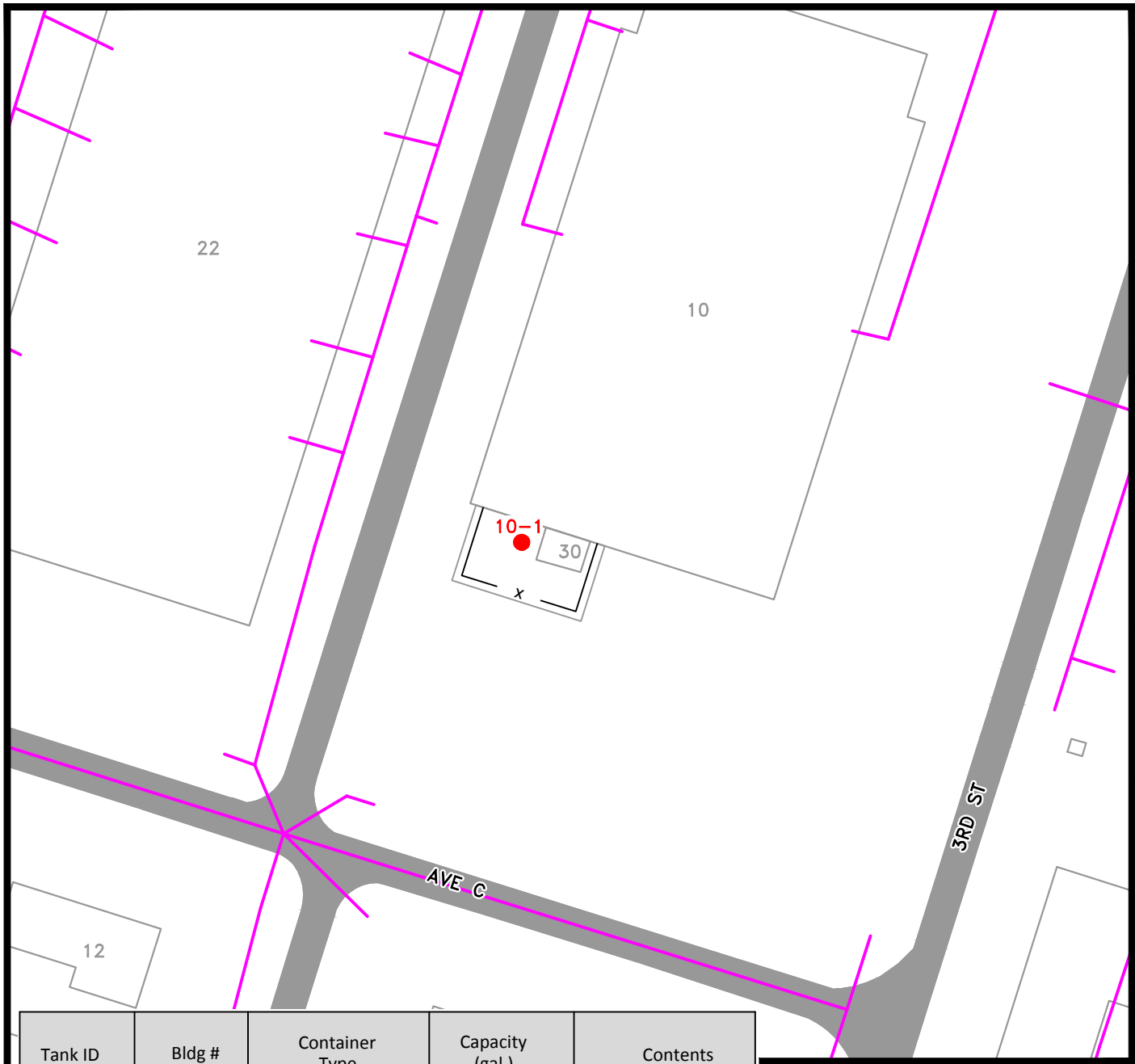


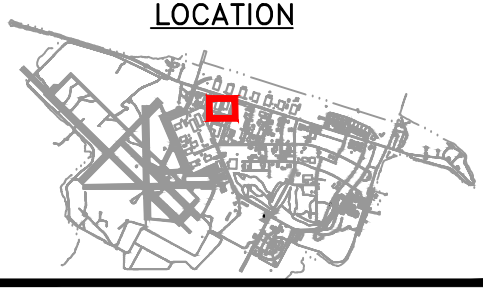
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

100 0 50 100

1 inch = 100 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 10-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
10-1	10	AST	2,500	ULSD

NOTE

- Double walled AST inside fence with piping outside containment.

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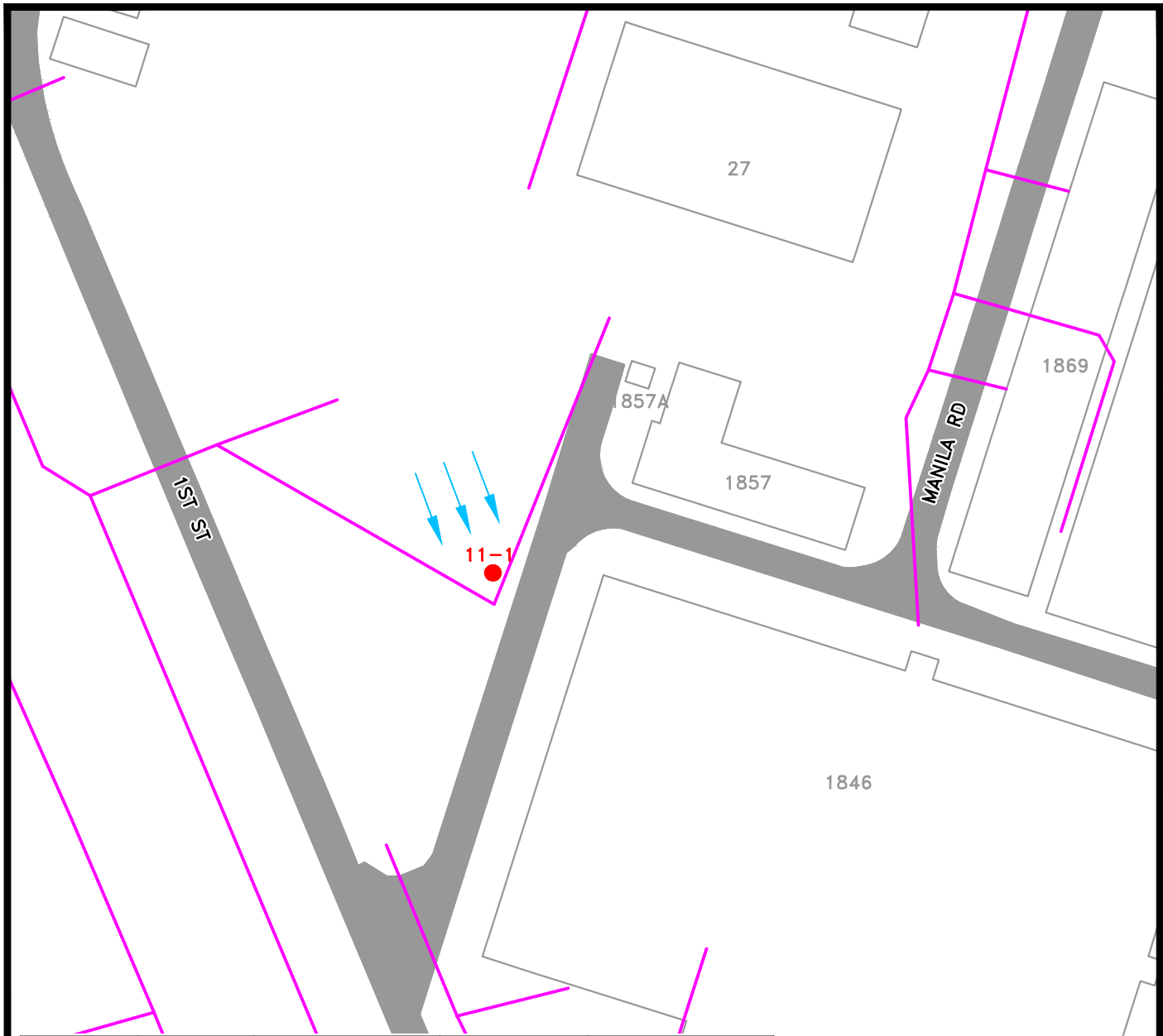


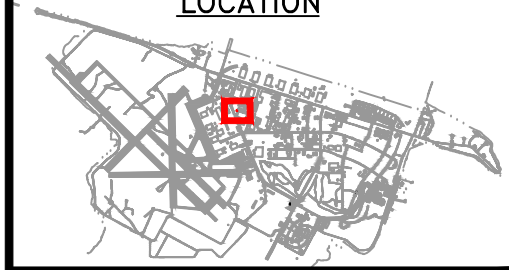
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- SHEET FLOW
- STORM SEWER LINE

100 0 50 100

1 inch = 100 ft.

LOCATION



NAS CORPUS CHRISTI, TX

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ABOVEGROUND STORAGE TANK
11-1 (1846)

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
11-1 (1846)	1846	AST	500	ULSD

NOTE

- Double walled AST used for MHE fueling, storm drain adjacent to tank.

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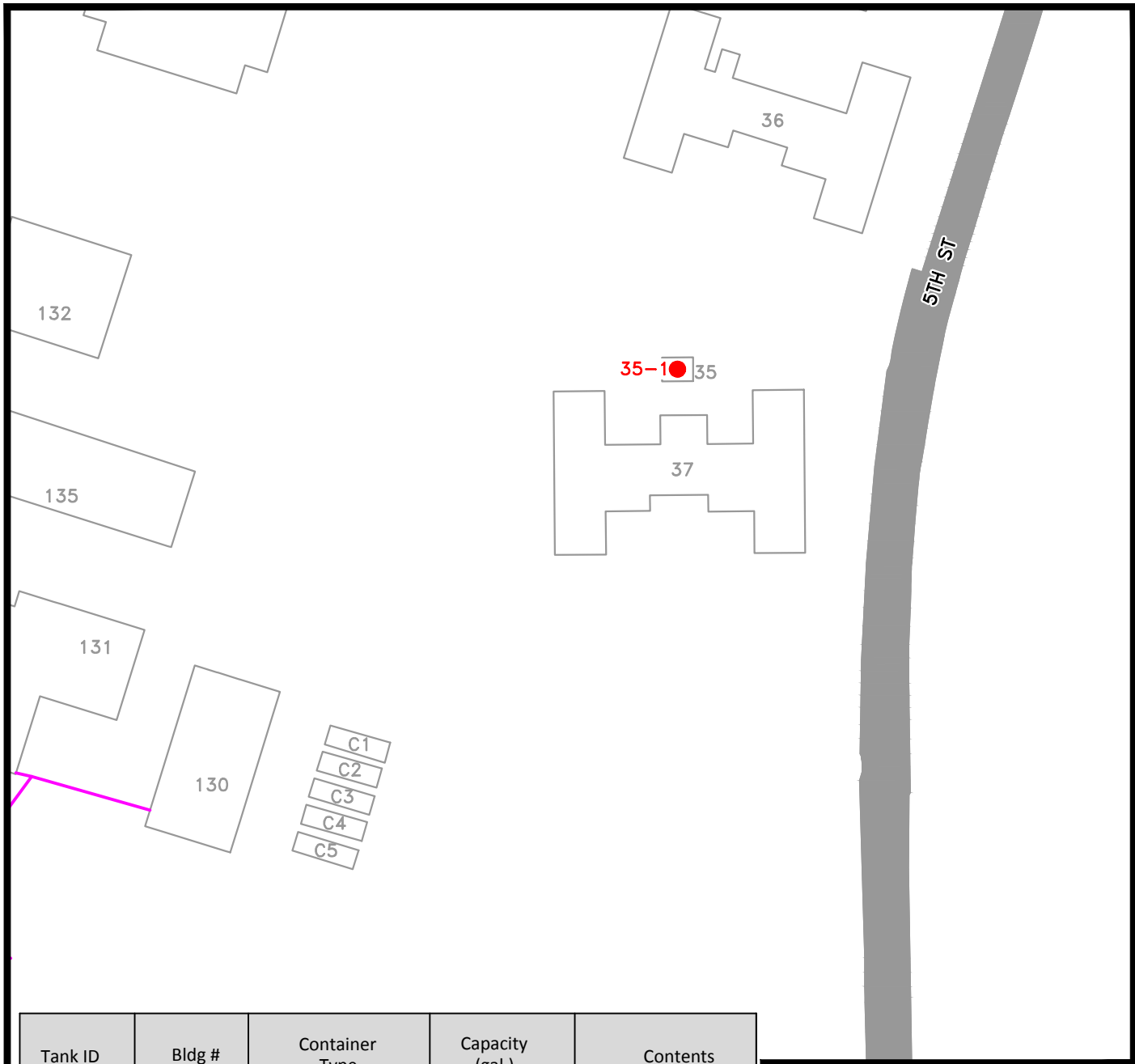


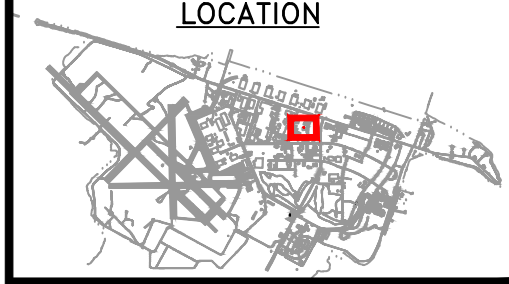
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE

100 0 50 100

1 inch = 100 ft.

LOCATION



Baker

ABOVEGROUND STORAGE TANK 35-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
35-1	35	AST	150	ULSD

NOTE

- AST 35-1 out of service, generator AST inside building 35.

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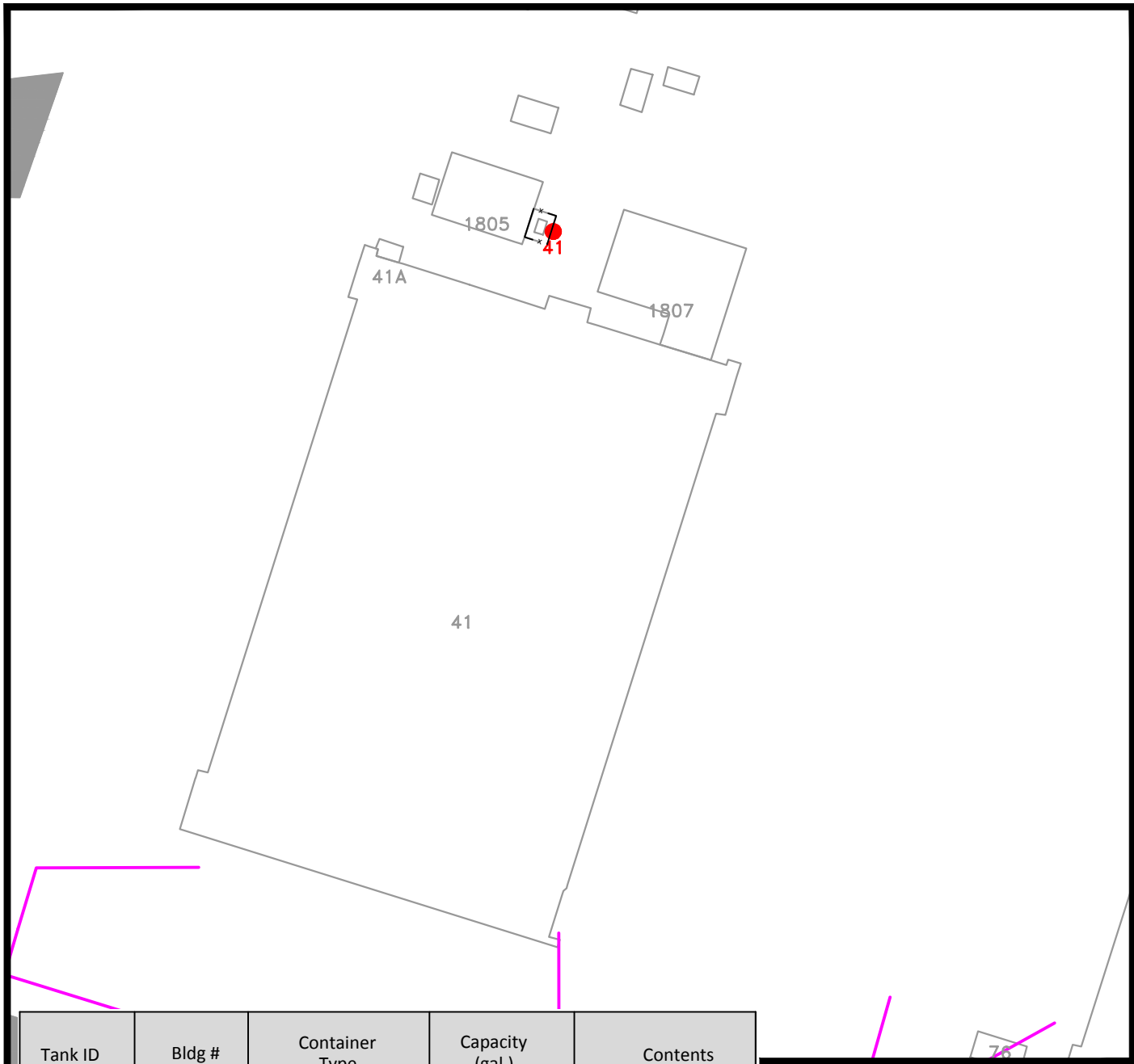


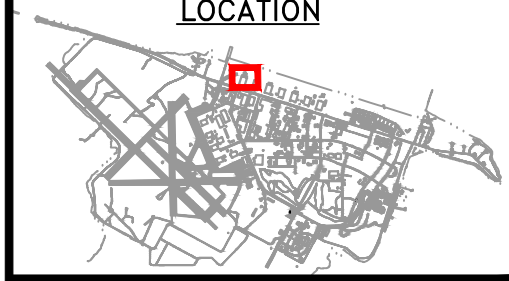
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

100 0 50 100

1 inch = 100 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 41

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
41	41	AST	1,000	ULSD

NOTE

- Tank out of service.

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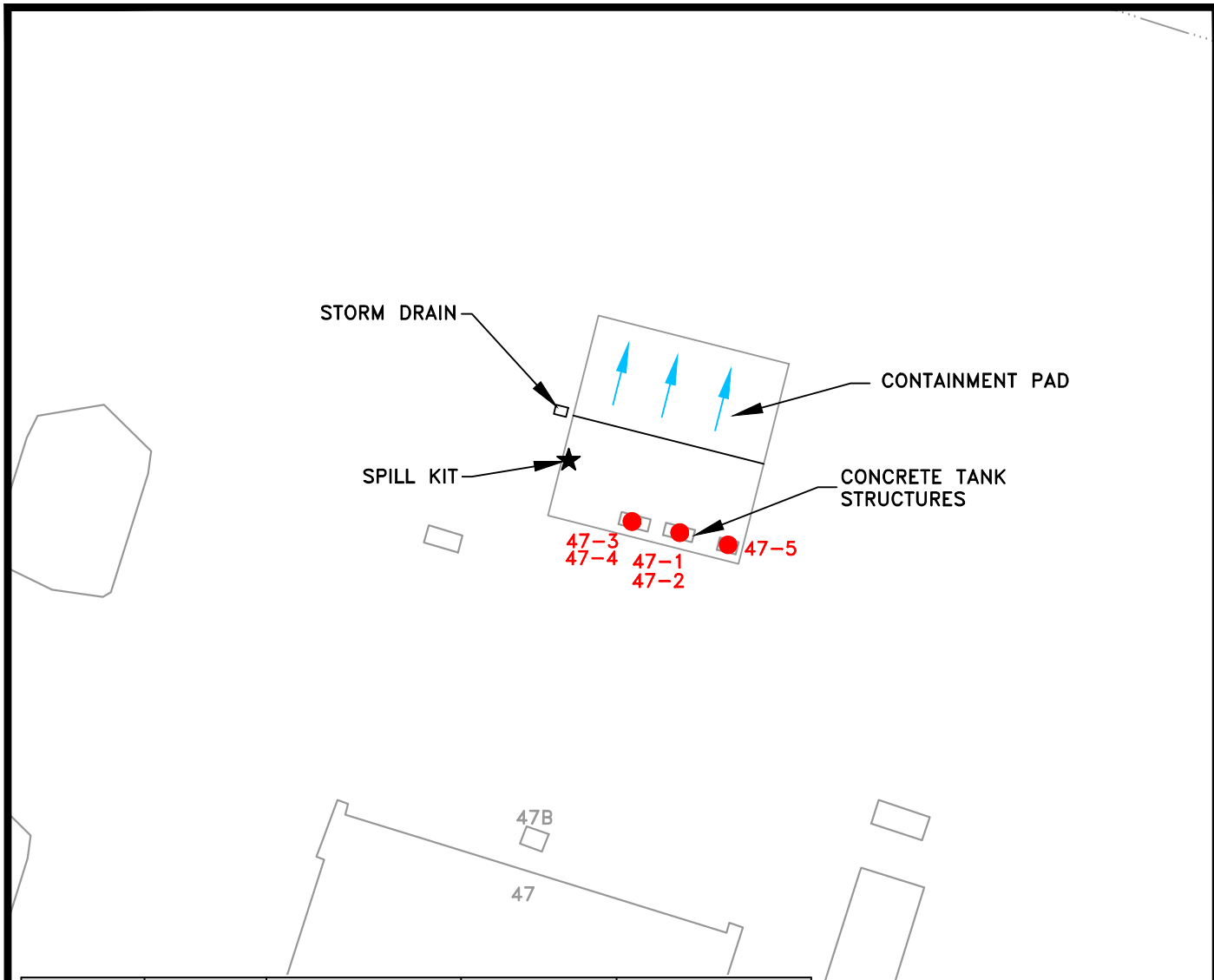


Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
47-1	47	AST	500	Preservation oil
47-2	47	AST	500	Preservation oil
47-3	47	AST	500	Preservation oil
47-4	47	AST	500	Preservation oil
47-5	47	AST	3,000	JP-8

NOTE

- Containment pad for aircraft defueling.

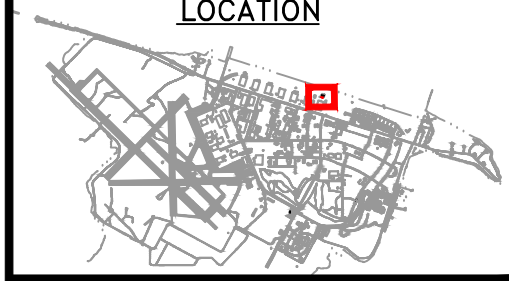
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- SHEET FLOW
- STORM SEWER LINE

100 0 50 100

1 inch = 100 ft.

LOCATION



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ABOVEGROUND STORAGE TANKS
47-1, 47-2, 47-3, 47-4 and 47-5

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

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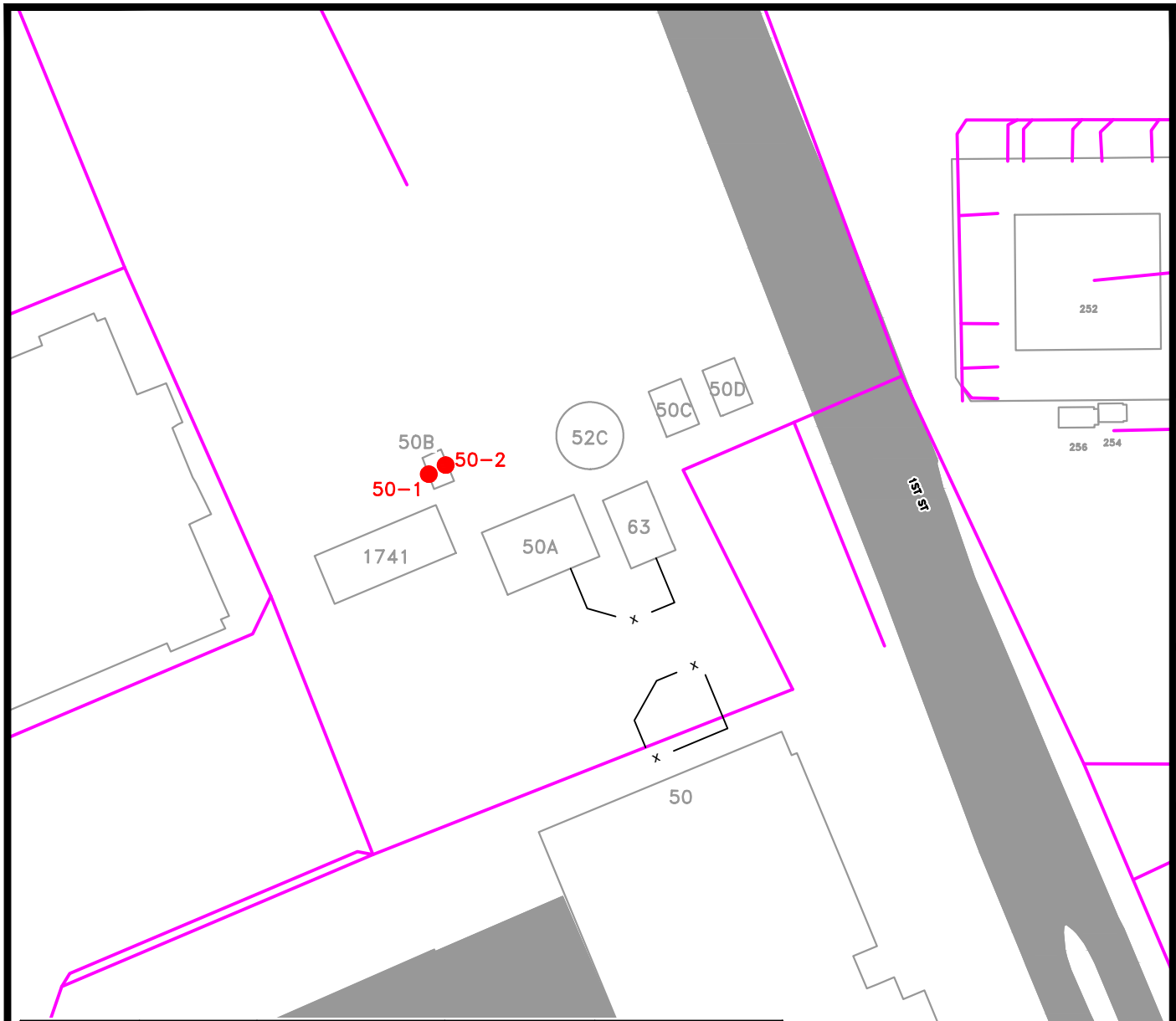


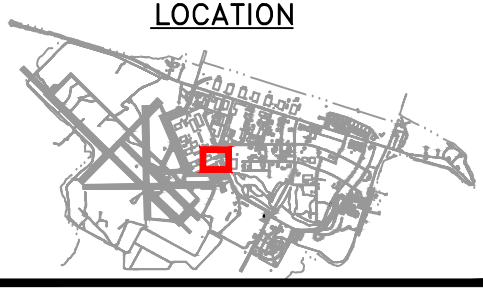
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

100 0 50 100

1 inch = 100 ft.

LOCATION



Baker

ABOVEGROUND STORAGE TANKS
50-1 and 50-2

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
50-1	250	AST	250	ULSD
50-2	250	AST	250	ULSD

NOTE

- Single wall AST inside dike located in building 50B.

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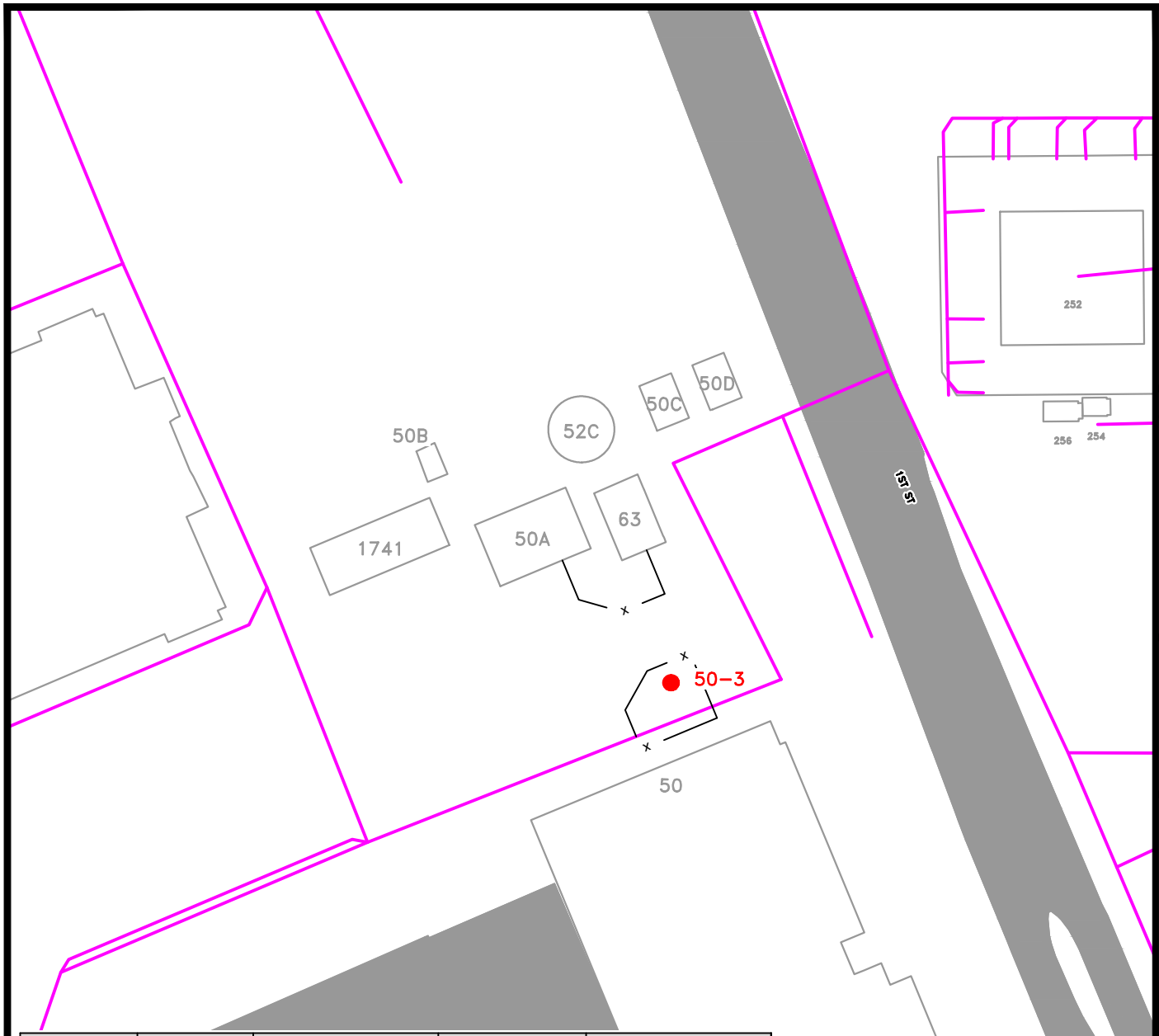


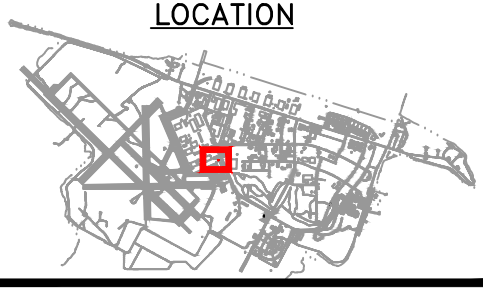
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

100 0 50 100

1 inch = 100 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 50-3

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

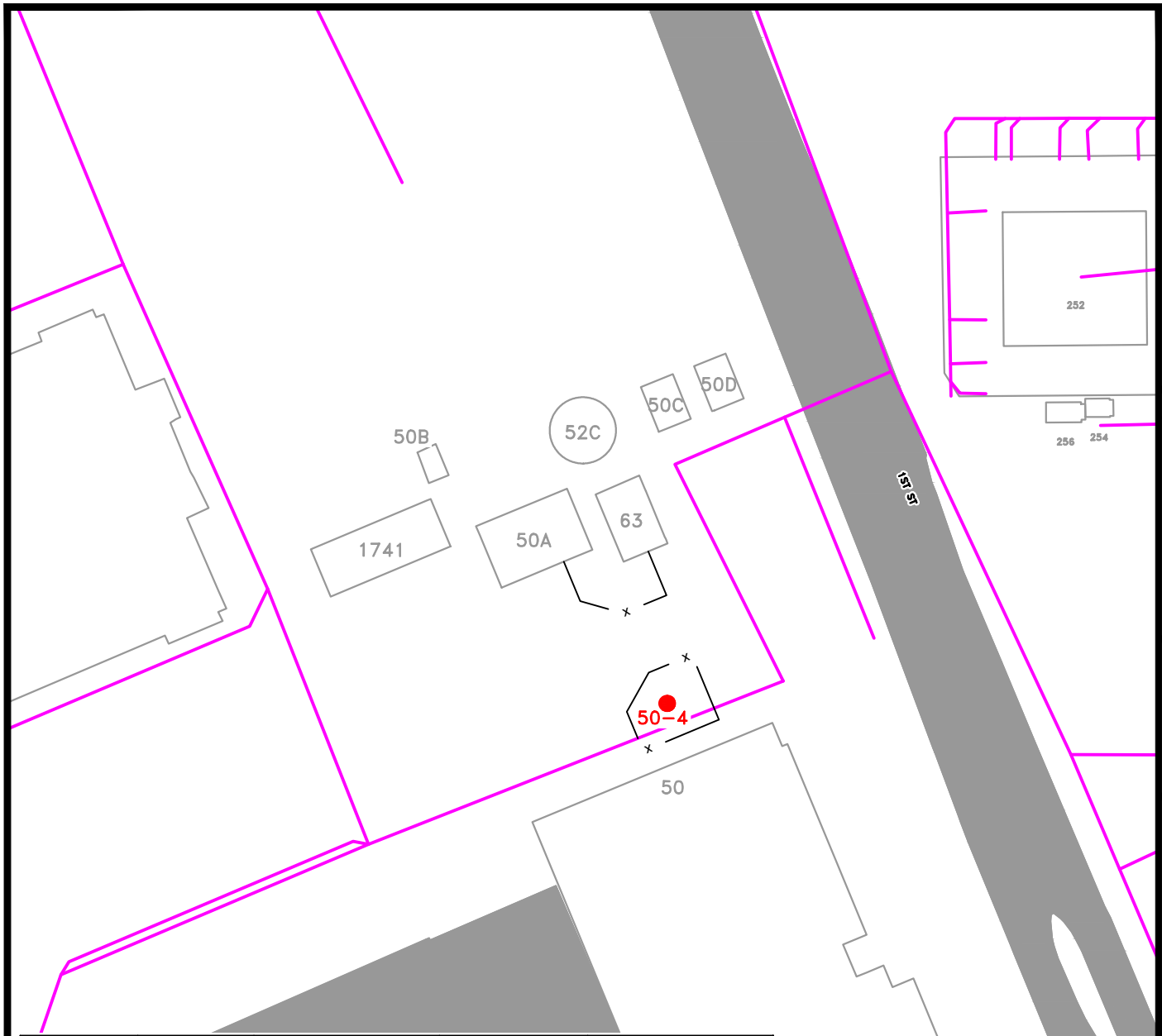
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
50-3	50	AST	630	ULSD

NOTE

- Self contained emergency generator on elevated concrete pedestal.

136010_CC09

JUNE 2014



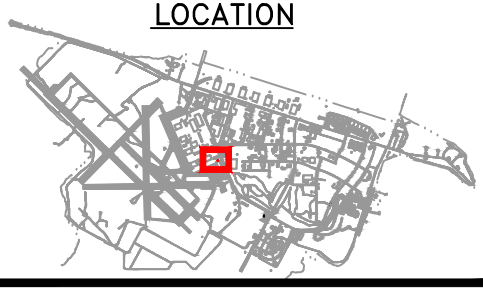
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

100 0 50 100

1 inch = 100 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 50-4

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

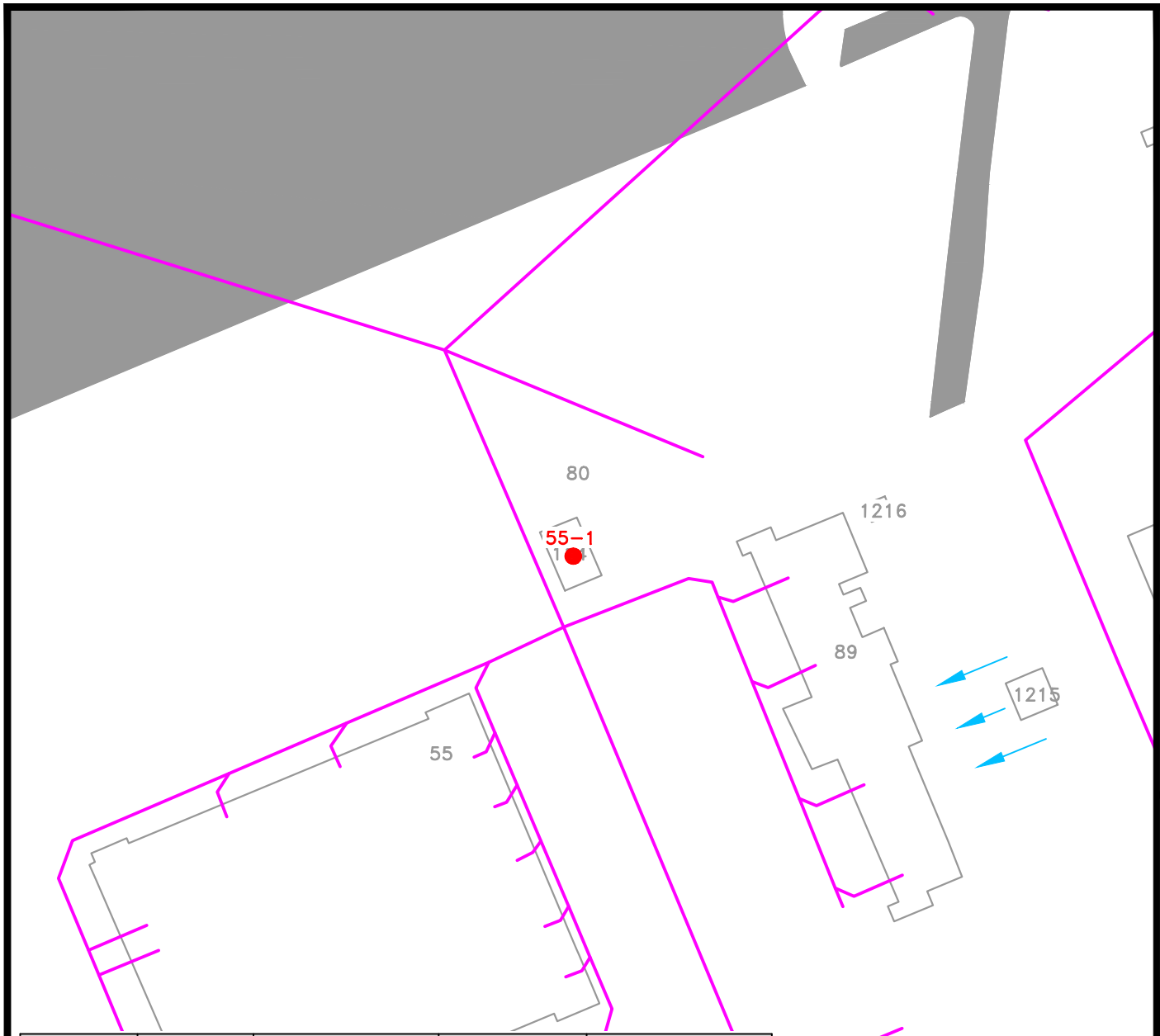
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
50-4	50	AST	357	ULSD

NOTE

- Self contained emergency generator on concrete pedestal.

136010_CC09

JUNE 2014



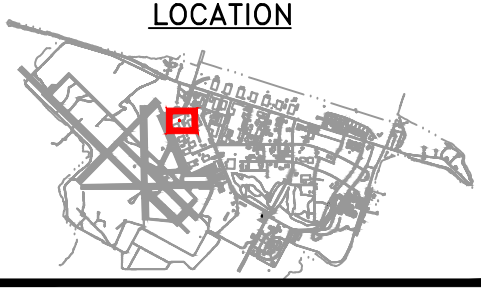
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

100 0 50 100

1 inch = 100 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 55-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
55-1	114	AST	280	ULSD

NOTE

- Single wall AST inside dike inside building #55.

136010_CC09

JUNE 2014

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
62-1	60	AST	1,000	ULSD

NOTE

- Double walled AST with piping outside containment.

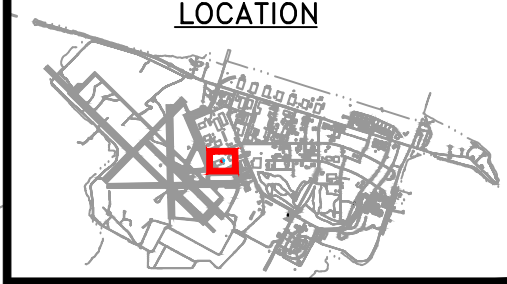
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- SHEET FLOW
- STORM SEWER LINE

100 0 50 100

1 inch = 100 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 62-1

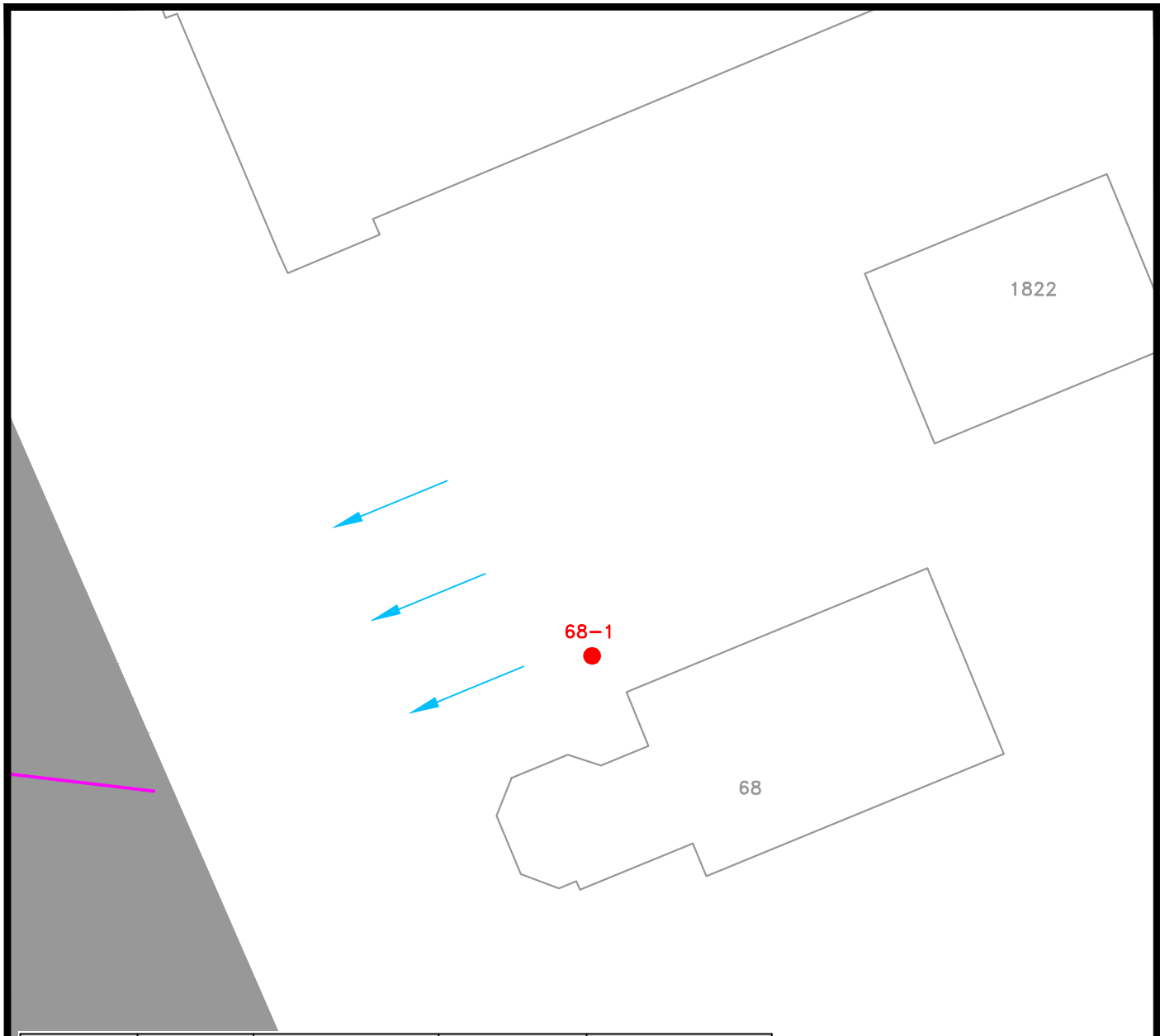
SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

136010_CC09

JUNE 2014



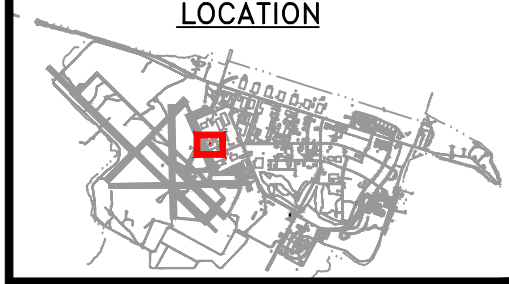
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- SHEET FLOW
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 68-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

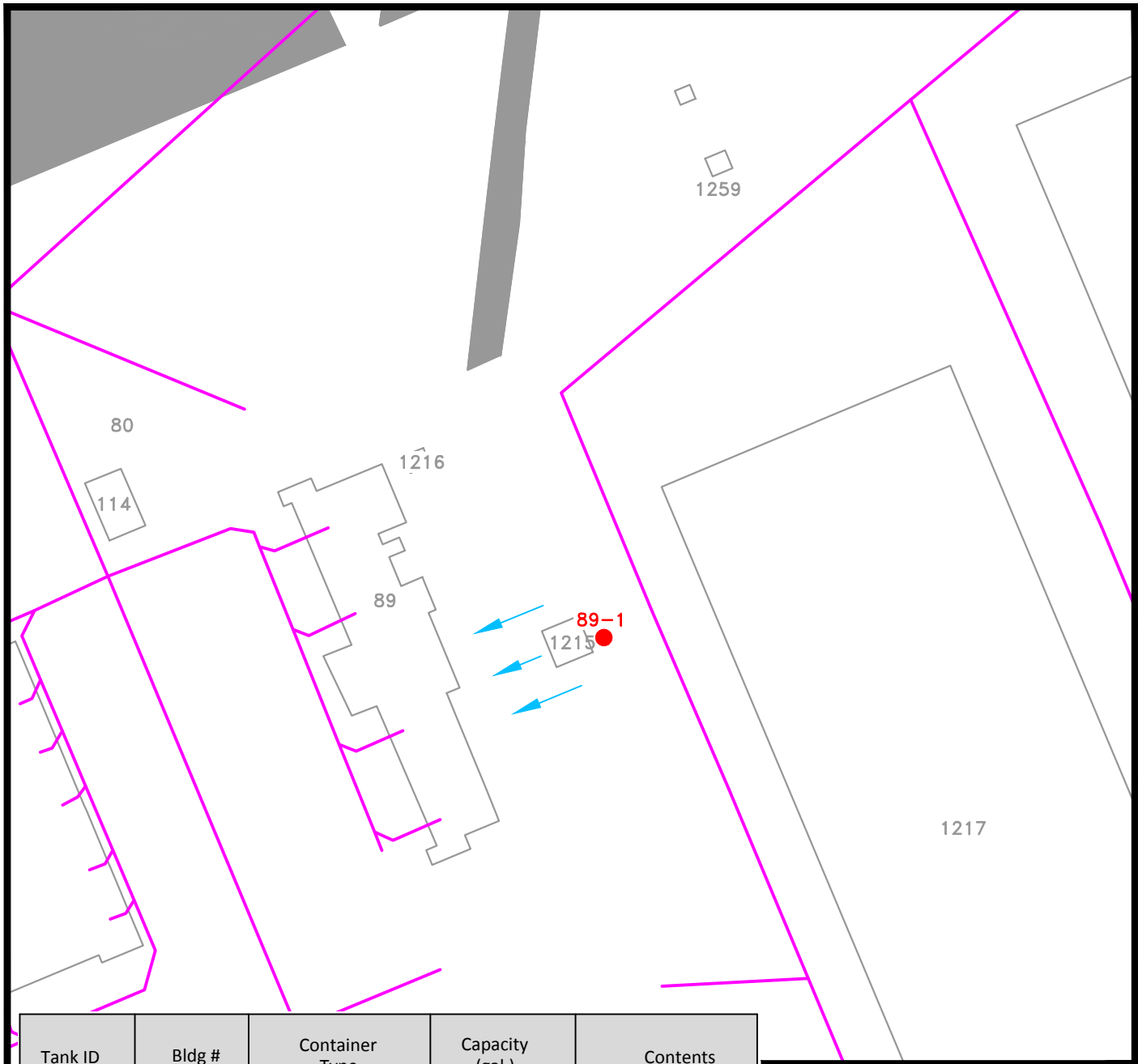
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
68-1	68	AST	300	ULSD

NOTE

- Double walled rectangular AST with piping outside containment.

136010_CC09

JUNE 2014



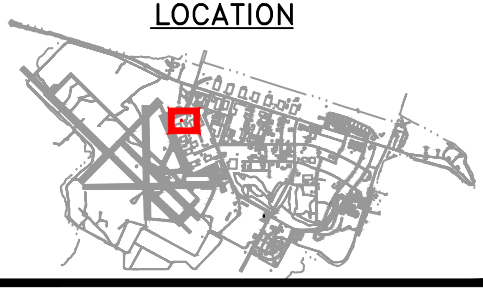
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- SHEET FLOW
- STORM SEWER LINE

100 0 50 100

1 inch = 100 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 89-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

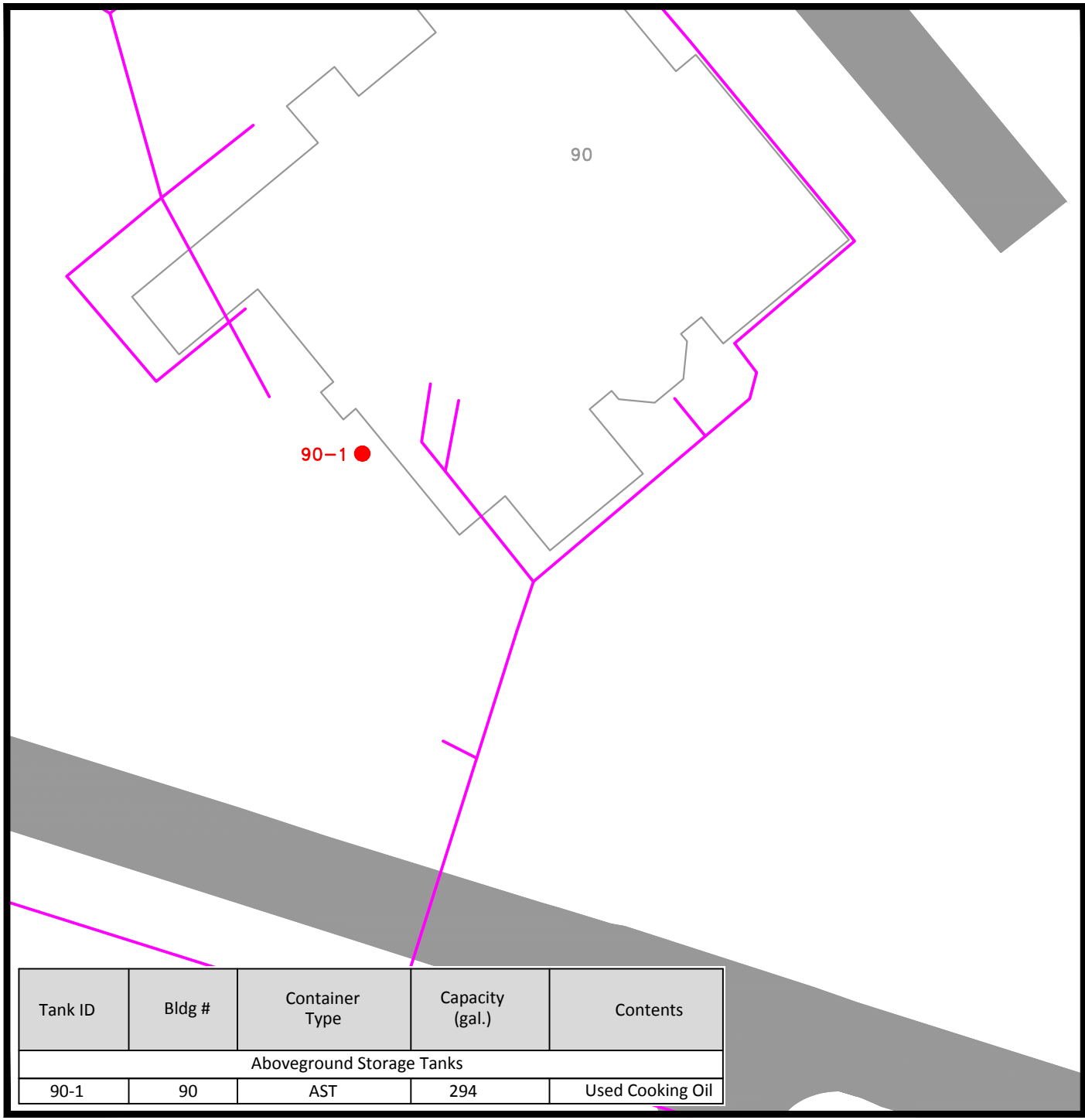
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
89-1	1215	AST	1,000	ULSD

NOTE

- Double walled fireguard AST with piping outside containment.

136010_CC09

JUNE 2014



Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
90-1	90	AST	294	Used Cooking Oil

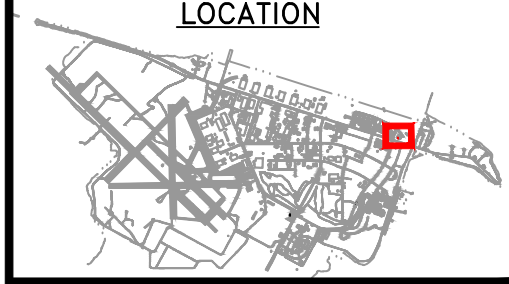
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- CONTAINMENT
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



Baker

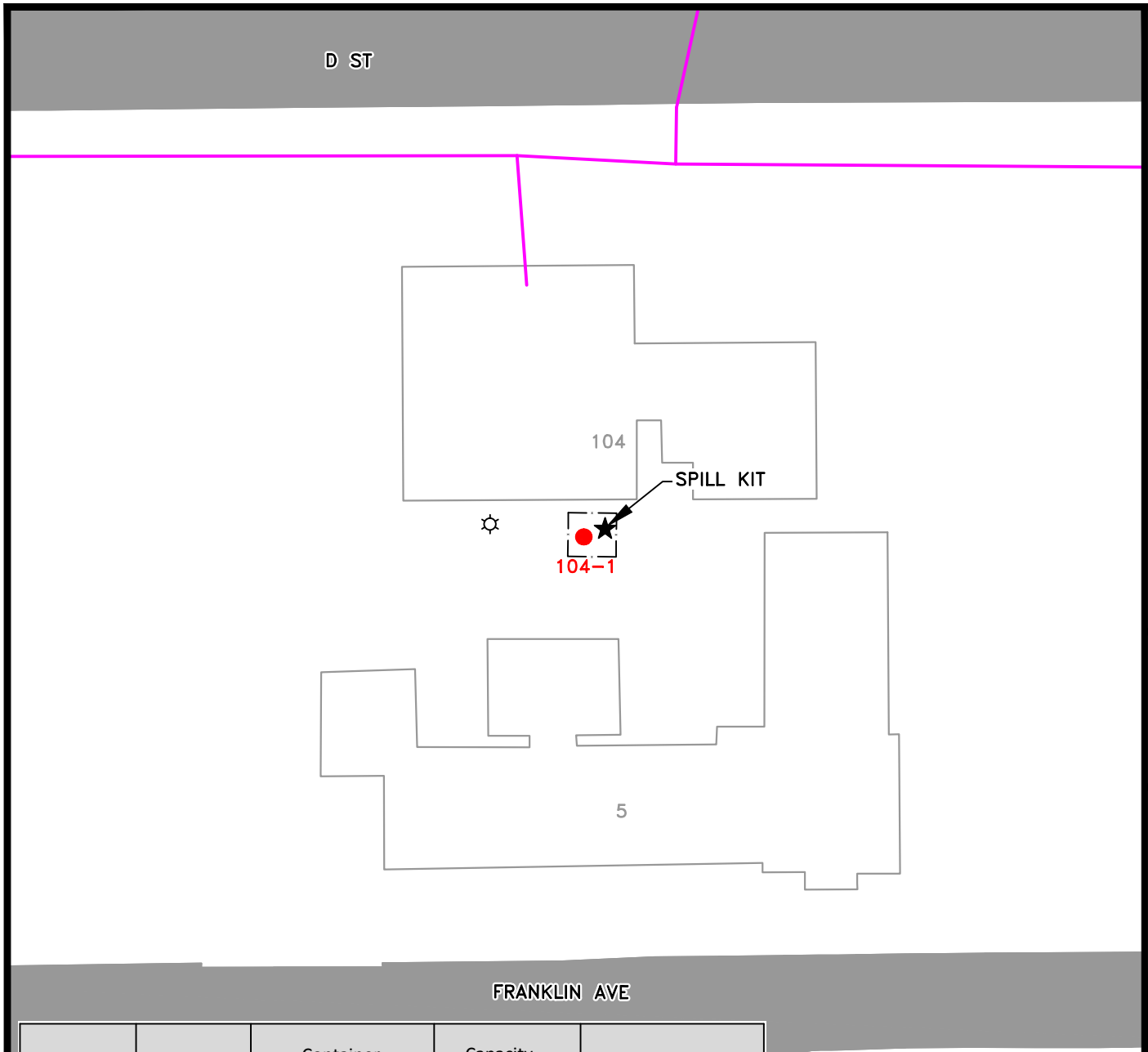
ABOVEGROUND STORAGE TANK 90-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

136010_CC09

JUNE 2014



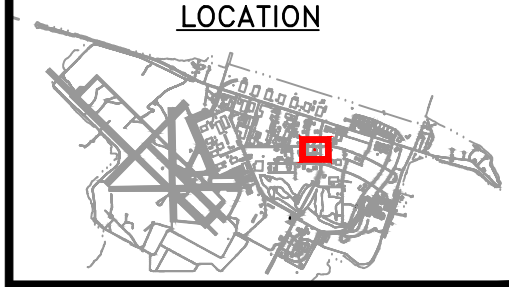
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- LIGHT POLE
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 104-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

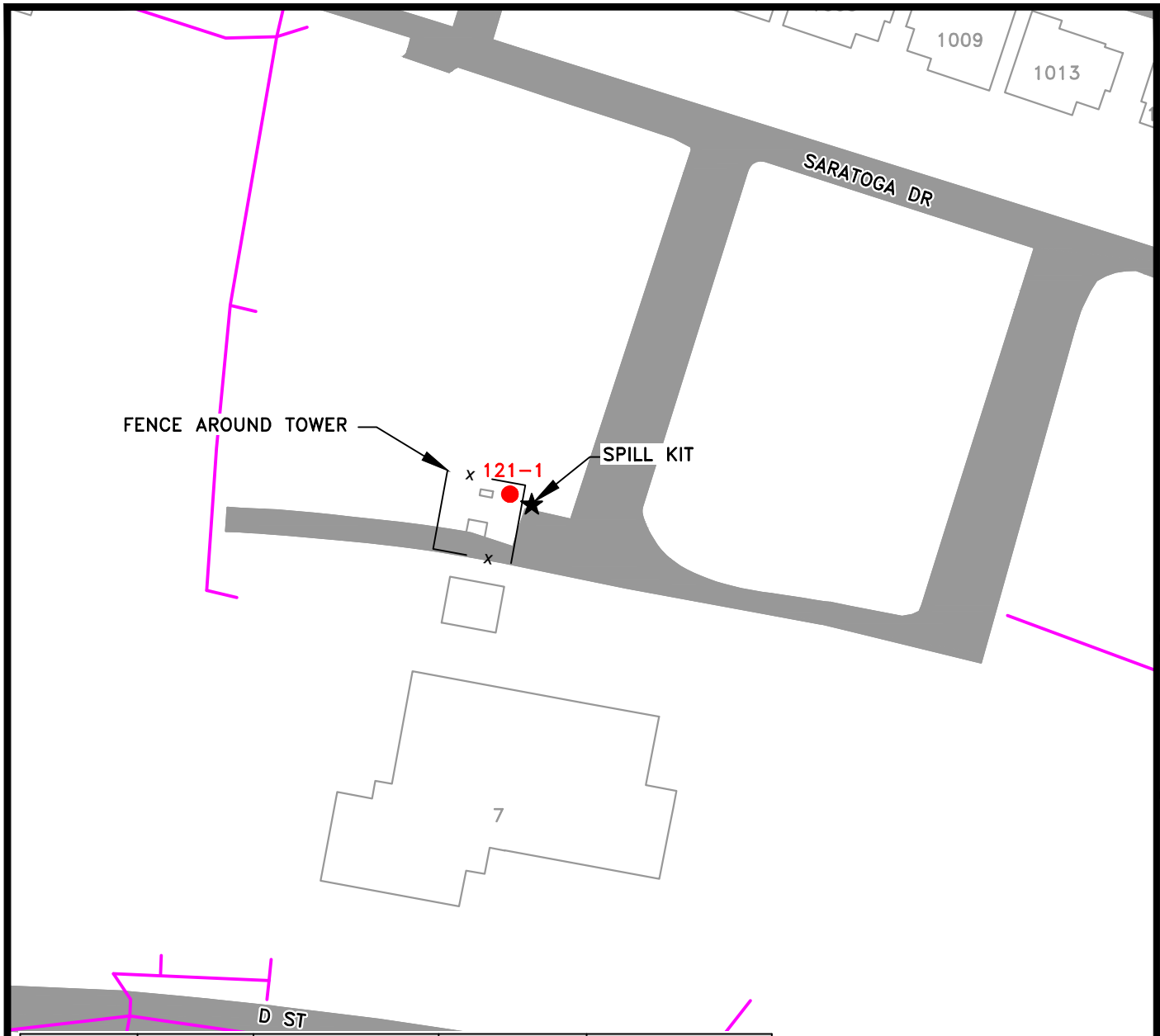
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
104-1	104	AST	80	ULSD

NOTE

- Self contained emergency generator.
- Located within security fence.

136010_CC09

JUNE 2014



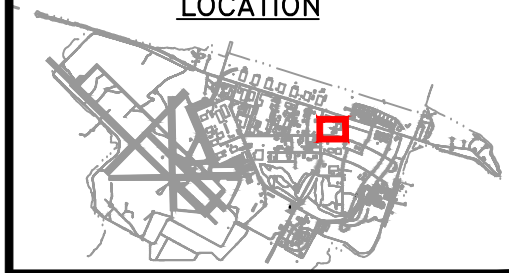
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- SHEET FLOW
- CONTAINMENT
- STORM SEWER LINE

100 0 50 100

1 inch = 100 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 121-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

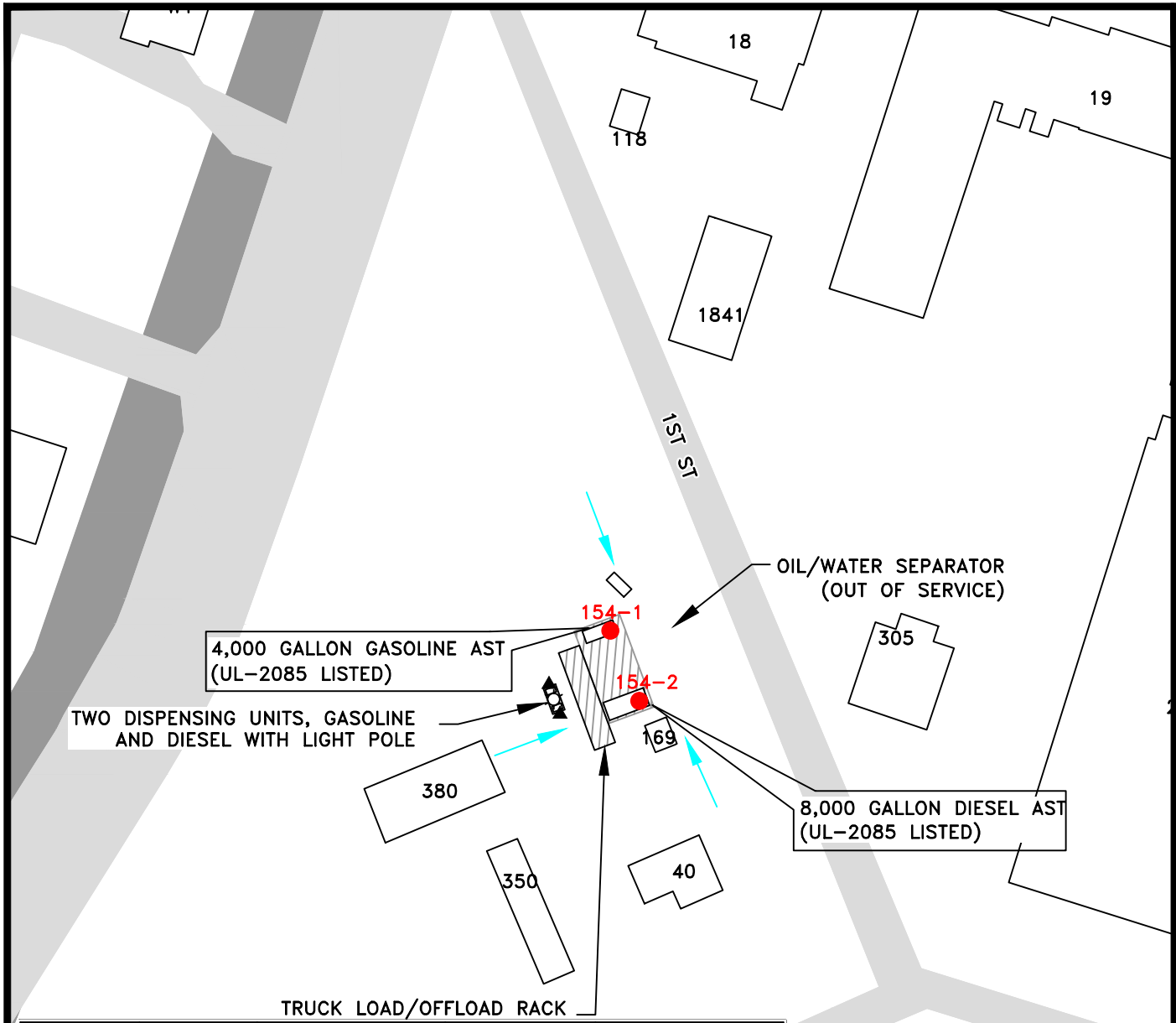
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
121-1	121	AST	250	ULSD

NOTE

- Self contained emergency generator inside security fence.

136010_CC09

JUNE 2014



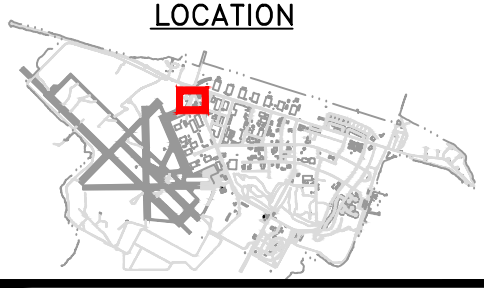
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- LIGHT POLE
- SHEET FLOW
- CONTAINMENT
- DISPENSING UNIT

100 0 50 100

1 inch = 100 ft.

LOCATION



Baker

ABOVEGROUND STORAGE TANKS
154-1 and 154-2

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

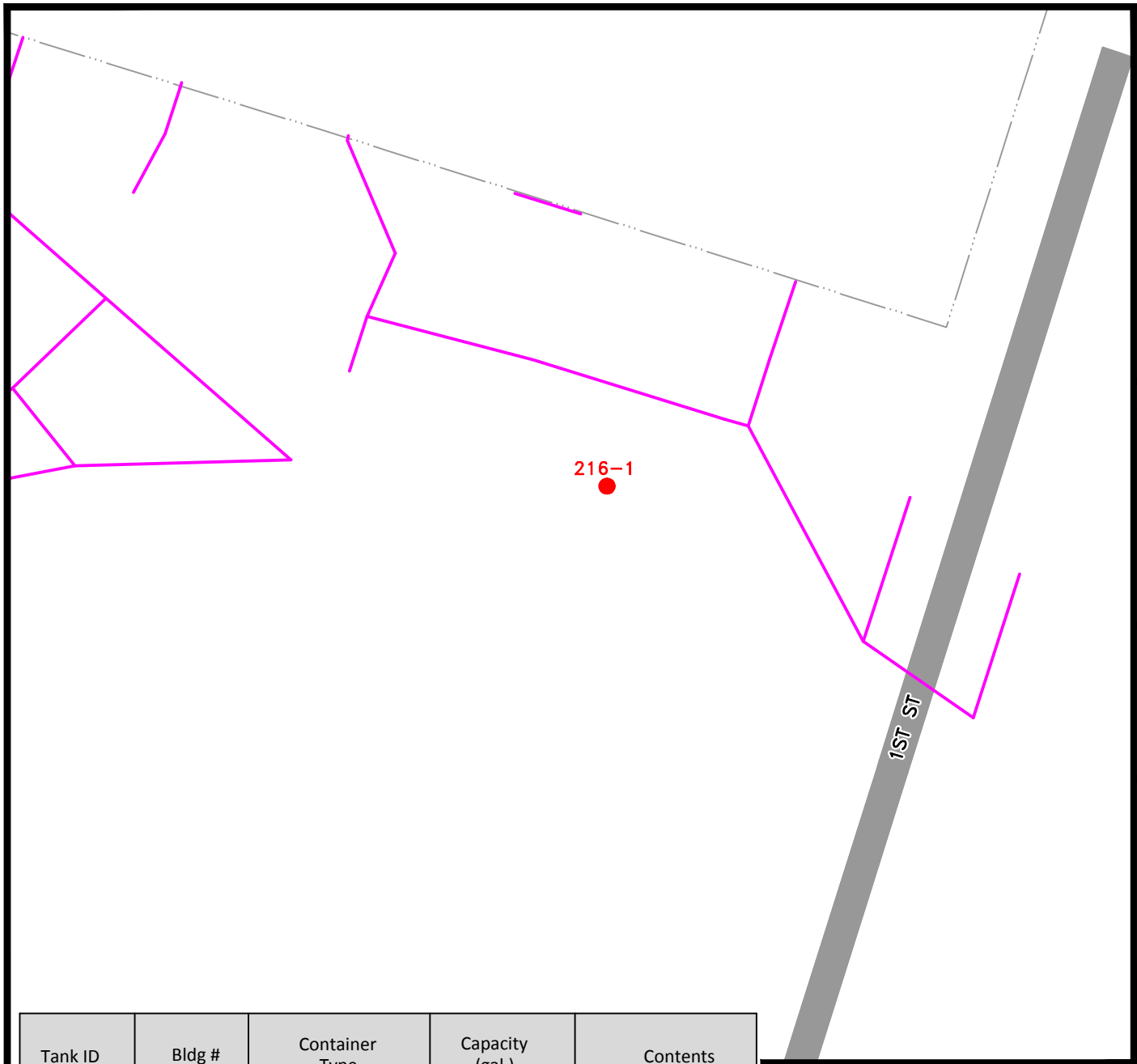
NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
154-1	380	AST	4,000	gasoline
154-2	380	AST	8,000	ULSD

NOTE

- Double walled ASTs with piping inside containment.

123512_CC14 JUNE 2014



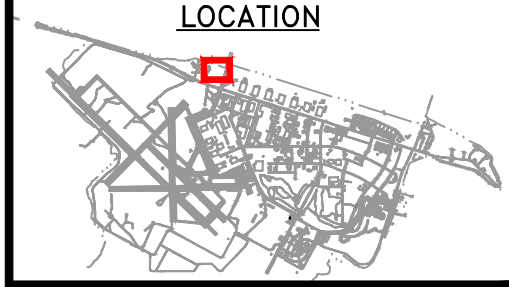
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

100 0 50 100

1 inch = 100 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 216-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

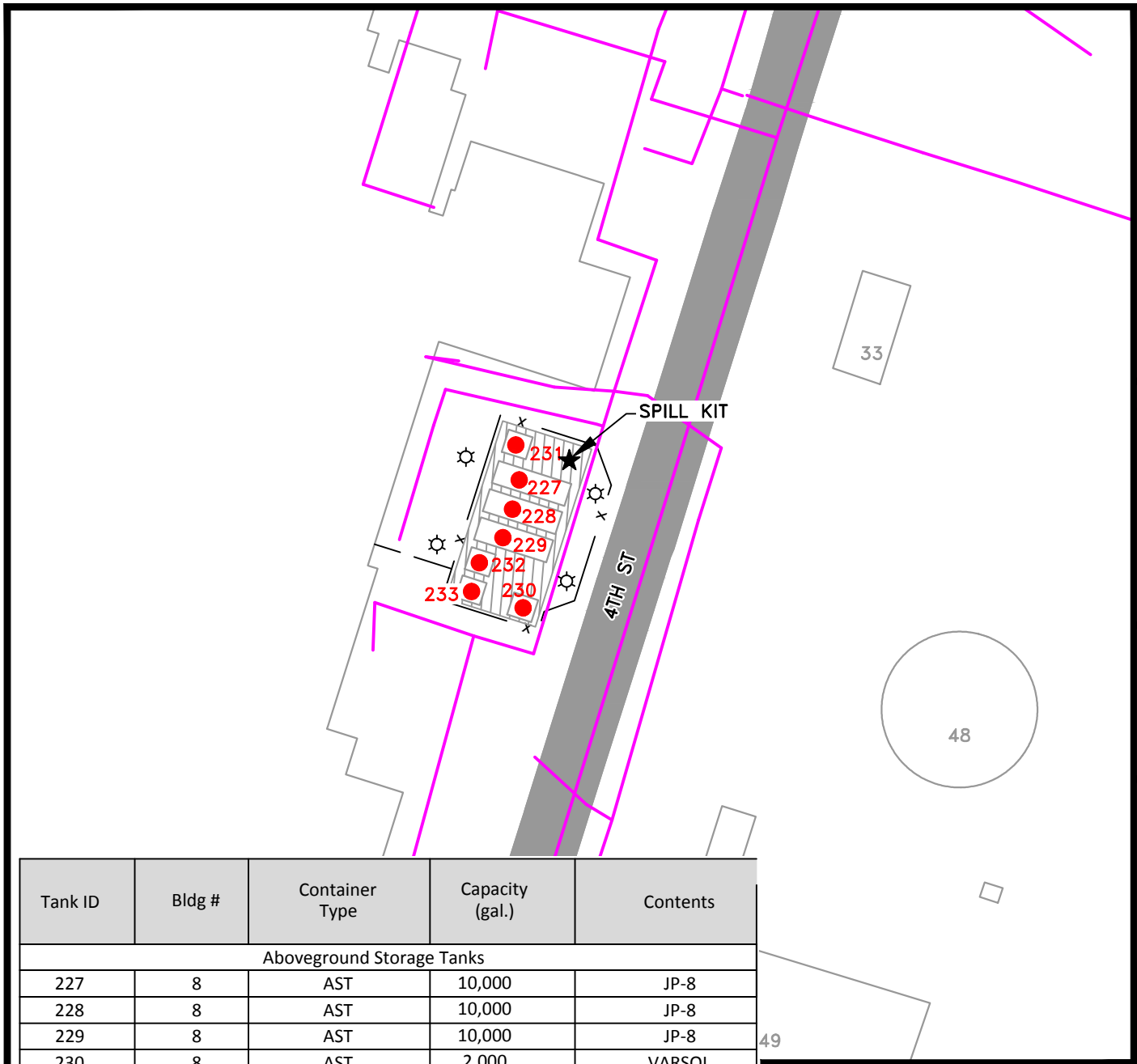
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
216-1	N/A	AST	150	ULSD

NOTE

- Out of service.

136010_CC09

JUNE 2014



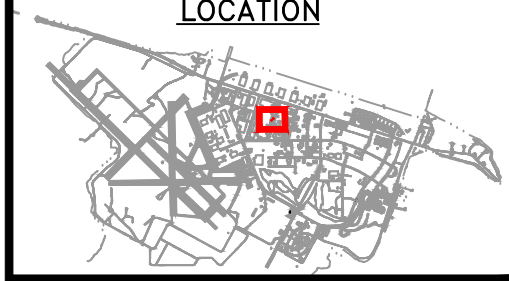
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- CONTAINMENT
- STORM SEWER LINE

100 0 50 100

1 inch = 100 ft.

LOCATION



Baker

ABOVEGROUND STORAGE TANKS
227, 228, 229, 230, 231, 232 and 233

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

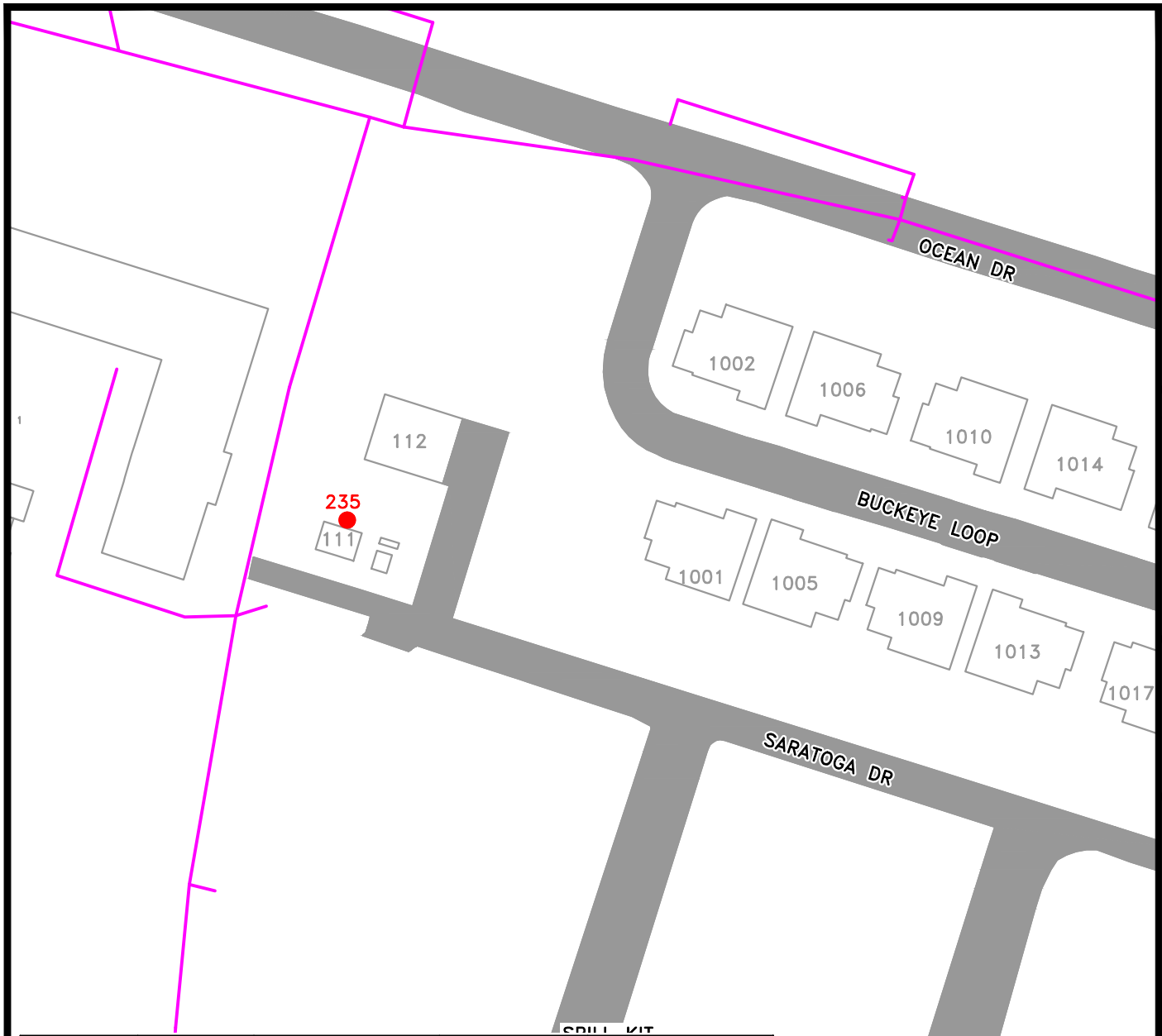
NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
227	8	AST	10,000	JP-8
228	8	AST	10,000	JP-8
229	8	AST	10,000	JP-8
230	8	AST	2,000	VARSOL
231	8	AST	2,000	VARSOL
232	8	AST	2,000	Turbine Oil
233	8	AST	2,000	Preservation oil

NOTE

- CCAD fuel facility inside security fence.

136010_CC09 JUNE 2014



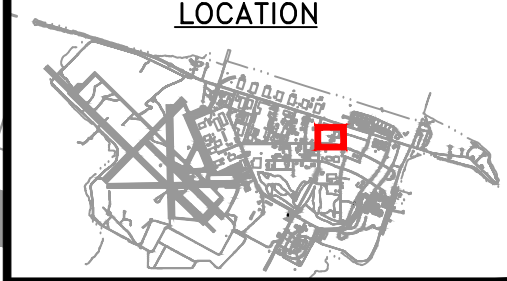
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

100 0 50 100

1 inch = 100 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 235

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

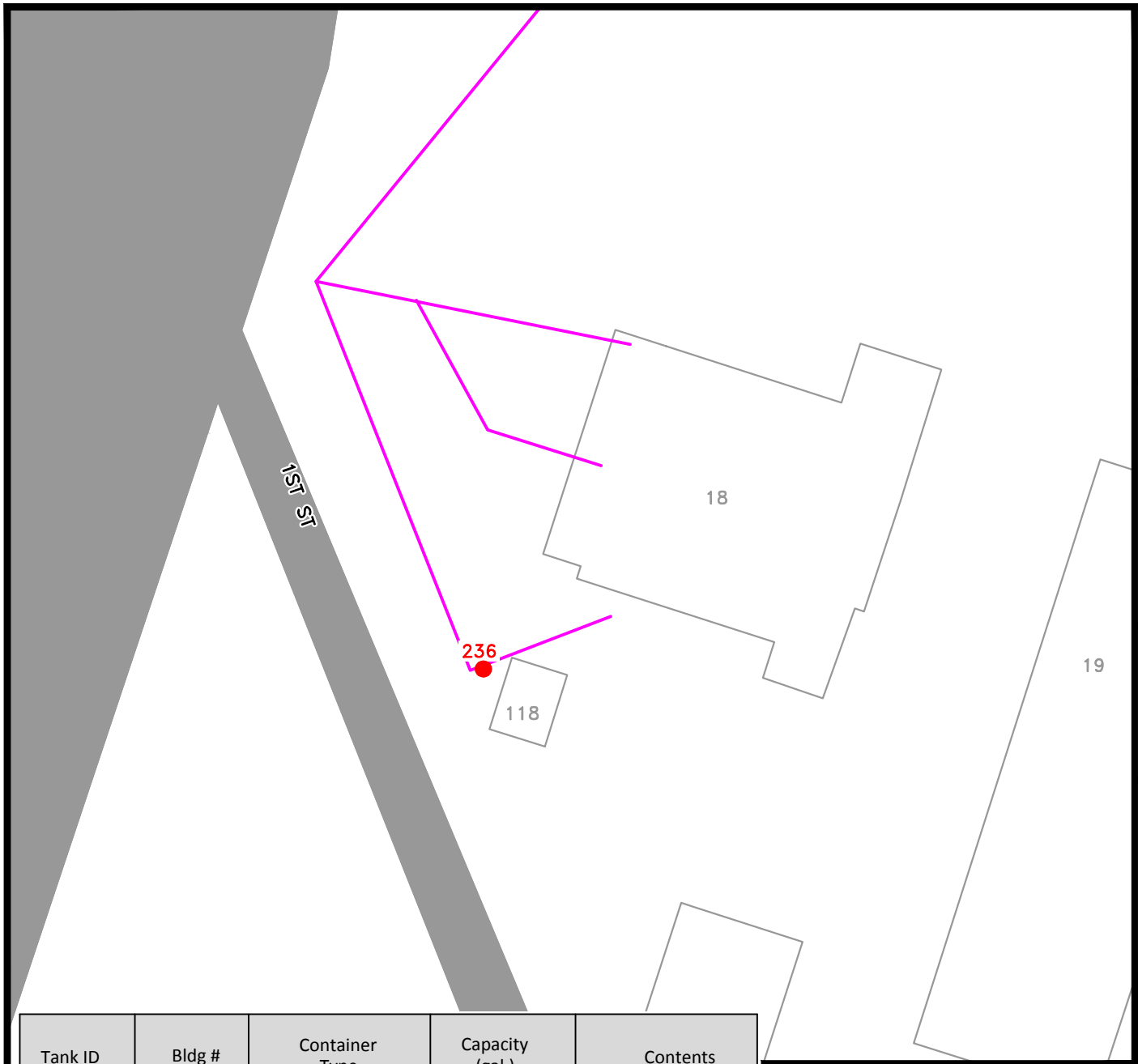
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
235	111	AST	500	ULSD

NOTE

- Double walled AST with single wall piping outside containment.

136010_CC09

JUNE 2014



LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION

NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 236

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

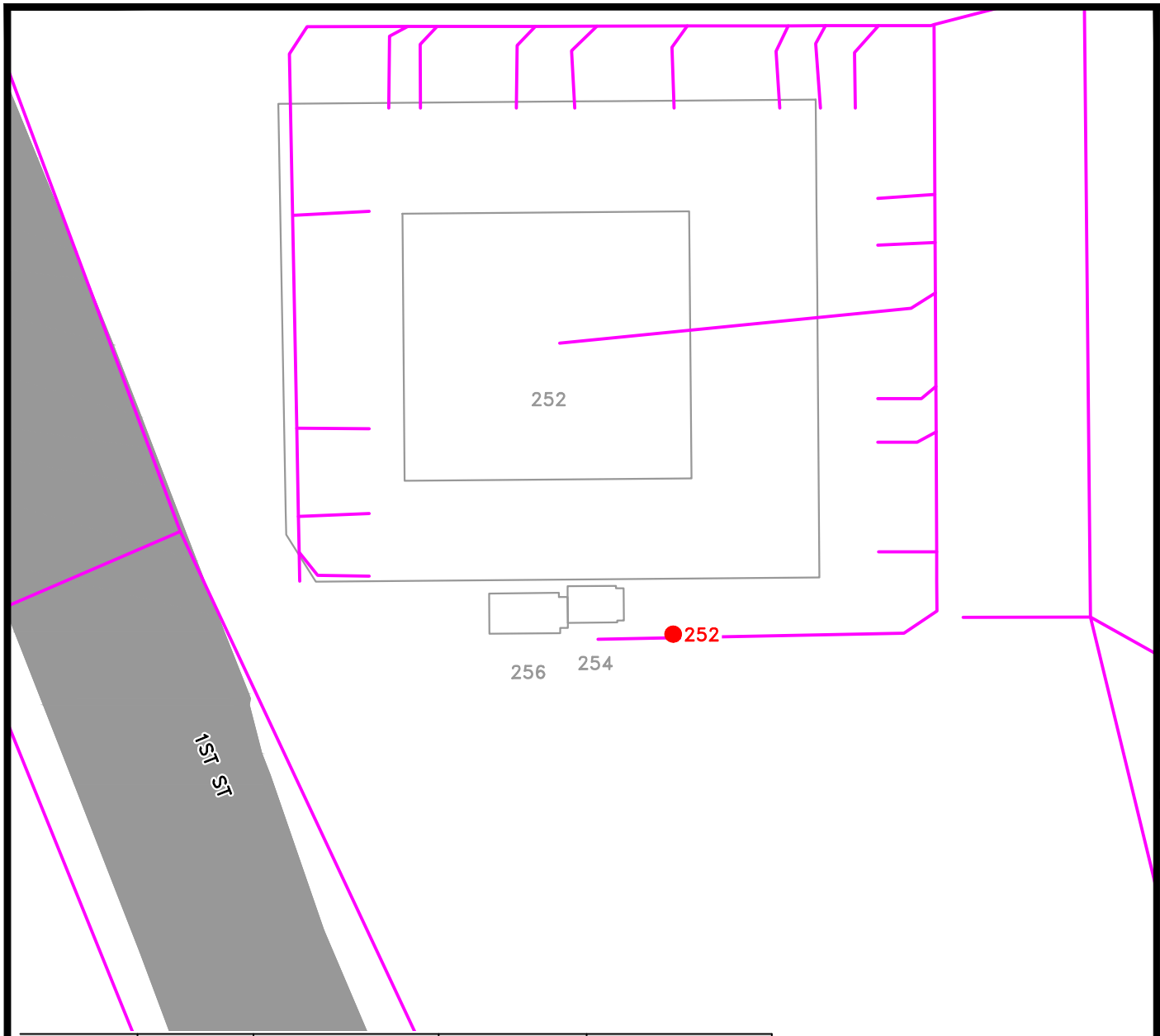
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
236	118	AST	250	ULSD

NOTE

- Double walled AST with single wall piping outside containment, located near storm water inlet.

136010_CC09

JUNE 2014



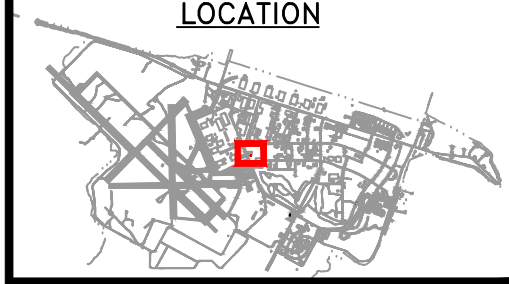
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 252

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

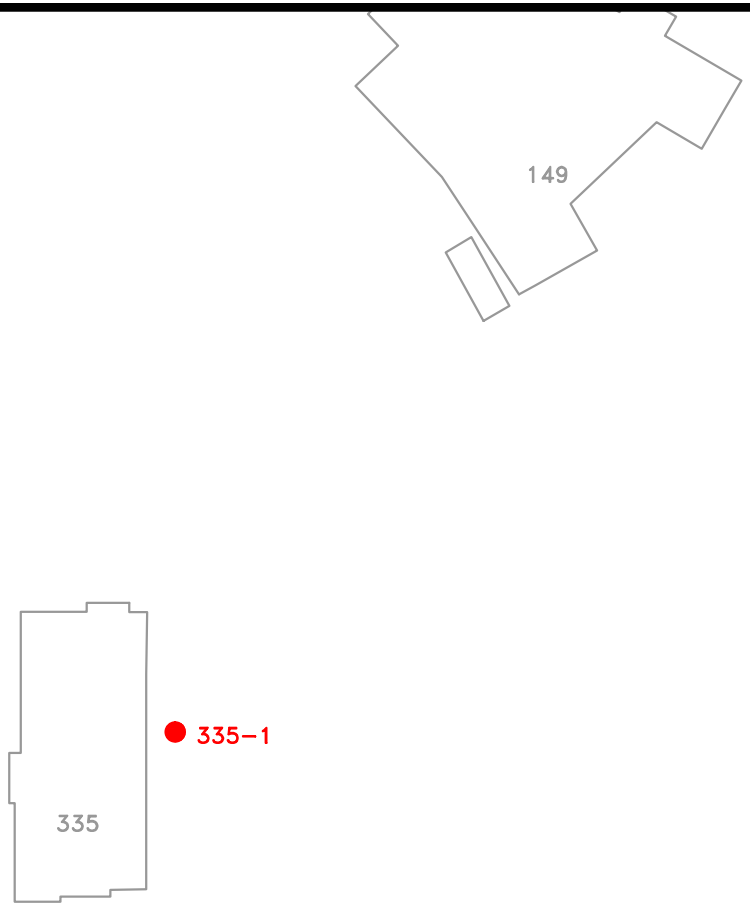
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
252	254	AST	250	ULSD

NOTE

- AST 252 out of service.

136010_CC09

JUNE 2014



Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
335-1	335	AST	294	Used Cooking Oil

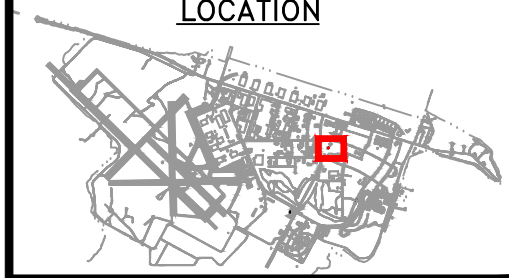
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- CONTAINMENT
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 335-1

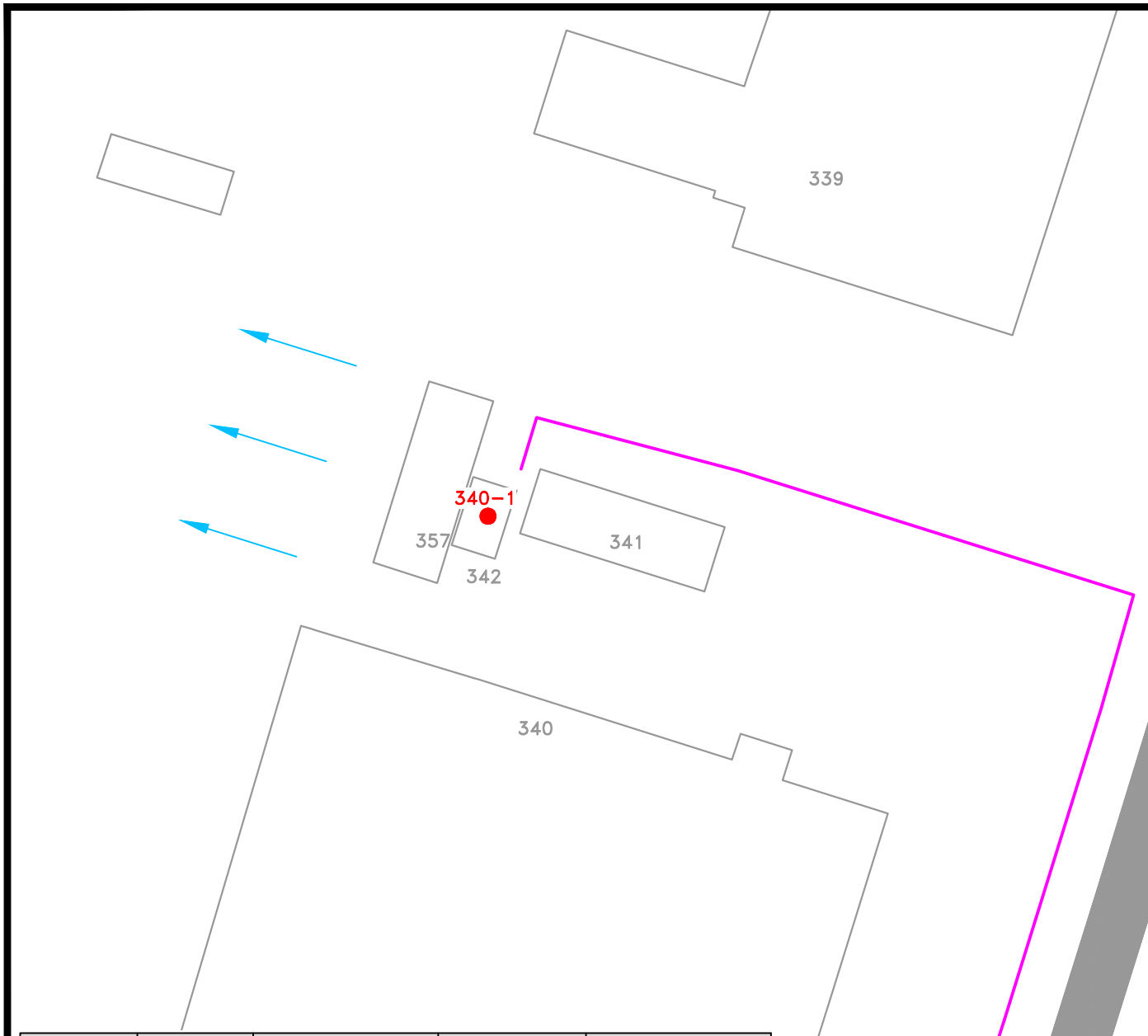
SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

136010_CC09

JUNE 2014



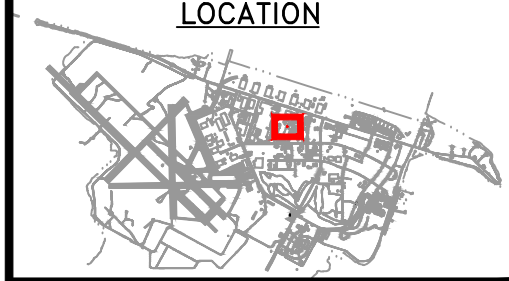
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- SHEET FLOW
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 340-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

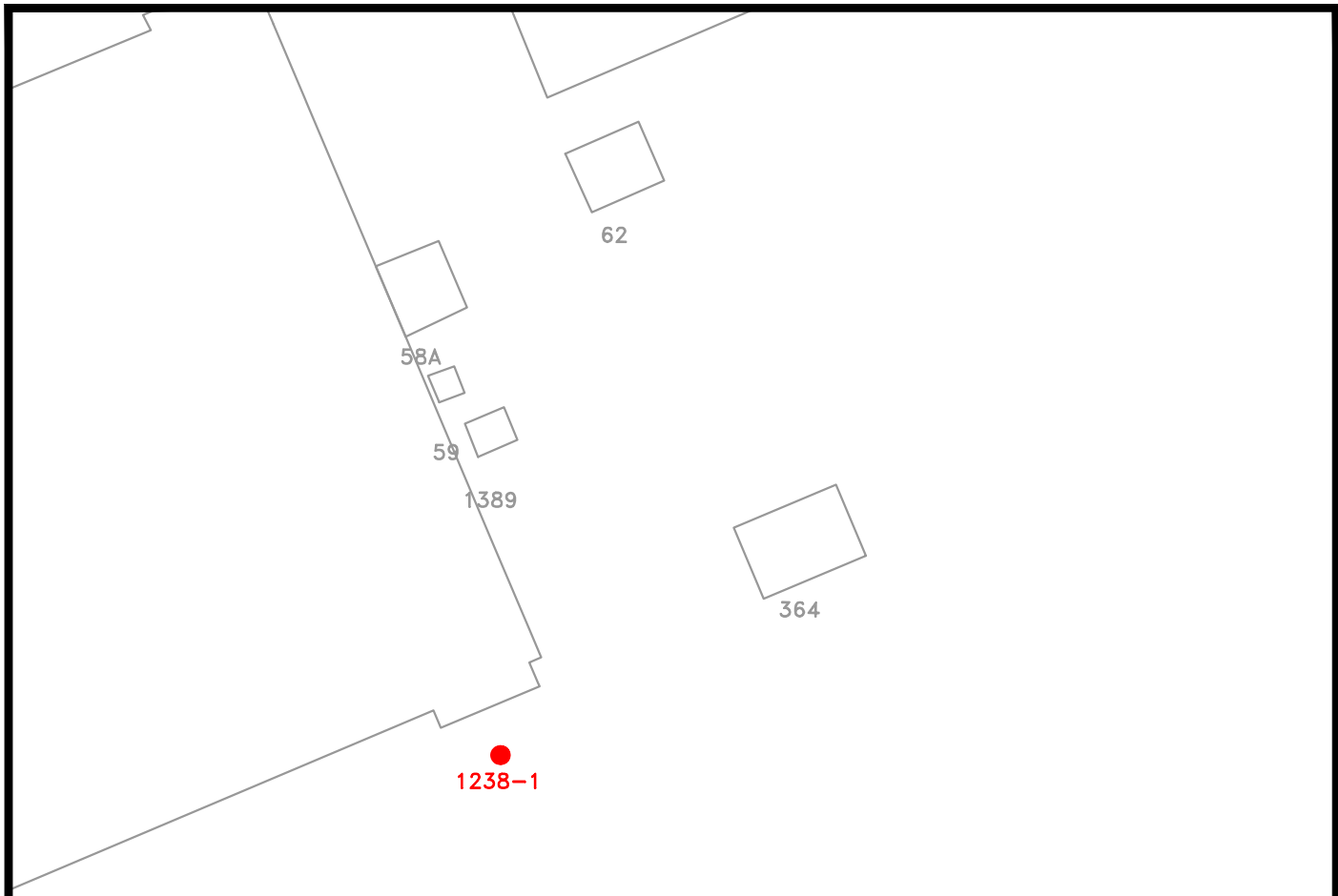
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
340-1	342	AST	200	ULSD

NOTE

- Self contained emergency generator located inside building 342.

136010_CC09

JUNE 2014



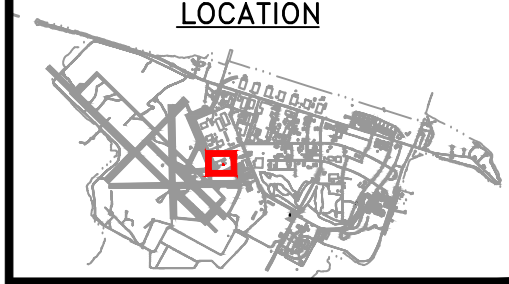
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 1238-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

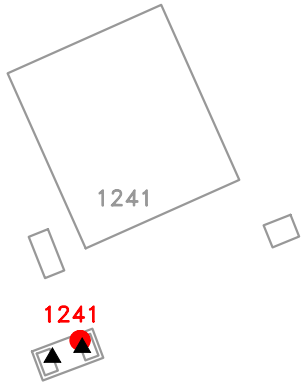
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1238-1	58	AST	1,000	ULSD

NOTE

- Double walled AST with piping outside containment.

136010_CC09

JUNE 2014



Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1241	1241	AST	500	ULSD

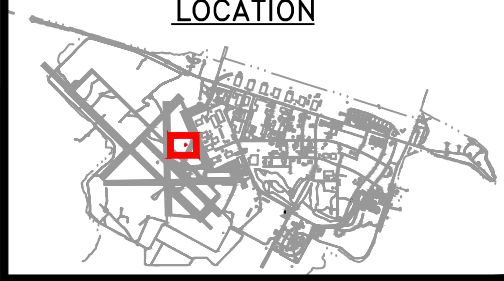
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- LIGHT POLE
- SHEET FLOW
- CONTAINMENT
- DISPENSING UNIT
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 1241

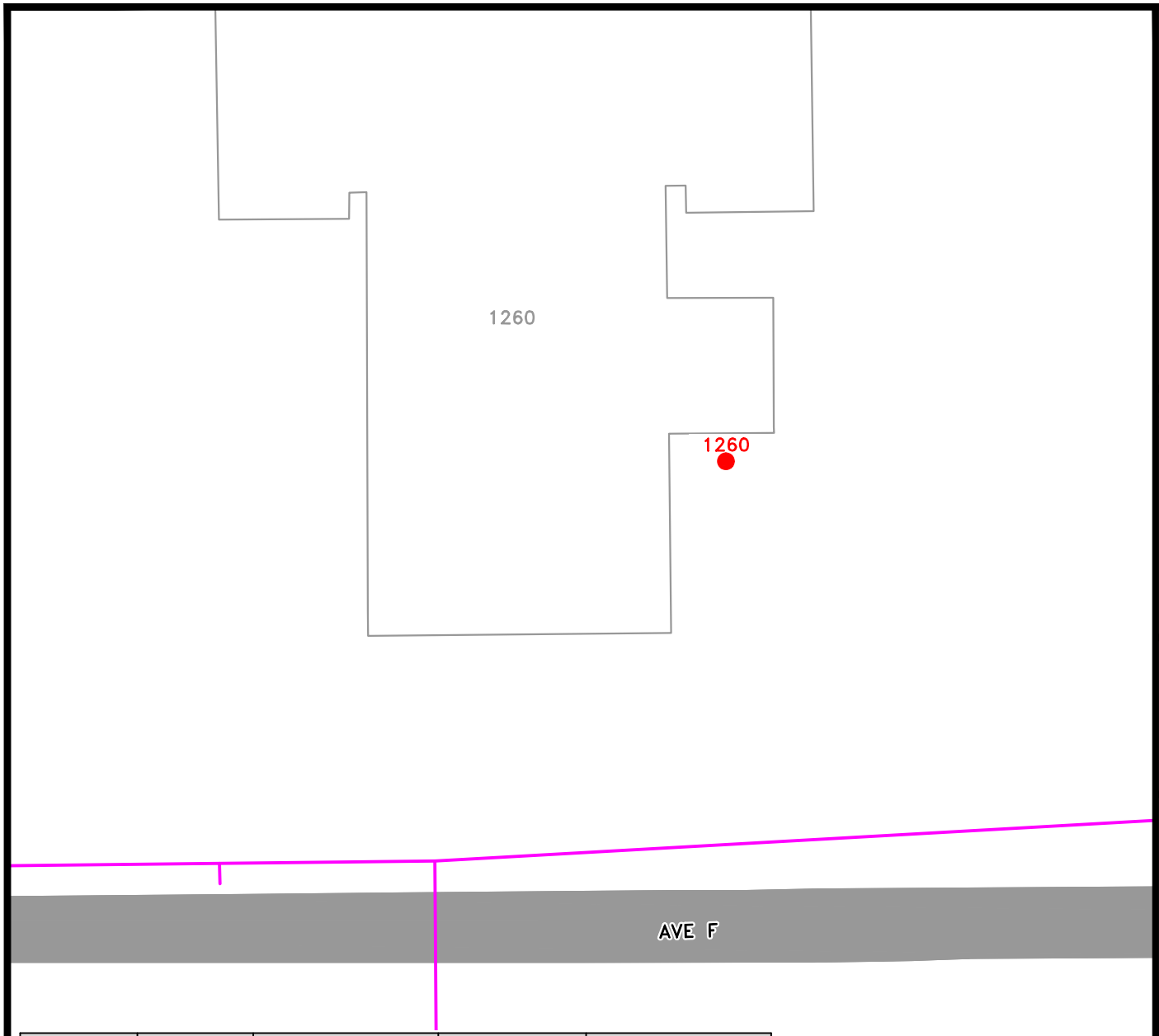
SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

136010_CC09

JUNE 2014



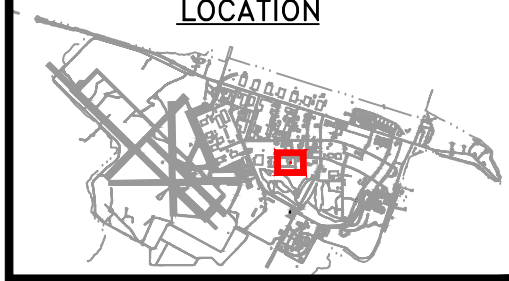
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 1260

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

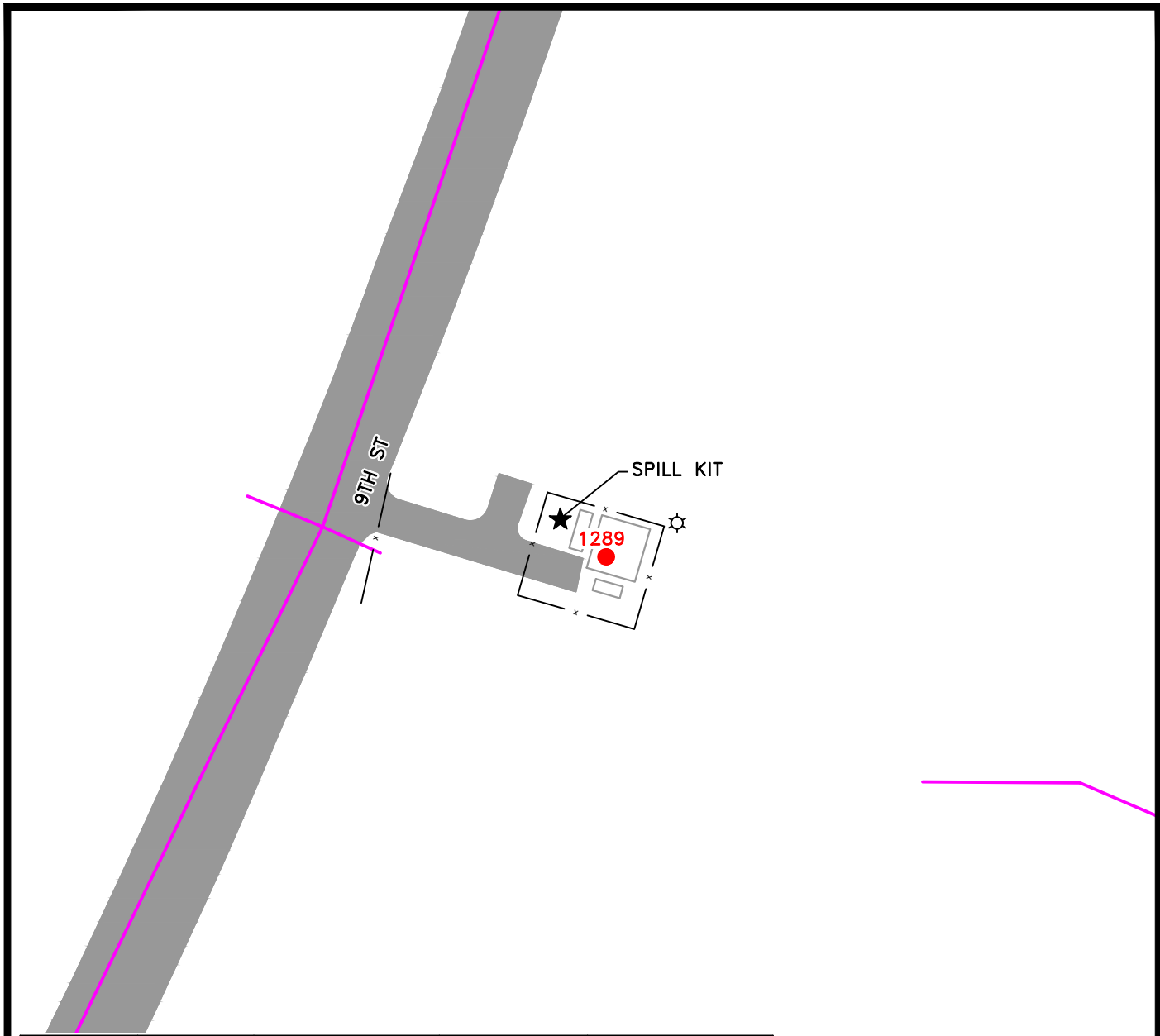
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1260	1260	AST	400	ULSD

NOTE

- Self contained emergency generator.

136010_CC09

JUNE 2014



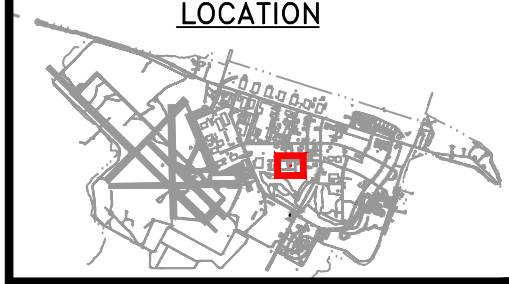
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- LIGHT POLE
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 1289

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

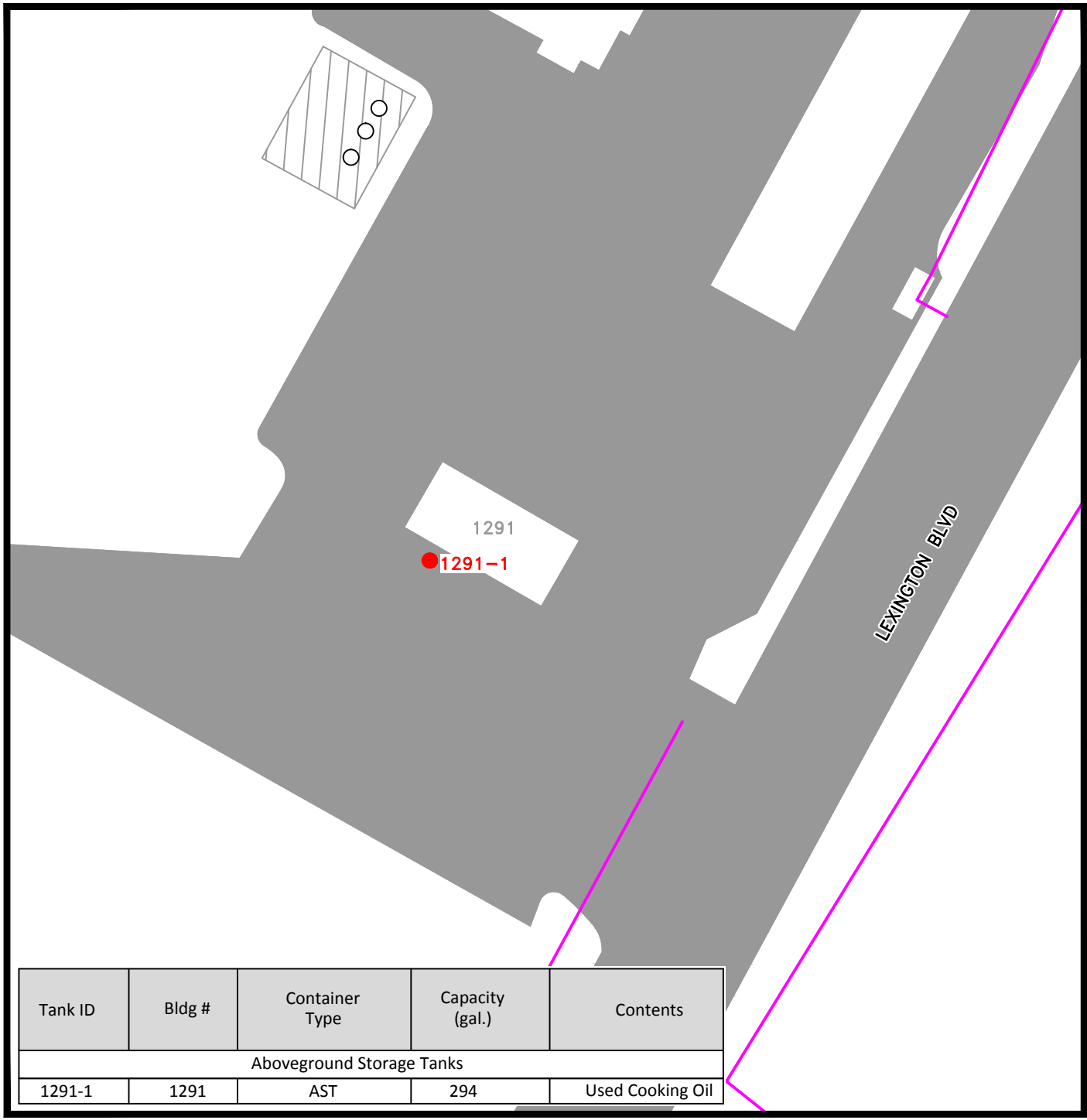
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1289	N/A	AST	130	ULSD

NOTE

- Self contained emergency generator.

136010_CC09

JUNE 2014



Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1291-1	1291	AST	294	Used Cooking Oil

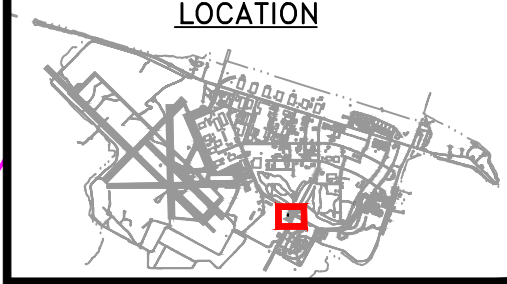
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- CONTAINMENT
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 1291-1

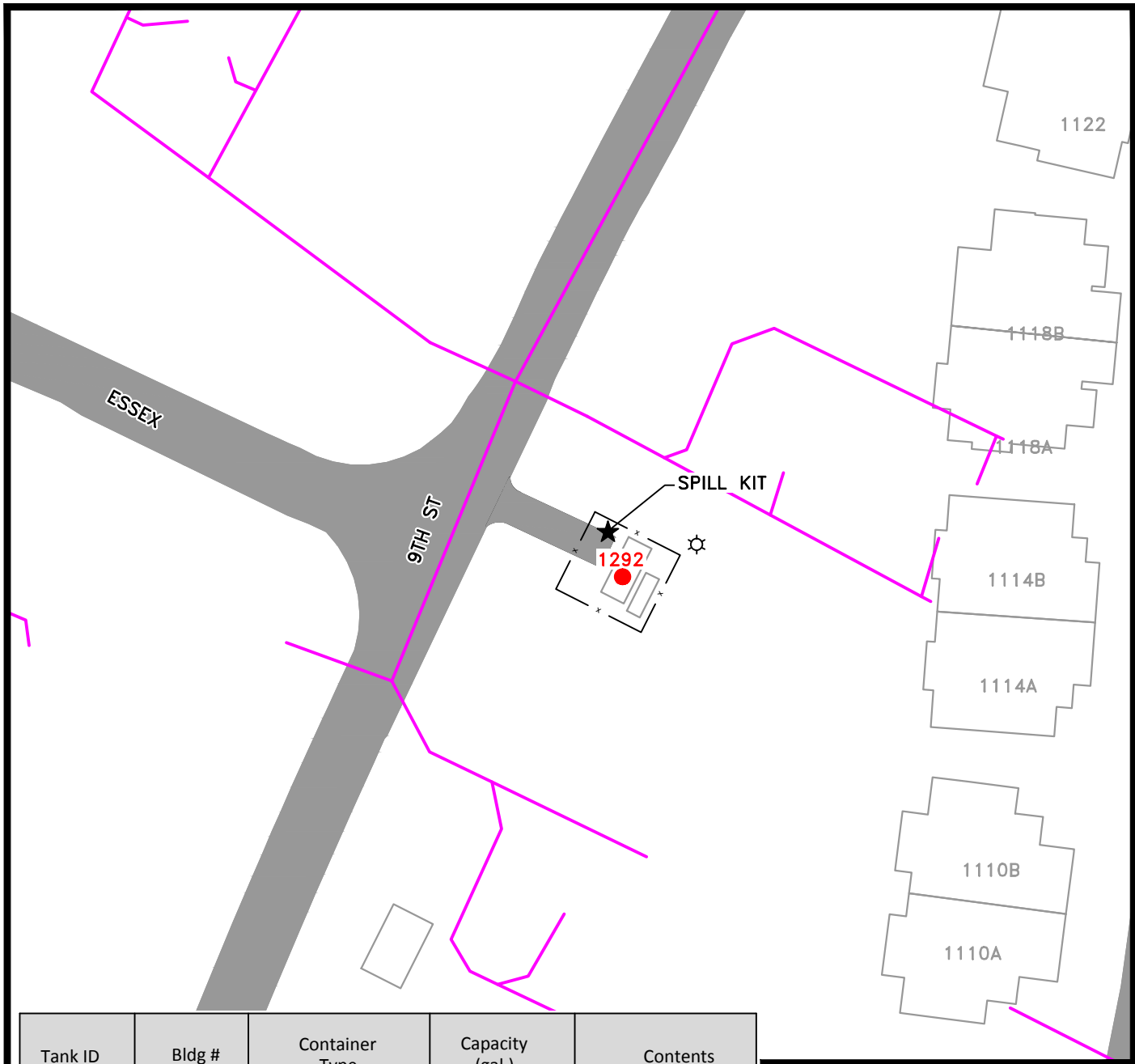
SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

136010_CC09

JUNE 2014



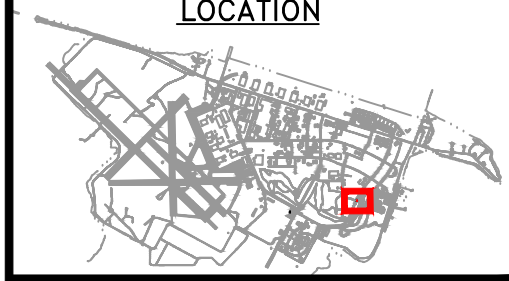
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- LIGHT POLE
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 1292

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

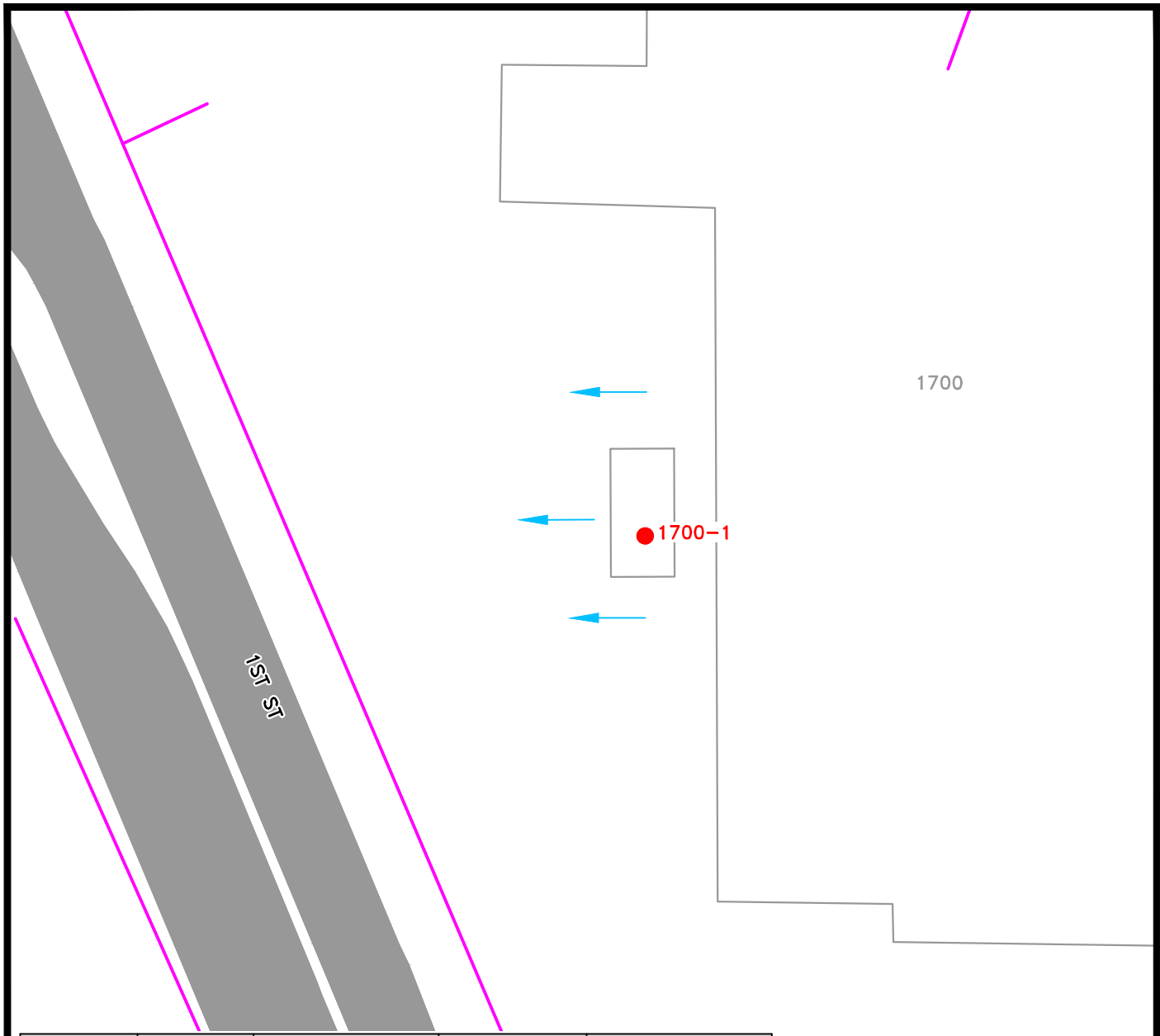
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1292	N/A	AST	83	ULSD

NOTE

- Self contained emergency generator enclosed by security fence.

136010_CC09

JUNE 2014



LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- SHEET FLOW
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION

NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 1700-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

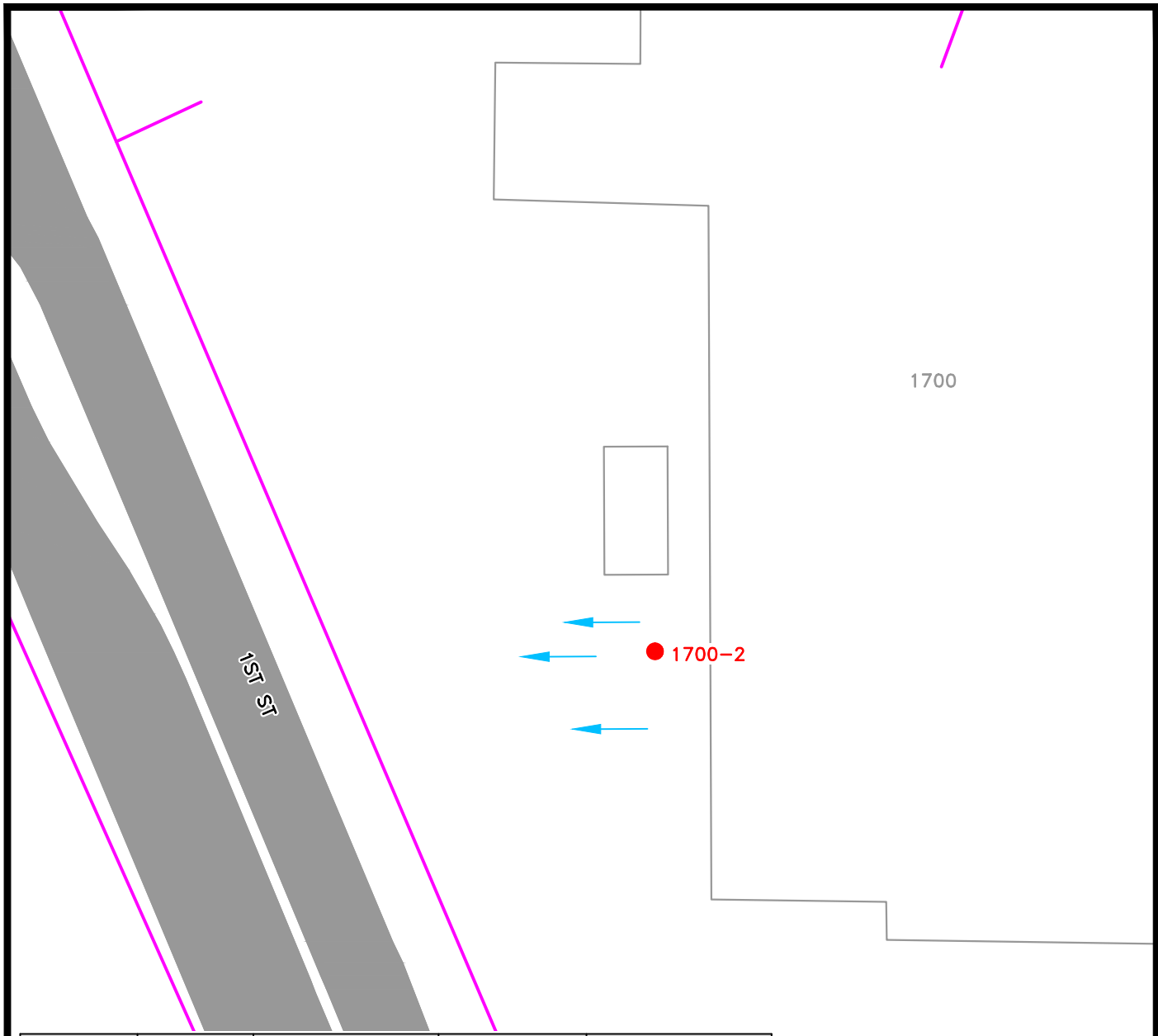
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1700-1	UNK	AST	250	ULSD

NOTE

- Double walled AST inside unmarked building.

136010_CC09

JUNE 2014



LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- SHEET FLOW
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION

Baker

ABOVEGROUND STORAGE TANK 1700-2

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

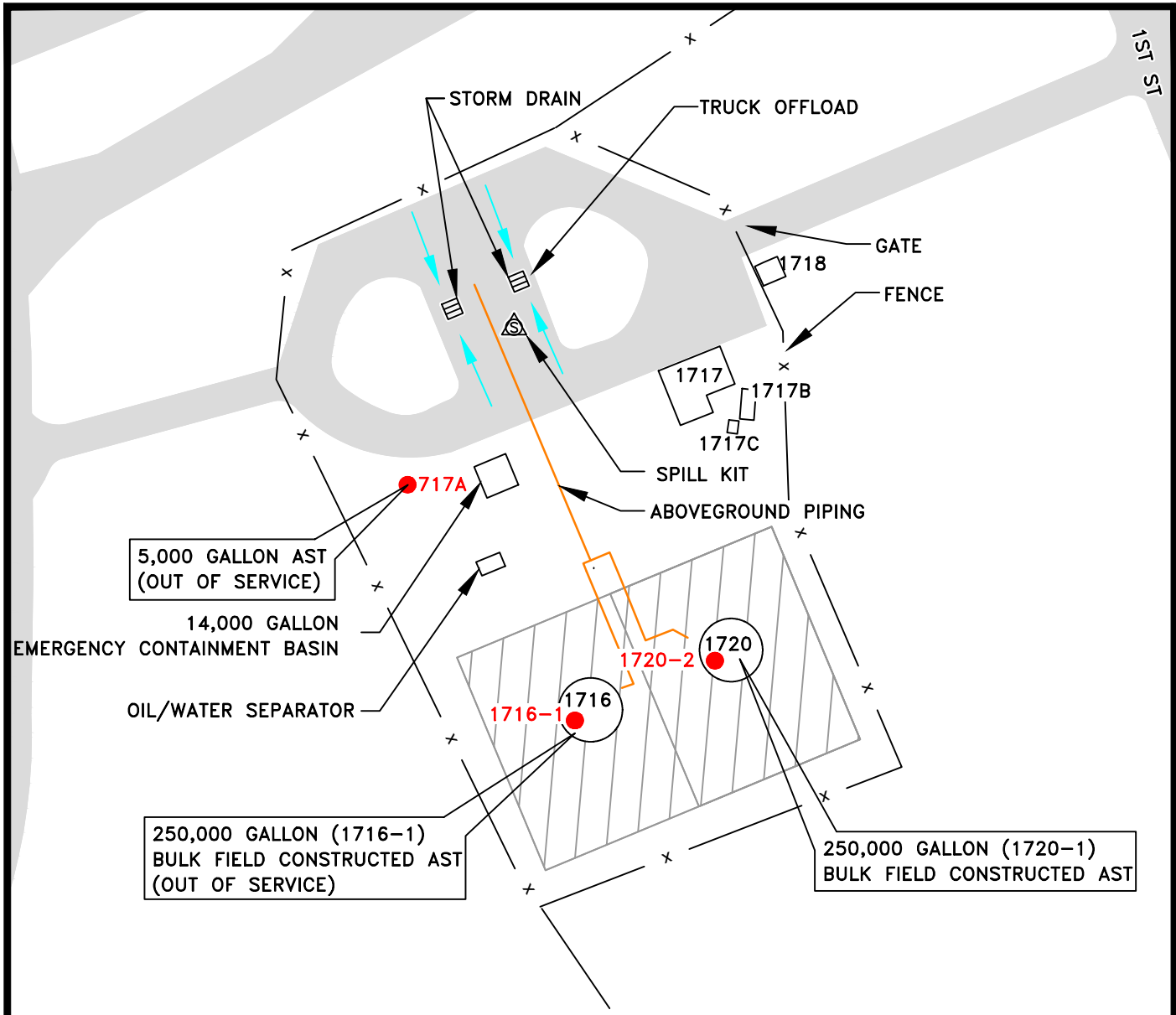
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1700-2	UNK	AST	450	ULSD

NOTE

- Self contained emergency generator.

136010_CC09

JUNE 2014



Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1716-1	1717	AST	250,000	JP-8
1720-2	1717	AST	250,000	JP-8

LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- SHEET FLOW
- CONTAINMENT
- STORM SEWER LINE

100 0 50 100

1 inch = 100 ft.

LOCATION

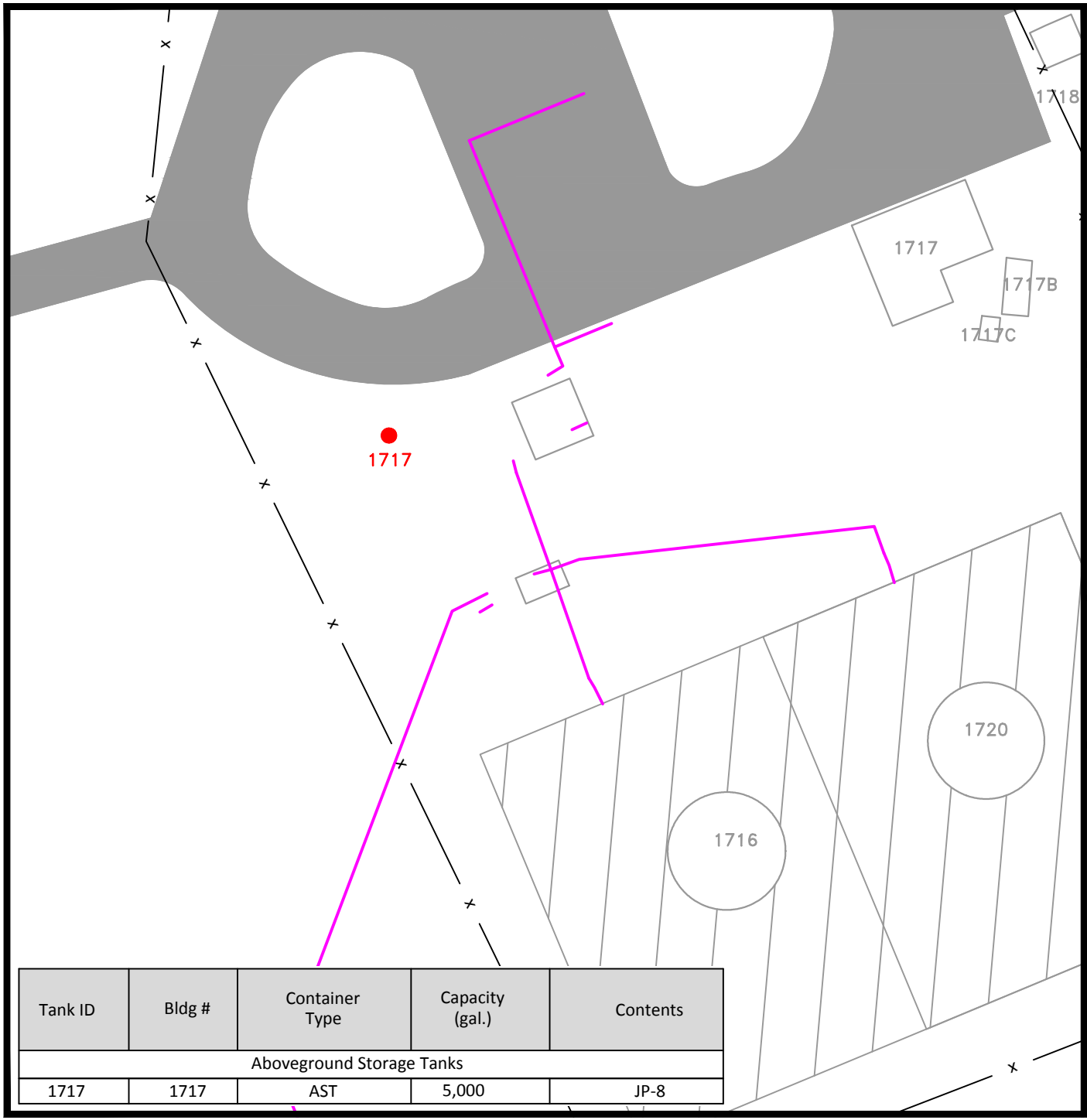
Baker

ABOVEGROUND STORAGE TANK
1716-1 and 1720-2

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

136010_CC14 JUNE 2014



Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1717	1717	AST	5,000	JP-8

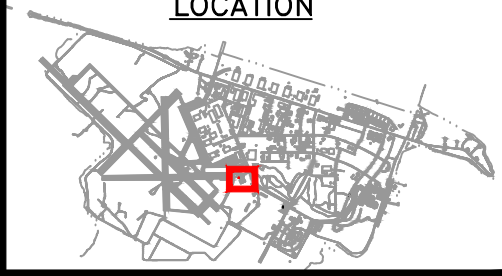
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- SHEET FLOW
- CONTAINMENT
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 1717

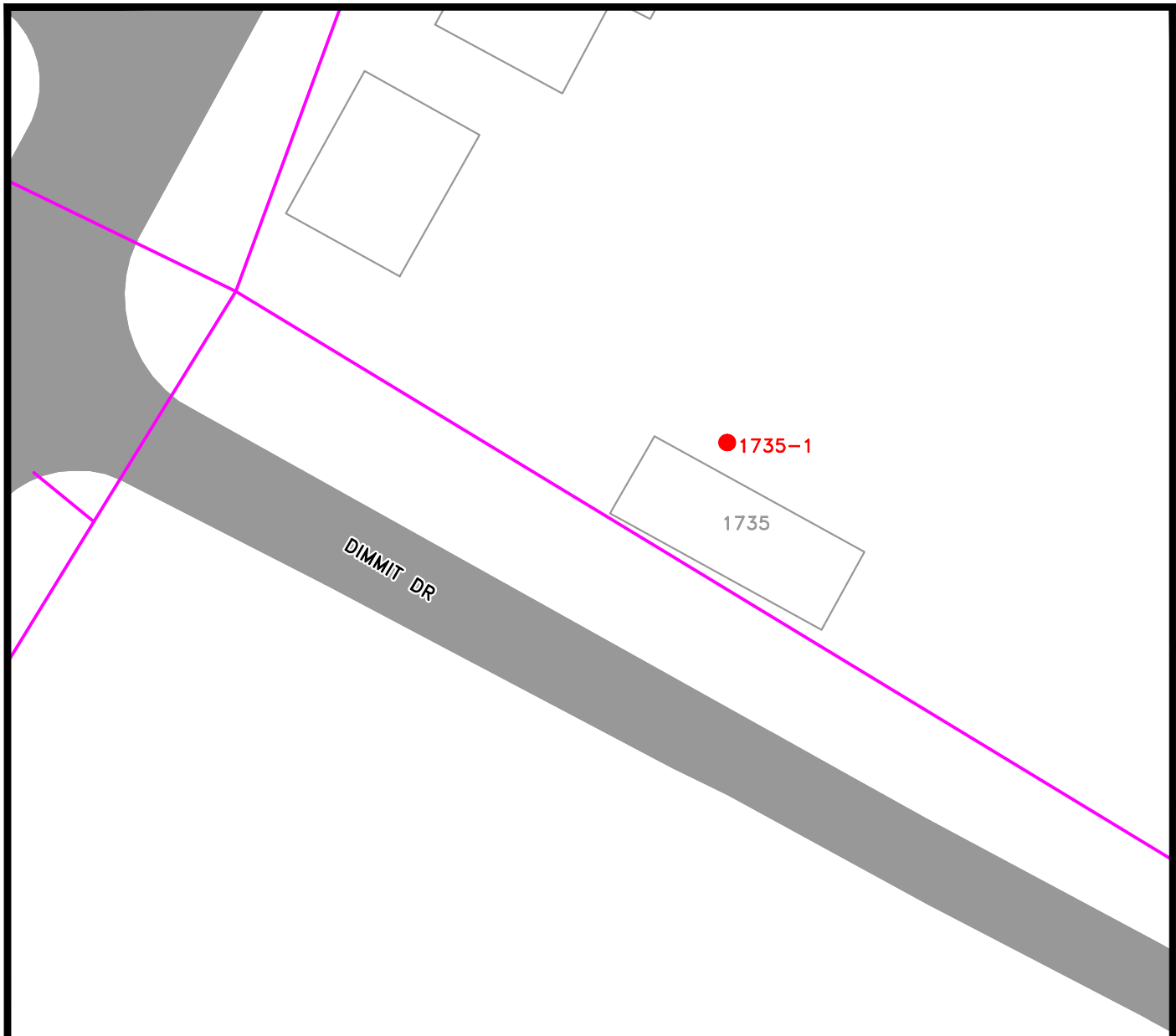
SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

136010_CC09

JUNE 2014



Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1735-1	1735	AST	294	Used Cooking Oil

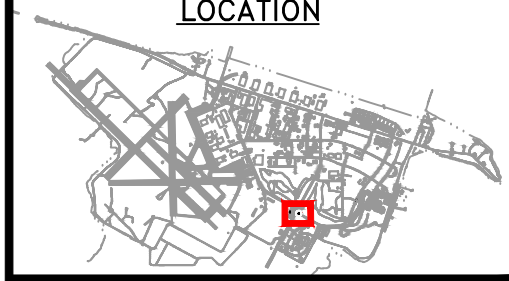
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- CONTAINMENT
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



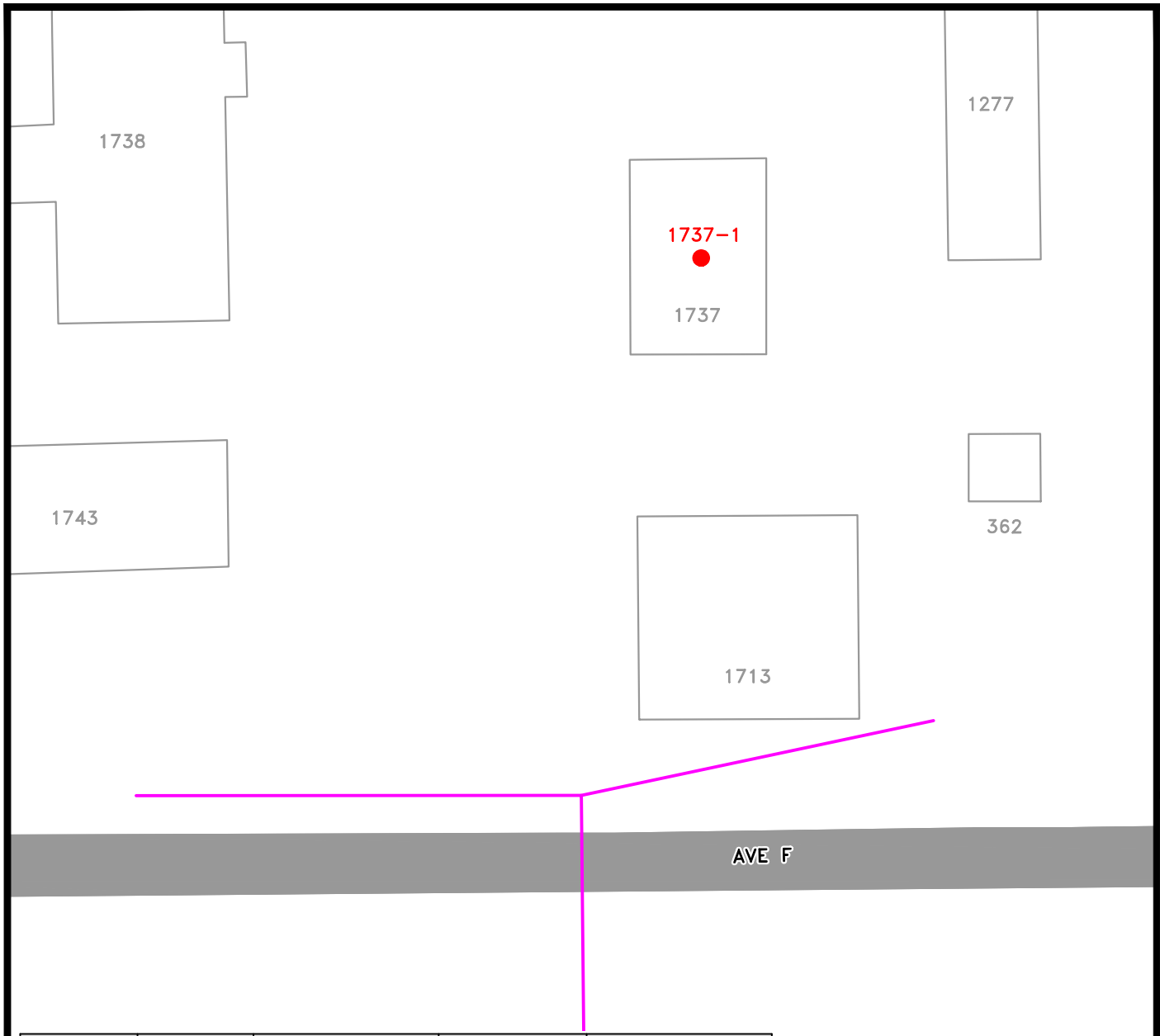
Baker

ABOVEGROUND STORAGE TANK 1735-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

136010_CC09 JUNE 2014



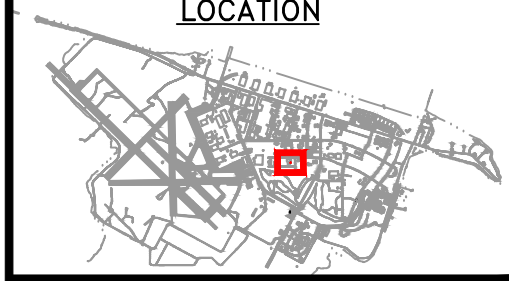
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 1737-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

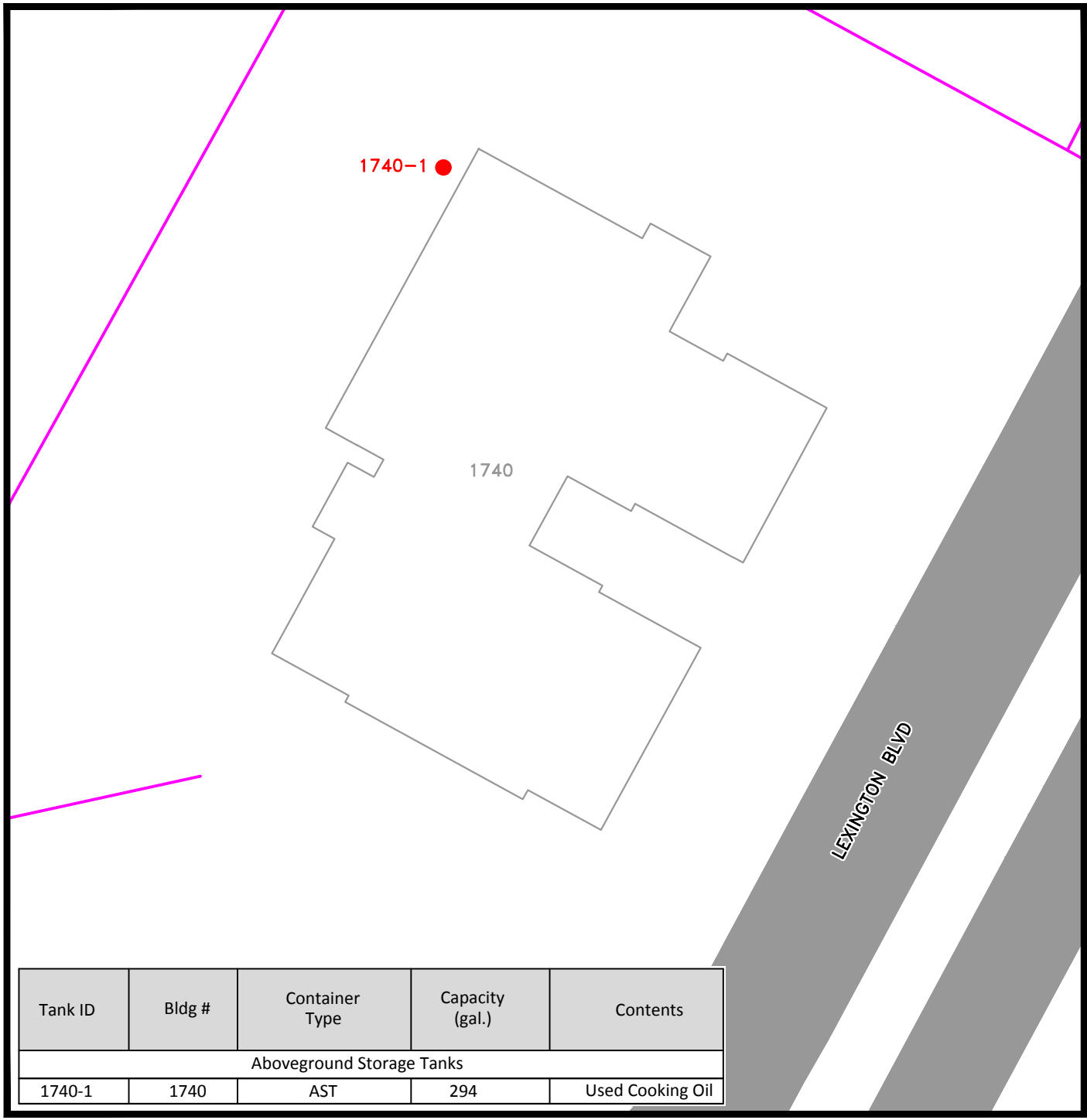
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1737-1	1737	AST	500	used oil

NOTE

- Double walled AST inside building 1737.

136010_CC09

JUNE 2014



Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1740-1	1740	AST	294	Used Cooking Oil

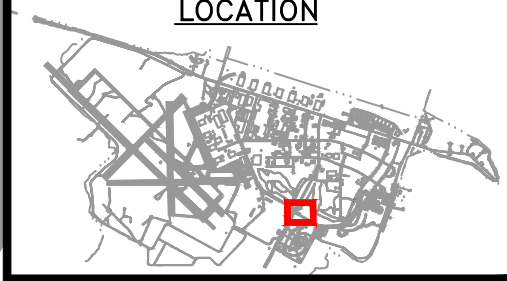
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 1740-1

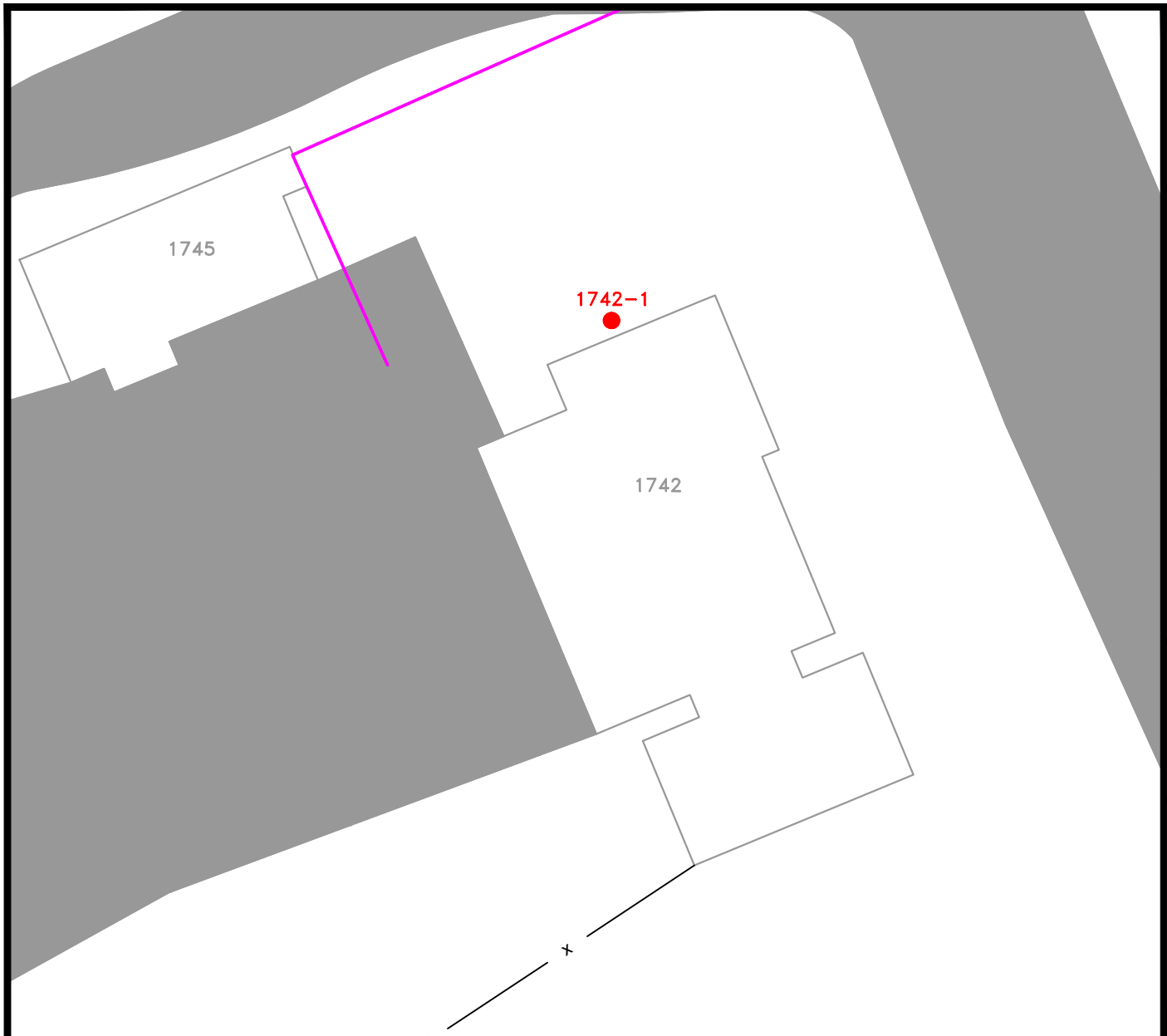
SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

136010_CC09

JUNE 2014



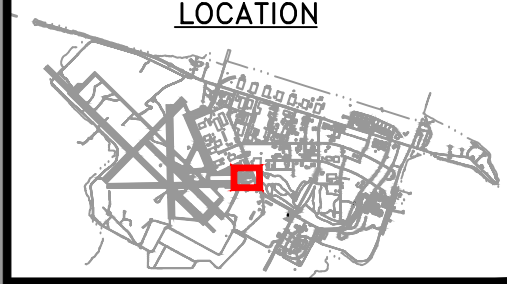
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



Baker

ABOVEGROUND STORAGE TANK 1742-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

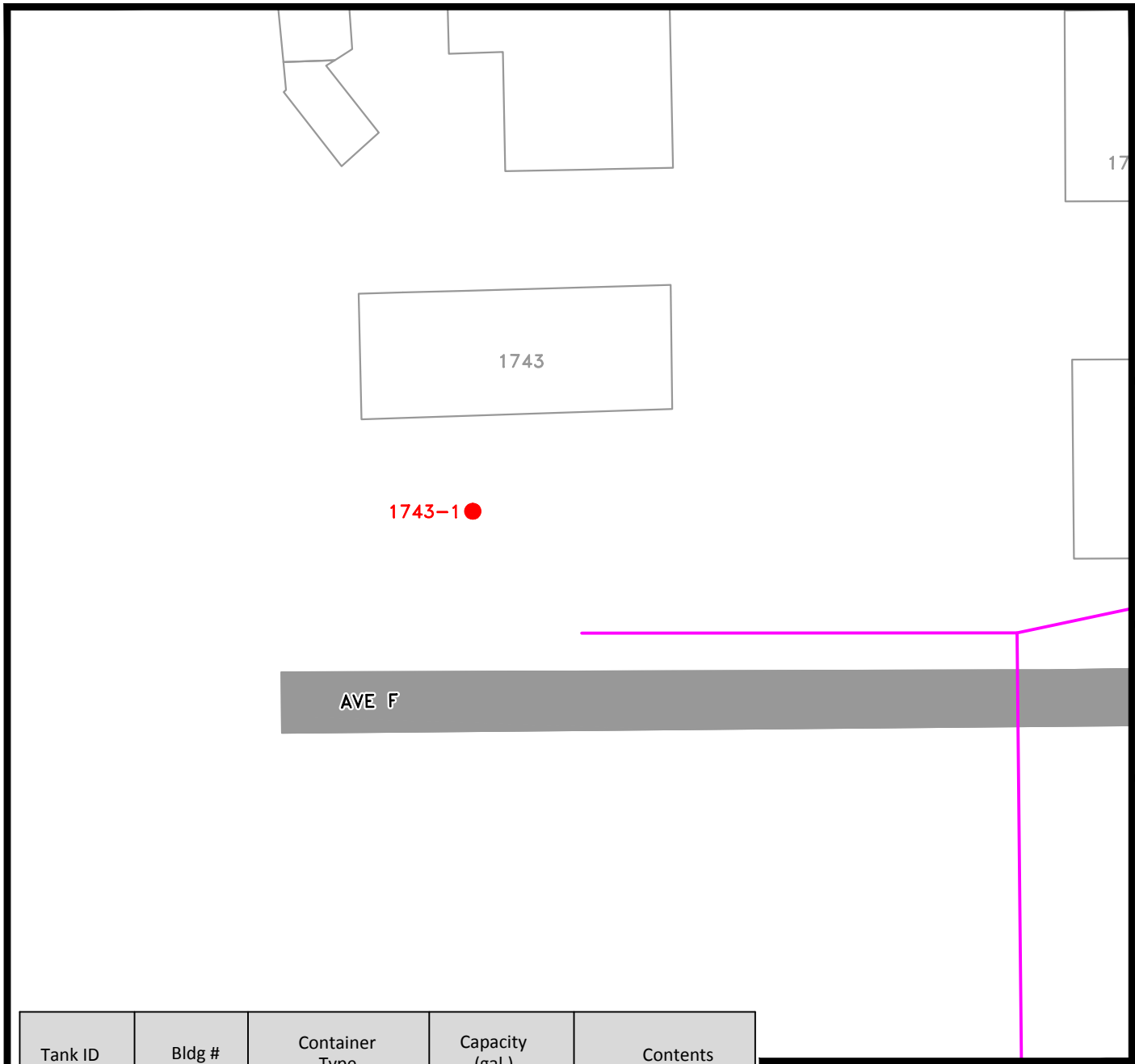
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1742-1	1729	AST	250	ULSD

NOTE

- Double walled tank on concrete pad.
- piping is underground single wall copper.

136010_CC09

JUNE 2014



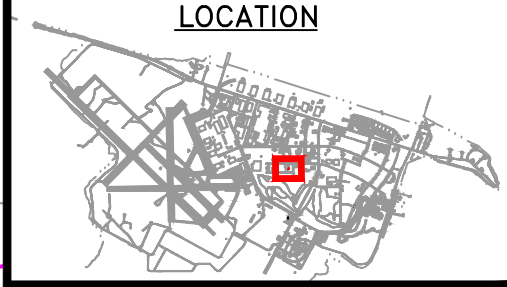
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE

50 0 25 50

1 inch = 50 ft.

LOCATION



Baker

ABOVEGROUND STORAGE TANK 1743-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

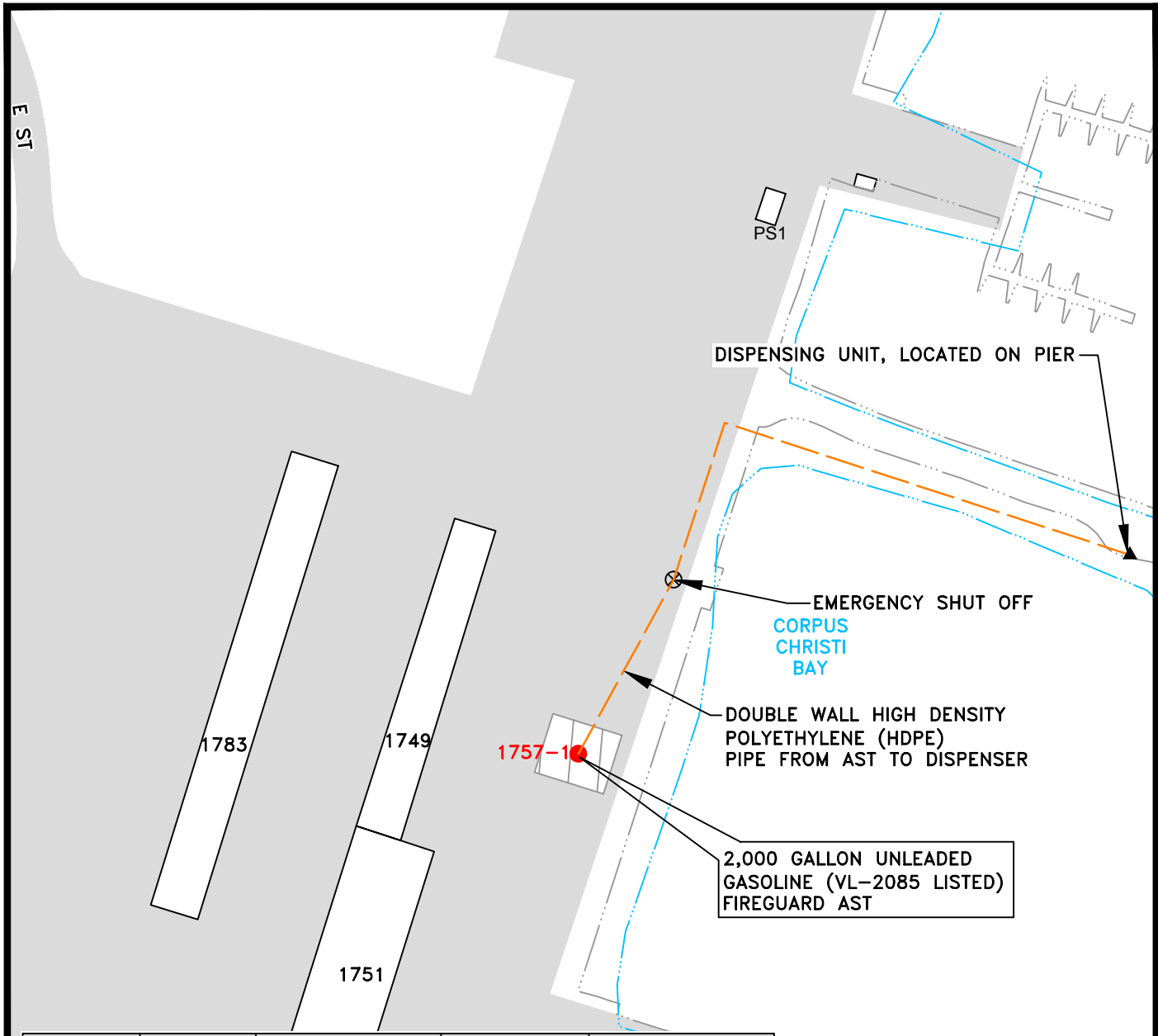
NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1743-1	1757	AST	250	gasoline

NOTE

- AST 1743-1 out of service.

136010_CC09 JUNE 2014



LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- WATER BODY
- EMERGENCY SHUT OFF
- CONTAINMENT
- DISPENSING UNIT

100 0 50 100

1 inch = 100 ft.

LOCATION

NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 1757-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION CORPUS CHRISTI, TEXAS

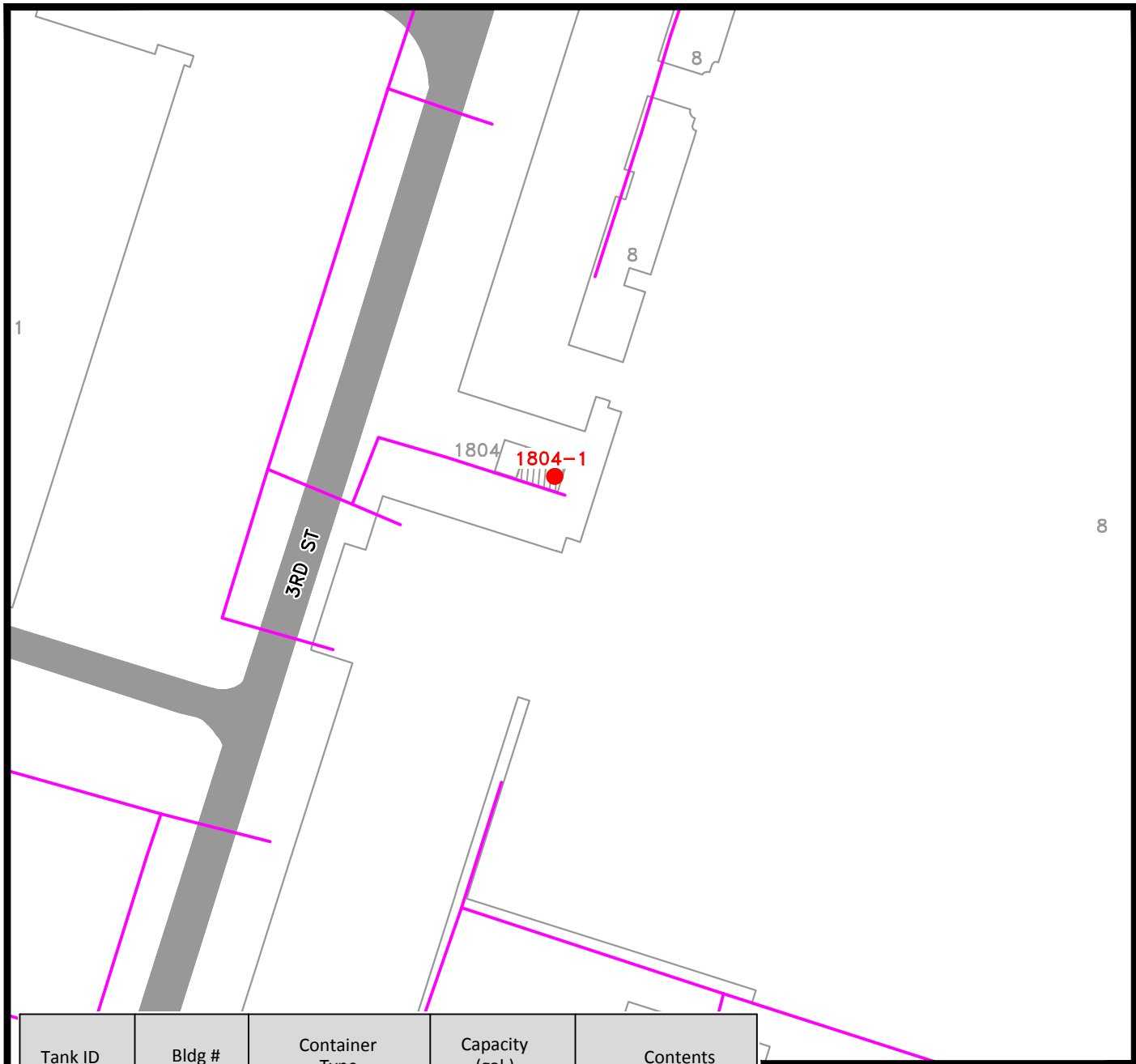
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1757-1	1757	AST	2,000	gasoline

NOTE

- Double walled fireguard AST.
- Double walled High Polyethylene (HDPE) pipeline to over water dispenser

123512_CC14

JUNE 2014



LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- CONTAINMENT
- STORM SEWER LINE

100 0 50 100

1 inch = 100 ft.

LOCATION

Baker

ABOVEGROUND STORAGE TANK 1804-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

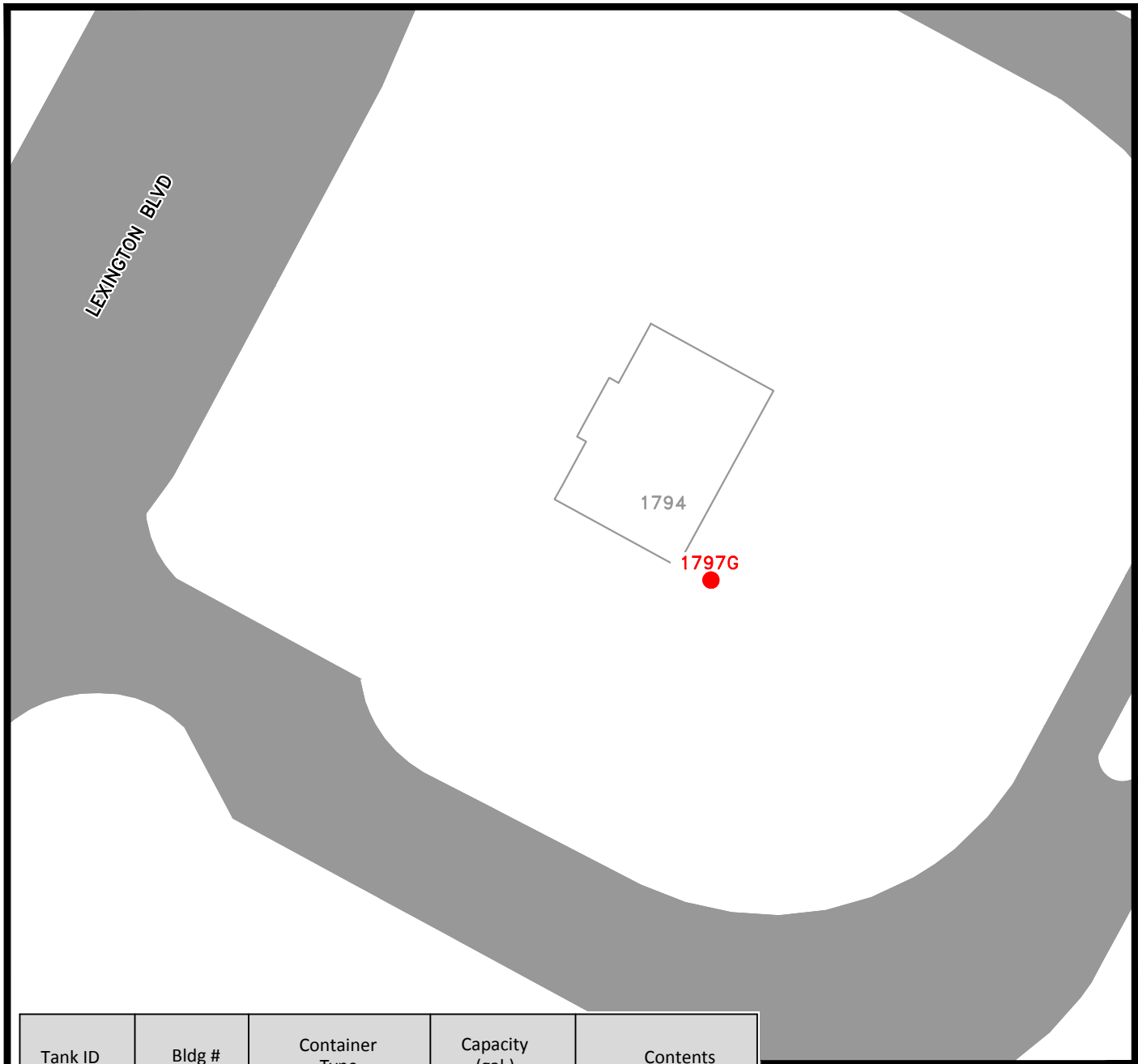
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1804-1	1804	AST	1,000	ULSD

NOTE

- AST is not UL rated for secondary containment, piping is outside secondary containment.

136010_CC09

JUNE 2014



LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE

50 0 25 50

1 inch = 50 ft.

LOCATION

NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 1797G

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

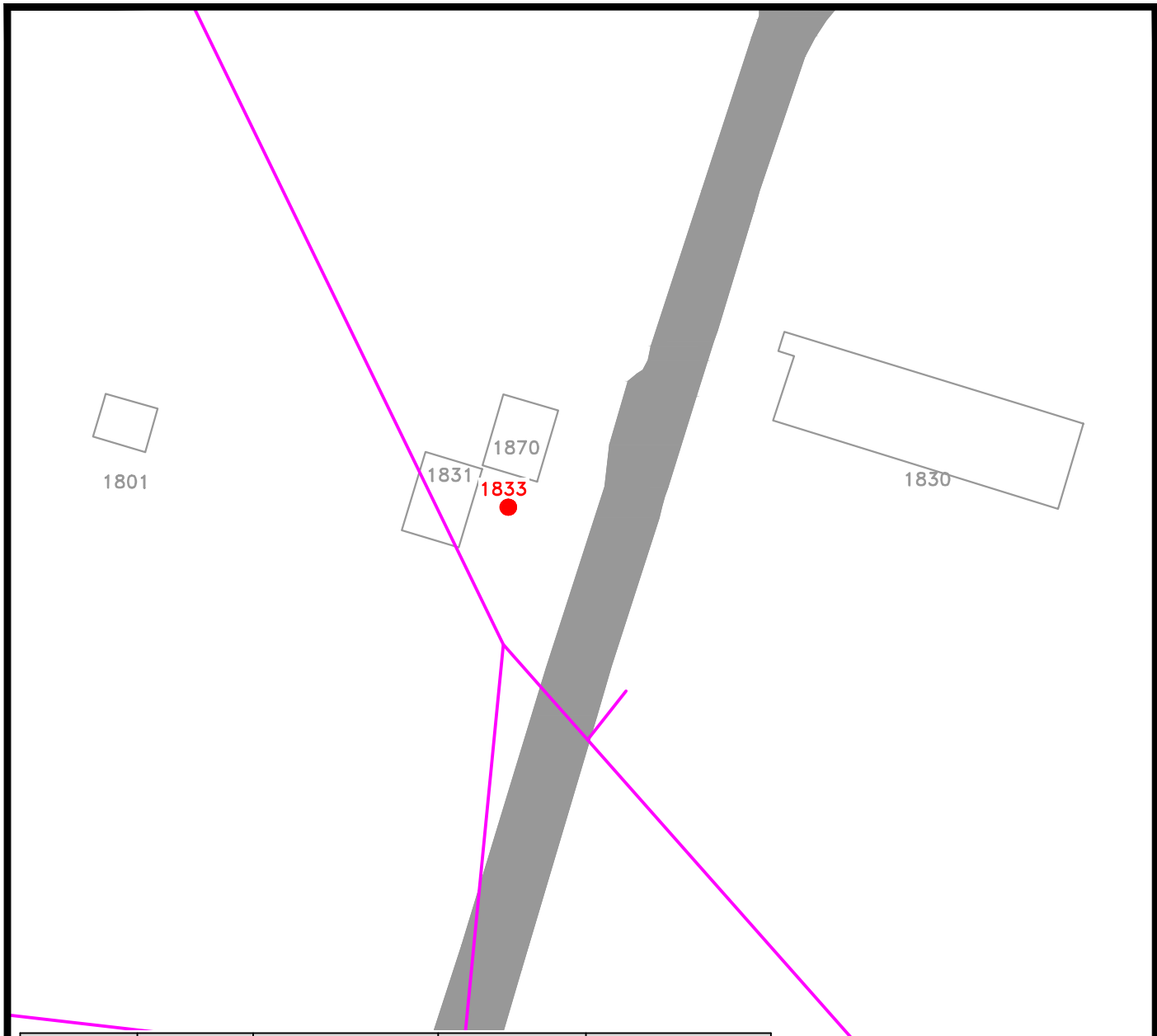
NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1797G	1794	AST	194	ULSD

- Self contained emergency generator.

136010_CC09

JUNE 2014



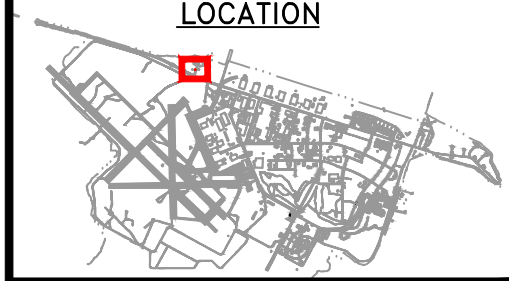
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 1833

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

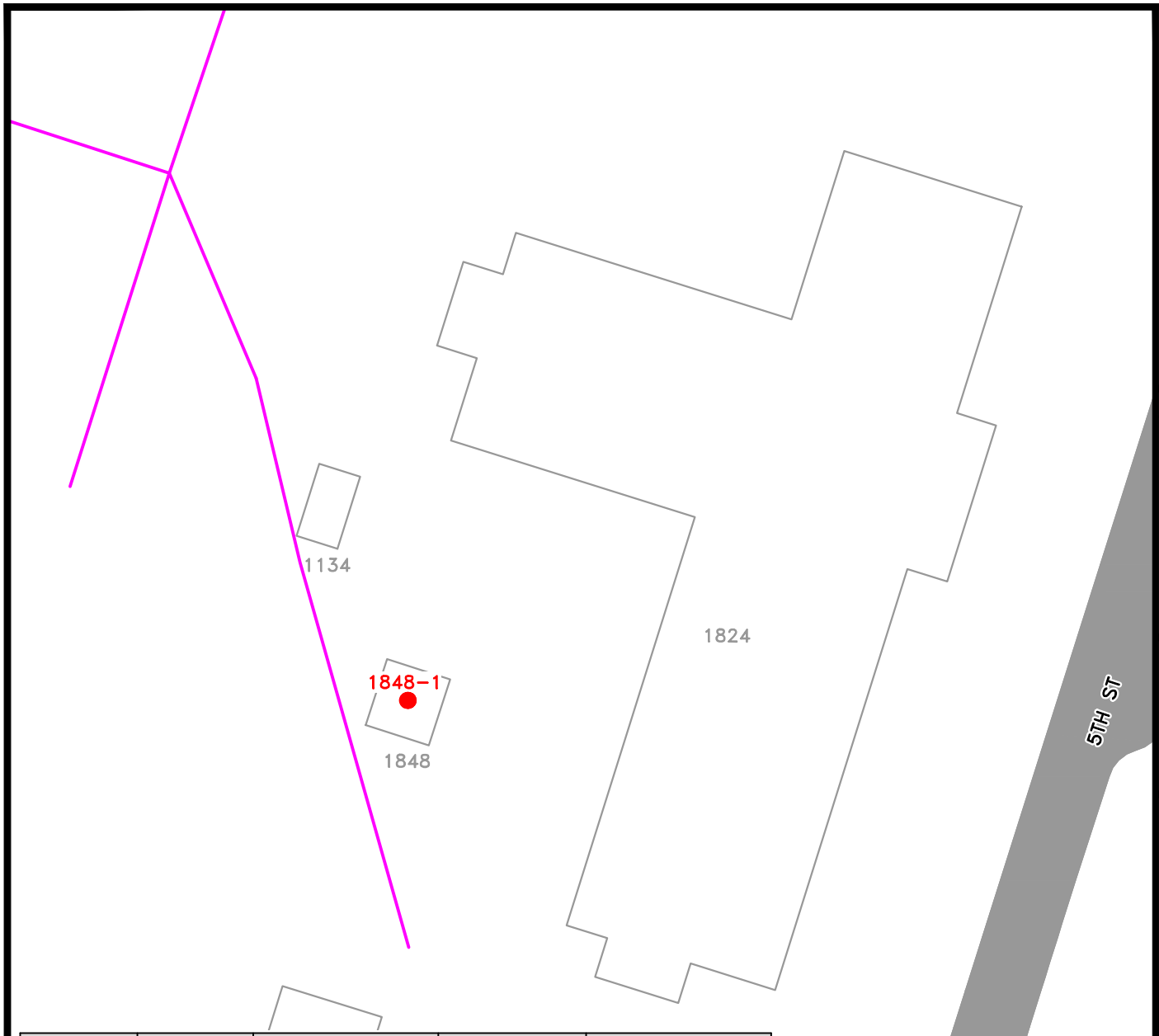
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1833	1870	AST	2,000	ULSD

NOTE

- Double walled AST with single wall piping outside containment.

136010_CC09

JUNE 2014



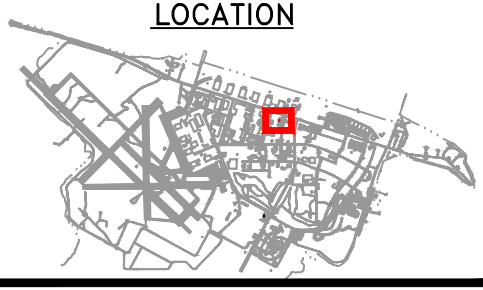
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK 1848-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

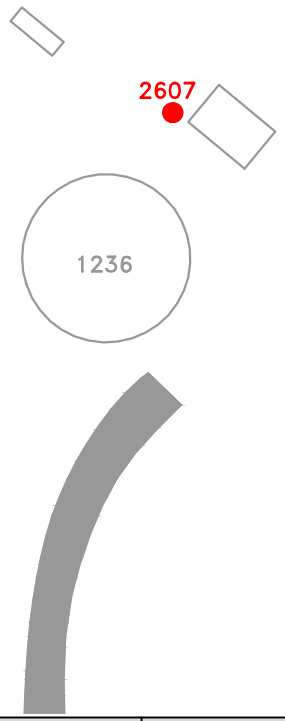
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
1848-1	1848	AST	425	ULSD

NOTE

- Self contained emergency generator inside building 1848.

136010_CC09

JUNE 2014



Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
2607	1237	AST	500	ULSD

NOTE

- Double walled AST located inside secondary containment with single wall copper pipe.

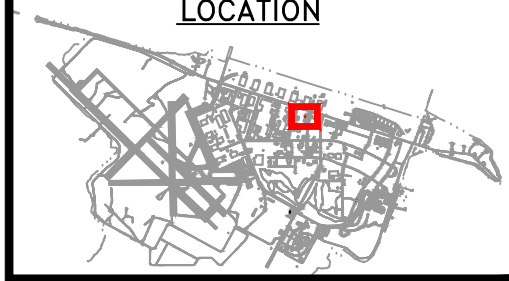
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE

50 0 25 50

1 inch = 50 ft.

LOCATION



Baker

ABOVEGROUND STORAGE TANK 2607

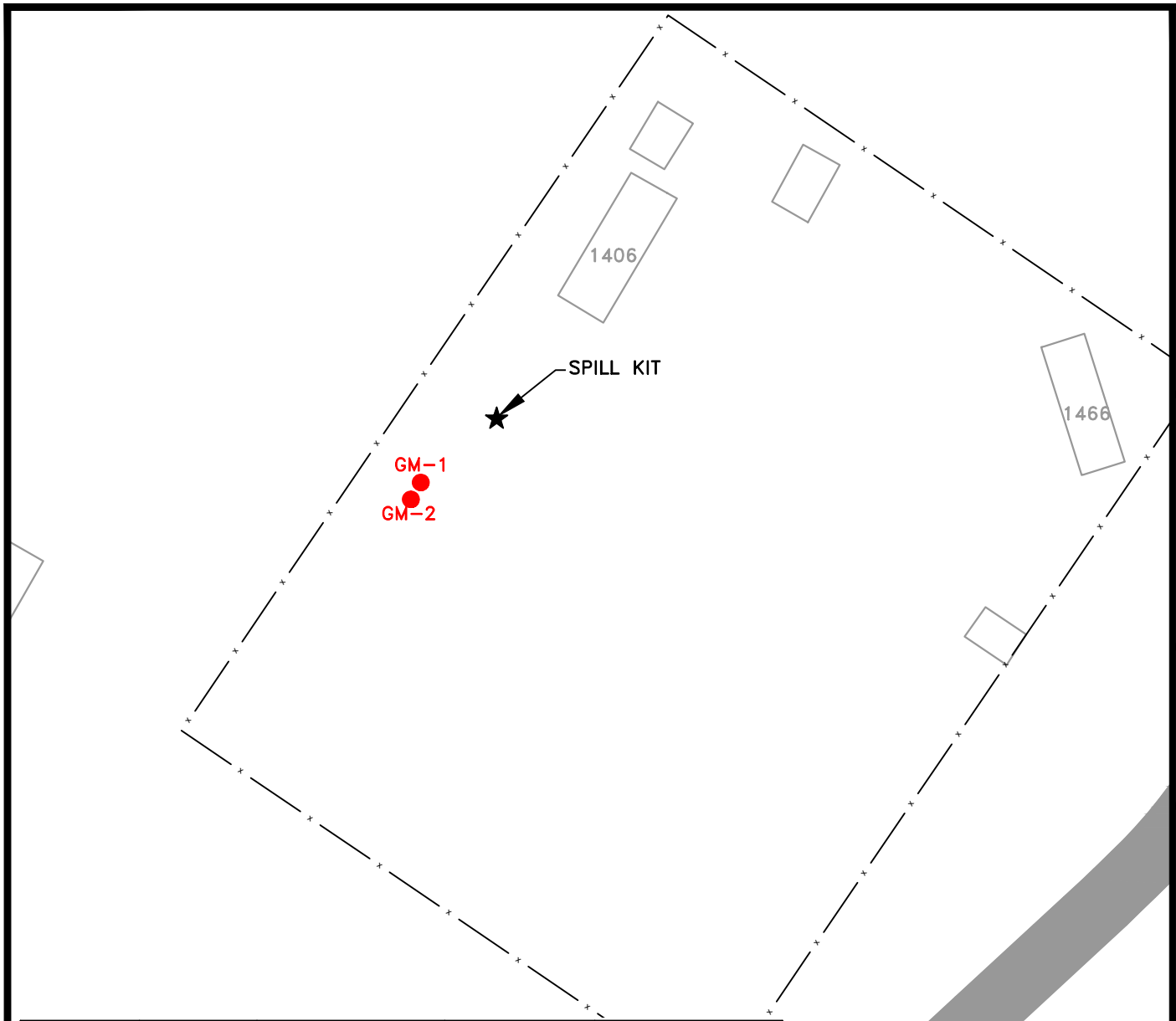
SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

136010_CC09

JUNE 2014



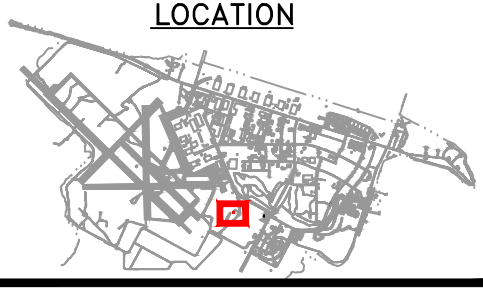
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE

50 0 25 50

1 inch = 50 ft.

LOCATION



Baker

ABOVEGROUND STORAGE TANKS
GM-1 AND GM-2

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
GM-1	DRMO	AST	500	ULSD
GM-2	DRMO	AST	500	gasoline

NOTE

- Double walled ASTs inside secondary containment inside security fence.

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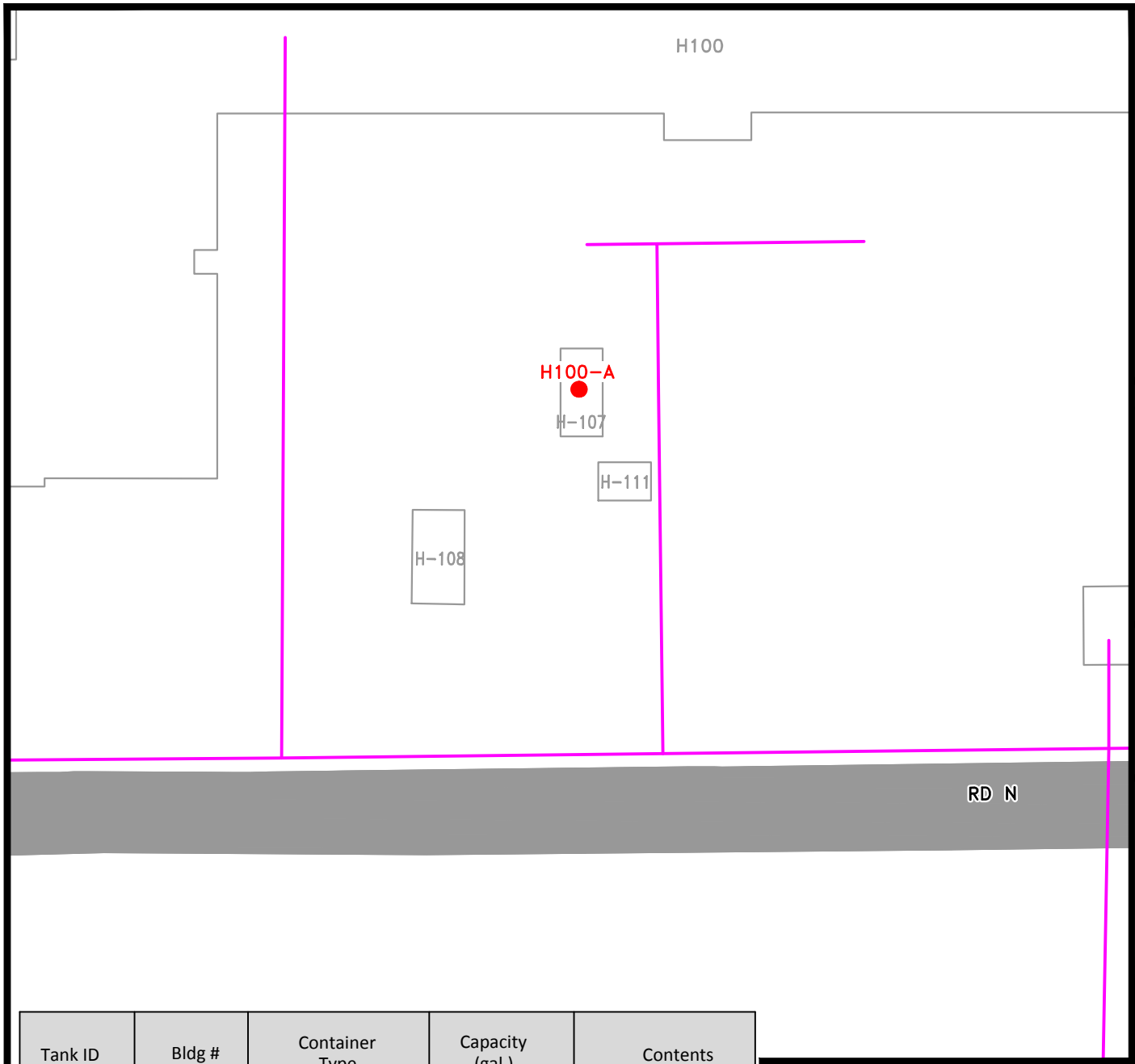


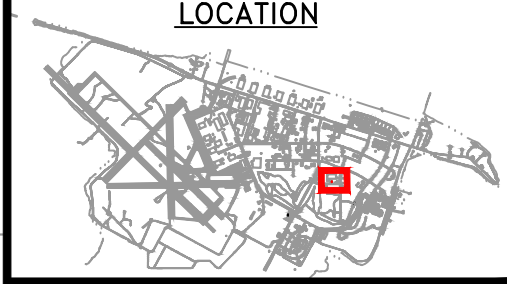
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

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ABOVEGROUND STORAGE TANK H100-A

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

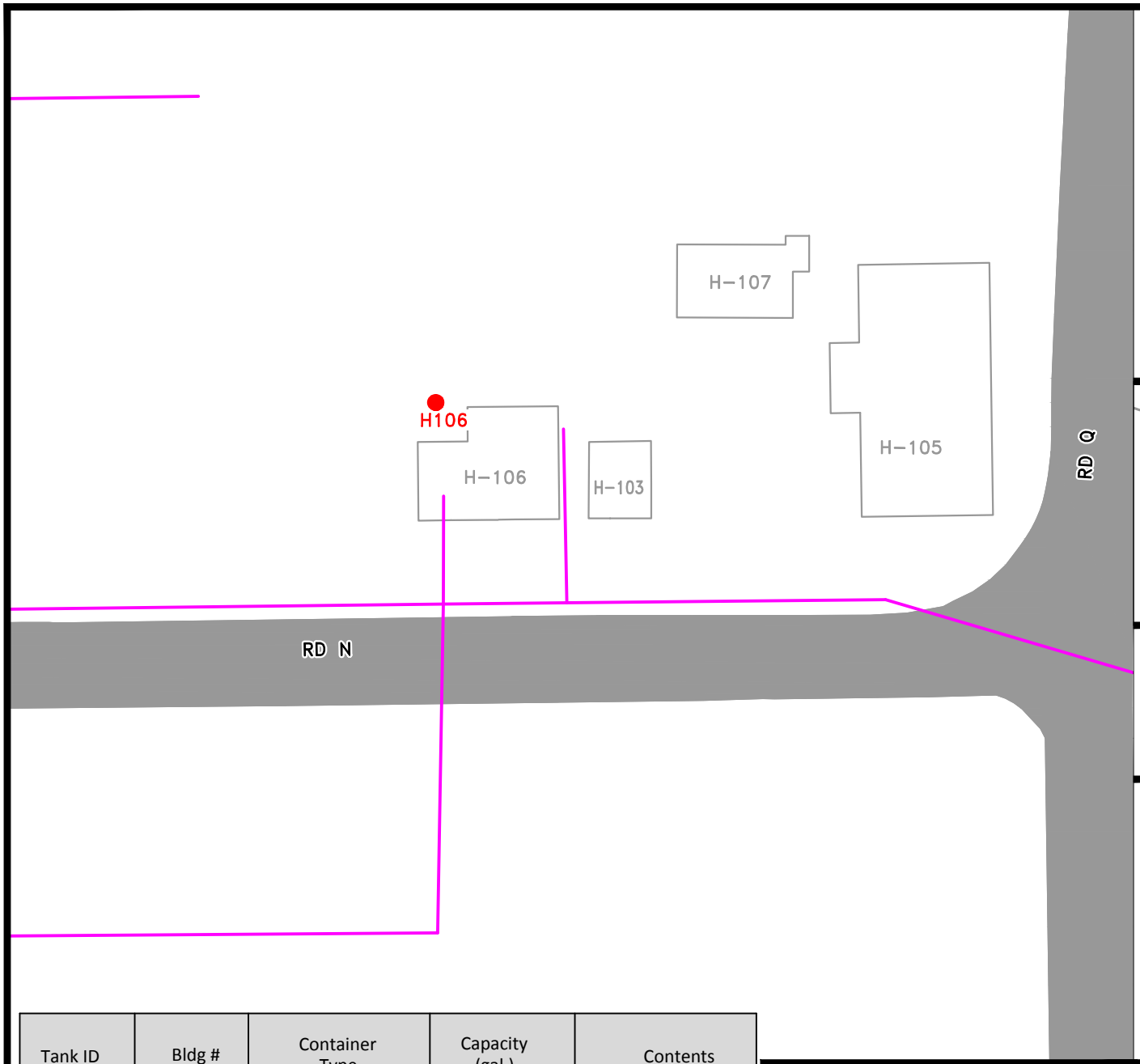
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
H100-A	H100	AST	180	ULSD

NOTE

- Single wall AST inside dike inside building H-107, no fill containment.

136010_CC09

JUNE 2014



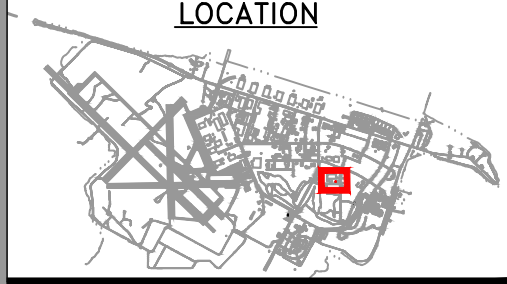
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



Baker

ABOVEGROUND STORAGE TANK H106

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
H106	H106	AST	4,000	ULSD

NOTE

- Out of service.

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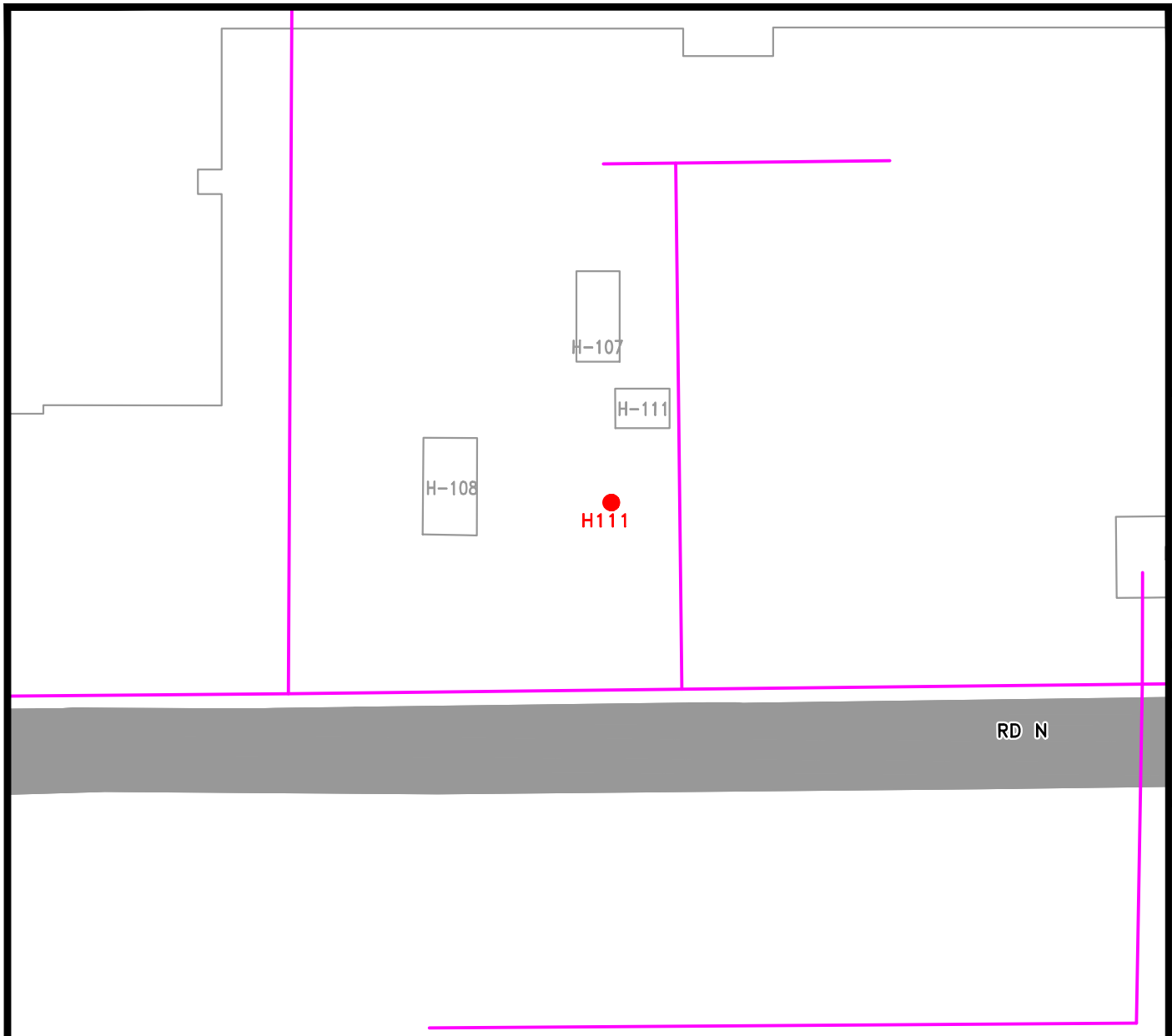


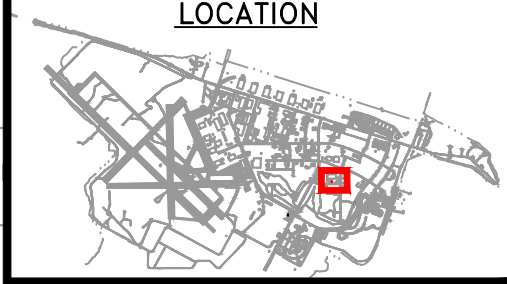
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

Baker

ABOVEGROUND STORAGE TANK H111

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

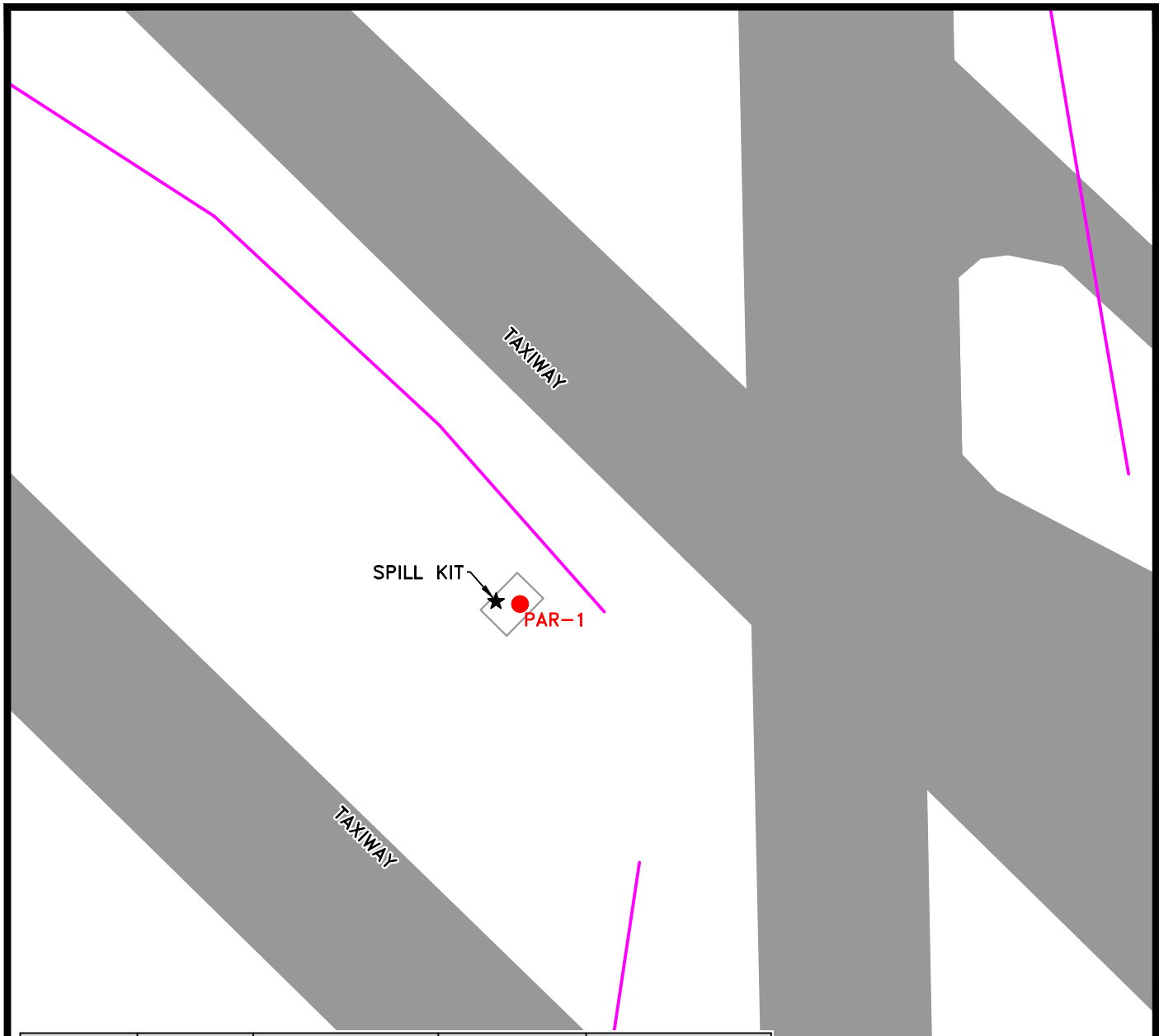
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
H111	H108	AST	4,000	ULSD

NOTE

- Out of service.

136010_CC09

JUNE 2014



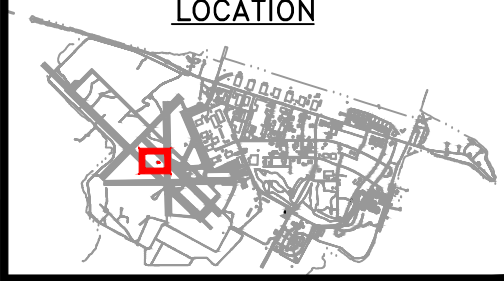
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

200 0 100 200

1 inch = 200 ft.

LOCATION



Baker

ABOVEGROUND STORAGE TANK PAR-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

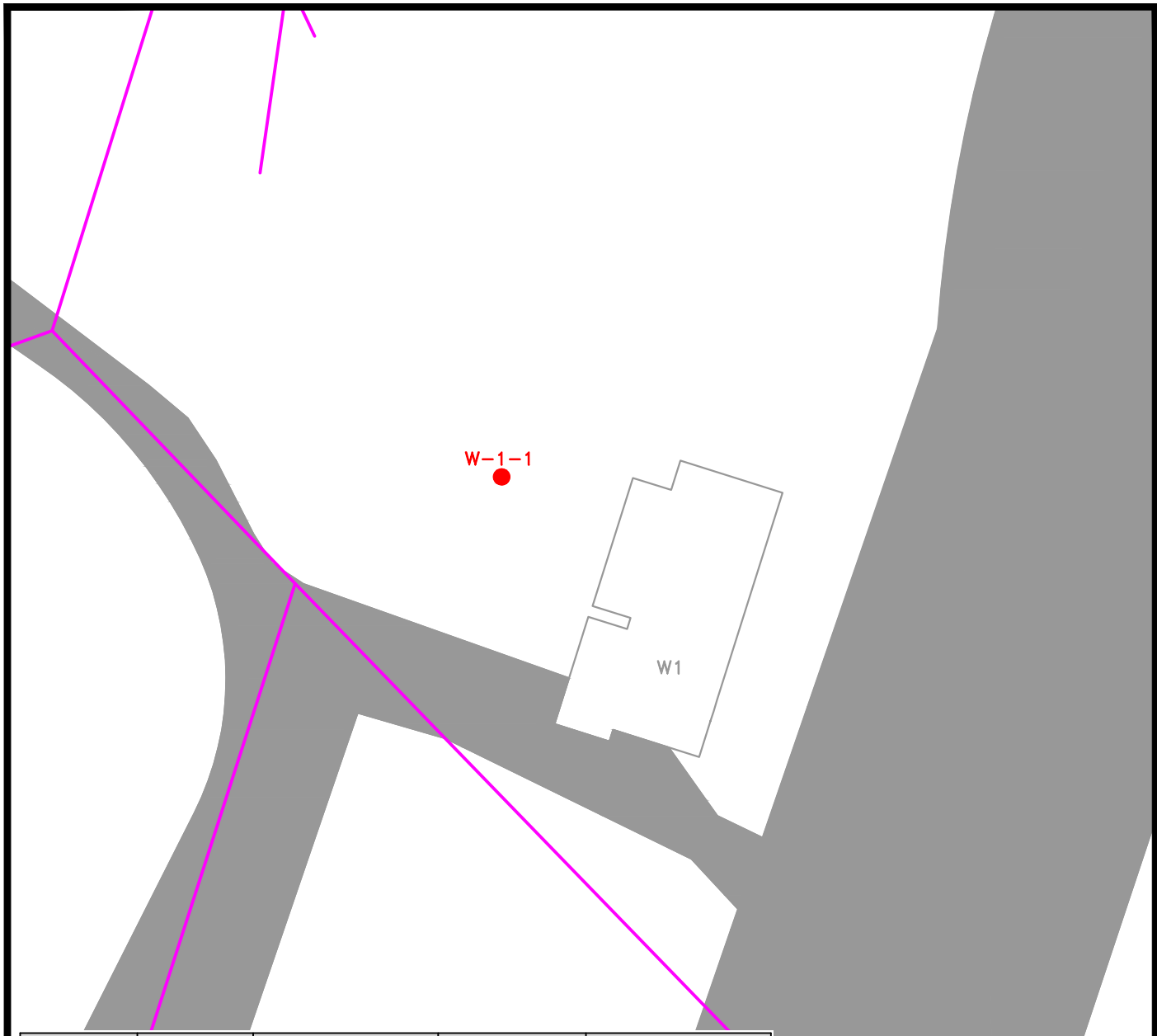
Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
PAR-1	Flight line	AST	211	ULSD

NOTE

- Positional Approach Radar (PAR) Self contained emergency generator inside building between taxiways.

136010_CC09

JUNE 2014



Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
W-1-1	Water plant	AST	500	ULSD

NOTE

- Self contained emergency generator with single wall copper piping outside containment.

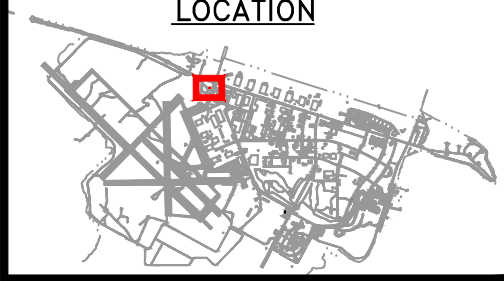
LEGEND

- ABOVEGROUND STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE
- STORM SEWER LINE

50 0 25 50

1 inch = 50 ft.

LOCATION



NAS CORPUS CHRISTI, TX

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ABOVEGROUND STORAGE TANK W-1-1

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION

CORPUS CHRISTI, TEXAS

136010_CC09

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Appendix B:

Figures

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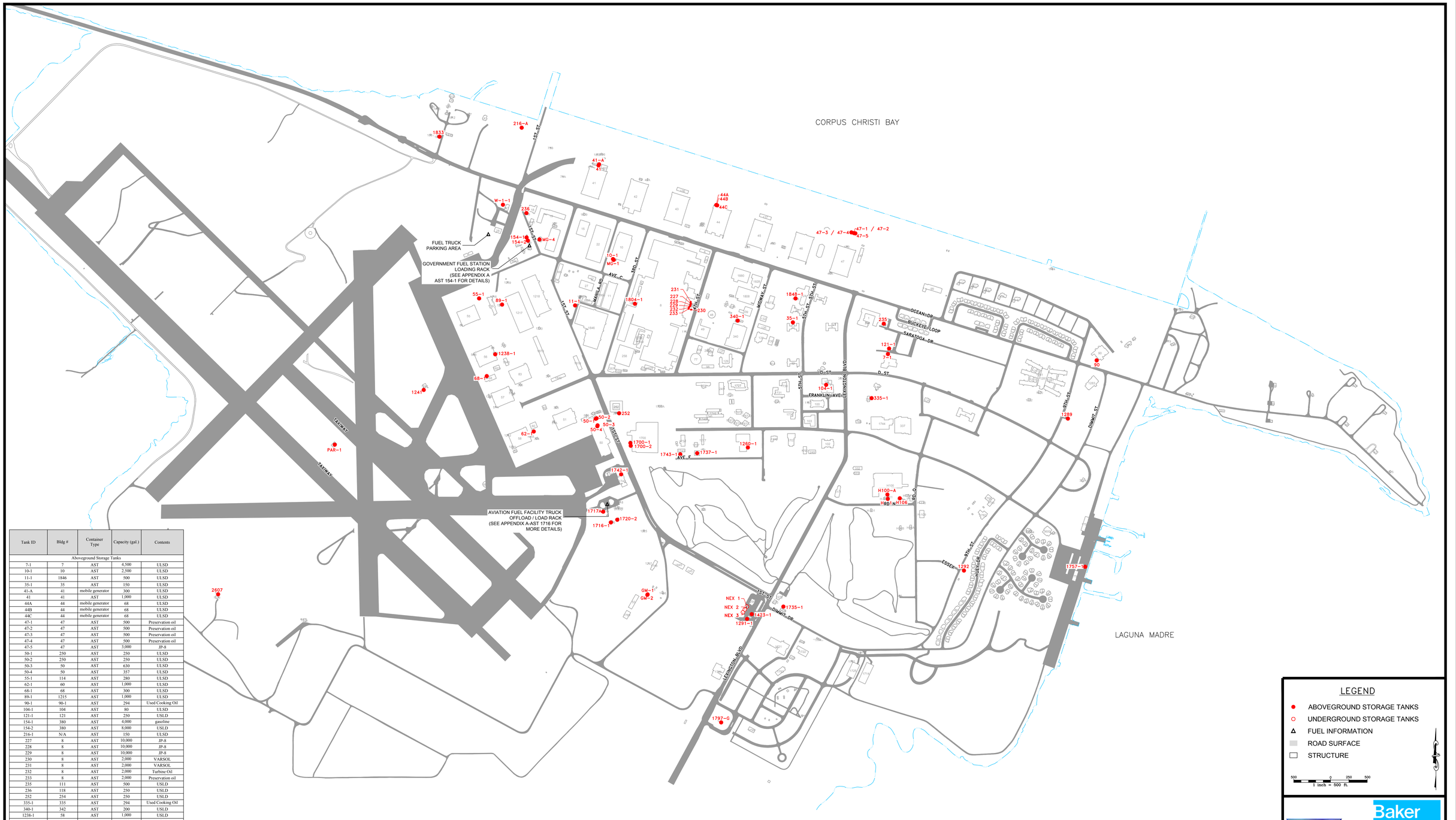


Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
Aboveground Storage Tanks				
7-1	7	AST	4,500	ULSD
10-1	10	AST	2,500	ULSD
11-1	1846	AST	500	ULSD
35-1	35	AST	150	ULSD
41-A	41	mobile generator	300	ULSD
41	41	AST	1,000	ULSD
44A	44	mobile generator	68	ULSD
44B	44	mobile generator	68	ULSD
44C	44	mobile generator	68	ULSD
47-1	47	AST	500	Preservation oil
47-2	47	AST	500	Preservation oil
47-3	47	AST	500	Preservation oil
47-4	47	AST	500	Preservation oil
47-5	47	AST	3,000	JP-8
50-1	250	AST	250	ULSD
50-2	250	AST	250	ULSD
50-3	50	AST	630	ULSD
50-4	50	AST	357	ULSD
55-1	114	AST	280	ULSD
62-1	60	AST	1,000	ULSD
68-1	68	AST	300	ULSD
89-1	1215	AST	1,000	ULSD
90-1	90-1	AST	294	Used Cooking Oil
104-1	104	AST	80	ULSD
121-1	121	AST	250	USLD
154-1	380	AST	4,000	gasoline
154-2	380	AST	8,000	USLD
216-1	N/A	AST	150	ULSD
227	8	AST	10,000	JP-8
228	8	AST	10,000	JP-8
229	8	AST	10,000	JP-8
230	8	AST	2,000	VARSOL
231	8	AST	2,000	VARSOL
232	8	AST	2,000	Turbine Oil
233	8	AST	2,000	Preservation oil
235	111	AST	500	USLD
236	118	AST	250	USLD
252	254	AST	250	USLD
335-1	335	AST	294	Used Cooking Oil
340-1	342	AST	200	USLD
1238-1	58	AST	1,000	USLD
1241	1241	AST	500	USLD
1260	1260	AST	400	USLD
1289	N/A	AST	130	USLD
1291-1	1291	AST	294	Used Cooking Oil
1292	N/A	AST	83	USLD
1700-1	UNK	AST	250	USLD
1700-2	UNK	AST	450	ULSD
1716-1	1717	AST	250,000	JP-8
1717	1717	AST	5,000	JP-8
1720-2	1717	AST	250,000	JP-8
1735-1	1735	AST	294	Used Cooking Oil
1737-1	1737	AST	500	used oil
1740	1740	AST	294	Used Cooking Oil
1742-1	1729	AST	250	USLD
1743-1	1757	AST	250	gasoline
1757-1	1757	AST	2,000	gasoline
1797G	1794	AST	194	ULSD
1804-1	1804	AST	1,000	USLD
1833	1870	AST	2,000	USLD
1848-1	1848	AST	425	USLD
2607	1237	AST	500	USLD
GM-1	DRMO	AST	500	USLD
GM-2	DRMO	AST	500	gasoline
H100-A	H100	AST	180	USLD
H106	H106	AST	4,000	USLD
H111	H108	AST	4,000	USLD
MG-1	305	mobile generator	250	USLD
MG-4	1741	mobile generator	84	USLD
PAR-1	Flight line	AST	211	USLD
W-1-1	Water plant	AST	500	USLD
Underground Storage Tanks				
1	NEX	UST	10,000	gasoline
2	NEX	UST	10,000	gasoline
3	NEX	UST	10,000	diesel

LEGEND

- ABOVEGROUND STORAGE TANKS
- UNDERGROUND STORAGE TANKS
- FUEL INFORMATION
- ROAD SURFACE
- STRUCTURE

500 0 250 500
1 inch = 500 ft.

Baker

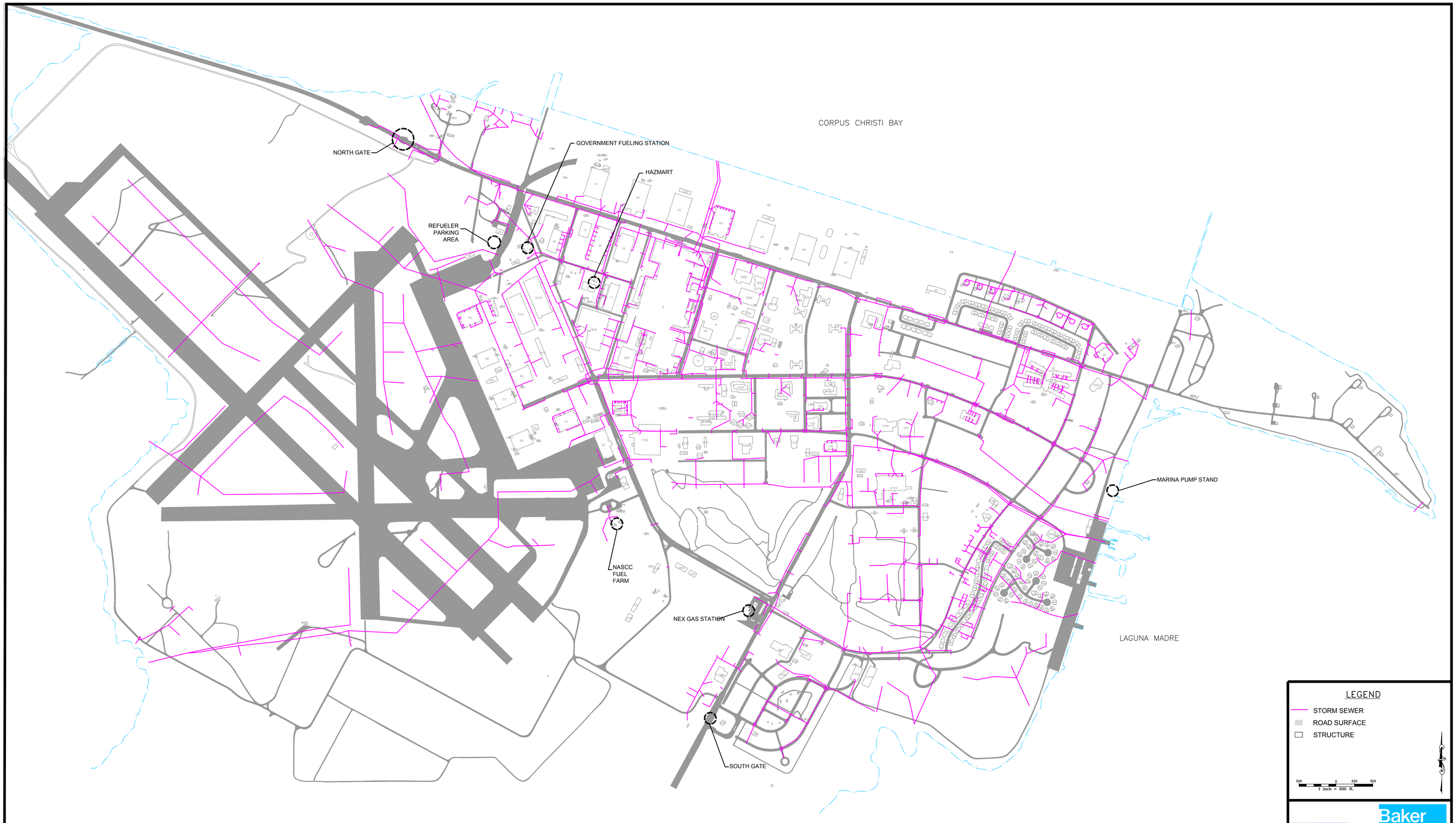
STORAGE TANK LOCATION MAP

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

FIGURE B-1

136010_CC08 JUNE 2014



LEGEND

- STORM SEWER
- ROAD SURFACE
- STRUCTURE

500 0 250 500
1 inch = 500 ft.

Baker

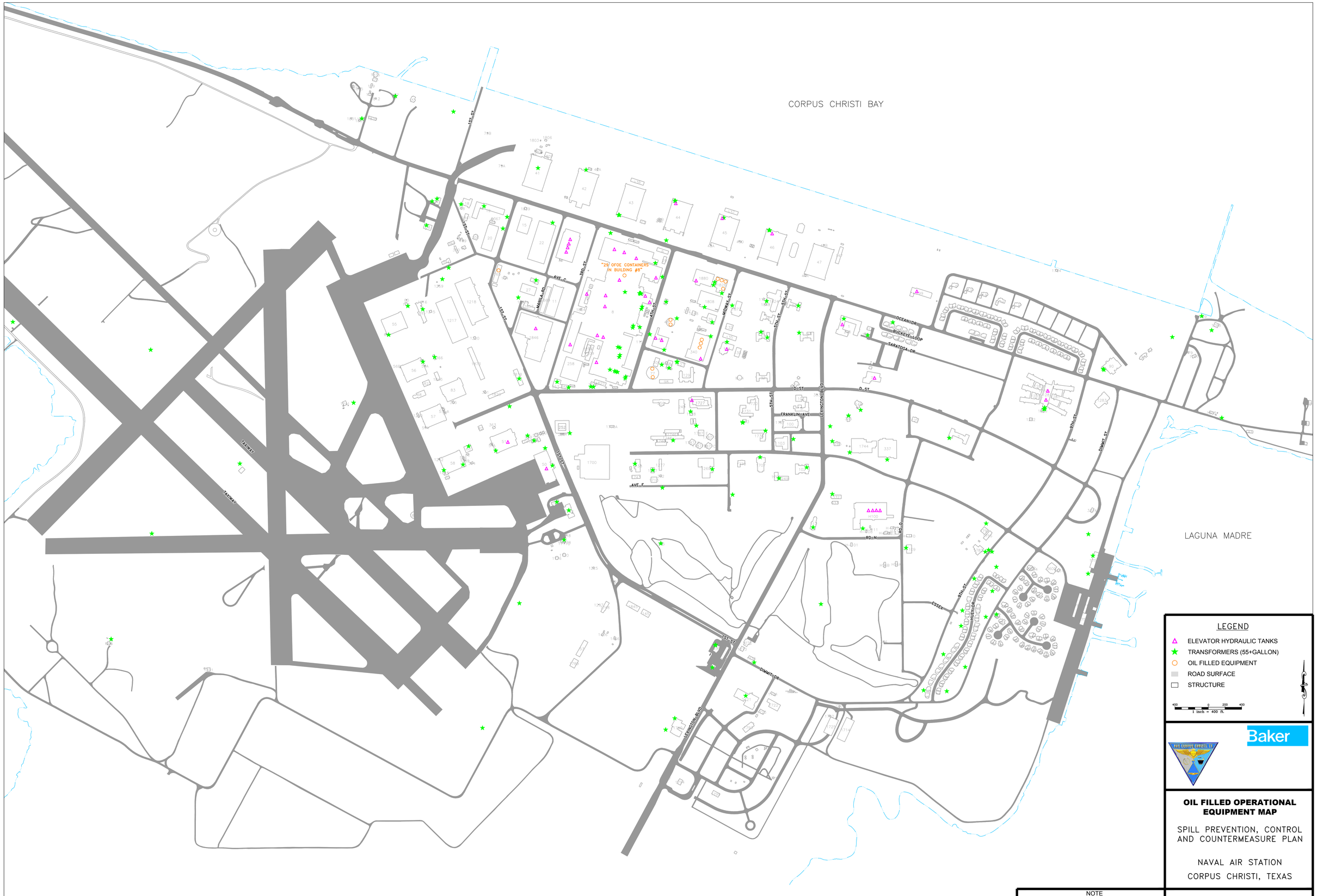
STORMWATER DRAINAGE MAP

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

FIGURE B-2

136010_CC07 JUNE 2014



OIL FILLED OPERATIONAL EQUIPMENT MAP

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

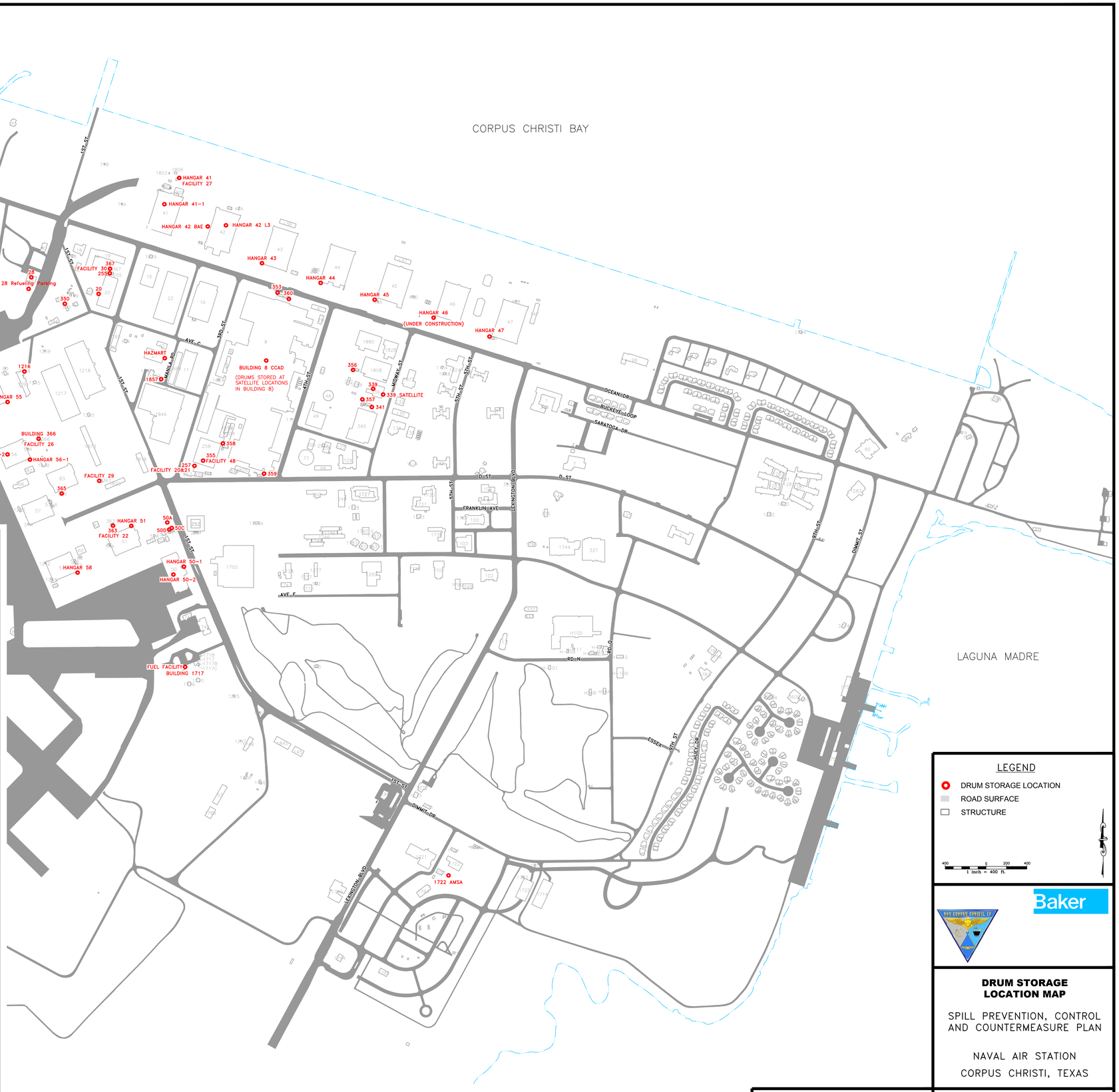
NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

NOTE
- ALL OFOE DATA PROVIDED BY NAVFAC
- ALL TRANSFORMER DATA PROVIDED BY NAVFAC

FIGURE B-3

136010_CC13

JUNE 2014



Tank ID	Building	Contents	"Release Flow Direction/Receiver"	Containment Diversionary Structure
"Bldg 8 CCAD"	CCAD	Petroleum Products	Localized, No flow expected	All drums are located on drip containment pallets inside building
20	20	Petroleum Products	Localized, No flow expected	All drums are located on drip containment pallets inside building
"27 HAZMART"	27	Petroleum Products	Localized, No flow expected	Drums on secondary containment pallet inside building
28	28	New/Used Oil	Localized, No flow expected	Drums on secondary containment pallet
"28 Refueling Parking"	28	Waste Fuel	Tank truck parking area	Drums located on inadequate spill containment
255	255	Petroleum Products	Localized, No flow expected	All drums are located on drip containment pallets inside building
"339 Motor Pool"	339	New/Used Oil	Localized, No flow expected	Drums on secondary containment pallet
"339 Satellite 25-A"	339	New/Used Oil	Drums under cover	Drums located on inadequate spill containment
"341 DLA"	341	Petroleum Products	Drum Storage building	Containment sump
350	350	Petroleum Products	Drum Storage building	Containment sump
353	353	Petroleum Products	Drum Storage building	Containment sump
"356 DLA"	356	Petroleum Products	Drum Storage building	Containment sump
"357 DLA"	357	Petroleum Products	Drum Storage building	Containment sump
"358 DLA"	358	Petroleum Products	Drum Storage building	Containment sump
"359 DLA"	359	Petroleum Products	Drum Storage building	Containment sump
360	360	Petroleum Products	Drum Storage building	Containment sump
365	365	Petroleum Products	Drum Storage building	Containment sump
1216	1216	New/Used Oil	Concrete berm inside building	Drum stored on concrete floor
"1722 AMSA-7"	1722	New/Used Oil	Drum Storage containers and outside storage	Drums located on inadequate spill containment
1717 Fuel Facility	1717	Waste Fuel	Truck loading rack	Drums located on inadequate spill containment
1857	1857	Petroleum Products	Drum Storage building	Containment sump
HGR 41-1	HGR 41	New/Used Oil	Drums inside building	All drums are located on drip containment pallets inside building
"HGR 42 BAE"	"HGR 42 BAE"	New/Used Oil	Localized, No flow expected	All drums are located on drip containment pallets inside building
"HGR 42 L3"	"HGR 42"	New/Used Oil	Localized, No flow expected	All drums are located on drip containment pallets inside building
HGR 43	HGR 43	New/Used Oil	Under construction	N/A
HGR 44	HGR 44	New/Used Oil	Localized, No flow expected	All drums are located on drip containment pallets inside building
"HGR 45 Satellite 14-A"	"HGR 45"	New/Used Oil	Localized, No flow expected	All drums are located on drip containment pallets inside building
"HGR 47 Satellite 205-A"	"HGR 47"	New/Used Oil	Localized, No flow expected	All drums are located on drip containment pallets inside building
HGR 50-1	HGR 50	New/Used Oil	Localized, No flow expected	All drums are located on drip containment pallets inside building
HGR 50-2	HGR 50	New/Used Oil	Localized, No flow expected	All drums are located on drip containment pallets inside building
50-A	50	New/Used Oil	Localized, No flow expected	All drums are located on drip containment pallets inside building
"50-C Fac 33"	"50"	New/Used Oil	Drum Storage building	All drums are located on drip containment pallets inside building
50-D	50	New/Used Oil	Drum Storage building	All drums are located on drip containment pallets inside building
HGR 51	HGR 51	New/Used Oil	Localized, No flow expected	All drums are located on drip containment pallets inside building
HGR 55	HGR 55	New/Used Oil	Localized, No flow expected	All drums are located on drip containment pallets inside building
HGR 56-1	HGR 56-1	New/Used Oil	Localized, No flow expected	All drums are located on drip containment pallets inside building
HGR 56-2	HGR 56-2	New/Used Oil	Localized, No flow expected	All drums are located on drip containment pallets inside building
HGR 58	HGR 58	New/Used Oil	Localized, No flow expected	All drums are located on drip containment pallets inside building
"Bldg 257 Fac 20"	"Bldg 257"	Hazardous waste	Drum Storage building	Containment sump
"Bldg 257 Fac 21"	"Bldg 257"	Petroleum Products	Drum Storage building	Containment sump
"Bldg 363 Fac 22"	"Bldg 363"	Petroleum Products	Localized, No flow expected	All drums are located on drip containment pallets inside building
"Bldg 366 Fac 26"	Bldg 366	Waste Fuel	Localized, No flow expected	All drums are located on drip containment pallets inside building
"HGR 41 Fac 27"	"HGR 41"	Used Oil	Drum Storage building	Containment sump
"Bldg 361 Fac 29"	"Bldg 361"	Hazardous waste	Drum Storage building	Containment sump
"Bldg 367 Fac 30"	"Bldg 367"	Hazardous waste	Drum Storage building	Containment sump
"Bldg 355 Fac 48"	"Bldg 355"	Hazardous waste	Drum Storage	Drums waiting for transport are stored outside on wooden pallets

LEGEND

- DRUM STORAGE LOCATION
- ROAD SURFACE
- STRUCTURE

400 0 200 400
1 inch = 400 ft.

Baker

NAVAL AIR STATION CORPUS CHRISTI

DRUM STORAGE LOCATION MAP

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

NOTE

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FIGURE B-4

136010_CC10 JUNE 2014

Appendix C:

Naval Air Station Corpus Christi Oil Storage Containers

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Table C-1 BULK FIELD CONSTRUCTED ABOVEGROUND STORAGE TANKS

Tank Number	Building	Container Type or Purpose	Contents	Tank Capacity/ Maximum Release Volume (gal)[1]	Year Installed	Tank		Piping			Spill Prevention	Potential Failure Type[2] (See Table C-8)	Containment Capacity (gal)	Release Flow Direction/Receiver	Containment/ Diversion Structure
						Construction	Material	Construction	Material	Spill Risk					
1716-1	1717	Aviation Fuel Facility	F-24	250,000	1987	Steel	Single Walled	Single Walled	Steel	LOW	AFHE-Automatic Fuel Handling Equipment	1, 8, 9 11, 12	340,580	Localized, no flow expected	Impervious Dike
1720-2	1717	Aviation Fuel Facility	F-24	250,000	1987	Steel	Single Walled	Single Walled	Steel	LOW	AFHE-Automatic Fuel Handling Equipment	1, 8, 9 11, 12	340,580	Localized, no flow expected	Impervious Dike

1. Column represents maximum release. Refer to Appendix G for potential release volumes for various failure modes.

2. Potential Failure Types:
1. Overfill by Delivery Truck
2. Spillage during Delivery Hose Retrieval
3. Transfer Out of Tank (Dispenser)
4. Transfer Out of Tank (Collection Suction Truck)
5. Transfer Out of Tank (Small Combustion Source)
6. Overfill of Aircraft from Mobile Refueler
7. Hose Retrieval Releases at Aircraft from Mobile Refueler
8. Overfill at Truck Loading Station
9. Hose Retrieval Releases at Truck Loading Station
10. Drum Filling and Emptying Releases
11. Pipeline Failure due to Leaking Joint or Corrosion
12. Catastrophic

GTPCC - Greater Than Primary Containment Capacity

Table C-2 SHOP FABRICATED ABOVEGROUND STORAGE TANKS

Tank Number	Building	Container Type or Purpose	Contents	Tank Capacity (gal)[1]	Year Installed	Tank			Piping			Spill Prevention	Potential Failure Type[2] (See Table C-8)	Containment Capacity (gal)	Release Flow Direction/Receiver	Containment/Diversion Structure
						Construction	Material	STI Category	Construction	Material	Spill Risk					
7-1	7	AST for emergency generator	ULSD	4,500	2005	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
10-1	10	AST for emergency generator	ULSD	2,500	2007	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	South/Parking lot	Double-Walled Tank
11-1	1846	Forklift refueling	ULSD	500	2007	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	DC-Direct Communication	1, 2, 3, 5, 11, 12	GTPCC	Stormwater drain adjacent to tank	Double-Walled Tank
35-1	35	AST for emergency generator	ULSD	150	NA	Single Walled	Steel	3	Aboveground/ SW	Non-metallic	HIGH	None	1, 2, 5, 11, 12	N/A	Inside building # 31	None
41-A	41	Mobile generator	ULSD	300	2000	Double Walled	Steel	1	Aboveground/ SW	Non-metallic	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	North/Stormwater Inlet	Double-Walled Tank
41	41	AST for emergency generator	ULSD	1,000	1996	Double Walled	Steel	1	AST out of Service	Metallic	N/A	N/A	1, 2, 5, 11, 12	GTPCC	West/Stormwater Inlet	Double-Walled Tank
47-1	47	AST for Aircraft Maintenance	Preservation oil	500	2012	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	HLA-High Level Alarm	1, 2, 3, 11, 12	GTPCC	North/Containment Basin	Double-Walled Tank
47-2	47	AST for Aircraft Maintenance	Preservation oil	500	2012	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	HLA-High Level Alarm	1, 2, 3, 11, 12	GTPCC	North/Containment Basin	Double-Walled Tank
47-3	47	AST for Aircraft Maintenance	Preservation oil	500	2012	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	HLA-High Level Alarm	1, 2, 3, 11, 12	GTPCC	North/Containment Basin	Double-Walled Tank
47-4	47	AST for Aircraft Maintenance	Preservation oil	500	2012	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	HLA-High Level Alarm	1, 2, 3, 11, 12	GTPCC	North/Containment Basin	Double-Walled Tank
47-5	47	AST for Aircraft Fuel	F-24	3,000	1993	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	HLA-High Level Alarm	1, 2, 5, 11, 12	GTPCC	North/Containment Basin	Double-Walled Tank
50-1	301	AST for Fire Protection Pump	ULSD	250	1989	Single Walled	Steel	1	Aboveground/ SW	Metallic	HIGH	None	1, 2, 3, 11, 12	373	Inside building # 301	Concrete Dike
50-2	301	AST for Fire Protection Pump	ULSD	250	1989	Single Walled	Steel	1	Aboveground/ SW	Metallic	HIGH	None	1, 2, 3, 11, 12	373	Inside building #301	Concrete Dike
50-3	50	AST for emergency generator	ULSD	630	2005	Double Walled	Steel	1	Aboveground/ SW	Non-metallic	LOW	DC-Direct Communication	1, 2, 3, 11, 12	GTPCC	Southeast/Stormwater Inlet	Double-Walled Tank
50-4	50	AST for emergency generator	ULSD	357	2006	Double Walled	Steel	1	Aboveground/ SW	Non-metallic	LOW	DC-Direct Communication	1, 2, 3, 11, 12	GTPCC	Southeast/Stormwater Inlet	Double-Walled Tank
55-1	114	AST for Fire Protection Pump	ULSD	280	2001	Single Walled	Steel	1	Aboveground/ SW	Metallic	HIGH	None	1, 2, 3, 11, 12	281	Inside building #114	Concrete Dike
62-1	60	AST for emergency generator	ULSD	1,000	1984	Double Walled	Steel	1	Aboveground/ SW	Non-metallic	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	West/Stormwater Inlet	Double-Walled Tank
68-1	68	AST for emergency generator	ULSD	300	2006	Double Walled	Steel	1	Aboveground/ SW	Non-metallic	HIGH	None	1, 2, 5, 11, 12	GTPCC	West/Stormwater Inlet	Double-Walled Tank
89-1	1215	AST for emergency generator	ULSD	1,000	2005	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
104-1	104	AST for emergency generator	ULSD	80	2010	Double Walled	Steel	1	Aboveground/ SW	Non-metallic	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
121-1	121	AST for emergency generator	ULSD	250	2005	Double Walled	Steel	1	Aboveground/ SW	Non-metallic	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
154-1	300	AST for government vehicles	gasoline	4,000	2005	Double Walled	Steel	1	Aboveground/ SW	Non-metallic	LOW	DC-Direct Communication	1, 2, 3, 5, 8, 9, 11, 12	GTPCC	Truck Loading Containment	Double-Walled Tank
154-2	300	AST for government vehicles	ULSD	8,000	1996	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	DC-Direct Communication	1, 2, 3, 5, 8, 9, 11, 12	GTPCC	Truck Loading Containment	Double-Walled Tank
216-1	Unknown	AST	ULSD	150	1996	Double Walled	Steel	3	AST out of Service	Metallic	LOW	N/A	N/A	None	Localized, No flow expected	None
227	8	CCAD Test Cell	F-24	10,000	1996	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	HLA-High Level Alarm	1, 2, 3, 11, 12	GTPCC	CCAD Tank Containment	Double-Walled Tank
228	8	CCAD Test Cell	F-24	10,000	1996	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	HLA-High Level Alarm	1, 2, 3, 11, 12	GTPCC	CCAD Tank Containment	Double-Walled Tank
229	8	CCAD Test Cell	F-24	10,000	1996	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	HLA-High Level Alarm	1, 2, 3, 11, 12	GTPCC	CCAD Tank Containment	Double-Walled Tank
230	8	CCAD Maintenance	VARSOL	2,000	1996	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	HLA-High Level Alarm	1, 2, 3, 11, 12	GTPCC	CCAD Tank Containment	Double-Walled Tank
231	8	CCAD Maintenance	VARSOL	2,000	1996	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	HLA-High Level Alarm	1, 2, 3, 11, 12	GTPCC	CCAD Tank Containment	Double-Walled Tank
232	8	CCAD Maintenance	Turbine Oil	2,000	1996	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	HLA-High Level Alarm	1, 2, 3, 11, 12	GTPCC	CCAD Tank Containment	Double-Walled Tank
233	8	CCAD Maintenance	Preservation oil	2,000	1996	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	HLA-High Level Alarm	1, 2, 3, 11, 12	GTPCC	CCAD Tank Containment	Double-Walled Tank

Table C-2 SHOP FABRICATED ABOVEGROUND STORAGE TANKS

Tank Number	Building	Container Type or Purpose	Contents	Tank Capacity (gal)[1]	Year Installed	Tank			Piping			Spill Prevention	Potential Failure Type[2] (See Table C-8)	Containment Capacity (gal)	Release Flow Direction/Receiver	Containment/Diversion Structure
						Construction	Material	STI Category	Construction	Material	Spill Risk					
235	111	AST for emergency generator	ULSD	500	1996	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	DC-Direct Communication	1, 2, 3, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
236	118	AST for emergency generator	ULSD	250	1992	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
252	254	AST for emergency generator	ULSD	250	1996	Double Walled	Steel	1	AST out of Service	Metallic	N/A	N/A	1, 2, 5, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
340-1	340	AST for emergency generator	ULSD	200	1996	Double Walled	Steel	1	Aboveground/ SW	Non-metallic	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	Inside building #342	Double-Walled Tank
1238-1	58	AST for emergency generator	ULSD	1,000	2006	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
1241	1241	AST for emergency generator	ULSD	500	2013	Double Walled	Steel	1	Aboveground/ SW	Copper	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
1260	1260	AST for emergency generator	ULSD	400	1987	Double Walled	Steel	1	Aboveground/ SW	Non-metallic	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
1289	1289	AST for emergency generator	ULSD	130	NA	Double Walled	Steel	1	Aboveground/ SW	Non-metallic	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
1292	1292	AST for emergency generator	ULSD	83	1987	Double Walled	Steel	1	Aboveground/ SW	Non-metallic	LOW	DC-Direct Communication	1, 2, 3, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
1700-1	Unknown	AST for Fire Protection Pump	ULSD	250	1992	Double Walled	Steel	1	Aboveground/ SW	Non-metallic	HIGH	None	1, 2, 3, 11, 12	GTPCC	Inside unmarked building	Double-Walled Tank
1700-2	Unknown	AST for emergency generator	ULSD	450	2005	Double Walled	Steel	1	Aboveground/ SW	Non-metallic	LOW	DC-Direct Communication	1, 2, 3, 11, 12	GTPCC	South/Stormwater Inlet	Double-Walled Tank
1717	1717	Aviation Fuel Facility	F-24	5,000	UNK	Single Walled	Plastic	N/A	AST out of Service	Metallic	N/A	N/A	1, 2, 3, 11, 12	4,456	Localized, No flow expected	Concrete Dike
1737-1	1737	Automotive Hobby Shop Used Oil	used oil	500	1992	Double Walled	Steel	1	N/A	Steel	LOW	DC-Direct Communication	3, 4, 10	GTPCC	Inside Auto Hobby Shop	Double-Walled Tank
1742-1	1729	AST for emergency generator	ULSD	250	1978	Double Walled	Steel	1	Underground/ SW	Copper	HIGH	HLSV-High level shutoff valve	1, 2, 5, 11	GTPCC	Localized, No flow expected	Double-Walled Tank
1743-1	1743	Gasoline for golf course maintenance	gasoline	250	2007	Double Walled	Steel	1	AST out of Service	Non-metallic	N/A	N/A	1, 2, 3, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
1757-1	1757	MWR Marina	gasoline	2,000	2014	Double Walled	Steel	1	See Note 3	Non-metallic	HIGH	HLA-High Level Alarm	1, 2, 3, 11, 12	GTPCC	East to Laguna Madre	Double-Walled Tank
1797G	1797	AST for emergency generator	ULSD	194	2012	Double Walled	Steel	1	Aboveground/ SW	Non-metallic	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	East/Stormwater Inlet	Double-Walled Tank
1804-1	115	AST for emergency generator	ULSD	1,000	2013	Single Walled	Steel	1	Aboveground/ SW	Metallic	LOW	DC-Direct Communication	1, 2, 5, 11, 12	None	Localized, No flow expected	Concrete Dike
1833	1870	AST for emergency generator	ULSD	2,000	2013	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
1848-1	1848	AST for emergency generator	ULSD	425	1990	Double Walled	Steel	1	Aboveground/ SW	Metallic	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
2607	1237	AST for emergency generator	ULSD	500	1998	Double Walled	Steel	1	Aboveground/ SW	Copper	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
GM-1	Unknown	Ground Maintenance	ULSD	500	1998	Double Walled	Steel	1	Aboveground/ SW	Non-metallic	LOW	HLSV-High level shutoff valve	1, 2, 5, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
GM-2	Unknown	Ground Maintenance	gasoline	500	2000	Double Walled	Steel	1	Aboveground/ SW	Non-metallic	LOW	HLSV-High level shutoff valve	1, 2, 3, 5, 11	GTPCC	Localized, No flow expected	Double-Walled Tank
H100-A	100	AST for Fire Protection Pump	ULSD	180	NA	Double Walled	Steel	1	Aboveground/ SW	Metallic	HIGH	None	1, 2, 11, 12	211	Inside building #107	Steel Dike
H106	106	AST for emergency generator	ULSD	4,000	NA	Double Walled	Steel	1	AST out of Service	Metallic	N/A	N/A	1, 2, 5, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
H111	111	AST	ULSD	4,000	NA	Double Walled	Steel	1	AST out of Service	Metallic	N/A	N/A	1, 2, 3, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
PAR-1	N/A	AST for emergency generator	ULSD	211	2010	Double Walled	Steel	1	Aboveground/ SW	Non-metallic	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank
W-1-1	163	AST for emergency generator	ULSD	500	2012	Double Walled	Steel	1	Aboveground/ SW	Copper	LOW	DC-Direct Communication	1, 2, 5, 11, 12	GTPCC	Localized, No flow expected	Double-Walled Tank

Table C-2 SHOP FABRICATED ABOVEGROUND STORAGE TANKS

Tank Number	Building	Container Type or Purpose	Contents	Tank Capacity (gal)[1]	Year Installed	Tank			Piping			Spill Prevention	Potential Failure Type[2] (See Table C-8)	Containment Capacity (gal)	Release Flow Direction/Receiver	Containment/Diversion Structure
						Construction	Material	STI Category	Construction	Material	Spill Risk					
USED COOKING OIL																
90-1	90	Used Cooking Oil	Used Cooking Oil	294	2014	Double Walled	Steel	1	N/A	Steel	LOW	DC-Direct Communication	10	None	On concrete slab	Single-Walled Tank
335-1	335	Used Cooking Oil	Used Cooking Oil	294	2014	Double Walled	Steel	1	N/A	Steel	LOW	DC-Direct Communication	10	None	On concrete slab	Single-Walled Tank
1291-1	1291	Used Cooking Oil	Used Cooking Oil	294	2012	Double Walled	Steel	1	N/A	Steel	LOW	DC-Direct Communication	10	GTPCC	On concrete slab	Double-Walled Tank
1735-1	1735	Used Cooking Oil	Used Cooking Oil	294	2012	Double Walled	Steel	1	N/A	Steel	LOW	DC-Direct Communication	10	GTPCC	On concrete slab	Double-Walled Tank
1740-1	1740	Used Cooking Oil	Used Cooking Oil	294	2012	Double Walled	Steel	1	N/A	Steel	LOW	DC-Direct Communication	10	GTPCC	On concrete slab	Double-Walled Tank

1. Column represents maximum release. Refer to Appendix G for potential release volumes for various failure modes.

2. Potential Failure Types:
1. Overfill by Delivery Truck
2. Spillage during Delivery Hose Retrieval
3. Transfer Out of Tank (Dispenser)
4. Transfer Out of Tank (Collection Suction Truck)
5. Transfer Out of Tank (Small Combustion Source)
6. Overfill of Aircraft from Mobile Refueler
7. Hose Retrieval Releases at Aircraft from Mobile Refueler
8. Overfill at Truck Loading Station
9. Hose Retrieval Releases at Truck Loading Station
10. Drum Filling and Emptying Releases
11. Pipeline Failure due to Leaking Joint or Corrosion
12. Catastrophic

3. Piping associated with AST 1757-1 has three types of piping, aboveground SW carbon steel piping, that transitions to undergound DW HDPE and abovground (suspended from the dock) DW HDPE to the dispenser.

GTPCC - Greater Than Primary Containment Capacity
STI-Steel Tank Institute

Table C-3 Mobile Generators

Tank Number	Building	Container Type or Purpose	Contents	Tank Capacity/ Maximum Release Volume (gal)[1]	Year Installed	Tank		Piping		Spill Prevention	Potential Failure Type[2] (See Table C-8)	Containment Capacity (gal)	Release Flow Direction/ Receiver	Containment/ Diversion Structure
						Construction	Material	Construction	Material					
44A	44	Mobile generator	USLD	68	N/A	Single Walled	Steel	Aboveground SW	Non-metallic	Spill Kit	1, 2, 5, 11, 12	None	Localized, No flow expected	None
44B	44	Mobile generator	ULSD	68	N/A	Single Walled	Steel	Aboveground SW	Non-metallic	Spill Kit	1, 2, 5, 11, 12	None	Localized, No flow expected	None
44C	44	Mobile generator	ULSD	68	N/A	Single Walled	Steel	Aboveground SW	Non-metallic	Spill Kit	1, 2, 5, 11, 12	None	Localized, No flow expected	None
MG-1	N/A	Mobile generator	ULSD	68	N/A	Double-Walled	Steel	Aboveground SW	Non-metallic	WA-Walk Around	1, 2, 11, 12	GTPCC	East/Stormwater Inlet	Double Walled Tank
MG-4	N/A	Mobile generator	ULSD	68	N/A	Double-Walled	Steel	Aboveground SW	Non-metallic	WA-Walk Around	1, 2, 11, 12	GTPCC	West/Storm water Inlet	Double Walled Tank

1. Column represents maximum release. Refer to Appendix G for potential release volumes for various failure modes.

2. Potential Failure Types:
1. Overfill by Delivery Truck
2. Spillage during Delivery Hose Retrieval
3. Transfer Out of Tank (Dispenser)
4. Transfer Out of Tank (Collection Suction Truck)
5. Transfer Out of Tank (Small Combustion Source)
6. Overfill of Aircraft from Mobile Refueler
7. Hose Retrieval Releases at Aircraft from Mobile Refueler
8. Overfill at Truck Loading Station
9. Hose Retrieval Releases at Truck Loading Station
10. Drum Filling and Emptying Releases
11. Pipeline Failure due to Leaking Joint or Corrosion
12. Catastrophic

GTPCC - Greater Than Primary Containment Capacity
N/A- Non Applicable
SW- Single Walled

Table C-4 MOBILE REFUELERS

Tank ID	Building	Contents	Tank Capacity/ Maximum Release Volume (gal)[1]	Pump Capacity (gallons per minute)	Spill Prevention	Potential Failure Type[2] (See Table C-8)	Containment Capacity (gal)	Release Flow Direction/Receiver	Containment/Diversion Structure
Mobile Refueler 28-1	28	F-24	5,000	120	WA-Walk Around	6, 7, 8, 11	GTPCC	Localized/Catchment Basin	Bermed Area to Catchment Basin
Mobile Refueler 28-2	28	F-24	5,000	120	WA-Walk Around	6, 7, 8, 11	GTPCC	Localized/Catchment Basin	Bermed Area to Catchment Basin
Mobile Refueler 28-3	28	F-24	5,000	120	WA-Walk Around	6, 7, 8, 11	GTPCC	Localized/Catchment Basin	Bermed Area to Catchment Basin
Mobile Refueler 28-4	28	F-24	5,000	120	WA-Walk Around	6, 7, 8, 11	GTPCC	Localized/Catchment Basin	Bermed Area to Catchment Basin
Mobile Refueler 28-5	28	F-24	5,000	120	WA-Walk Around	6, 7, 8, 11	GTPCC	Localized/Catchment Basin	Bermed Area to Catchment Basin
Mobile Refueler 28-6	28	F-24	5,000	120	WA-Walk Around	6, 7, 8, 11	GTPCC	Localized/Catchment Basin	Bermed Area to Catchment Basin
Mobile Refueler 28-7	28	F-24	5,000	120	WA-Walk Around	6, 7, 8, 11	GTPCC	Localized/Catchment Basin	Bermed Area to Catchment Basin
Mobile Refueler 28-8	28	F-24	5,000	120	WA-Walk Around	6, 7, 8, 11	GTPCC	Localized/Catchment Basin	Bermed Area to Catchment Basin
Mobile Refueler 28-9	28	F-24	1,000	100	WA-Walk Around	3, 8, 11	GTPCC	Localized/Catchment Basin	Bermed Area to Catchment Basin

1. Column represents maximum release. Refer to Appendix G for potential release volumes for various failure modes.

2. Potential Failure Types:

1. Overfill by Delivery Truck
2. Spillage during Delivery Hose Retrieval
3. Transfer Out of Tank (Dispenser)
4. Transfer Out of Tank (Collection Suction Truck)
5. Transfer Out of Tank (Small Combustion Source)
6. Overfill of Aircraft from Mobile Refueler
7. Hose Retrieval Releases at Aircraft from Mobile Refueler
8. Overfill at Truck Loading Station
9. Hose Retrieval Releases at Truck Loading Station
10. Drum Filling and Emptying Releases
11. Pipeline Failure due to Leaking Joint or Corrosion
12. Catastrophic

GTPCC - Greater Than Primary Containment Capacity

Table C-5 DRUM STORAGE

Tank ID	Building	Contents	Number of Drums	Total Capacity	Drum		Spill Prevention	Potential Failure Type[1] (See Table C-8)	Containment Capacity	Release Flow Direction/Receiver	Containment Diversionary Structure
					Construction	Material					
Bldg 8 CCAD	CCAD	Petroleum Products	36	1,980	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Localized, No flow expected	All drums are located on drip containment pallets inside builidng
20	20	Petroleum Products	4	220	Single Walled	M & Non-M	PI-Periodic Inspection	10	18	Localized, No flow expected	All drums are located on drip containment pallets inside builidng
27 HAZMART	27	Petroleum Products	6	330	Single Walled	M-metallic	PI-Periodic Inspection	10	GTPCC	Localized, No flow expected	Drums on secondary containment pallet inside building
28	28	New/Used Oil	2	110	Single Walled	M-metallic	PI-Periodic Inspection	10	77	Localized, No flow expected	Drums on secondary containment pallet
28 Refueling Parking	28	Waste Fuel	2	110	Single Walled	M-metallic	PI-Periodic Inspection	10	25	Tank truck parking area	Drums located on inadequate spill containment
255	255	Petroleum Products	4	220	Single Walled	M-metallic	PI-Periodic Inspection	10	25	Localized, No flow expected	All drums are located on drip containment pallets inside builidng
339 Motor Pool	339	New/Used Oil	8	440	Single Walled	M-metallic	PI-Periodic Inspection	10	77	Localized, No flow expected	Drums on secondary containment pallet
339 Satellite 25-A	339	New/Used Oil	2	110	Single Walled	M-metallic	PI-Periodic Inspection	10	25	Drums under cover	Drums located on inadequate spill containment
341 DLA	341	Petroleum Products	8	440	Single Walled	M-metallic	PI-Periodic Inspection	10	GTPCC	Drum Storage building	Containment sump
350	350	Petroleum Products	6	330	Single Walled	M-metallic	PI-Periodic Inspection	10	GTPCC	Drum Storage building	Containment sump
353	353	Petroleum Products	8	440	Single Walled	M & Non-M	PI-Periodic Inspection	10	GTPCC	Drum Storage building	Containment sump
356 DLA	356	Petroleum Products	8	440	Single Walled	M & Non-M	PI-Periodic Inspection	10	GTPCC	Drum Storage building	Containment sump
357 DLA	357	Petroleum Products	8	440	Single Walled	M & Non-M	PI-Periodic Inspection	10	GTPCC	Drum Storage building	Containment sump
358 DLA	358	Petroleum Products	8	440	Single Walled	M & Non-M	PI-Periodic Inspection	10	GTPCC	Drum Storage building	Containment sump
359 DLA	359	Petroleum Products	8	440	Single Walled	M & Non-M	PI-Periodic Inspection	10	GTPCC	Drum Storage building	Containment sump
360	360	Petroleum Products	8	440	Single Walled	M & Non-M	PI-Periodic Inspection	10	GTPCC	Drum Storage building	Containment sump
365	365	Petroleum Products	8	440	Single Walled	M & Non-M	PI-Periodic Inspection	10	GTPCC	Drum Storage building	Containment sump
1216	1216	New/Used Oil	4	220	Single Walled	M-metallic	PI-Periodic Inspection	10	GTPCC	Concrete berm inside building	Drum stored on concrete floor

Table C-5 DRUM STORAGE

Tank ID	Building	Contents	Number of Drums	Total Capacity	Drum		Spill Prevention	Potential Failure Type[1] (See Table C-8)	Containment Capacity	Release Flow Direction/Receiver	Containment Diversionary Structure
					Construction	Material					
1722 AMSA-7	1722	New/Used Oil	16	880	Single Walled	M & Non-M	PI-Periodic Inspection	10	87	Drum Storage containers and outside storage	Drums located on inadequate spill containment
1717 Fuel Facility	1717	Waste Fuel	2	110	Single Walled	M-metallic	PI-Periodic Inspection	10	25	Truck loading rack	Drums located on inadequate spill containment
1857	1857	Petroleum Products	6	330	Single Walled	M & Non-M	PI-Periodic Inspection	10	GTPCC	Drum Storage building	Containment sump
HGR 41-1	HGR 41	New/Used Oil	4	220	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Drums inside building	All drums are located on drip containment pallets inside builidng
HGR 42 BAE	HGR 42 BAE	New/Used Oil	4	220	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Localized, No flow expected	All drums are located on drip containment pallets inside builidng
HGR 42 L3	HGR 42	New/Used Oil	4	220	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Localized, No flow expected	All drums are located on drip containment pallets inside builidng
HGR 43	HGR 43	New/Used Oil	4	220	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Under construction	N/A
HGR 44	HGR 44	New/Used Oil	4	220	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Localized, No flow expected	All drums are located on drip containment pallets inside builidng
HGR 45 Satellite 14-A	HGR 45	New/Used Oil	4	220	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Localized, No flow expected	All drums are located on drip containment pallets inside builidng
HGR 47 Satellite 205-A	HGR 47	New/Used Oil	4	220	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Localized, No flow expected	All drums are located on drip containment pallets inside builidng
HGR 50-1	HGR 50	New/Used Oil	4	220	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Localized, No flow expected	All drums are located on drip containment pallets inside builidng
HGR 50-2	HGR 50	New/Used Oil	4	220	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Localized, No flow expected	All drums are located on drip containment pallets inside builidng
50-A	50	New/Used Oil	4	220	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Localized, No flow expected	All drums are located on drip containment pallets inside builidng
50-C Fac 33	50	New/Used Oil	4	220	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Drum Storage building	All drums are located on drip containment pallets inside builidng
50-D	50	New/Used Oil	4	220	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Drum Storage building	All drums are located on drip containment pallets inside builidng
HGR 51	HGR 51	New/Used Oil	4	220	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Localized, No flow expected	All drums are located on drip containment pallets inside builidng
HGR 55	HGR 55	New/Used Oil	4	220	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Localized, No flow expected	All drums are located on drip containment pallets inside builidng
HGR 56-1	HGR 56-1	New/Used Oil	4	220	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Localized, No flow expected	All drums are located on drip containment pallets inside builidng

Table C-5 DRUM STORAGE

Tank ID	Building	Contents	Number of Drums	Total Capacity	Drum		Spill Prevention	Potential Failure Type[1] (See Table C-8)	Containment Capacity	Release Flow Direction/Receiver	Containment Diversionary Structure
					Construction	Material					
HGR 56-2	HGR 56-2	New/Used Oil	4	220	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Localized, No flow expected	All drums are located on drip containment pallets inside builidng
HGR 58	HGR 58	New/Used Oil	4	220	Single Walled	M & Non-M	PI-Periodic Inspection	10	94	Localized, No flow expected	All drums are located on drip containment pallets inside builidng
Bldg 257 Fac 20	Bldg 257	Hazardous waste	8	440	Single Walled	M & Non-M	PI-Periodic Inspection	10	GTPCC	Drum Storage building	Containment sump
Bldg 257 Fac 21	Bldg 257	Petroleum Products	10	550	Single Walled	M & Non-M	PI-Periodic Inspection	10	1,720	Drum Storage building	Containment sump
Bldg 363 Fac 22	Bldg 363	Petroleum Products	6	330	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Localized, No flow expected	All drums are located on drip containment pallets inside builidng
Bldg 366 Fac 26	Bldg 366	Waste Fuel	6	330	Single Walled	M & Non-M	PI-Periodic Inspection	10	25	Localized, No flow expected	All drums are located on drip containment pallets inside builidng
HGR 41 Fac 27	HGR 41	Used Oil	2	110	Single Walled	M-metallic	PI-Periodic Inspection	10	GTPCC	Drum Storage building	Containment sump
Bldg 361 Fac 29	Bldg 361	Hazardous waste	10	550	Single Walled	M-metallic	PI-Periodic Inspection	10	GTPCC	Drum Storage building	Containment sump
Bldg 367 Fac 30	Bldg 367	Hazardous waste	10	550	Single Walled	M-metallic	PI-Periodic Inspection	10	729	Drum Storage building	Containment sump
Bldg 355 Fac 48	Bldg 355	Hazardous waste	40	2,200	Single Walled	M-metallic	PI-Periodic Inspection	10, 12	0	Drum Storage	Drums waiting for transport are stored outside on wooden pallets

1. Potential Failure Types:

1. Overfill by Delivery Truck
2. Spillage during Delivery Hose Retrieval
3. Transfer Out of Tank (Dispenser)
4. Transfer Out of Tank (Collection Suction Truck)
5. Transfer Out of Tank (Small Combustion Source)
6. Overfill of Aircraft from Mobile Refueler
7. Hose Retrieval Releases at Aircraft from Mobile Refueler
8. Overfill at Truck Loading Station
9. Hose Retrieval Releases at Truck Loading Station
10. Drum Filling and Emptying Releases
11. Pipeline Failure due to Leaking Joint or Corrosion
12. Catastrophic

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GTPCC - Greater Than Primary Containment Capacity

Table C-6 OIL FILLED OPERATIONAL EQUIPMENT

Identification Number	Building	Location	Equipment Description	Contents	Capacity	Spill Prevention	Potential Tank Failure			Spill Countermeasure
							Rate (gpm)	Direction	Receiver	
CCAD OFOE										
R8914	CCAD	Whirl Tower#2	Lubrication	Hydraulic Oil	750	PI-Periodic Inspection	0.1	Inside building	Concrete pad	berm
Y6391	CCAD	Whirl Tower#1	Gear box	Hydraulic Oil	78	PI-Periodic Inspection	0.1	Inside building	Concrete pad	berm
N/A	CCAD	Whirl Tower#1	Pump	Hydraulic Oil	300	PI-Periodic Inspection	0.1	Inside building	Concrete pad	berm
Z9653	CCAD	8; Jigs	Press	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
W1358	CCAD	8; Jigs	Shear 12 Foot	Hydraulic Oil	55	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
AN1210	CCAD	8; Compressor NDT	Oil Tank	Hydraulic Oil	110	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
W2032	CCAD	8; Shot Peen	DynaFlow	Hydraulic Oil	55	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
P6331	CCAD	8; Shot Peen	Power Turbine	Hydraulic Oil	77	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
M3737	CCAD	8; Shot Peen	Power Turbine	Hydraulic Oil	77	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
R9752	CCAD	8; T-700 Assembly	Solvent cleaning	Hydraulic Oil	65	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
R3843	CCAD	8; Machine Shop	EDM-1	Hydraulic Oil	200	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
K6775	CCAD	8; Machine Shop	EDM-2	Hydraulic Oil	300	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
K6568	CCAD	8; Machine Shop	EDM-3	Hydraulic Oil	200	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
G6751	CCAD	8; Machine Shop	EDM-4	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
M5143	CCAD	8; Machine Shop	EDM-5	Hydraulic Oil	300	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
G9498	CCAD	8; Machine Shop	Power Train	Hydraulic Oil	70	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
90750	CCAD	8; Transmission	Test Cell #21	Hydraulic Oil	250	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
W0968	CCAD	8; Transmission	Test Cell #18	Hydraulic Oil	800	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
R7177	CCAD	8; Transmission	Test Cell #3	Hydraulic Oil	800	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
Y0427	CCAD	8; Transmission	Test Cell #15	Hydraulic Oil	130	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
M8567	CCAD	8; Tool & Die Shop	Milling machine	Hydraulic Oil	55	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
M3529	CCAD	8; Tool & Die Shop	Milling machine	Hydraulic Oil	55	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
K5838	CCAD	8; Tool & Die Shop	Milling machine	Hydraulic Oil	55	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
R4534	CCAD	8; Tool & Die Shop	Milling machine	Hydraulic Oil	55	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
M4040	CCAD	8; Tool & Die Shop	Milling machine	Hydraulic Oil	55	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
G4958	CCAD	8; Welding	Electron welder	Hydraulic Oil	500	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
Z7886	CCAD	8; Welding	Electron welder	Hydraulic Oil	500	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
G9802	CCAD	8; Foundry	Preen	Hydraulic Oil	795	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
N/A	CCAD	8; Foundry	Quench oil	Hydraulic Oil	55	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
N/A	CCAD	8; Foundry	Quench oil	Hydraulic Oil	55	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
N/A	CCAD	8; Foundry	Quench oil	Hydraulic Oil	55	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
G911A	CCAD	6254	Circulating Pump	Hydraulic Oil	60	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
G9112A	CCAD	6254	Circulating Pump	Hydraulic Oil	60	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
Y1412	CCAD	1828; Bearings	Cleaning Line	Hydraulic Oil	200	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
Y1413	CCAD	1828; Bearings	Cleaning Line	Hydraulic Oil	200	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
Y1427	CCAD	1828; Bearings	Cleaning Line	Hydraulic Oil	200	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
Y1425	CCAD	1828; Bearings	Cleaning Line	Hydraulic Oil	200	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building

Table C-6 OIL FILLED OPERATIONAL EQUIPMENT

Identification Number	Building	Location	Equipment Description	Contents	Capacity	Spill Prevention	Potential Tank Failure			Spill Countermeasure
							Rate (gpm)	Direction	Receiver	
N/A	CCAD	340; Plating Shop	Oil Tank	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
N/A	CCAD	340; Plating Shop	Oil Tank	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
N/A	CCAD	340; Plating Shop	Oil Tank	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
K8595	CCAD	165	Shear 12 Foot	Hydraulic Oil	250	PI-Periodic Inspection	0.1	Inside building	Service Pit	inside building
CCAD ELEVATOR TANKS[1]										
FE 8260	CCAD	B8 MEZZ 9	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8261	CCAD	B8 A40	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8558	CCAD	B8 MEZZ 9	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8262	CCAD	B8 A9	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8263	CCAD	B 8 A40	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8264	CCAD	B8 A41	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8277	CCAD	Bldg 49	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8278	CCAD	Bldg 49	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8268	CCAD	B8 A45	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8269	CCAD	B8 A45	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8270	CCAD	B8 A1	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8272	CCAD	B8 MEZZ 30	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8273	CCAD	B8 A46	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8274	CCAD	B8 A9	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8265	CCAD	B8 A43	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8275	CCAD	B8 A44	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8279	CCAD	Bldg 1880	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8280	CCAD	Bldg 131	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8281	CCAD	Bldg 340	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 7838	CCAD	Bldg 1727	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8283	CCAD	Hangar 44	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE 8284	CCAD	Hangar 45	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
FE H46	CCAD	Hangar 46	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room

Table C-6 OIL FILLED OPERATIONAL EQUIPMENT

Identification Number	Building	Location	Equipment Description	Contents	Capacity	Spill Prevention	Potential Tank Failure			Spill Countermeasure
							Rate (gpm)	Direction	Receiver	
NASCC Vertical Transportation Equipment[1]										
Unknown	Bldg 50	NAS CC DHS	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
Unknown	Bldg 1846	NASCC DLA	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
Unknown	Bldg H-100	NASCC HOSP	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
Unknown	Bldg H-100	NASCC HOSP	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
Unknown	Bldg H-100	NASCC HOSP	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
Unknown	Bldg H-100	NASCC HOSP	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
Unknown	Bldg 1	NASCC Navy	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
Unknown	Bldg 7	NASCC Navy	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
Unknown	Bldg 99	NASCC Navy	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
Unknown	Bldg 10-1	NASCC Navy	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
Unknown	Bldg 10-2	NASCC Navy	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
Unknown	Bldg 10-3	NASCC Navy	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
Unknown	Bldg 10-4	NASCC Navy	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
Unknown	Bldg 1281-1	NASCC Navy	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
Unknown	Bldg 1281-2	NASCC Navy	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
Unknown	Hgr 51	NASCC Navy	Hydraulic Lift	Hydraulic Oil	100	PI-Periodic Inspection	0.1	Inside building	Service Pit	Elevator tank room
Electrical Transformers										
687	Bldg 1246	AVE D	Pad electrical transformer	Mineral oil	1710	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3100	Hg 44	N. OCEAN DR	Pad electrical transformer	Mineral oil	819	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
9061	Bldg 340	0 MIDWAY ST	Pad electrical transformer	Mineral oil	750	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
4594	Bldg 149	AVE DR	Pad electrical transformer	Mineral oil	700	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
NONE	Bldg 49	BLDG 49	Pad electrical transformer	Mineral oil	650	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3108	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	590	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1335	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	590	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
2592	Bldg 8	OCEAN DR	Pad electrical transformer	Mineral oil	509	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
257	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	455	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1072	Bldg 25	AVE E.	Pad electrical transformer	Mineral oil	450	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
500	Bldg 48	4TH ST.	Pad electrical transformer	Mineral oil	450	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1098	Bldg 49	4TH ST	Pad electrical transformer	Mineral oil	430	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1099	Bldg 8	4TH ST.	Pad electrical transformer	Mineral oil	430	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
33	Bldg 337	AV E	Pad electrical transformer	Mineral oil	405	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
2354	Hgr 42	N OCEAN DR	Pad electrical transformer	Mineral oil	366	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
30101	Bldg 1746	AVE E.	Pad electrical transformer	Mineral oil	362	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
214	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	355	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
9682	Bldg 1501	(FIRE DEPT)	Pad electrical transformer	Mineral oil	355	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
4593	Bldg 101	POST OFFICE	Pad electrical transformer	Mineral oil	352	PI-Periodic Inspection	0.1	N	Ground	Spill Kit

Table C-6 OIL FILLED OPERATIONAL EQUIPMENT

Identification Number	Building	Location	Equipment Description	Contents	Capacity	Spill Prevention	Potential Tank Failure			Spill Countermeasure
							Rate (gpm)	Direction	Receiver	
5557	Bldg 1281	OCEAN DR	Pad electrical transformer	Mineral oil	346	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
58311	Bldg 50	1ST ST	Pad electrical transformer	Mineral oil	330	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3109	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	325	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
NONE	Bldg 49	BLDG 49	Pad electrical transformer	Mineral oil	322	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3663	Bldg 49	GETTYSBURG AVE	Pad electrical transformer	Mineral oil	320	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
4288	Bldg 1241	(AIRFIELD)	Pad electrical transformer	Mineral oil	319	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3111	Bldg 8	4TH ST.	Pad electrical transformer	Mineral oil	311	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
20101	Bldg 33	4TH ST.	Pad electrical transformer	Mineral oil	306	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
NONE	Bldg 127	BLDG 127	Pad electrical transformer	Mineral oil	303	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3091	Bldg 1	SARATOGA DR.	Pad electrical transformer	Mineral oil	300	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
5029	Bldg 1721	LEXINGTON	Pad electrical transformer	Mineral oil	300	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
9305	Bldg 1818	2ND ST	Pad electrical transformer	Mineral oil	300	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3088	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	300	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3089	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	300	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3090	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	296	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3092	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	296	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
5091	Bldg H109	SKYRAY DR.	Pad electrical transformer	Mineral oil	296	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
101	Bldg 89	BATAAN ST	Pad electrical transformer	Mineral oil	294	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3093	Bldg 10800	OCEAN DR.	Pad electrical transformer	Mineral oil	290	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
2752	Bldg 119	LEXINGTON	Pad electrical transformer	Mineral oil	278	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
5551	Bldg 90	OCEAN DR	Pad electrical transformer	Mineral oil	278	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
5550	Hgr 41	S.W	Pad electrical transformer	Mineral oil	278	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
5554	Bldg 25	AVE D	Pad electrical transformer	Mineral oil	272	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
6050	Bldg 206	GETTYSBURG AVE	Pad electrical transformer	Mineral oil	272	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
5555	Bldg 90	OCEAN DR	Pad electrical transformer	Mineral oil	272	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3095	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	271	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
5552	Bldg 1281	OCEAN DR	Pad electrical transformer	Mineral oil	270	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
5553	Bldg 1281	OCEAN DR	Pad electrical transformer	Mineral oil	270	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3101	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	270	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3098	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	268	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3106	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	264	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3105	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	264	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3107	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	264	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3102	Bldg W1	OCEAN DR	Pad electrical transformer	Mineral oil	260	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3084	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	256	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3085	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	256	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3086	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	256	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3087	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	256	PI-Periodic Inspection	0.1	N	Ground	Spill Kit

Table C-6 OIL FILLED OPERATIONAL EQUIPMENT

Identification Number	Building	Location	Equipment Description	Contents	Capacity	Spill Prevention	Potential Tank Failure			Spill Countermeasure
							Rate (gpm)	Direction	Receiver	
3114	Bldg 1808	MIDWAY ST.	Pad electrical transformer	Mineral oil	251	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3858	Bldg 345	1ST ST	Pad electrical transformer	Mineral oil	250	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
F0087	Bldg 23	OCEAN DR	Pad electrical transformer	Mineral oil	245	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
313	Bldg 1733	5TH ST	Pad electrical transformer	Mineral oil	243	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3116	Bldg 19	2ND ST.	Pad electrical transformer	Mineral oil	236	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3097	Hgr 44	N. OCEAN DR.	Pad electrical transformer	Mineral oil	234	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3103	Bldg W1	OCEAN DR	Pad electrical transformer	Mineral oil	231	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1759	Bldg 206	2ND ST.	Pad electrical transformer	Mineral oil	229	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
8041	Bldg 1744	AVE E	Pad electrical transformer	Mineral oil	219	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3113	Hgr 43	OCEAN DR.	Pad electrical transformer	Mineral oil	219	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3099	Hgr 45	N. OCEAN DR.	Pad electrical transformer	Mineral oil	219	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3104	Hgr 51	AVE.D	Pad electrical transformer	Mineral oil	215	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
5299	Bldg 48	4TH ST.	Pad electrical transformer	Mineral oil	212	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
9539	Bldg Q 21	PRINCETON	Pad electrical transformer	Mineral oil	210	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
9540	Bldg Q 26	9TH ST	Pad electrical transformer	Mineral oil	210	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
9543	Bldg Q 28	YORKTOWN	Pad electrical transformer	Mineral oil	210	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
9536	Bldg Q 14	ESSEX DR	Pad electrical transformer	Mineral oil	210	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
9537	Bldg Q 22	PRINCETON	Pad electrical transformer	Mineral oil	210	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
9541	Bldg Q 25	9TH ST	Pad electrical transformer	Mineral oil	210	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
9538	Bldg Q 27	YORKTOWN	Pad electrical transformer	Mineral oil	210	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
9535	Bldg Q 29	9TH ST	Pad electrical transformer	Mineral oil	210	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
9542	Bldg Q 30	9TH ST	Pad electrical transformer	Mineral oil	210	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
8387	Hgr 56	BATAAN ST	Pad electrical transformer	Mineral oil	210	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
7019	Bldg 102	AVE E	Pad electrical transformer	Mineral oil	208	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3110	Bldg 1260	BLDG 1260	Pad electrical transformer	Mineral oil	208	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
360	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	206	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
8308	Bldg 259	AVE D	Pad electrical transformer	Mineral oil	204	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
7511	Bldg 1740	LEXINGTON	Pad electrical transformer	Mineral oil	200	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
2205	Bldg 60	BATAAN ST	Pad electrical transformer	Mineral oil	198	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3115	Hgr 58	HGR 58E	Pad electrical transformer	Mineral oil	198	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
2701	Bldg 1728	AVE D	Pad electrical transformer	Mineral oil	195	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1844	Bldg 1241	(AIRFIELD)	Pad electrical transformer	Mineral oil	191	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3977	Bldg 131	MIDWAY ST	Pad electrical transformer	Mineral oil	191	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
2371	Bldg 1733	5TH ST	Pad electrical transformer	Mineral oil	190	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
8929	Bldg 1740	LEXINGTON	Pad electrical transformer	Mineral oil	190	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
NONE	Club	NEW CONSOLIDATED CLUB	Pad electrical transformer	Mineral oil	184	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3096	Hgr 44	N. OCEAN DR.	Pad electrical transformer	Mineral oil	182	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
4593	Bldg 1737	DIMMIT DR	Pad electrical transformer	Mineral oil	181	PI-Periodic Inspection	0.1	N	Ground	Spill Kit

Table C-6 OIL FILLED OPERATIONAL EQUIPMENT

Identification Number	Building	Location	Equipment Description	Contents	Capacity	Spill Prevention	Potential Tank Failure			Spill Countermeasure
							Rate (gpm)	Direction	Receiver	
4593	Hgr 51	AVE.D	Pad electrical transformer	Mineral oil	181	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3117	Bldg 318	LEXINGTON	Pad electrical transformer	Mineral oil	166	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
2004	Bldg 1707	AVE. E	Pad electrical transformer	Mineral oil	164	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3119	Bldg 117	LEXINGTON	Pad electrical transformer	Mineral oil	164	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3120	Bldg 176	AVE E.	Pad electrical transformer	Mineral oil	164	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3118	Bldg 332	LEXINGTON	Pad electrical transformer	Mineral oil	164	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
181	Bldg 335	LEXINGTON BLV	Pad electrical transformer	Mineral oil	164	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
851	Bldg 1717	1ST ST	Pad electrical transformer	Mineral oil	160	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
8192	Bldg 1824	OCEAN DR	Pad electrical transformer	Mineral oil	159	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
6508	Bldg 1828	OCEAN DR	Pad electrical transformer	Mineral oil	156	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
7091	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	155	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
8384	Hgr 55	BATAAN ST	Pad electrical transformer	Mineral oil	155	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
3094	Hgr 46	OCEAN DR	Pad electrical transformer	Mineral oil	154	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
345	Bldg 8	CRECY ST.	Pad electrical transformer	Mineral oil	148	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
4182	Bldg 223	AVE E.	Pad electrical transformer	Mineral oil	145	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
5309	Bldg 1263	LEXINGTON BLVD	Pad electrical transformer	Mineral oil	142	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
4693	Bldg 34	5TH ST	Pad electrical transformer	Mineral oil	134	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
464	Bldg 1733	5TH ST	Pad electrical transformer	Mineral oil	133	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
4693	Bldg 198	LEXINGTON	Pad electrical transformer	Mineral oil	127	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
7973	Bldg 1870	OCEAN DR	Pad electrical transformer	Mineral oil	125	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
	Bldg 10301	OCEAN DR	Pad electrical transformer	Mineral oil	125	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
8657	Bldg 10402	BLDG 10402	Pad electrical transformer	Mineral oil	125	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1518	Bldg 10800	AVE E	Pad electrical transformer	Mineral oil	125	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1508	Bldg 11200	AVE E	Pad electrical transformer	Mineral oil	125	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1517	Bldg 11301	AVE D	Pad electrical transformer	Mineral oil	125	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1513	Bldg 11400	AVE E	Pad electrical transformer	Mineral oil	125	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1510	Bldg 11701	AVE D	Pad electrical transformer	Mineral oil	125	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1519	Bldg 11800	AVE E	Pad electrical transformer	Mineral oil	125	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
8294	Bldg 1261	AVE E	Pad electrical transformer	Mineral oil	125	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
4032	Bldg 1758	AVE E	Pad electrical transformer	Mineral oil	125	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
5283	Bldg 1863	OCEAN DR	Pad electrical transformer	Mineral oil	125	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1522	Bldg 402	9TH ST	Pad electrical transformer	Mineral oil	125	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1512	Bldg 403	9TH ST	Pad electrical transformer	Mineral oil	125	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1511	Bldg 501	9TH ST	Pad electrical transformer	Mineral oil	125	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1645	Bldg 50A	1ST ST	Pad electrical transformer	Mineral oil	125	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
712	Bldg 12	(AIRFIELD)	Pad electrical transformer	Mineral oil	119	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
2394	Bldg 1	OCEAN DR	Pad electrical transformer	Mineral oil	107	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
5080	Airfield	CF. RUNWAY 22	Pad electrical transformer	Mineral oil	107	PI-Periodic Inspection	0.1	N	Ground	Spill Kit

Table C-6 OIL FILLED OPERATIONAL EQUIPMENT

Identification Number	Building	Location	Equipment Description	Contents	Capacity	Spill Prevention	Potential Tank Failure			Spill Countermeasure
							Rate (gpm)	Direction	Receiver	
5073	Airfield	CF. RUNWAY 8	Pad electrical transformer	Mineral oil	107	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1268	Bldg 1742	1ST ST	Pad electrical transformer	Mineral oil	105	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
581	Bldg 1236	AIRFIELD	Pad electrical transformer	Mineral oil	99	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
8307	Bldg 1233	AVE D	Pad electrical transformer	Mineral oil	87	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
100	Bldg 1233	AIRFIELD	Pad electrical transformer	Mineral oil	81	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
8297	Bldg 10402	OCEAN DR	Pad electrical transformer	Mineral oil	80	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
4603	Bldg 1757	AVE E	Pad electrical transformer	Mineral oil	77	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
373	Bldg 1745	1ST ST	Pad electrical transformer	Mineral oil	75	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
CT68	Bldg 107	KING DR	Pad electrical transformer	Mineral oil	74	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
CT9821	Bldg 101	KING DR	Pad electrical transformer	Mineral oil	70	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
8295	Bldg 10101	OCEAN DR	Pad electrical transformer	Mineral oil	70	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
8296	Bldg 10800	BLDG 10800	Pad electrical transformer	Mineral oil	70	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
NONE	MWR Marina	NEW MARINA	Pad electrical transformer	Mineral oil	66	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
4185	Airfield	CF. RUNWAY 13	Pad electrical transformer	Mineral oil	64	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1502	Bldg 10100	SKYRAY DR	Pad electrical transformer	Mineral oil	61	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1505	Bldg 10301	SKYRAY DR.	Pad electrical transformer	Mineral oil	61	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
8326	Bldg 11600	OCEAN DR	Pad electrical transformer	Mineral oil	61	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
8325	Bldg 11901	AVE D	Pad electrical transformer	Mineral oil	61	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
8094	Bldg 46	OCEAN DR.	Pad electrical transformer	Mineral oil	61	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1501	Bldg 500	9TH ST	Pad electrical transformer	Mineral oil	61	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1497	Bldg 601	9TH ST	Pad electrical transformer	Mineral oil	61	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
8271	Bldg 11101	AVE D	Pad electrical transformer	Mineral oil	60	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
CT-113	Bldg 12001	BLDG 12001-12015	Pad electrical transformer	Mineral oil	60	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
8272	Bldg 1759	OCEAN DR	Pad electrical transformer	Mineral oil	60	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
7871	Bldg 1746	AVE D	Pad electrical transformer	Mineral oil	59	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
6850	Bldg 9901	OCEAN DR	Pad electrical transformer	Mineral oil	55	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
8022	Airfield	CF.S.W. RUNWAY31	Pad electrical transformer	Mineral oil	55	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
7519	Airfield	WF. EAST OF ENTRY	Pad electrical transformer	Mineral oil	55	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
1588	Airfield	WF. POLE 106 (ENTRANCE)	Pad electrical transformer	Mineral oil	55	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
9901	Bldg 37	5TH ST	Pole electrical transformer	Mineral oil	342	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
5556	Bldg 1757	7 AVE E	Pole electrical transformer	Mineral oil	275	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
Q374	Bldg 1782	9TH ST	Pole electrical transformer	Mineral oil	185	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
G463	Bldg 1782	2 9TH ST	Pole electrical transformer	Mineral oil	185	PI-Periodic Inspection	0.1	N	Ground	Spill Kit
G465	Bldg 1782	2 9TH ST	Pole electrical transformer	Mineral oil	185	PI-Periodic Inspection	0.1	N	Ground	Spill Kit

1. All CCAD and NASCC elevator tanks volumes are estimates and must be field verified

Table C-7 UNDERGROUND STORAGE TANKS

Tank Number	Building	Service	Contents	Capacity (gal)	Year Installed	Tank		Piping		Spill Prevention
						Construction	Material	Construction	Material	
1	NEX Fuel Station	Automotive Fuel	Unleaded gasoline	10,000	1986	Single Walled	Non-metallic	Underground DW	Non-metallic	HLA-High Level Alarm
2	NEX Fuel Station	Automotive Fuel	Unleaded gasoline	10,000	1986	Single Walled	Non-metallic	Underground DW	Non-metallic	HLA-High Level Alarm
3	NEX Fuel Station	Automotive Fuel	Diesel	10,000	1986	Single Walled	Non-metallic	Underground DW	Non-metallic	HLA-High Level Alarm

NEX-Navy Exchange
DW-Double Walled

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Table C-8 Assumptions and Calculations

Table C-8 Summary of Release Scenarios			
Potential Failure Types	**Description**	**Maximum Volume (gal)**	**Most Likely Volume (gal)**
1	Overfill by Delivery Truck	5	4
2	Spillage during Delivery Hose Retrieval	60	5
3	Transfer Out of Tank (Dispenser)	2	1
4	Transfer Out of Tank (Collection Suction Truck)	10	2
5	Transfer Out of Tank (Small Combustion Source)	1	1
6	Overfill of Aircraft from Mobile Refueler	600	150
7	Hose Retrieval Releases at Aircraft from Mobile Refueler	600	50
8	Overfill at Truck Loading Station	600	150
9	Hose Retrieval Releases at Truck Loading Station	600	50
10	Drum Filling and Emptying Releases	55	1
11	Pipeline Failure due to Leaking Joint or Corrosion	Varies	3
12	Catastrophic	Varies	-

The following flow rate assumptions were used to develop the estimates required in the released scenarios required under 40 CFR 112.7 (b). The assumptions are based on industry standards and physical observation.

<u>Flow Rate Data</u>

Delivery truck flow rate at nozzle:	50 GPM
Delivery truck flow rate from ruptured hose:	60 GPM
Dispenser flow rate:	10 GPM
Combustion source burn rate:	1 GPM
Used oil collection suction loading rate:	10 GPM
Mobile refueler (aircraft) flow rate:	600 GPM
Drum filling (manual pouring):	5 GPM
Corrosion Failure of Piping	0.1 GPH

The following calculations are used to develop the containment volumes required to fulfill the general secondary containment under 40 CFR 112.7 (c) for various operational scenarios.

1. Overfill by Delivery Truck

Assume: a.) 6 sec response time to stop flow when overfill occurs (worst case 112.7(b))
b.) 5 sec response time to stop flow when overfill occurs (most likely 112.7(c))

Release Volume = flow rate x response time
Maximum Volume (112.7 (b)) = 50 GPM x 6 sec x 1 min/60 sec = **5 gallons**
Most Likely Volume (112.7(c)) = 50 GPM x 5 sec x 1 min/60 sec = **4 gallons**

2. Spillage During Delivery Hose Retrieval

Assume: a.) 60 sec response time to stop flow when hose fails (worst case 112.7(b))
b.) 5 sec response time to stop flow when hose drips (most likely 112.7(c))

Release Volume = flow rate x response time
Maximum Volume (112.7(b)) = 60 GPM x 60 sec x 1 min/60 sec = **60 gallons**
Most Likely Volume (112.7(c)) = 60 GPM x 5 sec x 1 min/60 sec = **5 gallons**

3. Transfer Out Of Tank (Fuel Dispenser)

Assume: a.) 12 sec response time for dispensing spills (worst case 112.7(b))
b.) 6 sec response time for dispensing spills (most likely 112.7(c))

Release Volume = flow rate x response time
Maximum Volume (112.7(b)) = 10 GPM x 12 sec x 1 min/60 sec = **2 gallons**
Most Likely Volume (112.7(c)) = 10 GPM x 6 sec x 1 min/60 sec = **1 gallons**

4. Transfer Out Of Tank (Collection Suction Truck)

Assume: a.) 60 sec response time for securing suction following spill (worst case 112.7(b))
b.) 12 sec response time for securing suction following spill (most likely 112.7(c))

Release Volume = flow rate x response time
Maximum Volume (112.7(b)) = 10 GPM x 12 sec x 1 min/60 sec = **10 gallons**
Most Likely Volume (112.7(c)) = 10 GPM x 6 sec x 1 min/60 sec = **2 gallons**

5. Transfer Out Of Tank (Small Combustion Source (Boilers and Generators <500hp))

Assume: a.) Combustion source transfer lines are typically suction feed and gravity return.
b.) Supply and return flow rate are 1 GPM.
c.) Combustion source will not operate for extended time with a hole in the suction line.

Maximum Volume (112.7(b)) = **1 gallon before source cannot sustain combustion**
Most Likely Volume (112.7(c)) = **1 gallon before source cannot sustain combustion**

6. Overfill Of Aircraft from Mobile Refueler

Assume: a.) 1 minute response time to stop flow when overfill occurs (worst case 112.7(b))
b.) 15 sec response time to stop flow when overfill occurs (most likely 112.7(c))

Release Volume = flow rate x response time
Maximum Volume (112.7(b)) = 600 GPM x 1 min = **600 gallons**
Most Likely Volume (112.7(c)) = 600 GPM x 15 sec x 1 min/60 sec = **150 gallons**

7. Hose Retrieval Releases at Aircraft from Mobile Refueler

Assume: a.) 1 minute response time to stop flow when hose fails (worst case 112.7(b))
b.) 5 sec response time to stop flow when hose drips (most likely 112.7(c))

Release Volume = flow rate x response time
Maximum Volume (112.7(b)) = 600 GPM x 1 min = **600 gallons**
Most Likely Volume (112.7(c)) = 600 GPM x 5 sec x 1 min/60 sec = **50 gallons**

8. Overfill at Truck Loading Station

Assume: a.) 1 minute response time to stop flow when overfill occurs (worst case 112.7(b))
b.) 15 sec response time to stop flow when overfill occurs (most likely 112.7(c))

Release Volume = flow rate x response time
Maximum Volume (112.7(b)) = 600 GPM x 1 min = **600 gallons**
Most Likely Volume (112.7(c)) = 600 GPM x 15 sec x 1 min/60 sec= **150 gallons**

9. Hose Retrieval Releases at Truck loading Station

Assume: a.) 1 minute response time to stop flow when hose fails (worst case 112.7(b))
b.) 5 sec response time to stop flow when hose drips (most likely 112.7(c))

Release Volume = flow rate x response time
Maximum Volume (112.7(b)) = 600 GPM x 1 min = **600 gallons**
Most Likely Volume (112.7(c)) = 600 GPM x 5 sec x 1 min/60 sec = **50 gallons**

10. Drum Filling and Emptying Releases

Assume: a.) Drums are manually filled by 5 gallon containers.
b.) Total quantity of oil which could be potentially released during filling is the volume of the 5 gallon container used to fill the drum.
c.) Total quantity of oil which could be potentially released during emptying is the volume of the drum.

Since both the operations are manned and closely observed, the most likely volumes released during filling and emptying are substantially less. An engineering estimation of 1 gallon will be used for the most likely volumes released during both filling and emptying. When any sort of release occurs, the operator will immediately terminate the operation and initiate response efforts.

Filling Drum
Maximum Volume (112.7(b)) = Volume of filling container = **5 gallons**
Most Likely Volume (112.7(c)) = **1 gallon**

Emptying Drum
Maximum Volume (112.7(b)) = Volume of drum = **55 gallons**
Most Likely Volume (112.7(c)) = **1 gallon**

11. Corrosion Failure of Piping

Assume: a.) Threaded couplings subject to corrosion failure. Flanged couplings subject to leaks due to movement all located within containment.
b.) Anti-siphon valves installed on tanks, as recommended under Best Engineering Practices.
c.) Maximum threaded pipe size of 2" diameter; maximum length of 100 ft.
d.) All sites inspected monthly; so longest duration would be until pipe is drained, or 35 days. Assume pipe drainage will be limiting factor on unmanned sites.
e.) All piping with pressurized systems manned and viewed daily.
f.) All larger diameter piping is flanged, not threaded.
g.) Assume large diameter piping maximum rate of 0.1 gph, i.e. drip.
g.) Pressurized systems will cease to operate if pump head is lost due to a significant leak.

Release volume threaded piping = volume of piping prior to anti-siphon valve
= 2" diameter x 100 ft.
= 2.18 cubic feet = **16 gallons**

Release volume at flanged location = 0.1 gph x 24 hrs day = **2.4 gallons**

12. Catastrophic Failure of Piping

The potential for this type of failure is not likely, however, should it occur, the entire contents of the AST could be drained. Therefore, to combat this potential failure mode, it is recommended that all ASTs where the piping exits the top of the tank, and continues to grade or below grade, be equipped with anti-siphon valves.

Assume: a.) Maximum size of piping subject to mode of failure: 2"
b.) Maximum pressure head: 20 ft.
c.) Maximum loss will be equivalent to tank volume if no anti-siphon valve.

Maximum flow rate: (using Bernoulli's Equation) = **5.8 gpm**

Appendix D:

Naval Air Station Corpus Christi Texas General Land Office Oil Spill Prevention and Response Discharge Prevention and Response Certificate

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Certificate Number: 30270
Expiration: July 24, 2018

Texas General Land Office
Oil Spill Prevention and Response
Discharge Prevention and Response Certificate

Naval Air Station (NAS) Corpus Christi	**Corpus Christi,**
Facility Name	Location
Morale, Welfare and Recreation - NAS	
Owner	Operator

This certificate carries with it the need to maintain a high level of prevention awareness at your facility and the need to respond in a 'planned' manner to unauthorized discharges.

Jerry Patterson
Commissioner
Texas General Land Office

Greg Pollock
Deputy Commissioner, Oil Spill Prevention & Response
Texas General Land Office

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Appendix E:

Naval Air Station Corpus Christi Storage Tank List and Photographs

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Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
7-1	7	AST	4,500	ULSD
10-1	10	AST	2,500	ULSD
11-1 (1846)	1846	AST	500	ULSD
35-1	35	AST	150	ULSD
41-A	41	MOBILE GENERATOR	300	ULSD
41	41	AST	1,000	ULSD
44A	44	MOBILE GENERATOR	68	ULSD
44B	44	MOBILE GENERATOR	68	ULSD
44C	44	MOBILE GENERATOR	68	ULSD
47-1	47	AST	500	PRESERVATION OIL
47-2	47	AST	500	PRESERVATION OIL
47-3	47	AST	500	PRESERVATION OIL
47-4	47	AST	500	PRESERVATION OIL
47-5	47	AST	3,000	JP-8
50-1	250	AST	250	ULSD
50-2	250	AST	250	ULSD
50-3	50	AST	630	ULSD
50-4	50	AST	357	ULSD
55-1	114	AST	280	ULSD
62-1	60	AST	1,000	ULSD
68-1	68	AST	300	ULSD
89-1	1215	AST	1,000	ULSD
90-1	90	AST	294	USED COOKING OIL
104-1	104	AST	80	ULSD
121-1	121	AST	250	USLD
154-1	380	AST	4,000	GASOLINE
154-2	380	AST	8,000	USLD
216-1	N/A	AST	150	ULSD
227	8	AST	10,000	JP-8
228	8	AST	10,000	JP-8
229	8	AST	10,000	JP-8
230	8	AST	2,000	VARSOL
231	8	AST	2,000	VARSOL
232	8	AST	2,000	TURBINE OIL
233	8	AST	2,000	PRESERVATION OIL
235	111	AST	500	USLD

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
236	118	AST	250	USLD
252	254	AST	250	USLD
335-1	335	AST	294	USED COOKING OIL
340-1	342	AST	200	USLD
1238-1	58	AST	1,000	USLD
1241	1241	AST	500	USLD
1260	1260	AST	400	USLD
1289	N/A	AST	130	USLD
1291-1	1291	AST	294	USED COOKING OIL
1292	N/A	AST	83	USLD
1700-1	UNK	AST	250	USLD
1700-2	UNK	AST	450	ULSD
1716-1	1717	AST	250,000	JP-8
1717	1717	AST	5,000	JP-8
1720-2	1717	AST	250,000	JP-8
1735-1	1735	AST	294	USED COOKING OIL
1737-1	1737	AST	500	USED OIL
1740-1	1740	AST	294	USED COOKING OIL
1742-1	1729	AST	250	USLD
1743-1	1757	AST	250	GASOLINE
1757-1	1757	AST	2,000	GASOLINE
1797G	1794	AST	194	ULSD
1804-1	1804	AST	1,000	USLD
1833	1870	AST	2,000	USLD
1848-1	1848	AST	425	USLD
2607	1237	AST	500	USLD
GM-1	DRMO	AST	500	USLD
GM-2	DRMO	AST	500	GASOLINE
H100-A	H100	AST	180	USLD
H106	H106	AST	4,000	USLD
H111	H108	AST	4,000	USLD
MG-1	305	MOBILE GENERATOR	250	USLD
MG-4	1741	MOBILE GENERATOR	84	USLD
PAR-1	FLIGHT LINE	AST	211	USLD
W-1-1	WATER PLANT	AST	500	USLD
1	NEX	UST	10,000	GASOLINE
2	NEX	UST	10,000	GASOLINE

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
3	NEX	UST	10,000	DIESEL
N/A	BLDG 8 CCAD	DRUM	55	VARIOUS OILS HAZ WASTE
N/A	20	DRUM	55	USED OIL
N/A	27 HAZMART	DRUM	55	LUBRICATING OILS
N/A	28	DRUM	55	USED OIL
N/A	28 REFUELING PARKING	DRUM	55	JP-8
N/A	255	DRUM	55	USED OIL
N/A	339 MOTOR POOL	DRUM	55	USED OIL, HYDRAULIC OIL, HAZ WASTE
N/A	339 SATELLITE 25-A	DRUM	55	USED OIL
N/A	341 DLA	DRUM	55	LUBRICATING OILS
N/A	350	DRUM	55	USED OIL
N/A	353	DRUM	55	LUBRICATING OILS
N/A	356 DLA	DRUM	55	TURBO OIL USED OIL
N/A	357 DLA	DRUM	55	LUBRICATING OILS
N/A	358 DLA	DRUM	55	LUBRICATING OILS
N/A	359 DLA	DRUM	55	LUBRICATING OILS
N/A	360	DRUM	55	LUBRICATING OILS
N/A	365	DRUM	55	LUBRICATING OILS
N/A	1216	DRUM	55	USED OIL
N/A	1717	DRUM	55	JP-8
N/A	1722 AMSA-7	DRUM	55	USED OIL
N/A	1857	DRUM	55	
N/A	HGR 41-1	DRUM	55	USED OIL/HAZ WASTE
N/A	HGR 42 BAE	DRUM	55	USED OIL
N/A	HGR 42 L3	DRUM	55	USED OIL, HYDRAULIC OIL, LUBRICATING OILS

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents
N/A	HGR 43	DRUM	55	USED OIL, HYDRAULIC OIL, HAZ WASTE
N/A	HGR 44	DRUM	55	TURBINE OIL USED OIL
N/A	HGR 45 SATELLITE 14-A	DRUM	55	HAZ WASTE USED OIL
N/A	HGR 47 SATELLITE 205-A	DRUM	55	HAZ WASTE USED OIL
N/A	HGR 50-1	DRUM	55	HYDRAULIC OIL
N/A	HGR 50-2	DRUM	55	USED OIL
N/A	50-A	DRUM	55	TURBINE OIL
N/A	50-C FAC 33	DRUM	55	USED OIL HAZ WASTE
N/A	50-D	DRUM	55	USED OIL
N/A	HGR 51	DRUM	55	
N/A	HGR 55	DRUM	55	USED OIL
N/A	HGR 56-1	DRUM	55	USED OIL HYDRAULIC OIL
N/A	HGR 56-2	DRUM	55	USED OIL HYDRAULIC OIL
N/A	HGR 57	DRUM	55	USED OIL HYDRAULIC OIL
N/A	HGR 58	DRUM	55	USED OIL HYDRAULIC OIL
N/A	BLDG 257 FAC 20	DRUM	55	HAZ WASTE
N/A	BLDG 257 FAC 21	DRUM	55	HAZ WASTE
N/A	BLDG 363 FAC 22	DRUM	55	HAZ WASTE
N/A	BLDG 366 FAC 26	DRUM	55	HAZ WASTE
N/A	HGR 41 FAC 27	DRUM	55	USED OIL
N/A	BLDG 361 FAC 29	DRUM	55	HAZ WASTE
N/A	BLDG 367 FAC 30	DRUM	55	HAZ WASTE
N/A	BLDG 355 FAC 48	DRUM	55	HAZ WASTE

AST 7-1 – Located near Building 7
4,500 gallons – ULSD

AST 10-1 – Located near Building 10
2,500 gallons – ULSD

AST 11-1 (1846) – Located near Building 1846
500 gallons – ULSD

AST 35-1 – Located near Building 35
150 gallons – ULSD

Mobile Generator 41-A – Located near Building 41
300 gallons – ULSD

AST 41 – Located near Building 41
1,000 gallons – ULSD

Mobile Generator 44A – Located near Building 44
68 gallons – ULSD

Mobile Generator 44B – Located near Building 44
68 gallons – ULSD

Mobile Generator 44C – Located near Building 44
68 gallons – ULSD

AST 47-1 – Located near Building 47
500 gallons – Preservation Oil

AST 47-2 – Located near Building 47
500 gallons – Preservation Oil

AST 47-3 – Located near Building 47
500 gallons – Preservation Oil

AST 47-4 – Located near Building 47
500 gallons – Preservation Oil

AST 47-5 – Located near Building 47
3,000 gallons – JP-8

AST 50-1 – Located near Building 250
250 gallons – ULSD

AST 50-2 – Located near Building 250
250 gallons – ULSD

AST 50-3 – Located near Building 50
630 gallons – ULSD

AST 50-4 – Located near Building 50
357 gallons – ULSD

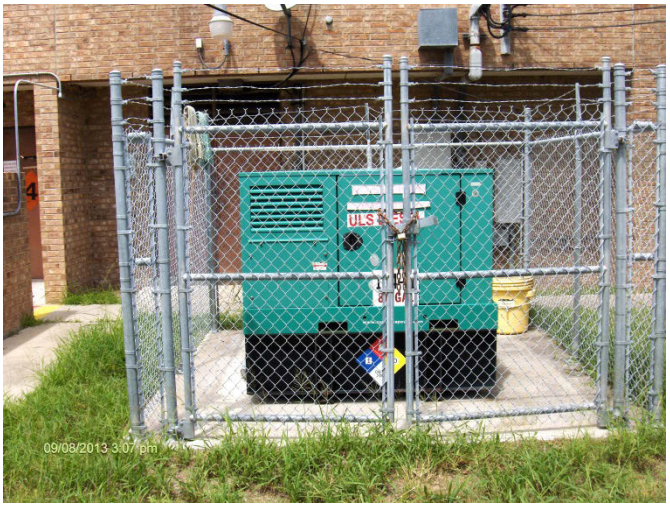
AST 55-1 – Located near Building 114
280 gallons – ULSD

AST 62-1 – Located near Building 60
1,000 gallons – ULSD

AST 68-1 – Located near Building 68
300 gallons – ULSD

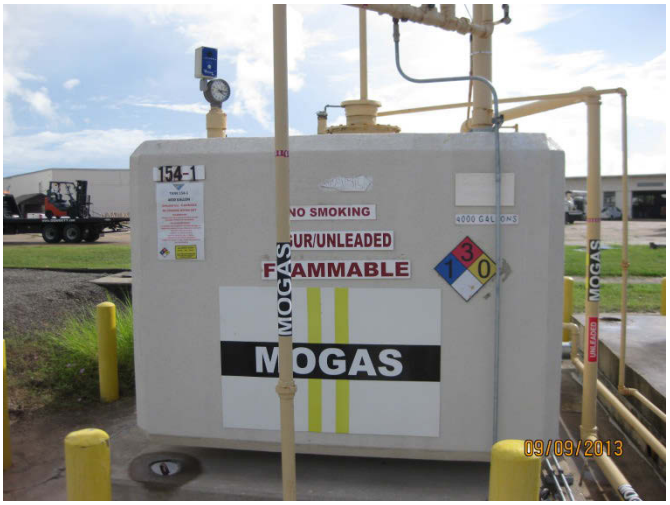
AST 89-1 – Located near Building 1215
1,000 gallons – ULSD

AST 90-1 – Located near Building 90
294 gallons – Used Cooking Oil



AST 104-1 – Located near Building 104
80 gallons – ULSD

AST 121-1 – Located near Building 121
250 gallons – ULSD



AST 154-1 – Located near Building 380
4,000 gallons – Gasoline

AST 154-2 – Located near Building 380
8,000 gallons – ULSD

AST 216-1
150 gallons – ULSD

AST 227 – Located near Building 8
10,000 gallons – JP-8

AST 228 – Located near Building 8
10,000 gallons – JP-8

AST 229 – Located near Building 8
10,000 gallons – JP-8

AST 230 – Located near Building 8
2,000 gallons – VARSOL

AST 231 – Located near Building 8
2,000 gallons – VARSOL

AST 232 – Located near Building 8
2,000 gallons – Turbine Oil

AST 233 – Located near Building 8
2,000 gallons – Preservation Oil

AST 235 – Located near Building 111
500 gallons – ULSD

AST 236 – Located near Building 118
250 gallons – ULSD

AST 252 – Located near Building 254
250 gallons – ULSD

AST 335-1 – Located near Building 335
294 gallons – Used Cooking Oil

AST 340-1 – Located near Building 342
200 gallons – ULSD

AST 1238-1 – Located near Building 58
1,000 gallons – ULSD

AST 1241 – Located near Building 1241
500 gallons – ULSD

AST 1260 – Located near Building 1260
400 gallons – ULSD

AST 1289
130 gallons – ULSD

AST 1291-1 – Located near Building 1291
294 gallons – Used Cooking Oil

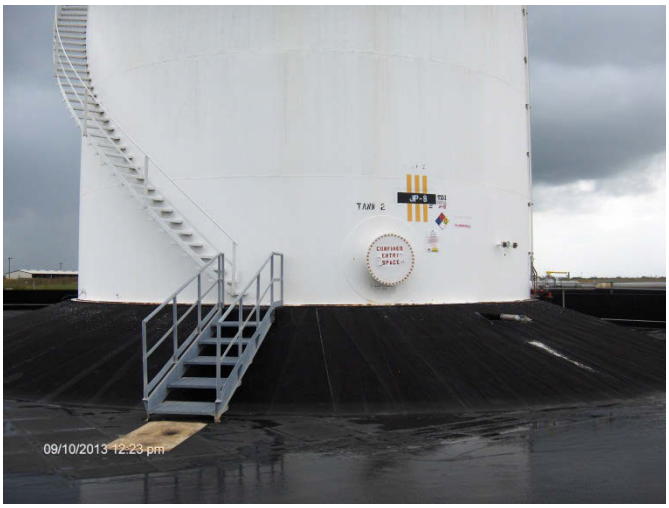
AST 1292
83 gallons – ULSD

AST 1700-1
250 gallons – ULSD

AST 1700-2
450 gallons – ULSD

AST 1716-1 – Located near Building 1717
250,000 gallons – JP-8

AST 1717 – Located near Building 1717
5,000 gallons – JP-8



AST 1720-2 – Located near Building 1717
250,000 gallons – JP-8

AST 1735-1 – Located near Building 1735
294 gallons – Used Cooking Oil

AST 1737-1 – Located near Building 1737
500 gallons – Used Oil

AST 1740-1 – Located near Building 1740
294 gallons – Used Cooking Oil

AST 1742-1 – Located near Building 1729
250 gallons – ULSD

AST 1743-1 – Located near Building 1757
250 gallons – Gasoline

AST 1757-1 – Located near Building 1757
2,000 gallons – Gasoline

AST 1797G – Located near Building 1794
194 gallons – ULSD

AST 1804-1 – Located near Building 1804
1,000 gallons – ULSD

AST 1833 – Located near Building 1870
2,000 gallons – ULSD

AST 1848-1 – Located near Building 1848
425 gallons – ULSD

AST 2607 – Located near Building 1237
500 gallons – ULSD

AST GM-1 – Located near Building DRMO
500 gallons – ULSD

AST GM-2 – Located near Building DRMO
500 gallons – Gasoline

AST H100-A – Located near Building H100
180 gallons – ULSD

AST H106 – Located near Building H106
4,000 gallons – ULSD

AST H111 – Located near Building H108
4,000 gallons – ULSD

Mobile Generator MG-1 – Located near Building 305
250 gallons – ULSD

Mobile Generator MG-4 – Located near Building 1741
84 gallons – ULSD

AST PAR-1 – Located near Flight Line
211 gallons – ULSD

AST W-1-1 – Located near Water Plant
500 gallons – ULSD

UST 1 – Located near NEX
10,000 gallons – Gasoline

UST 2 – Located near NEX
10,000 gallons – Gasoline

UST 3 – Located near NEX
10,000 gallons – Diesel

Building 8 – CCAD Drum Site
55 gallons – Various Oils, Haz Waste

Building 20 Drum Site
55 gallons – Used Oil

Building 27 – HAZMART Drum Site
55 gallons – Lubricating Oils

Building 28 Drum Site
55 gallons – Used Oil

Building 28 – Refueling Parking Drum Site
55 gallons – JP-8

Aviation Fuel Facility
55 gallons – JP-8 fuel

Building 339 – Motor Pool Drum Site
55 gallons – Used Oil, Hydraulic Oil, Haz Waste

Building 341 – DLA Drum Site
55 gallons – Lubricating Oils

Building 342 Drum Site
55 gallons – Lubricating Oils

Building 350 Drum Site
55 gallons – Used Oil

Building 353 Drum Site
55 gallons – Lubricating Oils

Building 355 Drum Site
55 gallons – Haz Waste

Building 356 – DLA Drum Site
55 gallons – Turbo Oil, Used Oil

Building 365 Drum Site
55 gallons – Lubricating Oils

Building 1216 Drum Site
55 gallons – Used Oil

Building 1722 – AMSA-7 Drum Site
55 gallons – Used Oil

HGR 41-2 Drum Site
55 gallons – Used Oil, Hydraulic Oil

HGR 42 – BAE Drum Site
55 gallons – Used Oil

HGR 42 – L3 Drum Site
55 gallons – Used Oil, Hydraulic Oil, Lubricating Oils

HGR 44 Drum Site
55 gallons – Turbine Oil, Used Oil

HGR 45 – Satellite 14-A Drum Site
55 gallons – Haz Waste, Used Oil

HGR 47 – Satellite 205-A Drum Site
55 gallons – Haz Waste, Used Oil

HGR 50-1 Drum Site
55 gallons – Hydraulic Oil

HGR 50-2 Drum Site
55 gallons – Used Oil

Building 50-A Drum Site
55 gallons – Turbine Oil

Building 50-C – Facility 33 Drum Site
55 gallons – Used Oil, Haz Waste

HGR 55 Drum Site
55 gallons – Used Oil

HGR 56-1 Drum Site
55 gallons – Used Oil, Hydraulic Oil

HGR 56-2 Drum Site
55 gallons – Used Oil, Hydraulic Oil

HGR 57 Drum Site
55 gallons – Used Oil, Hydraulic Oil

Building 361 – Facility 29 Drum Site
55 gallons – Haz Waste

Building 367 – Facility 30 Drum Site
55 gallons – Haz Waste

HGR 58 Drum Site
55 gallons- Used Oil, Hydraulic Oil

HGR 41-1
55 gallons – Used Oil, Hydraulic Oil

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Appendix F:

Naval Air Station Corpus Christi Oil Spill Response Authority

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1231 NAVIGATION BLVD.

TELEPHONE: (361) 882-2656

CORPUS CHRISTI AREA

OIL SPILL CONTROL ASSOCIATION

P. O. BOX 717
CORPUS CHRISTI, TEXAS 78403

HOW TO ACTIVATE AND CONTACT

CORPUS CHRISTI AREA OIL SPILL CONTROL ASSOCIATION

24-HR RESPONSE NUMBER - (361) 882-2656

This number will be answered during regular working hours if staff are in the office. After hours or when staff are in the field, this number will accept voicemail messages and alarm all staff pagers simultaneously. Expected call-back time on messages left is less than five (5) minutes. If you reach our voicemail, please leave your name, company, and phone number and you will be contacted immediately. Please call this number for spill response activations, emergencies or matters requiring immediate attention.

OFFICE TELEPHONE NUMBERS

Office - (361) 882-2656 **(24-hr)**

Office - (361) 882-2657 **(non-emergency)**

Fax - (361) 882-7745

E-mail - CCAOSCA@SBCGLOBAL.NET

ALTERNATE CELL PHONE NUMBERS:

Tom Salazar - General Manager -- (361) 816-7300

Field Duty Phone 1 -- (361) 877-8463

Field Duty phone 2 -- (361) 438-6612

MAILING ADDRESS

Corpus Christi Area Oil Spill Control Association
P.O. Box 717
Corpus Christi, Texas 78403-0717

PHYSICAL ADDRESS FOR EQUIPMENT AND OFFICE

1231 East Navigation Blvd.
Corpus Christi, Texas 78402

CCAOSCA EQUIPMENT LOCATIONS SUMMARY
January 1, 2012

CONTAINMENT BOOMS AND ANCHORS:

Pre-staged 18" boom – minimum 1,000 feet each location.

(Location 1) Chaparral Energy - Mustang Island, trailer stored. 1,000 ft, 18" Acme Boom
(Location 2) Flint Hills Resources-Ingleside, trailer stored. 1,000 ft, 24" American Marine Boom
(Location 3) Citgo Dock 3 – Inner Harbor, trailer stored. 1,500 ft, 18" Abasco Boom
(Location 4) Oil Dock 11 – Port of Corpus Christi Inner Harbor, trailer stored, 18" 2,000 Abasco Boom

CCAOSCA warehouse 18"boom:

Trailer 1 – 1,000 feet Acme boom
Trailer 2 – 1,000 feet Acme boom
Trailer 3 – 1,000 feet Acme boom
Trailer 4 – 1,600 feet American boom

CCAOSCA 19' Response Boats (3):

500 feet 10" boom stored in each response boat. 2,000 feet total 10" boom owned.

(70 ea) 22 lb. Anchors stored at CCAOSCA Shop.

SKIMMERS:

DIP 3100 Vessel – Pre-staged at Oil Dock 7 for deployment by crane.
DIP 2200 Vessels – One unit, trailer mounted at CCAOSCA shop.
Elastec TDS 136 Drum Skimmer and Hydraulic Power pack. Stored at CCAOSCA Shop.
Elastec Mini-Max Pneumatic Drum Skimmer. Stored at CCAOSCA Shop.
ABASCO ATS-25 Hydraulic Disc/Brush Skimmer system. Stored at CCAOSCA Shop.
(4 ea) Skim-Pak Skimmers – Various models
(2 ea) Slickbar "Slurp" weir skimmers
(1 ea) Slickbar "Manta Ray" Skimmer

VAC TRUCK:

1999 Mack chassis with 80BBL Tank. Stored at CCAOSCA Shop.
Approximately 150 feet of 2" and 4" hose is available on truck.

PICKUP TRUCKS:

1997 Ford F-250 Diesel 4X4
2002 Ford F-250 Diesel 4X4

BOATS:

(1 ea) – 19' Response Boats – 90 hp – In water at CCAOSCA dock in ship channel
(2 ea) – 19' Response Boats – 90 hp - trailer mounted and stored at CCAOSCA Shop
(2 ea) – 16' Flatbottom skiffs with engines, trailer mounted and stored at CCAOSCA Shop.
(1 ea) – 16' Flatbottom skiff without engine
(1 ea) – 28' Shallow water, flat deck, pontoon boat. Single outboard powered and used for cleanup or skimming operations if necessary.

PUMPS, TOOLS, SORBENT SUPPLIES AND MISCELLANEOUS EQUIPMENT:
All stored at CCAOSCA warehouse. One enclosed response trailer with 1,000' boom, pumps, sorbent supplies, hand tools, and spill supplies is ready to go at all times.
(1 ea) Ingersoll Rand light tower stored at CCAOSCA warehouse.
(3 ea) 2" Wash pumps and associated hoses.
(3 ea) Solar powered boom marker buoys
In stock – sorbent booms, pads, sweeps, spools of rope, visquene, drum liners. Replenished locally.

BIRD SCARE AWAY GUNS:
Seven guns and propane tanks available. Stored at CCAOSCA Warehouse.

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1231 NAVIGATION BLVD.

TELEPHONE: (361) 882-2656

CORPUS CHRISTI AREA

OIL SPILL CONTROL ASSOCIATION

P. O. BOX 717
CORPUS CHRISTI, TEXAS 78403

January 1, 2012

To whom it may concern:

Re: OPA-90 Compliance – Equipment Deployment, Inspection and Maintenance

Dear Sirs:

Corpus Christi Area Oil Spill Control Association acknowledges that it has successfully deployed a representative sample of our spill response equipment during the last 12 months. Attached you will find a drill log for equipment exercises and significant actual responses conducted in the last 12 months, and for the last several years. Equipment not specified in the drill log has been properly inspected, maintained and documented in accordance with our maintenance program.

In addition, all our spill response staff have received the necessary training, which includes 29CFR 1910.120 HazWoper training to safely and effectively respond to an oil spill. Personnel training records are retained in our files and are available for review upon request.

Corpus Christi Area Oil Spill Control Association certifies that our files are current and in compliance with OPA-90 regulations pertaining to Oil Spill Removal Organizations (OSROs). The USCG "OSRO" Classification listing and a copy of our Texas General Land Office "DCO" certificate are attached for inclusion in your response plans.

If you have any questions or need any further documentation, please feel free to contact us at (361) 882-2656.

Sincerely,

Tom Salazar
General Manager

1231 NAVIGATION BLVD.

TELEPHONE: (361) 882-2656

CORPUS CHRISTI AREA

OIL SPILL CONTROL ASSOCIATION

P. O. BOX 717
CORPUS CHRISTI, TEXAS 78403

January 1, 2012

To whom it may concern:

This letter shall serve to confirm that the Corpus Christi Area Oil Spill Control Association trains it's employees to meet OSHA 1910.120 standards as well as providing Contractors Safety Council "Basic" training and site specific training for member facilities that have programs at CSCCB. CCAOSCA employees receive Hazwoper training at the National Spill Control School at Texas A&M - Corpus Christi, attending initial 40-hr courses, and annual 8-hr refresher courses. In addition to Hazwoper training, CCAOSCA staff also attend the 40-hr Oil Spill Response in Ports and Inland Waterways class at The National Spill Control School.

If we can provide any other documentation for your record keeping, please contact us at our offices.

Sincerely,

Tom Salazar
General Manager

DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
1333 ISAAC HULL AVE SE
WASHINGTON NAVY YARD DC 20376-OOO1

IN REPLY TO:

5090
Ser 00C25/2016
23 May 2008

From: Commander, Naval Sea Systems Command (00C)

Subj: AUTHORITY TO UTILIZE U.S. NAVY SUPERVISOR OF SALVAGE (SUPSALV) OIL SPILL RESPONSE EQUIPMENT

Ref: (a) OPNAVINST 5090.1C, Environmental and Natural Resources Program Manual
(b) 40CFR300, National Oil and Hazardous Substances Pollution Contingency Plan

Encl: (1) USCG Tiered Response Requirements, excerpts from 33CFR154, 33CFR155, and 40CFR112
(2) SUPSALV Equipment Capabilities

1. Pursuant to the Oil Pollution Act of 1990 (OPA 90), facilities handling threshold quantities of oil are required to maintain Facility Response Plans (FRPs) in accordance with EPA and U.S. Coast Guard direction. OPA 90 requirements for addressing the full range of spill response scenarios mandate that response equipment and trained personnel are in place to respond to these spills within certain time requirements. This letter authorizes any DoD facility to list in its FRP the spill response resources owned and managed by the U.S. Navy Supervisor of Salvage (SUPSALV).

2. In accordance with reference (a), the Office of the Supervisor of Salvage (SUPSALV) of the Naval Sea Systems Command (NAVSEA Code 00C) is responsible for providing technical support and resources to the Navy Fleet and shore establishment under the oil and hazardous substance (OHS) spill response program. Reference (b) discusses SUPSALV capability to provide spill response assistance, upon request of the On Scene Coordinator (OSC), to other federal agencies. SUPSALV maintains an extensive inventory of centrally-located, open-ocean and catastrophic (on land or afloat) spill response equipment that is strategically pre-positioned to provide rapid response to Navy spills. This equipment, with all required operating personnel, is available for response to any DoD component (and any other federal agency, if requested by the OSC) in the event of large oil spills beyond the capabilities of the facility's locally available spill response asserts. This equipment can be counted towards meeting the resource requirements specified in OPA 90 regulations. Access to this equipment is on a cost-reimbursable basis - there is no retainer charge. SUPSALV spill response assets are located within the United States (Williamsburg, VA, Pt. Hueneme, CA, Pearl Harbor, HI, and Anchorage, AK). SUPSALV military and civilian technical specialists are available around-the-clock to provide further information on available resources and to assist

with on-scene emergency response by providing technical assistance and/or coordinating the deployment and management of SUPSALV contractor and ESSM resources as required by the Navy/Federal customer.

3. SUPSALV's equipment inventory is capable of rapid deployment by either air or truck. The gear has been specifically designed to be self-supporting and capable of operating in remote locations if need be. This capability allows SUPSALV to operate in both in-land and at-sea environments. For almost 60 years, SUPSALV personnel, equipment, and technical specialists have supported Navy Commanders and other federal agencies in responding to many of this nation's major incident response operations. These have occurred both at sea and inland and include major spills such as the Colonial Pipeline spill in Northern Virginia (for EPA), Hurricane Katrina response (for DHS), response to 1993 floods in Missouri (for FEMA), Exxon Valdez spill in Alaska (for USCG), and the Roosevelt Roads, Puerto Rico oil spill (for DLA).

4. Regulatory agencies have established a combination of required response resources and the times within which the resources must arrive on scene. Enclosure (1) provides a summary of these Tier requirements as described in 40CFR112, 33CFR154, and 33CFR155. The geographic dispersion of SUPSALV's Emergency Ship Salvage Material (ESSM) bases allows SUPSALV flexibility in pulling equipment from the closest ESSM site or support contractor site, or by cascading equipment from other bases. This can greatly expedite response times and increase the amount of available assets. Response from the ESSM base at Williamsburg generally meets Tiers 2 and 3 time requirements for the Gulf Coast, East Coast, and Great Lakes, and Tier 3 requirements on the West Coast (except for the Puget Sound area). Response from the ESSM base at Pt. Hueneme generally meets the Tiers 2 and 3 time requirements for the West Coast and Tier 3 requirements on the Gulf Coast, East Coast, and Great Lakes. This response capability allows most DOD facilities and afloat entities to list SUPSALV as an appropriate responder in their spill contingency plans (such as Facility Response Plans, Spill Contingency Plans, and Vessel Response Plans) in order to meet government mandated response requirements. To determine a predicted response time for any specific facility, please call the point of contact at SUPSALV listed below.

5. The SUPSALV web link, identified below, may be useful during update of Oil and Hazardous Substances (OHS) spill contingency plans for Navy and other Department of Defense facilities that cite SUPSALV as a spill removal organization. Contingency planning information such as detailed equipment inventories broken out by location, equipment descriptions, and other ESSM system information can be located on the SUPSALV website at www.supsalv.org/essm/. This website provides access to the SUPSALV/ESSM system, with accompanying links to pollution equipment inventory and details on the ESSM operations. The ESSM

Operations link provides guidelines for requesting SUPSALV assistance (such as request procedures, funding requirements, sample request message). Under the Pollution functional links of the website, users will find "Inventory" links that open a generalized inventory table listing the equipment available at each location. These inventory lists are updated periodically as equipment is added to or removed from the inventory. A detailed discussion of the procedures for requesting SUPSALV assets is also available from a link on this web site. Specific, detailed procedures for requesting SUPSALV assets can be obtained from SUPSALV at the time support is requested. Enclosure (2) lists equipment capabilities using OPA 90 calculations. These figures may be used in determining equipment requirements necessary to meet worst case discharge (WCD) scenarios. Further descriptions of the equipment capabilities can be provided upon request. Each command remains responsible ensure that their facility can meet the tiered response requirement criteria outlined in the regulations.

6. Addressees desiring to include SUPSALV response assets in their contingency planning, or desiring further information, should coordinate with the points of contact listed in this paragraph. Addressees are further requested to distribute information regarding SUPSALV's response resources to their subordinate commands. Questions concerning access to SUPSALV resources can be addressed to the SUPSALV Operations and Ocean Engineering Division at (202) 781-1731, extension 2. Points of contact are Mr. Mike Herb for salvage matters and Mr. Kemp Skudin for pollution response matters. For after-hours emergencies, contact the NAVSEA Duty Officer at (202) 781-3889.

Richard W. Hooper
Supervisor of Salvage and Diving
Director of Ocean Engineering, USN

DISTRIBUTION:
National Response Team
Regional Response Teams
National Air and Space Administration
National Oceanic and Atmospheric Administration
National Science Foundation
USCG District Offices (dr)
USCG Sector Commands
U.S. Maritime Administration (MAR-610.1)
USNORTHCOM (J3, J5)
Deputy Commandant of the Marine Corps (Installations and Logistics)
HQ USAF (AF/A7C, AF/A7CV)
HQ Air Force Civil Engineer Support Agency (AFCESA)
Air Force Petroleum Agency (AFPA)
HQ Air National Guard (ANG)
Army Corps of Engineers
ATZF-CSS Marine Safety Office (Dept of the Army Watercraft Fleet)
ASAR 63rd RSC/99th RRC (Dept of the Army Reserve Watercraft Fleet)
COMSC (N732)
COMSUBFOR (N451A))
NAVFAC LANT (EV12)
NAVFAC PAC (EV1)
NFESC
NAVFAC MIDLANT (N45, EV1)
NAVFAC SOUTHEAST (N45, EV1)
NAVFAC MIDWEST (N45, EV1)
NAVFAC SOUTHWEST (N45, EV1)
NAVFAC NORTHWEST (N45, EV1)
NAVFAC WASH (N45, EV1)
NAVFAC HAWAII (N45, EV1))
NAVFAC MARIANAS (N40, EV1)

Copy to:
USCG Headquarters (CG-533)
USCG Marine Safety Center
Federal Emergency Management Agency
Environmental Protection Agency
Office of the Secretary of Defense (Joint Director of Military Support (JDOMS))
Missile Defense Agency (SBX-1 Program)
Defense Energy Support Center (DESC-WE)
OPNAV (N452)
COMPACFLT (N01CE15, N3, N4, N4655)
CUSFFC (N3, N43, N7)
COMUSNAVEUR (N3, N43)
COMUSNAVCENT (N3, N44, N5)
CNIC (N45)
NAVFACHQ (CWA Program Administrator)
NAVFAC FAREAST (EV1)
COMNAVREG MIDLANT (N451)
COMNAVREG SOUTHEAST (N45)

COMNAVREG MIDWEST (N45)
COMNAVREG SOUTHWEST (N45)
COMNAVREG NORTHWEST (N45G)
COMNAVREG HAWAII (N45)
COMNAVREG MARIANAS (N40)
COMNAVFOR JAPAN (N45)
COMNAVFOR KOREA (N91)
COMNAVREG EUR (N45)
CCOMNAVREG SWA (EVSWA, N45)
NAVFAC EURSWA (EV1)
COMSECONDFLT
COMTHIRDFLT
COMFOURTHFLT
COMFIFTHFLT
COMSIXTHFLT
COMSEVENTHFLT
NSWCCD-SSES

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Appendix G:

Sized Secondary Containment Calculations

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TABLE G-1: SIZED SECONDARY CONTAINMENT CALCULATIONS

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents	Sized Secondary Containment								40 CFR 112 Compliant (Yes or No)	Notes
					Approximate Length (in)	Approximate Width (in)	Approximate Height (in)	Gross Volume (gal)	Volume of Obstructions (gal)	Volume of Freeboard[1] (gal)	Net Volume (gal)	40 CFR 112 Required Volume (gal)		
1716-1	1717	AST	250,000	JP-8	1260.0	1680.0	44.0	403,200	62,620	19,853	340,580	269,853	Yes	
1717	1717	AST	5,000	JP-8	174.0	174.0	41.0	5,374	0	1,180	5,374	6,180	No	
1720-2	1717	AST	250,000	JP-8	1260.0	1680.0	44.0	403,200	62,620	19,853	340,580	269,853	Yes	
50-1	50B	AST	250	ULSD	78.0	47.0	23.5	373	0	16	373	266	Yes	2
50-2	50B	AST	250	ULSD	78.0	47.0	23.5	373	0	16	373	266	Yes	2
55-1	114	AST	280	ULSD	100.0	72.0	9.0	281	0	31	281	311	Yes	2
1757	MWR	AST	1,000	MOGAS	208.0	126.0	0.0	0	0	113	0	1,113	Yes	3
1804	115	AST	1,000	ULSD	212.0	152.0	38.0	5,301	0	139	5,301	1,139	No	4
2607	TCAM	AST	500	ULSD	108.0	108.0	9.0	454	0	50	454	550	Yes	3
GM-1	Ground Mtc	AST	500	ULSD	108.0	144.0	12.0	808	0	67	808	567	Yes	
GM-2	Ground Mtc	AST	500	MOGAS	108.0	144.0	12.0	808	0	67	808	567	Yes	
H100	H-107	AST	180	ULSD	37.0	60.0	22.0	211	0	10	211	190	Yes	
Bldg 8 CCAD	8	Drum	55	Petroleum Products	27.0	27.0	8.0	25	0	3	25	58	Yes	2
20	20	Drum	55	Petroleum Products	26.0	26.0	6.0	18	0	3	18	58	Yes	2
27 HAZMART	HAZMART	Drum	55	Petroleum Products	Drum storage building			>55	0	>55	55	N/A	Yes	2
28 Inside	28	Drum	55	Petroleum Products	37.0	60.0	8.0	77	0	10	77	65	Yes	2
28-Refueling Parking	28	Drum	55	Petroleum Products	27.0	27.0	8.0	25	0	3	25	58	No	
255	255	Drum	55	Petroleum Products	27.0	27.0	8.0	25	0	3	25	58	Yes	
339 Motor Pool	339	Drum	55	Petroleum Products	37.0	60.0	8.0	77	0	10	77	65	Yes	2
339 Satellite 25-A	339	Drum	55	Hazardous waste	27.0	27.0	8.0	25		3	25	58	No	
341 DLA	341	Drum	55	Petroleum Products	Drum storage building			> 55	0	> 55	55	N/A	Yes	2
350	350	Drum	55	Petroleum Products	Drum storage building			> 55	0	> 55	55	N/A	Yes	2
353	353	Drum	55	Petroleum Products	Drum storage building			> 55	0	> 55	55	N/A	Yes	2
356 DLA	356	Drum	55	Petroleum Products	Drum storage building			> 55	0	> 55	55	N/A	Yes	2
357 DLA	357	Drum	55	Petroleum Products	Drum storage building			> 55	0	> 55	55	N/A	Yes	2
358 DLA	358	Drum	55	Petroleum Products	Drum storage building			> 55	0	> 55	55	N/A	Yes	2
359 DLA	359	Drum	55	Petroleum Products	Drum storage building			> 55	0	> 55	55	N/A	Yes	2
360	360	Drum	55	Petroleum Products	Drum storage building			> 55	0	> 55	55	N/A	Yes	2
365	365	Drum	55	Petroleum Products	Drum storage building			> 55	0	> 55	55	N/A	Yes	2
1216	1216	Drum	55	Petroleum Products	Drum storage building			> 55	0	> 55	55	N/A	Yes	2
1717 Avaition Fuel Facility	1717	Drum	55	JP-8	27.0	27.0	8.0	25	0	3	25	58	No	
1722 AMSA-7	1722	Drum	55	Petroleum Products	58.0	58.0	6.0	87	0	15	87	70	Yes	
1857	1867	Drum	55	Petroleum Products	Drum storage building			>55	0	>55	55	N/A	Yes	2
HGR 41-1	Hangar 41	Drum	55	Petroleum Products	27.0	27.0	8.0	25	0	25	55	N/A	Yes	2
HGR 42-BAE	Hangar 42	Drum	55	Petroleum Products	27.0	27.0	8.0	25	0	25	55	N/A	Yes	2
HGR 42-L3	Hangar 42	Drum	55	Hazardous waste	27.0	27.0	8.0	25	0	25	55	N/A	Yes	2
HGR 43	Hangar 43	Drum	55	Petroleum Products	27.0	27.0	8.0	25	0	25	55	N/A	Yes	2
HGR 44	Hangar 44	Drum	55	Petroleum Products	27.0	27.0	8.0	25	0	25	55	N/A	Yes	2
HGR 45-Satellite 14-A	Hangar 45	Drum	55	Petroleum Products	27.0	27.0	8.0	25	0	25	55	N/A	Yes	2
HGR 47-Satellite 205-A	Hangar 47	Drum	55	Petroleum Products	27.0	27.0	8.0	25	0	25	55	N/A	Yes	2
HGR 50-1	Hangar 50	Drum	55	Petroleum Products	27.0	27.0	8.0	25	0	25	55	N/A	Yes	2
HGR 50-2	Hangar 50	Drum	55	Petroleum Products	27.0	27.0	8.0	25	0	25	55	N/A	Yes	2
50-A	50	Drum	55	Petroleum Products	27.0	27.0	8.0	25	0	25	55	N/A	Yes	2
50-C Fac 33	50	Drum	55	Petroleum Products	27.0	27.0	8.0	25	0	25	55	N/A	Yes	2
50-D	50	Drum	55	Petroleum Products	27.0	27.0	8.0	25	0	25	55	N/A	Yes	2
HGR 51	Hangar 51	Drum	55	Petroleum Products	27.0	27.0	8.0	25	0	25	55	N/A	Yes	2
HGR 55	Hangar 55	Drum	55	Petroleum Products	27.0	27.0	8.0	25	0	25	55	N/A	Yes	2
HGR 56-1	Hangar 56	Drum	55	Petroleum Products	27.0	27.0	8.0	25	0	25	55	N/A	Yes	2
HGR 56-2	Hangar 56	Drum	55	Petroleum Products	27.0	27.0	8.0	25	0	25	55	N/A	Yes	2
HGR 58	Hangar 58	Drum	55	Petroleum Products	52.0	52.0	8.0	94	0	94	55	N/A	Yes	2
Bldg 257- Face 20	257	Drum	55	Hazardous waste	Drum storage building			>55		>55	55	N/A	Yes	2
Bldg 257-Fac 21	257	Drum	55	Hazardous waste	Drum storage building			1,720		1,720	275	N/A	Yes	2
Bldg 363-Fac 22	363	Drum	55	Hazardous waste	27.0	27.0	8.0	25	0	25	55	N/A	Yes	2
Bldg 366-Fac 26	366	Drum	55	Hazardous waste	27.0	27.0	8.0	25	0	25	55	N/A	Yes	2
HGR 41-Fac 27	Hangar 41	Drum	55	Hazardous waste	Drum storage building			>55	0	>55	55	N/A	Yes	2

TABLE G-1: SIZED SECONDARY CONTAINMENT CALCULATIONS

Tank ID	Bldg #	Container Type	Capacity (gal.)	Contents	Sized Secondary Containment								40 CFR 112 Compliant (Yes or No)	Notes
					Approximate Length (in)	Approximate Width (in)	Approximate Height (in)	Gross Volume (gal)	Volume of Obstructions (gal)	Volume of Freeboard[1] (gal)	Net Volume (gal)	40 CFR 112 Required Volume (gal)		
Bldg 361-Fac 29	361	Drum	55	Hazardous waste	Drum storage building			>55	0	>55	55	N/A	Yes	2
Bldg 367-Fac 30		Drum	55	Hazardous waste	234.0	120.0	6.0	729	0	729	55	N/A	Yes	2
Bldg 355-Fac 48	355	Drum	55	Hazardous waste	0.0	0.0	0.0	0	0	0	55	N/A	No	

Note 1 The freeboard calculation (25 year, 24 hour storm event or 9-inches of freeboard) is referenced from 67 FR 47117 and United States Department of Commerce, Weather Bureau, Technical Paper No. 40: Rainfall Frequency Atlas of the United States for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years, dated May 1961.

Note 2 Storage containers are located inside building, no precipatation

Note 3 Double-walled ASTs are located in secondary containment

Note 4 Concrete dike does not contain liquids and is inadequate for secondary containment for single wall AST

Appendix H:

Naval Air Station Corpus Christi

Spill Prevention Control and Countermeasures Plan

Training Slides

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Naval Facilities Engineering Command

ACTIVITY NAME

Training Requirements for Spill Prevention Control and Countermeasures (SPCC) 40 CFR Part 112

Naval Air Station Corpus Christi Texas

CY 2013

Purpose of SPCC Rule 40 CFR Part 112

- To prevent oil discharges from reaching navigable waters of the U.S. or its adjoining shorelines
  - For the Naval Air Station this includes any associated wetlands

Required Training as Specified in 40 CFR Part 112

- All personnel who handle oil products must at a minimum be trained in:
  - Operation and maintenance of equipment to prevent spills
  - Spill response procedures
  - General facility operations
  - Applicable pollution control laws, rules, and regulations
  - And the contents of the site specific SPCC Plan
- An individual must be designated and trained at each facility who is to be accountable for discharge prevention and who reports to facility management
- Spill prevention briefings must be held annually and must at a minimum include:
  - Any past spills, discharges, or failures of the plan or equipment
  - Any malfunctioning equipment
  - Any recently developed precautionary measures that have been implemented

Original SPCC Plan Prevention Regulation

- Required Site-specific plans to prevent oil discharges that could affect navigable waters of the U.S.
  - It defines a discharge as any leak or spill of oil products
- Authority was granted under the Clean Water Act (CWA) 311 and 501, and is codified under 40 CFR 112.

What is the SPCC Plan?

- SPCC Stands for Spill Prevention, Control, and Countermeasures Plan.
- The Naval Air Station SPCC Plan is kept on file at the Public Works Environmental office building 19.
- The SPCC Plan is required by the EPA if a facility can “reasonably be expected to discharge harmful amounts of oil into navigable waters of the U.S. or adjoining shorelines.”

Why Do Facilities Need an SPCC Plan?

- The Facility has aggregate above ground oil storage capacity of more than 1,320 gallons; and
- Oil can be reasonably expected to enter into navigable waters of the U.S. by storm drains, ditches, overland flow or other means into navigable waterways.

SPCC Plan Certification and Review

- For facilities with 10,000 gallons or more above ground oil storage capacity, the SPCC Plan must be reviewed and certified by a Professional Engineer (PE) to be in accordance with good engineering practices, including the consideration of applicable industry standards and the requirements outlined in 40 CFR 112.
- The Plan must be reviewed and certified every five years.
- Any technical amendments to the Plan must be certified by a PE.

Types of Oil Which May Be Regulated Under the SPCC

- All petroleum based oils.
  - Fuel Oil, Gasoline, Hydraulic Fluid, Motor Oil, etc.
- Animal fats and oils.
- Transformer oil

Oil Storage at the Naval Air Station Corpus Christi TX

- **Oil Storage at the Naval Air Station Corpus Christi includes;**
  - **Aboveground Storage Tanks (ATS)**
  - **Underground Storage Tanks (UTS)**
  - **Hydraulic Elevator Systems and Reservoirs**
  - **Electrical Transformers**
  - **Electrical Switches**
  - **Waste/Used Oil Collection Stations**
  - **Used Cooking Oil**
  - **55 Gallon Drums in various locations**
  - **Portable Generators and Support Equipment**

Containers Subject to SPCC Regulation

- **Any current oil storage container 55 gallons or greater**
  - **This includes fuel tanks, drums, used oil, collection stations, cooking oil containers, hydraulic elevator reservoirs, etc**
- **Any empty container 55 gallons or greater that is *capable* of storing oil and has not been rendered unusable.**

Types of containers

- There are two types of containers subject to SPCC rules:
- Bulk containers–drums, tanks; used for the storage of oil and oil products
  - Requires secondary containment
- Active containers–transformers, elevator tanks
  - Active containers do NOT have to meet the secondary containment requirements of section 112.8(c)
  - Active containers still require inspection

Goals of SPCC Training

- Familiarize employees with the written SPCC Plan
- Identify oil storage locations and handling procedures
- Identify spill pathways
- Familiarize employees with appropriate spill response procedures and use of response equipment

Who is Trained on the SPCC Plan?

- ANY employee working at Naval Air Station Corpus Christi who is involved in oil handling, transfer, storage, spill response, or maintenance of oil equipment.
- Fuel oil delivery employees responsible for fueling facility owned tanks and equipment.

SPCC Training Requirements

- Training is to be taken annually to ensure proper actions are taken in the event of a spill
- Training is also to be conducted whenever a new employee is assigned to oil handling, maintenance or spill response duties
- Training updates be conducted whenever a significant change has been made to any oil storage (e.g., new tank installation)

Main Elements of the SPCC Plan

- Operating Procedures implemented to prevent oil spills.
  - Examples: Routine inspections, SPCC On-Site Coordinator observing tank filling procedures.
- Control Measures installed to prevent oil from reaching navigable waters.
  - Example: Secondary containment.
- Countermeasures to contain, cleanup, and mitigate the effects of an oil spill.
  - Examples: Cleanup and spill equipment availability on site, available list of contacts and phone numbers for employee use during spills.

SPCC Program Goals

- **Spill Prevention**
  - Installation of proper equipment, repair of malfunctioning systems, inspections, and good fueling and handling practices
- **Spill Control**
  - Monitoring of leak detection, proper reporting, inspection of containment and piping systems.
- **Spill Countermeasures**
  - Quick, proper, and safe response to spills.

Potential Spill Pathways

- In some areas, oil can enter the "Navigable Waters of the U.S. or adjoining shorelines" by:
  - Direct spillage into a storm drain.
  - Direct spillage to any associated wetlands areas that lead to Corpus Christi Bay, Oso Bay, and Laguna Madre.
- Never allow oil to drain into an open drain or into a ditch or waterway.
- Oil containing equipment (i.e. a vehicle) is never to be rinsed or washed near a storm drain or waterway.

Spill Prevention

- **Routine Inspections**
  - **SPCC plan includes the frequency schedule and checklist necessary for your inspection.**
  - **Ensure that necessary maintenance and repairs are completed as scheduled and recorded.**
  - **SPCC specific inspections are conducted on a Weekly, Monthly, Quarterly, and Annually basis as outlined in the Periodic Inspection Checklist.**
  - **Inspection records must be kept for a minimum of three years**

Spill Prevention

- **Fuel Deliveries**
  - **Tank Truck Drivers loading or unloading materials on Naval Air Station property shall adhere to the following:**
    - Remain with vehicle at ALL Times while loading or unloading.
    - Drain lines to storage tanks and close the drain valves before disconnecting and ensure that appropriate containment is located beneath connections.
    - Inspect vehicle prior to departure to ensure that all lines are disconnected and all drains and vents are closed
    - Immediately report all spillage to Environmental personnel

Spill Prevention

- **Alarms / Shutoff Valves**
  - **Monitor activity of leak detection / overfill protection systems and respond immediately to alarms.**
  - **DO NOT assume alarms are false, even if repeatedly activated.**
  - **DO NOT leave fueling station unsupervised during loading operations.**
  - **Perform regular tests on monitoring systems to ensure operational capabilities.**

Secondary Containment

- Definition of proper containment
  - All bulk storage containers of oil must be located in containment sufficient for the entire capacity of the largest container and sufficient have sufficient freeboard to contain an additional 10% volume.
  - Secondary containment must be impervious material
  - Secondary containment is NOT required for Qualified Oil-Filled Operational Equipment such as transformers or electrical switches currently in use.

Secondary Containment

- **Routine Inspection**
  - Can be performed by any SPCC On-site Coordinator.
  - Check for indication of oil leaks on floors, pallets, dikes, retaining walls, and berms.
  - Water must be able to drain out ONLY if there is no noticeable sheen.
  - Refer to your site specific SPCC plan for specific details regarding your site's secondary containment inspection.

Secondary Containment

- **Transformers, Electrical Switches, and Elevator Tanks may be exempt from the requirement of secondary containment of the SPCC (Section 112.8 (c); 112.9 (c)), but still must be routinely inspected.**

Spill Response

- **Discovery of Release**
  - **Extinguish or remove any source of ignition.**
  - **Identify the material and its point of release.**
  - **Notify the Fire Department and Navy Environmental immediately.**
    - Potential threat to human health and the environment.
  - **Attempt to stop the release at its source if it is safe to do so.**
  - **Initiate the spill reporting procedure as specified in the SPCC plan.**
  - **Reference the Material Safety Data Sheet (MSDS) for the spilled substance.**

Spill Response

- Containment of Release
  - Attempt to stop the release at the source
  - Contain material to prevent release into the environment
  - Recover or clean up spilled material
  - Arrange for disposal of waste materials through Environmental
  - Navy Environmental is responsible for reporting to outside agencies.

Spill Reporting

- **Documentation**
  - **The SPCC On-Site Coordinator will relay to Environmental any reports of spills and include the following information:**
    - Date, time, and duration of release
    - Type of incident
    - Material involved
    - Volume of material involved
    - SPCC Plan Discrepancies
    - Actions taken to avoid future incidents

After a Spill

- **Be sure to include information on:**
  - **How to prevent another occurrence**
  - **Effectiveness of the response**

- **Remember to restock your spill kit with any used items and/or add items that may be useful in the future if warranted.**

Spill Response Supplies

- Floor Dry
- Absorbent booms, pads, and socks
- Protective gloves and safety goggles
- Caution tape
- Shovels, brooms, and pans
- Collection Drums and labeling

Spill Reporting Information

- **Spill Reporting:**
  - **Refer to your site specific plan on reporting procedures.**
  - **Oil discharged to water:**
    - Any release of oil to water must be reported to the Navy Environmental office as soon as the person has knowledge of the discharge.
  - **Oil discharged to land:**
    - Any release of oil must be reported as soon as the person has knowledge of the discharge.
  - **Oil discharged to secondary containment areas:**
    - Any release of oil must be reported as soon as the person has knowledge of the discharge.

Fueling Operations

- No smoking is permitted during fueling operations
- The delivery driver must remain with the vehicle at all times during the fueling operation.
- The delivery driver will insure that the vehicle is properly positioned and that drip pans or absorbent pads are beneath all fuel line connections.
- The delivery driver will have proper spill control supplies (booms, pads, etc.), a list of contact numbers, and a working cell phone.

Security

- Regulated containers are to be located inside access controlled areas, or gated and locked areas accessible to authorized personnel.
- Lighting must be sufficient to enable the visualization of spills or leaks during hours of darkness and to detour releases from occurring through acts of vandalism.

Common SPCC Violations

- Inadequate Secondary Containment
  - Containment is either nonexistent, porous, or incapable of containing a spill due to improper size.
- Fueling procedures not properly followed
  - Procedure is not properly observed, spill equipment is not readily available, etc.
- Training and inspection records not properly documented or filed
- Security fencing and/or lighting not present where applicable
  - Gates are left unlocked, lighting is not maintained

Notifications - Internal

- **Contact Navy Fire Department Emergency Line**

  @ 961-3333

  whenever there is a spill, or threat of a spill, to public health, fire, or explosion involving oil *(or other hazardous material)*

- **Contact Navy Environmental Office**

  @ 961-3776/5356

  whenever there is a spill, or threat of a spill, that enter, or threaten to enter, the environment, storm/floor drains, and coastal waters involving oil *(or other hazardous material)*

Questions?

Make sure you sign in and completed the quiz

Appendix I:

Naval Air Station Corpus Christi Inspection Forms

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FORM 1: STORAGE TANK SYSTEM INSPECTION CHECKLIST

Instructions: One inspection checklist per storage tank system. (*) designates an item in non-conformance/unsatisfactory status; provide action in comment section to resolve problem and notify Environmental Protection Specialist if any significant deficiencies are identified.

Regulatory Driver: 40 CFR 112

Frequency: Monthly, not to exceed 35 days between inspections

TANK ID:_____ Date: _____

Location:_____ Tank Size: _____ Content: _____

Inspector:_____

STI SP001 Monthly Inspection Checklist

Inspection Guidance:

- For equipment not included in this Standard, follow the manufacturer recommended inspection/testing schedules and procedures.
- The periodic AST Inspection is intended for monitoring the external AST condition and its containment structure. This visual inspection does not require a Certified Inspector. It shall be performed by an owner's inspector who is familiar with the site and can identify changes and developing problems.
- Upon discovery of water in the primary tank, secondary containment area, interstice, or spill container, remove promptly or take other corrective action. Before discharge to the environment, inspect the liquid for regulated products or other contaminants and disposed of it properly.
- (*) designates an item in a non-conformance status. This indicates that action is required to address a problem.
- Non-conforming items important to tank or containment integrity require evaluation by an engineer experienced in AST design, a Certified Inspector, or a tank manufacturer who will determine the corrective action. Note the non-conformance and corresponding corrective action in the comment section.
- Retain the completed checklists for 36 months.
- **In the event of severe weather (snow, ice, wind storms) or maintenance (such as painting) that could affect the operation of critical components (normal and emergency vents, valves), an inspection of these components is required as soon as the equipment is safely accessible after the event.**

Item	Task	Status	Comments
1.0 Tank Containment			
1.1 Containment structure	Check for water, debris, cracks or fire hazard	☐Yes* ☐No ☐N/A	
1.2 Primary tank	Check for water	☐Yes* ☐No	
1.3 Containment drain valves	Operable and in a closed position	☐Yes ☐No* ☐N/A	
1.4 Pathways and entry	Clear and gates/doors operable	☐Yes ☐No* ☐N/A	
2.0 Leak Detection			
2.1 Tank	Visible signs of leakage	☐Yes* ☐No	
2.2 Secondary Containment	Visible signs of leakage from tank into secondary containment	☐Yes* ☐No	
2.3 Surrounding soil	Visible signs of leakage	☐Yes* ☐No ☐N/A	
2.4 Interstice	Visible signs of leakage	☐Yes* ☐No ☐N/A	
3.0 Tank Equipment			
3.1 Valves	a. Check for leaks.	☐Yes* ☐No ☐N/A	
	b. Tank drain valves must be kept locked.	☐Yes* ☐No ☐N/A	
3.2 Spill containment boxes on fill pipe	a. Inspect for debris, residue, and water in the box and remove.	☐Yes* ☐No ☐N/A	
	b. Drain valves must be operable and closed.	☐Yes* ☐No ☐N/A	

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FORM 1: STORAGE TANK SYSTEM INSPECTION CHECKLIST

Instructions: One inspection checklist per storage tank system. (*) designates an item in non-conformance/unsatisfactory status; provide action in comment section to resolve problem and notify Environmental Protection Specialist if any significant deficiencies are identified.

Regulatory Driver: 40 CFR 112

Frequency: Monthly, not to exceed 35 days between inspections

Item	Task	Status	Comments
3.3 Liquid level equipment	a. Both visual and mechanical devices must be inspected for physical damage.	☐Yes ☐No* ☐N/A	
	b. Check that the device is easily readable	☐Yes ☐No* ☐N/A	
3.4 Overfill equipment	a. If equipped with a "test" button, activate the audible horn or light to confirm operation. This could be battery powered. Replace the battery if needed	☐Yes ☐No* ☐N/A	
	b. If overfill valve is equipped with a mechanical test mechanism, actuate the mechanism to confirm operation.	☐Yes ☐No* ☐N/A	
3.5 Piping connections	Check for leaks, corrosion and damage	☐Yes* ☐No	
4.0 Tank Attachments and Appurtenances			
4.1 Ladder and platform structure	Secure with no sign of severe corrosion or damage?	☐Yes ☐No* ☐N/A	
5.0 Other Conditions			
5.1 Are there other conditions that should be addressed for continued safe operation or that may affect the site spill prevention plan?		☐Yes* ☐No	

Additional Comments: _____

_____

_____

_____

_____

Inspector: _____

Signature: _____ Date: _____

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FORM 2: ANNUAL STORAGE TANK SYSTEM INSPECTION CHECKLIST

Instructions: Complete FORM 2, one per storage tank system. (*) designates an item in non-conformance/unsatisfactory status; provide action in comment section to resolve problem and notify Environmental Protection Specialist if any significant deficiencies are identified.
Regulatory Driver: 40 CFR 112
Frequency: Annually

Inspection Date:_____ Inspector Name:_____ Tank Number:_____ Location:_____

STI SP001 Annual Inspection Checklist

General Inspection Information:

Inspection Guidance:

- For equipment not included in this Standard, follow the manufacturer recommended inspection/testing schedules and procedures.
- The periodic AST Inspection is intended for monitoring the external AST condition and its containment structure. This visual inspection does not require a Certified Inspector. It shall be performed by an owner's inspector who is familiar with the site and can identify changes and developing problems.
- Remove promptly upon discovery standing water or liquid in the primary tank, secondary containment area, interstice, or spill container. Before discharge to the environment, inspect the liquid for regulated products or other contaminants and disposed of it properly.
- In order to comply with EPA SPCC (Spill Prevention, Control and Countermeasure) rules, a facility must regularly test liquid level sensing devices to ensure proper operation (40 CFR 112.8(c)(8)(v)).
- (*) designates an item in a non-conformance status. This indicates that action is required to address a problem.
- Non-conforming items important to tank or containment integrity require evaluation by an engineer experienced in AST design, a Certified Inspector, or a tank manufacturer who will determine the corrective action. Note the non-conformance and corresponding corrective action in the comment section.
- Retain the completed checklists for 36 months.
- Complete this checklist on an annual basis supplemental to the owner monthly-performed inspection checklists.

Note: If a change has occurred to the tank system or containment that may affect the SPCC plan, the condition should be evaluated against the current plan requirement by a Professional Engineer knowledgeable in SPCC development and implementation.

Item	Task	Status	Comments
1.0 Tank Containment			
1.1 Containment structure	Check for: • Holes or cracks in containment wall or floor • Washout • Liner degradation • Corrosion • Leakage • Paint failure • Tank settling	☐Yes* ☐No ☐N/A	
2.0 Tank Foundation and Supports			
2.1 Foundation	Settlement or foundation washout?	☐Yes* ☐No	
2.2 Concrete pad or ring wall	Cracking or spalling?	☐Yes* ☐No ☐N/A	
2.3 Supports	Check for corrosion, paint failure, etc.	☐Yes* ☐No ☐N/A	
2.4 Water drainage	Water drains away from tank?	☐Yes* ☐No ☐N/A	
2.5 Tank grounding	Strap secured and in good condition?	☐Yes* ☐No ☐N/A	

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FORM 2: ANNUAL STORAGE TANK SYSTEM INSPECTION CHECKLIST

Instructions: Complete FORM 2, one per storage tank system. (*) designates an item in non-conformance/unsatisfactory status; provide action in comment section to resolve problem and notify Environmental Protection Specialist if any significant deficiencies are identified.

Regulatory Driver: 40 CFR 112

Frequency: Annually

Item	Task	Status	Comments
3.0 Cathodic Protection			
3.1 Gavlvanic cathodic protection system	Confirm system is functional, includes the wire connections for galvanic systems	☐Yes* ☐No ☐N/A	
3.2 Impressed current system	a. Inspect the operational components (power switch, meters, and alarms).	☐Yes* ☐No ☐N/A	
	b. Record hour meter, ammeter and voltmeter readings.	☐Yes ☐No* ☐N/A	
4.0 Tank Shell, Heads, Roof			
4.1 Coating	Check for coating failure	☐Yes* ☐No	
4.2 Steel condition	Check for: • Dents • Buckling • Bulging • Corrosion • Cracking	☐Yes* ☐No	
4.3 Roof slope	Check for low points and standing water	☐Yes ☐No* ☐N/A	
5.0 Tank Equipment			
5.1 Vents	Verify that components are moving freely and vent passageways are not obstructed for: • Emergency vent covers • Pressure/vacuum vent poppets • Other moving vent components	☐Yes ☐No* ☐N/A	
5.2 Valves	Check the condition of all valves for leaks, corrosion and damage.	☐Yes ☐No* ☐N/A	
5.2.1 Anti-siphon, check and gate valves	Cycle the valve open and closed and check for proper operation.	☐Yes ☐No* ☐N/A	
5.2.2 Pressure regulator valve	Check for proper operation. (Note that there may be small, 1/4 inch drain plugs in the bottom of the valve that are not visible by looking from above only)	☐Yes ☐No* ☐N/A	
5.2.3 Expansion relief valve	Check that the valve is in the proper orientation. (Note that fuel must be discharged back to the tank via a separate pipe or tubing.)	☐Yes ☐No* ☐N/A	
5.2.4 Solenoid valves	Cycle power to valve to check operation. (Electrical solenoids can be verified by listening to the plunger opening and closing. If no audible confirmation, the	☐Yes ☐No* ☐N/A	

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FORM 2: ANNUAL STORAGE TANK SYSTEM INSPECTION CHECKLIST

Instructions: Complete FORM 2, one per storage tank system. (*) designates an item in non-conformance/unsatisfactory status; provide action in comment section to resolve problem and notify Environmental Protection Specialist if any significant deficiencies are identified.

Regulatory Driver: 40 CFR 112

Frequency: Annually

Item	Task	Status	Comments
	valve should be inspected for the presence and operation of the plunger.)		
5.2.5 Fire and shear valves	a. Manually cycle the valve to ensure components are moving freely and that the valve handle or lever has clearance to allow valve to close completely.	☐Yes ☐No* ☐N/A	
	b. Valves must not be wired in open position.	☐Yes ☐No* ☐N/A	
	c. Make sure fusible element is in place and correctly positioned.	☐Yes ☐No* ☐N/A	
	d. Be sure test ports are sealed with plug after testing is complete and no temporary test fixture or component remains connected to valve.	☐Yes ☐No* ☐N/A	
5.3 Interstitial leak detection equipment	Check condition of equipment, including: • The window is clean and clear in sight leak gauges. • The wire connections of electronic gauges for tightness and corrosion • Activate the test button, if applicable.	☐Yes ☐No* ☐N/A	
5.4 Spill containment boxes on fill pipe	a. If corrosion, damage, or wear has compromised the ability of the unit to perform spill containment functions, replace the unit.	☐Yes ☐No* ☐N/A	
	b. Inspect the connections to the AST for tightness, as well as the bolts, nuts, washers for condition and replace if necessary.	☐Yes ☐No* ☐N/A	
	c. Drain valves must be operable and closed	☐Yes ☐No* ☐N/A	
5.5 Strainer	a. Check that the strainer is clean and in good condition.	☐Yes ☐No* ☐N/A	
5.5 Strainer	b. Access strainer basket and check cap and gasket seal as well as bolts.	☐Yes ☐No* ☐N/A	
5.6 Filter	a. Check that the filter is in good condition and is within the manufacturer's expected service life. Replace, if necessary.	☐Yes ☐No* ☐N/A	
	b. Check for leaks and decreased fuel flow	☐Yes ☐No* ☐N/A	
5.7 Flame arrestors	Follow manufacturer's instructions. Check for corrosion and blockage of air passages.	☐Yes ☐No* ☐N/A	

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FORM 2: ANNUAL STORAGE TANK SYSTEM INSPECTION CHECKLIST

Instructions: Complete FORM 2, one per storage tank system. (*) designates an item in non-conformance/unsatisfactory status; provide action in comment section to resolve problem and notify Environmental Protection Specialist if any significant deficiencies are identified.

Regulatory Driver: 40 CFR 112

Frequency: Annually

Item	Task	Status	Comments
5.8 Leak detector for submersible pump systems	Test according to manufacturer's instructions and authority having jurisdiction (AHJ). Verify leak detectors are suited and properly installed for aboveground use.	☐Yes ☐No* ☐N/A	
5.9 Liquid level equipment	a. Has equipment been tested to ensure proper operation?	☐Yes ☐No* ☐N/A	
	b. Does equipment operate as required?	☐Yes ☐No* ☐N/A	
	c. Follow manufacturer's instructions	☐Yes ☐No* ☐N/A	
5.10 Overfill equipment	a. Follow manufacturer's instructions and regulatory requirements for inspection and functionality verification.	☐Yes ☐No* ☐N/A	
	b. Confirm device is suited for above ground use by the manufacturer	☐Yes ☐No* ☐N/A	
6.0 Insulated Tanks			
6.1 Insulation	Check condition of insulation for: • Missing sections • Areas of moisture • Mold • Damage	☐Yes ☐No* ☐N/A	
6.2 Insulation cover or jacket	Check for damage that will allow water intrusion	☐Yes ☐No* ☐N/A	
7.0 Miscellaneous			
7.1 Electrical wiring and boxes	Are they in good condition?	☐Yes ☐No* ☐N/A	
7.2 Labels and tags	Ensure that all labels and tags are intact and readable.	☐Yes ☐No* ☐N/A	

Additional Comments:

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FORM 3: PETROLEUM TRANSFER AREA INSPECTION CHECKLIST

Instructions: Complete one per transfer area. (*) designates an item in non-conformance/unsatisfactory status; provide action in comment section to resolve problem and notify Environmental Protection Specialist if any significant deficiencies are identified.

Regulatory Driver: 40 CFR 112

Frequency: Weekly

Inspection Date:_____ Inspector Name:_____ Tank Number:_____ Location:_____

Item	Task	Status	Comments
1.0 Hoses, Pipes and Valves			
	No active leaks, weeps or drips	☐Yes ☐No*	
	Operating correctly	☐Yes ☐No*	
	Hoses, pipes and valves in good condition	☐Yes ☐No*	
	Hoses, pipes, valves properly supported and anchored	☐Yes ☐No*	
2.0 Structure			
	Bolts, clamps and supports in good condition	☐Yes ☐No*	
	Roof, Ladders, Platforms in good conditions	☐Yes ☐No*	
3.0 General			
	Electrical grounding in good condition	☐Yes ☐No*	
	Portable equipment stowed	☐Yes ☐No*	
	Secondary containment in good condition	☐Yes ☐No*	
	Instruction/Warning signage in good condition	☐Yes ☐No*	
	Traffic control devices in good condition	☐Yes ☐No*	
	Dispenser labeling in good condition	☐Yes ☐No*	
	Security labeling in good condition	☐Yes ☐No*	
4.0 Control Devices			
	Early departure warning device in good condition	☐Yes ☐No* ☐N/A	
	Starter Control in good condition	☐Yes ☐No* ☐N/A	
	Scully System in good condition	☐Yes ☐No* ☐N/A	
	Dead-man Controls in good condition	☐Yes ☐No* ☐N/A	
	Pumps in good condition	☐Yes ☐No* ☐N/A	
5.0 Secondary Containment			
	No standing water present	☐Yes ☐No*	
	Valves closed and locked	☐Yes ☐No*	
	No oil stains or sheens visible	☐Yes ☐No*	

FORM 4: CATHODIC PROTECTION SYSTEM INSPECTION CHECKLIST

Instructions: Complete one per cathodic protection system. (*) designates an item in non-conformance/unsatisfactory status; provide action in comment section to resolve problem and notify Environmental Protection Specialist if any significant deficiencies are identified.

Regulatory Driver: 40 CFR 112

Frequency: Not to exceed 2 months between inspections for impressed current systems only

Inspection Date:_____ Inspector Name:_____ Tank Number:_____ Location:_____

Item	Task	Status	Comments
1.0 Bulk Tanks and Piping			
	Test stations in good condition	☐Yes ☐No*	
	Wiring connections in good condition	☐Yes ☐No*	
	Electrical panel box in good condition	☐Yes ☐No*	
	Rectifier operable and in good condition	☐Yes ☐No*	
	Cathodic cabling and connections in good condition	☐Yes ☐No*	
2.0 Fuel Pier			
	Test stations in good condition	☐Yes ☐No*	
	Wiring connections in good condition	☐Yes ☐No*	
	Electrical panel box in good condition	☐Yes ☐No*	
	Rectifier operable and in good condition	☐Yes ☐No*	
	Pilings: Cathodic cabling and connections in good condition	☐Yes ☐No*	
	Underside of Pier: Cathodic cabling and connections in good condition	☐Yes ☐No*	
3.0 Operational			
	Output normal	☐Yes ☐No*	
	Power consumption normal	☐Yes ☐No*	
	Electrical resistance is normal	☐Yes ☐No*	
4.0 Measurements			
	Hour meter reading	-	
	Ammeter reading	-	
	Voltmeter reading	-	

FORM 5: SECONDARY CONTAINMENT DRAINAGE LOG

Instructions: All storm water shall be removed from any secondary containment structure within 7 days of a rainfall event. Storm water shall not be discharged without treatment if sheen present. Furthermore, any product in the secondary containment structure must be removed within 3 days of discovery.

Regulatory Driver: 40 CFR 112

Date	Location	Sheen Visible (Y/N)	Product Present (Y/N)	Treatment Employed (Y/N)	Drain Valve Opened (time)	Drain Valve Closed (time)	Comments	Initials

FORM 6: DRUM SITE INSPECTION CHECKLIST

Instructions: One inspection checklist per drum site. (*) designates an item in non-conformance/unsatisfactory status; provide action in comment section to resolve problem and notify Environmental Protection Specialist if any significant deficiencies are identified.
Regulatory Driver: 40 CFR 112
Frequency: Monthly

Drum Site Name:_____ Date: _____

Location:_____ Quantity of Drums: _____ Volume of Drums: _____ Content: _____

STI SP001 Portable Container Monthly Inspection Checklist

Inspection Guidance:

- For equipment not included in this Standard, follow the manufacturer recommended inspection/testing schedules and procedures.
- The periodic AST Inspection is intended for monitoring the external AST condition and its containment structure. This visual inspection does not require a Certified Inspector. It shall be performed by an owner's inspector who is familiar with the site and can identify changes and developing problems.
- (*) designates an item in a non-conformance status. This indicates that action is required to address a problem.
- Non-conforming items important to tank or containment integrity require evaluation by an engineer experienced in AST design, a Certified Inspector, or a tank manufacturer who will determine the corrective action. Note the non-conformance and corresponding corrective action in the comment section.
- Retain the completed checklists for 36 months.

Item	Area:_____	Area:_____	Area:_____	Area:_____
1.0 AST Containment/Storage Area				
1.1 ASTs within designated storage area?	☐Yes ☐No*	☐Yes ☐No*	☐Yes ☐No*	☐Yes ☐No*
1.2 Debris, spills, or other fire hazards in containment or storage area?	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No
1.3 Water in outdoor secondary containment?	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No
1.4 Drain valves operable and in a closed position?	☐Yes ☐No*	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No
1.5 Egress pathways clear and gates/doors operable?	☐Yes ☐No*	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No
2.0 Leak Detection				
2.1 Visible signs of leakage around the container or storage area?	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No
3.0 Container				
3.0 Noticeable container distortions, buckling, denting or bulging?	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No

(*) designates an item in non-conformance status. This indicates that action is required to address a problem.

Comments:

Inspector: _____
Signature: _____ Date: _____

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Appendix J:

Title 40 Code of Federal Regulations Part 112: Oil Pollution Prevention

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engine on a public vessel) and any discharges of such oil accumulated in the bilges of a vessel discharged in compliance with MARPOL 73/78, Annex I, as provided in 33 CFR part 151, subpart A;

(b) Other discharges of oil permitted under MARPOL 73/78, Annex I, as provided in 33 CFR part 151, subpart A; and

(c) Any discharge of oil explicitly permitted by the Administrator in connection with research, demonstration projects, or studies relating to the prevention, control, or abatement of oil pollution.

[61 FR 7421, Feb. 28, 1996]

§ 110.6 Notice.

Any person in charge of a vessel or of an onshore or offshore facility shall, as soon as he or she has knowledge of any discharge of oil from such vessel or facility in violation of section 311(b)(3) of the Act, immediately notify the National Response Center (NRC) (800–424–8802; in the Washington, DC metropolitan area, 202–426–2675). If direct reporting to the NRC is not practicable, reports may be made to the Coast Guard or EPA predesignated On-Scene Coordinator (OSC) for the geographic area where the discharge occurs. All such reports shall be promptly relayed to the NRC. If it is not possible to notify the NRC or the predesignated OCS immediately, reports may be made immediately to the nearest Coast Guard unit, provided that the person in charge of the vessel or onshore or offshore facility notifies the NRC as soon as possible. The reports shall be made in accordance with such procedures as the Secretary of Transportation may prescribe. The procedures for such notice are set forth in U.S. Coast Guard regulations, 33 CFR part 153, subpart B and in the National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR part 300, subpart E.

(Approved by the Office of Management and Budget under control number 2050–0046)

[52 FR 10719, Apr. 2, 1987. Redesignated and amended at 61 FR 7421, Feb. 28, 1996; 61 FR 14032, Mar. 29, 1996]

PART 112—OIL POLLUTION PREVENTION

Subpart A—Applicability, Definitions, and General Requirements For All Facilities and All Types of Oils

Sec.
112.1 General applicability.
112.2 Definitions.
112.3 Requirement to prepare and implement a Spill Prevention, Control, and Countermeasure Plan.
112.4 Amendment of Spill Prevention, Control, and Countermeasure Plan by Regional Administrator.
112.5 Amendment of Spill Prevention, Control, and Countermeasure Plan by owners or operators.
112.6 Qualified Facility Plan Requirements.
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112.8 Spill Prevention, Control, and Countermeasure Plan requirements for onshore facilities (excluding production facilities).
112.9 Spill Prevention, Control, and Countermeasure Plan Requirements for onshore oil production facilities (excluding drilling and workover facilities).
112.10 Spill Prevention, Control, and Countermeasure Plan requirements for onshore oil drilling and workover facilities.
112.11 Spill Prevention, Control, and Countermeasure Plan requirements for offshore oil drilling, production, or workover facilities.

Subpart C—Requirements for Animal Fats and Oils and Greases, and Fish and Marine Mammal Oils; and for Vegetable Oils, Including Oils from Seeds, Nuts, Fruits and Kernels

112.12 Spill Prevention, Control, and Countermeasure Plan requirements.
112.13–112.15 [Reserved]

Subpart D—Response Requirements

112.20 Facility response plans.
112.21 Facility response training and drills/exercises.
APPENDIX A TO PART 112—MEMORANDUM OF UNDERSTANDING BETWEEN THE SECRETARY

OF TRANSPORTATION AND THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY
APPENDIX B TO PART 112—MEMORANDUM OF UNDERSTANDING AMONG THE SECRETARY OF THE INTERIOR, SECRETARY OF TRANSPORTATION, AND ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY
APPENDIX C TO PART 112—SUBSTANTIAL HARM CRITERIA
APPENDIX D TO PART 112—DETERMINATION OF A WORST CASE DISCHARGE PLANNING VOLUME
APPENDIX E TO PART 112—DETERMINATION AND EVALUATION OF REQUIRED RESPONSE RESOURCES FOR FACILITY RESPONSE PLANS
APPENDIX F TO PART 112—FACILITY-SPECIFIC RESPONSE PLAN
APPENDIX G TO PART 112—TIER I QUALIFIED FACILITY SPCC PLAN

AUTHORITY: 33 U.S.C. 1251 *et seq.*; 33 U.S.C. 2720; E.O. 12777 (October 18, 1991), 3 CFR, 1991 Comp., p. 351.

SOURCE: 38 FR 34165, Dec. 11, 1973, unless otherwise noted.

EDITORIAL NOTE: Nomenclature changes to part 112 appear at 65 FR 40798, June 30, 2000.

Subpart A—Applicability, Definitions, and General Requirements for All Facilities and All Types of Oils

SOURCE: 67 FR 47140, July 17, 2002, unless otherwise noted.

§ 112.1 General applicability.

(a)(1) This part establishes procedures, methods, equipment, and other requirements to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon the navigable waters of the United States or adjoining shorelines, or into or upon the waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Magnuson Fishery Conservation and Management Act).

(2) As used in this part, words in the singular also include the plural and words in the masculine gender also include the feminine and vice versa, as the case may require.

(b) Except as provided in paragraph (d) of this section, this part applies to any owner or operator of a non-transportation-related onshore or offshore facility engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, using, or consuming oil and oil products, which due to its location, could reasonably be expected to discharge oil in quantities that may be harmful, as described in part 110 of this chapter, into or upon the navigable waters of the United States or adjoining shorelines, or into or upon the waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Magnuson Fishery Conservation and Management Act) that has oil in:

(1) Any aboveground container;

(2) Any completely buried tank as defined in § 112.2;

(3) Any container that is used for standby storage, for seasonal storage, or for temporary storage, or not otherwise ''permanently closed'' as defined in § 112.2;

(4) Any ''bunkered tank'' or ''partially buried tank'' as defined in § 112.2, or any container in a vault, each of which is considered an aboveground storage container for purposes of this part.

(c) As provided in section 313 of the Clean Water Act (CWA), departments, agencies, and instrumentalities of the Federal government are subject to this part to the same extent as any person.

(d) Except as provided in paragraph (f) of this section, this part does not apply to:

(1) The owner or operator of any facility, equipment, or operation that is not subject to the jurisdiction of the Environmental Protection Agency (EPA) under section 311(j)(1)(C) of the CWA, as follows:

(i) Any onshore or offshore facility, that due to its location, could not reasonably be expected to have a discharge as described in paragraph (b) of

this section. This determination must be based solely upon consideration of the geographical and location aspects of the facility (such as proximity to navigable waters or adjoining shorelines, land contour, drainage, etc.) and must exclude consideration of man-made features such as dikes, equipment or other structures, which may serve to restrain, hinder, contain, or otherwise prevent a discharge as described in paragraph (b) of this section.

(ii) Any equipment, or operation of a vessel or transportation-related onshore or offshore facility which is subject to the authority and control of the U.S. Department of Transportation, as defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of EPA, dated November 24, 1971 (appendix A of this part).

(iii) Any equipment, or operation of a vessel or onshore or offshore facility which is subject to the authority and control of the U.S. Department of Transportation or the U.S. Department of the Interior, as defined in the Memorandum of Understanding between the Secretary of Transportation, the Secretary of the Interior, and the Administrator of EPA, dated November 8, 1993 (appendix B of this part).

(2) Any facility which, although otherwise subject to the jurisdiction of EPA, meets both of the following requirements:

(i) The completely buried storage capacity of the facility is 42,000 U.S. gallons or less of oil. For purposes of this exemption, the completely buried storage capacity of a facility excludes the capacity of a completely buried tank, as defined in § 112.2, and connected underground piping, underground ancillary equipment, and containment systems, that is currently subject to all of the technical requirements of part 280 of this chapter or all of the technical requirements of a State program approved under part 281 of this chapter, or the capacity of any underground oil storage tanks deferred under 40 CFR part 280 that supply emergency diesel generators at a nuclear power generation facility licensed by the Nuclear Regulatory Commission and subject to any Nuclear Regulatory Commission provision regarding design and quality criteria, including, but not limited to, 10 CFR part 50. The completely buried storage capacity of a facility also excludes the capacity of a container that is ''permanently closed,'' as defined in § 112.2 and the capacity of intra-facility gathering lines subject to the regulatory requirements of 49 CFR part 192 or 195.

(ii) The aggregate aboveground storage capacity of the facility is 1,320 U.S. gallons or less of oil. For the purposes of this exemption, only containers with a capacity of 55 U.S. gallons or greater are counted. The aggregate aboveground storage capacity of a facility excludes:

(A) The capacity of a container that is ''permanently closed'' as defined in § 112.2;

(B) The capacity of a ''motive power container'' as defined in § 112.2;

(C) The capacity of hot-mix asphalt or any hot-mix asphalt container;

(D) The capacity of a container for heating oil used solely at a single-family residence;

(E) The capacity of pesticide application equipment and related mix containers.

(F) The capacity of any milk and milk product container and associated piping and appurtenances.

(3) Any offshore oil drilling, production, or workover facility that is subject to the notices and regulations of the Minerals Management Service, as specified in the Memorandum of Understanding between the Secretary of Transportation, the Secretary of the Interior, and the Administrator of EPA, dated November 8, 1993 (appendix B of this part).

(4) Any completely buried storage tank, as defined in § 112.2, and connected underground piping, underground ancillary equipment, and containment systems, at any facility, that is subject to all of the technical requirements of part 280 of this chapter or a State program approved under part 281 of this chapter, or any underground oil storage tanks including below-grade vaulted tanks, deferred under 40 CFR part 280, as originally promulgated, that supply emergency diesel generators at a nuclear power generation facility licensed by the Nuclear Regulatory Commission, provided

that such a tank is subject to any Nuclear Regulatory Commission provision regarding design and quality criteria, including, but not limited to, 10 CFR part 50. Such emergency generator tanks must be marked on the facility diagram as provided in § 112.7(a)(3), if the facility is otherwise subject to this part.

(5) Any container with a storage capacity of less than 55 gallons of oil.

(6) Any facility or part thereof used exclusively for wastewater treatment and not used to satisfy any requirement of this part. The production, recovery, or recycling of oil is not wastewater treatment for purposes of this paragraph.

(7) Any ''motive power container,'' as defined in § 112.2. The transfer of fuel or other oil into a motive power container at an otherwise regulated facility is not eligible for this exemption.

(8) Hot-mix asphalt, or any hot-mix asphalt container.

(9) Any container for heating oil used solely at a single-family residence.

(10) Any pesticide application equipment or related mix containers.

(11) Intra-facility gathering lines subject to the regulatory requirements of 49 CFR part 192 or 195, except that such a line's location must be identified and marked as ''exempt'' on the facility diagram as provided in § 112.7(a)(3), if the facility is otherwise subject to this part.

(12) Any milk and milk product container and associated piping and appurtenances.

(e) This part establishes requirements for the preparation and implementation of Spill Prevention, Control, and Countermeasure (SPCC) Plans. SPCC Plans are designed to complement existing laws, regulations, rules, standards, policies, and procedures pertaining to safety standards, fire prevention, and pollution prevention rules. The purpose of an SPCC Plan is to form a comprehensive Federal/State spill prevention program that minimizes the potential for discharges. The SPCC Plan must address all relevant spill prevention, control, and countermeasures necessary at the specific facility. Compliance with this part does not in any way relieve the owner or operator of an onshore or an offshore facility from compliance with other Federal, State, or local laws.

(f) Notwithstanding paragraph (d) of this section, the Regional Administrator may require that the owner or operator of any facility subject to the jurisdiction of EPA under section 311(j) of the CWA prepare and implement an SPCC Plan, or any applicable part, to carry out the purposes of the CWA.

(1) Following a preliminary determination, the Regional Administrator must provide a written notice to the owner or operator stating the reasons why he must prepare an SPCC Plan, or applicable part. The Regional Administrator must send such notice to the owner or operator by certified mail or by personal delivery. If the owner or operator is a corporation, the Regional Administrator must also mail a copy of such notice to the registered agent, if any and if known, of the corporation in the State where the facility is located.

(2) Within 30 days of receipt of such written notice, the owner or operator may provide information and data and may consult with the Agency about the need to prepare an SPCC Plan, or applicable part.

(3) Within 30 days following the time under paragraph (b)(2) of this section within which the owner or operator may provide information and data and consult with the Agency about the need to prepare an SPCC Plan, or applicable part, the Regional Administrator must make a final determination regarding whether the owner or operator is required to prepare and implement an SPCC Plan, or applicable part. The Regional Administrator must send the final determination to the owner or operator by certified mail or by personal delivery. If the owner or operator is a corporation, the Regional Administrator must also mail a copy of the final determination to the registered agent, if any and if known, of the corporation in the State where the facility is located.

(4) If the Regional Administrator makes a final determination that an SPCC Plan, or applicable part, is necessary, the owner or operator must prepare the Plan, or applicable part, within six months of that final determination and implement the Plan, or applicable part, as soon as possible, but not

later than one year after the Regional Administrator has made a final determination.

(5) The owner or operator may appeal a final determination made by the Regional Administrator requiring preparation and implementation of an SPCC Plan, or applicable part, under this paragraph. The owner or operator must make the appeal to the Administrator of EPA within 30 days of receipt of the final determination under paragraph (b)(3) of this section from the Regional Administrator requiring preparation and/or implementation of an SPCC Plan, or applicable part. The owner or operator must send a complete copy of the appeal to the Regional Administrator at the time he makes the appeal to the Administrator. The appeal must contain a clear and concise statement of the issues and points of fact in the case. In the appeal, the owner or operator may also provide additional information. The additional information may be from any person. The Administrator may request additional information from the owner or operator. The Administrator must render a decision within 60 days of receiving the appeal or additional information submitted by the owner or operator and must serve the owner or operator with the decision made in the appeal in the manner described in paragraph (f)(1) of this section.

[67 FR 47140, July 17, 2002, as amended at 71 FR 77290, Dec. 26, 2006; 73 FR 74300, Dec. 5, 2008; 74 FR 58809, Nov. 13, 2009; 76 FR 21660, Apr. 18, 2011]

§ 112.2 Definitions.

For the purposes of this part:

Adverse weather means weather conditions that make it difficult for response equipment and personnel to clean up or remove spilled oil, and that must be considered when identifying response systems and equipment in a response plan for the applicable operating environment. Factors to consider include significant wave height as specified in appendix E to this part (as appropriate), ice conditions, temperatures, weather-related visibility, and currents within the area in which the systems or equipment is intended to function.

Alteration means any work on a container involving cutting, burning, welding, or heating operations that changes the physical dimensions or configuration of the container.

Animal fat means a non-petroleum oil, fat, or grease of animal, fish, or marine mammal origin.

Breakout tank means a container used to relieve surges in an oil pipeline system or to receive and store oil transported by a pipeline for reinjection and continued transportation by pipeline.

Bulk storage container means any container used to store oil. These containers are used for purposes including, but not limited to, 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.

Bunkered tank means a container constructed or placed in the ground by cutting the earth and re-covering the container in a manner that breaks the surrounding natural grade, or that lies above grade, and is covered with earth, sand, gravel, asphalt, or other material. A bunkered tank is considered an aboveground storage container for purposes of this part.

Completely buried tank means any container completely below grade and covered with earth, sand, gravel, asphalt, or other material. Containers in vaults, bunkered tanks, or partially buried tanks are considered aboveground storage containers for purposes of this part.

Complex means a facility possessing a combination of transportation-related and non-transportation-related components that is subject to the jurisdiction of more than one Federal agency under section 311(j) of the CWA.

Contiguous zone means the zone established by the United States under Article 24 of the Convention of the Territorial Sea and Contiguous Zone, that is contiguous to the territorial sea and that extends nine miles seaward from the outer limit of the territorial area.

Contract or other approved means means:

(1) A written contractual agreement with an oil spill removal organization that identifies and ensures the availability of the necessary personnel and

equipment within appropriate response times; and/or

(2) A written certification by the owner or operator that the necessary personnel and equipment resources, owned or operated by the facility owner or operator, are available to respond to a discharge within appropriate response times; and/or

(3) Active membership in a local or regional oil spill removal organization that has identified and ensures adequate access through such membership to necessary personnel and equipment to respond to a discharge within appropriate response times in the specified geographic area; and/or

(4) Any other specific arrangement approved by the Regional Administrator upon request of the owner or operator.

Discharge includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, but excludes discharges in compliance with a permit under section 402 of the CWA; discharges resulting from circumstances identified, reviewed, and made a part of the public record with respect to a permit issued or modified under section 402 of the CWA, and subject to a condition in such permit; or continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 402 of the CWA, that are caused by events occurring within the scope of relevant operating or treatment systems. For purposes of this part, the term discharge shall not include any discharge of oil that is authorized by a permit issued under section 13 of the River and Harbor Act of 1899 (33 U.S.C. 407).

Facility means any mobile or fixed, onshore or offshore building, property, parcel, lease, 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 oil waste treatment, or in which oil is used, as described in appendix A to this part. The boundaries of a facility depend on several site-specific factors, including but not limited to, the ownership or operation of buildings, structures, and equipment on the same site and types of activity at the site. Contiguous or non-contiguous buildings, properties, parcels, leases, structures, installations, pipes, or pipelines under the ownership or operation of the same person may be considered separate facilities. Only this definition governs whether a facility is subject to this part.

Farm means a facility on a tract of land devoted to the production of crops or raising of animals, including fish, which produced and sold, or normally would have produced and sold, $1,000 or more of agricultural products during a year.

Fish and wildlife and sensitive environments means areas that may be identified by their legal designation or by evaluations of Area Committees (for planning) or members of the Federal On-Scene Coordinator's spill response structure (during responses). These areas may include wetlands, National and State parks, critical habitats for endangered or threatened species, wilderness and natural resource areas, marine sanctuaries and estuarine reserves, conservation areas, preserves, wildlife areas, wildlife refuges, wild and scenic rivers, recreational areas, national forests, Federal and State lands that are research national areas, heritage program areas, land trust areas, and historical and archaeological sites and parks. These areas may also include unique habitats such as aquaculture sites and agricultural surface water intakes, bird nesting areas, critical biological resource areas, designated migratory routes, and designated seasonal habitats.

Injury means a measurable adverse change, either long- or short-term, in the chemical or physical quality or the viability of a natural resource resulting either directly or indirectly from exposure to a discharge, or exposure to a product of reactions resulting from a discharge.

Loading/unloading rack means a fixed structure (such as a platform, gangway) necessary for loading or unloading a tank truck or tank car, which is

located at a facility subject to the requirements of this part. A loading/unloading rack includes a loading or unloading arm, and may include any combination of the following: piping assemblages, valves, pumps, shut-off devices, overfill sensors, or personnel safety devices.

Maximum extent practicable means within the limitations used to determine oil spill planning resources and response times for on-water recovery, shoreline protection, and cleanup for worst case discharges from onshore non-transportation-related facilities in adverse weather. It includes the planned capability to respond to a worst case discharge in adverse weather, as contained in a response plan that meets the requirements in § 112.20 or in a specific plan approved by the Regional Administrator.

Mobile refueler means a bulk storage container onboard a vehicle or towed, that is designed or used solely to store and transport fuel for transfer into or from an aircraft, motor vehicle, locomotive, vessel, ground service equipment, or other oil storage container.

Motive power container means any onboard bulk storage container used primarily to power the movement of a motor vehicle, or ancillary onboard oil-filled operational equipment. An onboard bulk storage container which is used to store or transfer oil for further distribution is not a motive power container. The definition of motive power container does not include oil drilling or workover equipment, including rigs.

Navigable waters of the United States means ''navigable waters'' as defined in section 502(7) of the FWPCA, and includes:

(1) All navigable waters of the United States, as defined in judicial decisions prior to passage of the 1972 Amendments to the FWPCA (Pub. L. 92–500), and tributaries of such waters;

(2) Interstate waters;

(3) Intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; and

(4) Intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.

Non-petroleum oil means oil of any kind that is not petroleum-based, including but not limited to: Fats, oils, and greases of animal, fish, or marine mammal origin; and vegetable oils, including oils from seeds, nuts, fruits, and kernels.

Offshore facility means any facility of any kind (other than a vessel or public vessel) located in, on, or under any of the navigable waters of the United States, and any facility of any kind that is subject to the jurisdiction of the United States and is located in, on, or under any other waters.

Oil means oil of any kind or in any form, including, but not limited to: fats, oils, or greases of animal, fish, or marine mammal origin; vegetable oils, including oils from seeds, nuts, fruits, or kernels; and, other oils and greases, including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes other than dredged spoil.

Oil-filled operational equipment means equipment that includes an oil storage container (or multiple containers) in which the oil is present solely to support the function of the apparatus or the device. Oil-filled operational equipment is not considered a bulk storage container, and does not include oil-filled manufacturing equipment (flow-through process). Examples of oil-filled operational equipment include, but are not limited to, hydraulic systems, lubricating systems (*e.g.*, those for pumps, compressors and other rotating equipment, including pumpjack lubrication systems), gear boxes, machining coolant systems, heat transfer systems, transformers, circuit breakers, electrical switches, and other systems containing oil solely to enable the operation of the device.

Oil Spill Removal Organization means an entity that provides oil spill response resources, and includes any for-profit or not-for-profit contractor, cooperative, or in-house response resources that have been established in a geographic area to provide required response resources.

Onshore facility means any facility of any kind located in, on, or under any land within the United States, other than submerged lands.

Owner or operator means any person owning or operating an onshore facility or an offshore facility, and in the case of any abandoned offshore facility, the person who owned or operated or maintained the facility immediately prior to such abandonment.

Partially buried tank means a storage container that is partially inserted or constructed in the ground, but not entirely below grade, and not completely covered with earth, sand, gravel, asphalt, or other material. A partially buried tank is considered an aboveground storage container for purposes of this part.

Permanently closed means any container or facility for which:

(1) All liquid and sludge has been removed from each container and connecting line; and

(2) All connecting lines and piping have been disconnected from the container and blanked off, all valves (except for ventilation valves) have been closed and locked, and conspicuous signs have been posted on each container stating that it is a permanently closed container and noting the date of closure.

Person includes an individual, firm, corporation, association, or partnership.

Petroleum oil means petroleum in any form, including but not limited to crude oil, fuel oil, mineral oil, sludge, oil refuse, and refined products.

Produced water container means a storage container at an oil production facility used to store the produced water after initial oil/water separation, and prior to reinjection, beneficial reuse, discharge, or transfer for disposal.

Production facility means all structures (including but not limited to wells, platforms, or storage facilities), piping (including but not limited to flowlines or intra-facility gathering lines), or equipment (including but not limited to workover equipment, separation equipment, or auxiliary non-transportation-related equipment) used in the production, extraction, recovery, lifting, stabilization, separation or treating of oil (including condensate), or associated storage or measurement, and is located in an oil or gas field, at a facility. This definition governs whether such structures, piping, or equipment are subject to a specific section of this part.

Regional Administrator means the Regional Administrator of the Environmental Protection Agency, in and for the Region in which the facility is located.

Repair means any work necessary to maintain or restore a container to a condition suitable for safe operation, other than that necessary for ordinary, day-to-day maintenance to maintain the functional integrity of the container and that does not weaken the container.

Spill Prevention, Control, and Countermeasure Plan; SPCC Plan, or Plan means the document required by §112.3 that details the equipment, workforce, procedures, and steps to prevent, control, and provide adequate countermeasures to a discharge.

Storage capacity of a container means the shell capacity of the container.

Transportation-related and non-transportation-related, as applied to an onshore or offshore facility, are defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency, dated November 24, 1971, (appendix A of this part).

United States means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, Guam, American Samoa, the U.S. Virgin Islands, and the Pacific Island Governments.

Vegetable oil means a non-petroleum oil or fat of vegetable origin, including but not limited to oils and fats derived from plant seeds, nuts, fruits, and kernels.

Vessel means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water, other than a public vessel.

Wetlands means those areas that are inundated or saturated by surface or groundwater at a frequency or duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include playa

lakes, swamps, marshes, bogs, and similar areas such as sloughs, prairie potholes, wet meadows, prairie river overflows, mudflats, and natural ponds.

Worst case discharge for an onshore non-transportation-related facility means the largest foreseeable discharge in adverse weather conditions as determined using the worksheets in appendix D to this part.

[67 FR 47140, July 17, 2002, as amended at 71 FR 77290, Dec. 26, 2006; 73 FR 71943, Nov. 26, 2008; 73 FR 74300, Dec. 5, 2008]

§ 112.3 Requirement to prepare and implement a Spill Prevention, Control, and Countermeasure Plan.

The owner or operator or an onshore or offshore facility subject to this section must prepare in writing and implement a Spill Prevention Control and Countermeasure Plan (hereafter ''SPCC Plan'' or ''Plan''),'' in accordance with § 112.7 and any other applicable section of this part.

(a)(1) Except as otherwise provided in this section, if your facility, or mobile or portable facility, was in operation on or before August 16, 2002, you must maintain your Plan, but must amend it, if necessary to ensure compliance with this part, and implement the amended Plan no later than November 10, 2011. If such a facility becomes operational after August 16, 2002, through November 10, 2011, and could reasonably be expected to have a discharge as described in § 112.1(b), you must prepare and implement a Plan on or before November 10, 2011. If such a facility (excluding oil production facilities) becomes operational after November 10, 2011, and could reasonably be expected to have a discharge as described in § 112.1(b), you must prepare and implement a Plan before you begin operations. You are not required to prepare a new Plan each time you move a mobile or portable facility to a new site; the Plan may be general. When you move the mobile or portable facility, you must locate and install it using the discharge prevention practices outlined in the Plan for the facility. The Plan is applicable only while the mobile or portable facility is in a fixed (non-transportation) operating mode.

(2) If your drilling, production or workover facility, including a mobile or portable facility, is offshore or has an offshore component; or your onshore facility is required to have and submit a Facility Response Plan pursuant to 40 CFR 112.20(a), and was in operation on or before August 16, 2002, you must maintain your Plan, but must amend it, if necessary to ensure compliance with this part, and implement the amended Plan no later than November 10, 2010. If such a facility becomes operational after August 16, 2002, through November 10, 2010, and could reasonably be expected to have a discharge as described in § 112.1(b), you must prepare and implement a Plan on or before November 10, 2010. If such a facility (excluding oil production facilities) becomes operational after November 10, 2010, and could reasonably be expected to have a discharge as described in § 112.1(b), you must prepare and implement a Plan before you begin operations. You are not required to prepare a new Plan each time you move a mobile or portable facility to a new site; the Plan may be general. When you move the mobile or portable facility, you must locate and install it using the discharge prevention practices outlined in the Plan for the facility. The Plan is applicable only while the mobile or portable facility is in a fixed (non-transportation) operating mode.

(3) If your farm, as defined in § 112.2, was in operation on or before August 16, 2002, you must maintain your Plan, but must amend it, if necessary to ensure compliance with this part, and implement the amended Plan on or before May 10, 2013. If your farm becomes operational after August 16, 2002, through May 10, 2013, and could reasonably be expected to have a discharge as described in § 112.1(b), you must prepare and implement a Plan on or before May 10, 2013. If your farm becomes operational after May 10, 2013, and could reasonably be expected to have a discharge as described in § 112.1(b), you must prepare and implement a Plan before you begin operations.

(b) If your oil production facility as described in paragraph (a)(1) of this section becomes operational after November 10, 2011, or as described in paragraph (a)(2) of this section becomes operational after November 10, 2010,

and could reasonably be expected to have a discharge as described in § 112.1(b), you must prepare and implement a Plan within six months after you begin operations.

(c) [Reserved]

(d) Except as provided in § 112.6, a licensed Professional Engineer must review and certify a Plan for it to be effective to satisfy the requirements of this part.

(1) By means of this certification the Professional Engineer attests:

(i) That he is familiar with the requirements of this part ;

(ii) That he or his agent has visited and examined the facility;

(iii) That the Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part;

(iv) That procedures for required inspections and testing have been established; and

(v) That the Plan is adequate for the facility.

(vi) That, if applicable, for a produced water container subject to § 112.9(c)(6), any procedure to minimize the amount of free-phase oil is designed to reduce the accumulation of free-phase oil and the procedures and frequency for required inspections, maintenance and testing have been established and are described in the Plan.

(2) Such certification shall in no way relieve the owner or operator of a facility of his duty to prepare and fully implement such Plan in accordance with the requirements of this part.

(e) If you are the owner or operator of a facility for which a Plan is required under this section, you must:

(1) Maintain a complete copy of the Plan at the facility if the facility is normally attended at least four hours per day, or at the nearest field office if the facility is not so attended, and

(2) Have the Plan available to the Regional Administrator for on-site review during normal working hours.

(f) *Extension of time.* (1) The Regional Administrator may authorize an extension of time for the preparation and full implementation of a Plan, or any amendment thereto, beyond the time permitted for the preparation, implementation, or amendment of a Plan under this part, when he finds that the owner or operator of a facility subject to this section, cannot fully comply with the requirements as a result of either nonavailability of qualified personnel, or delays in construction or equipment delivery beyond the control and without the fault of such owner or operator or his agents or employees.

(2) If you are an owner or operator seeking an extension of time under paragraph (f)(1) of this section, you may submit a written extension request to the Regional Administrator. Your request must include:

(i) A full explanation of the cause for any such delay and the specific aspects of the Plan affected by the delay;

(ii) A full discussion of actions being taken or contemplated to minimize or mitigate such delay; and

(iii) A proposed time schedule for the implementation of any corrective actions being taken or contemplated, including interim dates for completion of tests or studies, installation and operation of any necessary equipment, or other preventive measures. In addition you may present additional oral or written statements in support of your extension request.

(3) The submission of a written extension request under paragraph (f)(2) of this section does not relieve you of your obligation to comply with the requirements of this part. The Regional Administrator may request a copy of your Plan to evaluate the extension request. When the Regional Administrator authorizes an extension of time for particular equipment or other specific aspects of the Plan, such extension does not affect your obligation to comply with the requirements related to other equipment or other specific aspects of the Plan for which the Regional Administrator has not expressly authorized an extension.

(g) *Qualified Facilities.* The owner or operator of a qualified facility as defined in this subparagraph may self-certify his facility's Plan, as provided in § 112.6. A qualified facility is one that meets the following Tier I or Tier II qualified facility criteria:

(1) A Tier I qualified facility meets the qualification criteria in paragraph

(g)(2) of this section and has no individual aboveground oil storage container with a capacity greater than 5,000 U.S. gallons.

(2) A Tier II qualified facility is one that has had no single discharge as described in § 112.1(b) exceeding 1,000 U.S. gallons or no two discharges as described in § 112.1(b) each exceeding 42 U.S. gallons within any twelve month period in the three years prior to the SPCC Plan self-certification date, or since becoming subject to this part if the facility has been in operation for less than three years (other than discharges as described in § 112.1(b) that are the result of natural disasters, acts of war, or terrorism), and has an aggregate aboveground oil storage capacity of 10,000 U.S. gallons or less.

[67 FR 47140, July 17, 2002, as amended at 68 FR 1351, Jan. 9, 2003; 68 FR 18894, Apr. 17, 2003; 69 FR 48798, Aug. 11, 2004; 71 FR 8466, Feb. 17, 2006; 71 FR 77290, Dec. 26, 2006; 72 FR 27447, May 16, 2007; 73 FR 74301, Dec. 5, 2008, 74 FR 29141, June 19, 2009; 74 FR 58809, Nov. 13, 2009; 75 FR 63102, Oct. 14, 2010; 76 FR 21660, Apr. 18, 2011; 76 FR 64248, Oct. 18, 2011; 76 FR 72124, Nov. 22, 2011]

§ 112.4 Amendment of Spill Prevention, Control, and Countermeasure Plan by Regional Administrator.

If you are the owner or operator of a facility subject to this part, you must:

(a) Notwithstanding compliance with § 112.3, whenever your facility has discharged more than 1,000 U.S. gallons of oil in a single discharge as described in § 112.1(b), or discharged more than 42 U.S. gallons of oil in each of two discharges as described in § 112.1(b), occurring within any twelve month period, submit the following information to the Regional Administrator within 60 days from the time the facility becomes subject to this section:

(1) Name of the facility;

(2) Your name;

(3) Location of the facility;

(4) Maximum storage or handling capacity of the facility and normal daily throughput;

(5) Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;

(6) An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;

(7) The cause of such discharge as described in § 112.1(b), including a failure analysis of the system or subsystem in which the failure occurred;

(8) Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence; and

(9) Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge.

(b) Take no action under this section until it applies to your facility. This section does not apply until the expiration of the time permitted for the initial preparation and implementation of the Plan under § 112.3, but not including any amendments to the Plan.

(c) Send to the appropriate agency or agencies in charge of oil pollution control activities in the State in which the facility is located a complete copy of all information you provided to the Regional Administrator under paragraph (a) of this section. Upon receipt of the information such State agency or agencies may conduct a review and make recommendations to the Regional Administrator as to further procedures, methods, equipment, and other requirements necessary to prevent and to contain discharges from your facility.

(d) Amend your Plan, if after review by the Regional Administrator of the information you submit under paragraph (a) of this section, or submission of information to EPA by the State agency under paragraph (c) of this section, or after on-site review of your Plan, the Regional Administrator requires that you do so. The Regional Administrator may require you to amend your Plan if he finds that it does not meet the requirements of this part or that amendment is necessary to prevent and contain discharges from your facility.

(e) Act in accordance with this paragraph when the Regional Administrator proposes by certified mail or by personal delivery that you amend your SPCC Plan. If the owner or operator is a corporation, he must also notify by mail the registered agent of such corporation, if any and if known, in the State in which the facility is located. The Regional Administrator must specify the terms of such proposed

amendment. Within 30 days from receipt of such notice, you may submit written information, views, and arguments on the proposed amendment. After considering all relevant material presented, the Regional Administrator must either notify you of any amendment required or rescind the notice. You must amend your Plan as required within 30 days after such notice, unless the Regional Administrator, for good cause, specifies another effective date. You must implement the amended Plan as soon as possible, but not later than six months after you amend your Plan, unless the Regional Administrator specifies another date.

(f) If you appeal a decision made by the Regional Administrator requiring an amendment to an SPCC Plan, send the appeal to the EPA Administrator in writing within 30 days of receipt of the notice from the Regional Administrator requiring the amendment under paragraph (e) of this section. You must send a complete copy of the appeal to the Regional Administrator at the time you make the appeal. The appeal must contain a clear and concise statement of the issues and points of fact in the case. It may also contain additional information from you, or from any other person. The EPA Administrator may request additional information from you, or from any other person. The EPA Administrator must render a decision within 60 days of receiving the appeal and must notify you of his decision.

§ 112.5 Amendment of Spill Prevention, Control, and Countermeasure Plan by owners or operators.

If you are the owner or operator of a facility subject to this part, you must:

(a) Amend the SPCC Plan for your facility in accordance with the general requirements in § 112.7, and with any specific section of this part applicable to your facility, when there is a change in the facility design, construction, operation, or maintenance that materially affects its potential for a discharge as described in § 112.1(b). Examples of changes that may require amendment of the Plan include, but are not limited to: commissioning or decommissioning containers; replacement, reconstruction, or movement of containers; reconstruction, replacement, or installation of piping systems; construction or demolition that might alter secondary containment structures; changes of product or service; or revision of standard operation or maintenance procedures at a facility. An amendment made under this section must be prepared within six months, and implemented as soon as possible, but not later than six months following preparation of the amendment.

(b) Notwithstanding compliance with paragraph (a) of this section, complete a review and evaluation of the SPCC Plan at least once every five years from the date your facility becomes subject to this part; or, if your facility was in operation on or before August 16, 2002, five years from the date your last review was required under this part. As a result of this review and evaluation, you must amend your SPCC Plan within six months of the review to include more effective prevention and control technology if the technology has been field-proven at the time of the review and will significantly reduce the likelihood of a discharge as described in § 112.1(b) from the facility. You must implement any amendment as soon as possible, but not later than six months following preparation of any amendment. You must document your completion of the review and evaluation, and must sign a statement as to whether you will amend the Plan, either at the beginning or end of the Plan or in a log or an appendix to the Plan. The following words will suffice, ''I have completed review and evaluation of the SPCC Plan for (name of facility) on (date), and will (will not) amend the Plan as a result.''

(c) Except as provided in § 112.6, have a Professional Engineer certify any technical amendments to your Plan in accordance with § 112.3(d).

[67 FR 47140, July 17, 2002, as amended at 71 FR 77291, Dec. 26, 2006; 73 FR 74301, Dec. 5, 2008; 74 FR 58809, Nov. 13, 2009]

§ 112.6 Qualified Facilities Plan Requirements.

Qualified facilities meeting the Tier I applicability criteria in § 112.3(g)(1) are

subject to the requirements in paragraph (a) of this section. Qualified facilities meeting the Tier II applicability criteria in § 112.3(g)(2) are subject to the requirements in paragraph (b) of this section.

(a) *Tier I Qualified Facilities*—(1) *Preparation and Self-Certification of the Plan*. If you are an owner or operator of a facility that meets the Tier I qualified facility criteria in § 112.3(g)(1), you must either: comply with the requirements of paragraph (a)(3) of this section; or prepare and implement a Plan meeting requirements of paragraph (b) of this section; or prepare and implement a Plan meeting the general Plan requirements in § 112.7 and applicable requirements in subparts B and C, including having the Plan certified by a Professional Engineer as required under § 112.3(d). If you do not follow the appendix G template, you must prepare an equivalent Plan that meets all of the applicable requirements listed in this part, and you must supplement it with a section cross-referencing the location of requirements listed in this part and the equivalent requirements in the other prevention plan. To complete the template in appendix G, you must certify that:

(i) You are familiar with the applicable requirements of 40 CFR part 112;

(ii) You have visited and examined the facility;

(iii) You prepared the Plan in accordance with accepted and sound industry practices and standards;

(iv) You have established procedures for required inspections and testing in accordance with industry inspection and testing standards or recommended practices;

(v) You will fully implement the Plan;

(vi) The facility meets the qualification criteria in § 112.3(g)(1);

(vii) The Plan does not deviate from any requirement of this part as allowed by § 112.7(a)(2) and 112.7(d) or include measures pursuant to § 112.9(c)(6) for produced water containers and any associated piping; and

(viii) The Plan and individual(s) responsible for implementing this Plan have the approval of management, and the facility owner or operator has committed the necessary resources to fully implement this Plan.

(2) *Technical Amendments*. You must certify any technical amendments to your Plan in accordance with paragraph (a)(1) of this section when there is a change in the facility design, construction, operation, or maintenance that affects its potential for a discharge as described in § 112.1(b). If the facility change results in the facility no longer meeting the Tier I qualifying criteria in § 112.3(g)(1) because an individual oil storage container capacity exceeds 5,000 U.S. gallons or the facility capacity exceeds 10,000 U.S. gallons in aggregate aboveground storage capacity, within six months following preparation of the amendment, you must either:

(i) Prepare and implement a Plan in accordance with § 112.6(b) if you meet the Tier II qualified facility criteria in § 112.3(g)(2); or

(ii) Prepare and implement a Plan in accordance with the general Plan requirements in § 112.7, and applicable requirements in subparts B and C, including having the Plan certified by a Professional Engineer as required under § 112.3(d).

(3) *Plan Template and Applicable Requirements*. Prepare and implement an SPCC Plan that meets the following requirements under § 112.7 and in subparts B and C of this part: introductory paragraph of §§ 112.7, 112.7(a)(3)(i), 112.7(a)(3)(iv), 112.7(a)(3)(vi), 112.7(a)(4), 112.7(a)(5), 112.7(c), 112.7(e), 112.7(f), 112.7(g), 112.7(k), 112.8(b)(1), 112.8(b)(2), 112.8(c)(1), 112.8(c)(3), 112.8(c)(4), 112.8(c)(5), 112.8(c)(6), 112.8(c)(10), 112.8(d)(4), 112.9(b), 112.9(c)(1), 112.9(c)(2), 112.9(c)(3), 112.9(c)(4), 112.9(c)(5), 112.9(d)(1), 112.9(d)(3), 112.9(d)(4), 112.10(b), 112.10(c), 112.10(d), 112.12(b)(1), 112.12(b)(2), 112.12(c)(1), 112.12(c)(3), 112.12(c)(4), 112.12(c)(5), 112.12(c)(6), 112.12(c)(10), and 112.12(d)(4). The template in appendix G to this part has been developed to meet the requirements of 40 CFR part 112 and, when completed and signed by the owner or operator, may be used as the SPCC Plan. Additionally, you must meet the following requirements:

(i) *Failure analysis, in lieu of the requirements in § 112.7(b)*. Where experience indicates a reasonable potential

for equipment failure (such as loading or unloading equipment, tank overflow, rupture, or leakage, or any other equipment known to be a source of discharge), include in your Plan a prediction of the direction and total quantity of oil which could be discharged from the facility as a result of each type of major equipment failure.

(ii) *Bulk storage container secondary containment, in lieu of the requirements in §§ 112.8(c)(2) and (c)(11) and 112.12(c)(2) and (c)(11).* Construct all bulk storage container installations (except mobile refuelers and other non-transportation-related tank trucks), including mobile or portable oil storage containers, so that you provide a secondary means of containment for the entire capacity of the largest single container plus additional capacity to contain precipitation. Dikes, containment curbs, and pits are commonly employed for this purpose. You may also use an alternative system consisting of a drainage trench enclosure that must be arranged so that any discharge will terminate and be safely confined in a catchment basin or holding pond. Position or locate mobile or portable oil storage containers to prevent a discharge as described in § 112.1(b).

(iii) *Overfill prevention, in lieu of the requirements in §§ 112.8(c)(8) and 112.12(c)(8).* Ensure that each container is provided with a system or documented procedure to prevent overfills of the container, describe the system or procedure in the SPCC Plan and regularly test to ensure proper operation or efficacy.

(b) *Tier II Qualified Facilities*—(1) *Preparation and Self-Certification of Plan.* If you are the owner or operator of a facility that meets the Tier II qualified facility criteria in § 112.3(g)(2), you may choose to self-certify your Plan. You must certify in the Plan that:

(i) You are familiar with the requirements of this part;

(ii) You have visited and examined the facility;

(iii) The Plan has been prepared in accordance with accepted and sound industry practices and standards, and with the requirements of this part;

(iv) Procedures for required inspections and testing have been established;

(v) You will fully implement the Plan;

(vi) The facility meets the qualification criteria set forth under § 112.3(g)(2);

(vii) The Plan does not deviate from any requirement of this part as allowed by § 112.7(a)(2) and 112.7(d) or include measures pursuant to § 112.9(c)(6) for produced water containers and any associated piping, except as provided in paragraph (b)(3) of this section; and

(viii) The Plan and individual(s) responsible for implementing the Plan have the full approval of management and the facility owner or operator has committed the necessary resources to fully implement the Plan.

(2) *Technical Amendments.* If you self-certify your Plan pursuant to paragraph (b)(1) of this section, you must certify any technical amendments to your Plan in accordance with paragraph (b)(1) of this section when there is a change in the facility design, construction, operation, or maintenance that affects its potential for a discharge as described in § 112.1(b), except:

(i) If a Professional Engineer certified a portion of your Plan in accordance with paragraph (b)(4) of this section, and the technical amendment affects this portion of the Plan, you must have the amended provisions of your Plan certified by a Professional Engineer in accordance with paragraph (b)(4)(ii) of this section.

(ii) If the change is such that the facility no longer meets the Tier II qualifying criteria in § 112.3(g)(2) because it exceeds 10,000 U.S. gallons in aggregate aboveground storage capacity you must, within six months following the change, prepare and implement a Plan in accordance with the general Plan requirements in § 112.7 and the applicable requirements in subparts B and C of this part, including having the Plan certified by a Professional Engineer as required under § 112.3(d).

(3) *Applicable Requirements.* Except as provided in this paragraph, your self-certified SPCC Plan must comply with § 112.7 and the applicable requirements in subparts B and C of this part:

(i) *Environmental Equivalence*. Your Plan may not include alternate methods which provide environmental equivalence pursuant to § 112.7(a)(2), unless each alternate method has been reviewed and certified in writing by a Professional Engineer, as provided in paragraph (b)(4) of this section.

(ii) *Impracticability*. Your Plan may not include any determinations that secondary containment is impracticable and provisions in lieu of secondary containment pursuant to § 112.7(d), unless each such determination and alternate measure has been reviewed and certified in writing by a Professional Engineer, as provided in paragraph (b)(4) of this section.

(iii) *Produced Water Containers*. Your Plan may not include any alternative procedures for skimming produced water containers in lieu of sized secondary containment pursuant to § 112.9(c)(6), unless they have been reviewed and certified in writing by a Professional Engineer, as provided in paragraph (b)(4) of this section.

(4) *Professional Engineer Certification of Portions of a Qualified Facility's Self-Certified Plan*.

(i) As described in paragraph (b)(3) of this section, the facility owner or operator may not self-certify alternative measures allowed under § 112.7(a)(2) or (d), that are included in the facility's Plan. Such measures must be reviewed and certified, in writing, by a licensed Professional Engineer. For each alternative measure allowed under § 112.7(a)(2), the Plan must be accompanied by a written statement by a Professional Engineer that states the reason for nonconformance and describes the alternative method and how it provides equivalent environmental protection in accordance with § 112.7(a)(2). For each determination of impracticability of secondary containment pursuant to § 112.7(d), the Plan must clearly explain why secondary containment measures are not practicable at this facility and provide the alternative measures required in § 112.7(d) in lieu of secondary containment. By certifying each measure allowed under § 112.7(a)(2) and (d), the Professional Engineer attests:

(A) That he is familiar with the requirements of this part;

(B) That he or his agent has visited and examined the facility; and

(C) That the alternative method of environmental equivalence in accordance with § 112.7(a)(2) or the determination of impracticability and alternative measures in accordance with § 112.7(d) is consistent with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part.

(ii) As described in paragraph (b)(3) of this section, the facility owner or operator may not self-certify measures as described in § 112.9(c)(6) for produced water containers and any associated piping. Such measures must be reviewed and certified, in writing, by a licensed Professional Engineer, in accordance with § 112.3(d)(1)(vi).

(iii) The review and certification by the Professional Engineer under this paragraph is limited to the alternative method which achieves equivalent environmental protection pursuant to § 112.7(a)(2); to the impracticability determination and measures in lieu of secondary containment pursuant to § 112.7(d); or the measures pursuant to § 112.9(c)(6) for produced water containers and any associated piping and appurtenances downstream from the container.

[73 FR 74302, Dec. 5, 2008, as amended at 74 FR 58810, Nov. 13, 2009]

§ 112.7 General requirements for Spill Prevention, Control, and Countermeasure Plans.

If you are the owner or operator of a facility subject to this part you must prepare a Plan in accordance with good engineering practices. The Plan must have the full approval of management at a level of authority to commit the necessary resources to fully implement the Plan. You must prepare the Plan in writing. If you do not follow the sequence specified in this section for the Plan, you must prepare an equivalent Plan acceptable to the Regional Administrator that meets all of the applicable requirements listed in this part, and you must supplement it with a section cross-referencing the location of requirements listed in this part and the equivalent requirements in the other prevention plan. If the Plan calls for additional facilities or procedures,

methods, or equipment not yet fully operational, you must discuss these items in separate paragraphs, and must explain separately the details of installation and operational start-up. As detailed elsewhere in this section, you must also:

(a)(1) Include a discussion of your facility's conformance with the requirements listed in this part.

(2) Comply with all applicable requirements listed in this part. Except as provided in § 112.6, your Plan may deviate from the requirements in paragraphs (g), (h)(2) and (3), and (i) of this section and the requirements in subparts B and C of this part, except the secondary containment requirements in paragraphs (c) and (h)(1) of this section, and §§ 112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.9(d)(3), 112.10(c), 112.12(c)(2), and 112.12(c)(11), where applicable to a specific facility, if you provide equivalent environmental protection by some other means of spill prevention, control, or countermeasure. Where your Plan does not conform to the applicable requirements in paragraphs (g), (h)(2) and (3), and (i) of this section, or the requirements of subparts B and C of this part, except the secondary containment requirements in paragraph (c) and (h)(1) of this section, and §§ 112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), and 112.12(c)(11), you must state the reasons for nonconformance in your Plan and describe in detail alternate methods and how you will achieve equivalent environmental protection. If the Regional Administrator determines that the measures described in your Plan do not provide equivalent environmental protection, he may require that you amend your Plan, following the procedures in § 112.4(d) and (e).

(3) Describe in your Plan the physical layout of the facility and include a facility diagram, which must mark the location and contents of each fixed oil storage container and the storage area where mobile or portable containers are located. The facility diagram must identify the location of and mark as ''exempt'' underground tanks that are otherwise exempted from the requirements of this part under § 112.1(d)(4). The facility diagram must also include all transfer stations and connecting pipes, including intra-facility gathering lines that are otherwise exempted from the requirements of this part under § 112.1(d)(11). You must also address in your Plan:

(i) The type of oil in each fixed container and its storage capacity. For mobile or portable containers, either provide the type of oil and storage capacity for each container or provide an estimate of the potential number of mobile or portable containers, the types of oil, and anticipated storage capacities;

(ii) Discharge prevention measures including procedures for routine handling of products (loading, unloading, and facility transfers, etc.);

(iii) Discharge or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of a discharge;

(iv) Countermeasures for discharge discovery, response, and cleanup (both the facility's capability and those that might be required of a contractor);

(v) Methods of disposal of recovered materials in accordance with applicable legal requirements; and

(vi) Contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors with whom you have an agreement for response, and all appropriate Federal, State, and local agencies who must be contacted in case of a discharge as described in § 112.1(b).

(4) Unless you have submitted a response plan under § 112.20, provide information and procedures in your Plan to enable a person reporting a discharge as described in § 112.1(b) to relate information on the exact address or location and phone number of the facility; the date and time of the discharge, the type of material discharged; estimates of the total quantity discharged; estimates of the quantity discharged as described in § 112.1(b); the source of the discharge; a description of all affected media; the cause of the discharge; any damages or injuries caused by the discharge; actions being used to stop, remove, and mitigate the effects of the discharge; whether an evacuation may be needed;

and, the names of individuals and/or organizations who have also been contacted.

(5) Unless you have submitted a response plan under § 112.20, organize portions of the Plan describing procedures you will use when a discharge occurs in a way that will make them readily usable in an emergency, and include appropriate supporting material as appendices.

(b) Where experience indicates a reasonable potential for equipment failure (such as loading or unloading equipment, tank overflow, rupture, or leakage, or any other equipment known to be a source of a discharge), include in your Plan a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each type of major equipment failure.

(c) Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in § 112.1(b), except as provided in paragraph (k) of this section for qualified oil-filled operational equipment, and except as provided in § 112.9(d)(3) for flowlines and intra-facility gathering lines at an oil production facility. The entire containment system, including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary containment system, such as a tank, will not escape the containment system before cleanup occurs. In determining the method, design, and capacity for secondary containment, you need only to address the typical failure mode, and the most likely quantity of oil that would be discharged. Secondary containment may be either active or passive in design. At a minimum, you must use one of the following prevention systems or its equivalent:

(1) For onshore facilities:

(i) Dikes, berms, or retaining walls sufficiently impervious to contain oil;

(ii) Curbing or drip pans;

(iii) Sumps and collection systems;

(iv) Culverting, gutters, or other drainage systems;

(v) Weirs, booms, or other barriers;

(vi) Spill diversion ponds;

(vii) Retention ponds; or

(viii) Sorbent materials.

(2) For offshore facilities:

(i) Curbing or drip pans; or

(ii) Sumps and collection systems.

(d) Provided your Plan is certified by a licensed Professional Engineer under § 112.3(d), or, in the case of a qualified facility that meets the criteria in § 112.3(g), the relevant sections of your Plan are certified by a licensed Professional Engineer under § 112.6(d), if you determine that the installation of any of the structures or pieces of equipment listed in paragraphs (c) and (h)(1) of this section, and §§ 112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), and 112.12(c)(11) to prevent a discharge as described in § 112.1(b) from any onshore or offshore facility is not practicable, you must clearly explain in your Plan why such measures are not practicable; for bulk storage containers, conduct both periodic integrity testing of the containers and periodic integrity and leak testing of the valves and piping; and, unless you have submitted a response plan under § 112.20, provide in your Plan the following:

(1) An oil spill contingency plan following the provisions of part 109 of this chapter.

(2) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.

(e) *Inspections, tests, and records.* Conduct inspections and tests required by this part in accordance with written procedures that you or the certifying engineer develop for the facility. You must keep these written procedures and a record of the inspections and tests, signed by the appropriate supervisor or inspector, with the SPCC Plan for a period of three years. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.

(f) *Personnel, training, and discharge prevention procedures.* (1) At a minimum, train your oil-handling personnel 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.

(2) Designate a person at each applicable facility who is accountable for discharge prevention and who reports to facility management.

(3) Schedule and conduct discharge prevention briefings for your oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan for that facility. Such briefings must highlight and describe known discharges as described in §112.1(b) or failures, malfunctioning components, and any recently developed precautionary measures.

(g) *Security (excluding oil production facilities).* Describe in your Plan how you secure and control access to the oil handling, processing and storage areas; secure master flow and drain valves; prevent unauthorized access to starter controls on oil pumps; secure out-of-service and loading/unloading connections of oil pipelines; and address the appropriateness of security lighting to both prevent acts of vandalism and assist in the discovery of oil discharges.

(h) *Facility tank car and tank truck loading/unloading rack (excluding offshore facilities).*

(1) Where loading/unloading rack drainage does not flow into a catchment basin or treatment facility designed to handle discharges, use a quick drainage system for tank car or tank truck loading/unloading racks. You must design any containment system to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility.

(2) Provide an interlocked warning light or physical barrier system, warning signs, wheel chocks or vehicle brake interlock system in the area adjacent to a loading/unloading rack, to prevent vehicles from departing before complete disconnection of flexible or fixed oil transfer lines.

(3) Prior to filling and departure of any tank car or tank truck, closely inspect for discharges the lowermost drain and all outlets of such vehicles, and if necessary, ensure that they are tightened, adjusted, or replaced to prevent liquid discharge while in transit.

(i) If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or a change in service that might affect the risk of a discharge or failure due to brittle fracture or other catastrophe, or has discharged oil or failed due to brittle fracture failure or other catastrophe, evaluate the container for risk of discharge or failure due to brittle fracture or other catastrophe, and as necessary, take appropriate action.

(j) In addition to the minimal prevention standards listed under this section, include in your Plan a complete discussion of conformance with the applicable requirements and other effective discharge prevention and containment procedures listed in this part or any applicable more stringent State rules, regulations, and guidelines.

(k) *Qualified Oil-filled Operational Equipment.* The owner or operator of a facility with oil-filled operational equipment that meets the qualification criteria in paragraph (k)(1) of this subsection may choose to implement for this qualified oil-filled operational equipment the alternate requirements as described in paragraph (k)(2) of this sub-section in lieu of general secondary containment required in paragraph (c) of this section.

(1) *Qualification Criteria—Reportable Discharge History:* The owner or operator of a facility that has had no single discharge as described in §112.1(b) from any oil-filled operational equipment exceeding 1,000 U.S. gallons or no two discharges as described in §112.1(b) from any oil-filled operational equipment each exceeding 42 U.S. gallons within any twelve month period in the three years prior to the SPCC Plan certification date, or since becoming subject to this part if the facility has been in operation for less than three years (other than oil discharges as described in §112.1(b) that are the result of natural disasters, acts of war or terrorism); and

(2) *Alternative Requirements to General Secondary Containment.* If secondary containment is not provided for qualified oil-filled operational equipment pursuant to paragraph (c) of this section, the owner or operator of a facility with qualified oil-filled operational equipment must:

(i) Establish and document the facility procedures for inspections or a monitoring program to detect equipment failure and/or a discharge; and

(ii) Unless you have submitted a response plan under §112.20, provide in your Plan the following:

(A) An oil spill contingency plan following the provisions of part 109 of this chapter.

(B) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.

[67 FR 47140, July 17, 2002, as amended at 71 FR 77292, Dec. 26, 2006; 73 FR 74303, Dec. 5, 2008; 74 FR 58810, Nov. 13, 2009]

Subpart B—Requirements for Petroleum Oils and Non-Petroleum Oils, Except Animal Fats and Oils and Greases, and Fish and Marine Mammal Oils; and Vegetable Oils (Including Oils from Seeds, Nuts, Fruits, and Kernels)

SOURCE: 67 FR 47146, July 17, 2002, unless otherwise noted.

§112.8 Spill Prevention, Control, and Countermeasure Plan requirements for onshore facilities (excluding production facilities).

If you are the owner or operator of an onshore facility (excluding a production facility), you must:

(a) Meet the general requirements for the Plan listed under §112.7, and the specific discharge prevention and containment procedures listed in this section.

(b) *Facility drainage.* (1) Restrain drainage from diked storage areas by valves to prevent a discharge into the drainage system or facility effluent treatment system, except where facility systems are designed to control such discharge. You may empty diked areas by pumps or ejectors; however, you must manually activate these pumps or ejectors and must inspect the condition of the accumulation before starting, to ensure no oil will be discharged.

(2) Use valves of manual, open-and-closed design, for the drainage of diked areas. You may not use flapper-type drain valves to drain diked areas. If your facility drainage drains directly into a watercourse and not into an onsite wastewater treatment plant, you must inspect and may drain uncontaminated retained stormwater, as provided in paragraphs (c)(3)(ii), (iii), and (iv) of this section.

(3) Design facility drainage systems from undiked areas with a potential for a discharge (such as where piping is located outside containment walls or where tank truck discharges may occur outside the loading area) to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility. You must not locate catchment basins in areas subject to periodic flooding.

(4) If facility drainage is not engineered as in paragraph (b)(3) of this section, equip the final discharge of all ditches inside the facility with a diversion system that would, in the event of an uncontrolled discharge, retain oil in the facility.

(5) Where drainage waters are treated in more than one treatment unit and such treatment is continuous, and pump transfer is needed, provide two ''lift'' pumps and permanently install at least one of the pumps. Whatever techniques you use, you must engineer facility drainage systems to prevent a discharge as described in §112.1(b) in case there is an equipment failure or human error at the facility.

(c) *Bulk storage containers.* (1) Not use a container for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature.

(2) Construct all bulk storage tank installations (except mobile refuelers and other non-transportation-related tank trucks) so that you provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must ensure that diked areas are sufficiently impervious to contain discharged oil. Dikes, containment curbs, and pits are commonly employed for this purpose. You may also use an alternative system consisting of a drainage trench enclosure that must be arranged so that any discharge will terminate and be safely confined in a facility catchment basin or holding pond.

(3) Not allow drainage of uncontaminated rainwater from the diked area into a storm drain or discharge of an effluent into an open watercourse, lake, or pond, bypassing the facility treatment system unless you:

(i) Normally keep the bypass valve sealed closed.

(ii) Inspect the retained rainwater to ensure that its presence will not cause a discharge as described in § 112.1(b).

(iii) Open the bypass valve and reseal it following drainage under responsible supervision; and

(iv) Keep adequate records of such events, for example, any records required under permits issued in accordance with §§ 122.41(j)(2) and 122.41(m)(3) of this chapter.

(4) Protect any completely buried metallic storage tank installed on or after January 10, 1974 from corrosion by coatings or cathodic protection compatible with local soil conditions. You must regularly leak test such completely buried metallic storage tanks.

(5) Not use partially buried or bunkered metallic tanks for the storage of oil, unless you protect the buried section of the tank from corrosion. You must protect partially buried and bunkered tanks from corrosion by coatings or cathodic protection compatible with local soil conditions.

(6) Test or inspect each aboveground container for integrity on a regular schedule and whenever you make material repairs. You must determine, in accordance with industry standards, the appropriate qualifications for personnel performing tests and inspections, the frequency and type of testing and inspections, which take into account container size, configuration, and design (such as containers that are: shop-built, field-erected, skid-mounted, elevated, equipped with a liner, double-walled, or partially buried). Examples of these integrity tests include, but are not limited to: visual inspection, hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or other systems of non-destructive testing. You must keep comparison records and you must also inspect the container's supports and foundations. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of inspections and tests kept under usual and customary business practices satisfy the recordkeeping requirements of this paragraph.

(7) Control leakage through defective internal heating coils by monitoring the steam return and exhaust lines for contamination from internal heating coils that discharge into an open watercourse, or pass the steam return or exhaust lines through a settling tank, skimmer, or other separation or retention system.

(8) Engineer or update each container installation in accordance with good engineering practice to avoid discharges. You must provide at least one of the following devices:

(i) High liquid level alarms with an audible or visual signal at a constantly attended operation or surveillance station. In smaller facilities an audible air vent may suffice.

(ii) High liquid level pump cutoff devices set to stop flow at a predetermined container content level.

(iii) Direct audible or code signal communication between the container gauger and the pumping station.

(iv) A fast response system for determining the liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If you use this alternative, a person must be present to monitor gauges and the overall filling of bulk storage containers.

(v) You must regularly test liquid level sensing devices to ensure proper operation.

(9) Observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge as described in § 112.1(b).

(10) Promptly correct visible discharges which result in a loss of oil from the container, including but not limited to seams, gaskets, piping, pumps, valves, rivets, and bolts. You must promptly remove any accumulations of oil in diked areas.

(11) Position or locate mobile or portable oil storage containers to prevent a discharge as described in § 112.1(b). Except for mobile refuelers and other non-transportation-related tank

trucks, you must furnish a secondary means of containment, such as a dike or catchment basin, sufficient to contain the capacity of the largest single compartment or container with sufficient freeboard to contain precipitation.

(d) *Facility transfer operations, pumping, and facility process.* (1) Provide buried piping that is installed or replaced on or after August 16, 2002, with a protective wrapping and coating. You must also cathodically protect such buried piping installations or otherwise satisfy the corrosion protection standards for piping in part 280 of this chapter or a State program approved under part 281 of this chapter. If a section of buried line is exposed for any reason, you must carefully inspect it for deterioration. If you find corrosion damage, you must undertake additional examination and corrective action as indicated by the magnitude of the damage.

(2) Cap or blank-flange the terminal connection at the transfer point and mark it as to origin when piping is not in service or is in standby service for an extended time.

(3) Properly design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction.

(4) Regularly inspect all aboveground valves, piping, and appurtenances. During the inspection you must assess the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. You must also conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement.

(5) Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations.

[67 FR 47146, July 17, 2002, as amended at 71 FR 77293, Dec. 26, 2006; 73 FR 74304, Dec. 5, 2008]

§ 112.9 Spill Prevention, Control, and Countermeasure Plan Requirements for onshore oil production facilities (excluding drilling and workover facilities).

If you are the owner or operator of an onshore oil production facility (excluding a drilling or workover facility), you must:

(a) Meet the general requirements for the Plan listed under § 112.7, and the specific discharge prevention and containment procedures listed under this section.

(b) *Oil production facility drainage.* (1) At tank batteries and separation and treating areas where there is a reasonable possibility of a discharge as described in § 112.1(b), close and seal at all times drains of dikes or drains of equivalent measures required under § 112.7(c)(1), except when draining uncontaminated rainwater. Prior to drainage, you must inspect the diked area and take action as provided in § 112.8(c)(3)(ii), (iii), and (iv). You must remove accumulated oil on the rainwater and return it to storage or dispose of it in accordance with legally approved methods.

(2) Inspect at regularly scheduled intervals field drainage systems (such as drainage ditches or road ditches), and oil traps, sumps, or skimmers, for an accumulation of oil that may have resulted from any small discharge. You must promptly remove any accumulations of oil.

(c) *Oil production facility bulk storage containers.* (1) Not use a container for the storage of oil unless its material and construction are compatible with the material stored and the conditions of storage.

(2) Except as described in paragraph (c)(5) of this section for flow-through process vessels and paragraph (c)(6) of this section for produced water containers and any associated piping and appurtenances downstream from the container, construct all tank battery, separation, and treating facility installations, so that you provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must safely confine drainage from undiked areas in a catchment basin or holding pond.

(3) Except as described in paragraph (c)(5) of this section for flow-through process vessels and paragraph (c)(6) of this section for produced water containers and any associated piping and appurtenances downstream from the

container, periodically and upon a regular schedule visually inspect each container of oil for deterioration and maintenance needs, including the foundation and support of each container that is on or above the surface of the ground.

(4) Engineer or update new and old tank battery installations in accordance with good engineering practice to prevent discharges. You must provide at least one of the following:

(i) Container capacity adequate to assure that a container will not overfill if a pumper/gauger is delayed in making regularly scheduled rounds.

(ii) Overflow equalizing lines between containers so that a full container can overflow to an adjacent container.

(iii) Vacuum protection adequate to prevent container collapse during a pipeline run or other transfer of oil from the container.

(iv) High level sensors to generate and transmit an alarm signal to the computer where the facility is subject to a computer production control system.

(5) *Flow-through process vessels.* The owner or operator of a facility with flow-through process vessels may choose to implement the alternate requirements as described below in lieu of sized secondary containment required in paragraphs (c)(2) and (c)(3) of this section.

(i) Periodically and on a regular schedule visually inspect and/or test flow-through process vessels and associated components (such as dump valves) for leaks, corrosion, or other conditions that could lead to a discharge as described in § 112.1(b).

(ii) Take corrective action or make repairs to flow-through process vessels and any associated components as indicated by regularly scheduled visual inspections, tests, or evidence of an oil discharge.

(iii) Promptly remove or initiate actions to stabilize and remediate any accumulations of oil discharges associated with flow-through process vessels.

(iv) If your facility discharges more than 1,000 U.S. gallons of oil in a single discharge as described in § 112.1(b), or discharges more than 42 U.S. gallons of oil in each of two discharges as described in § 112.1(b) within any twelve month period, from flow-through process vessels (excluding discharges that are the result of natural disasters, acts of war, or terrorism) then you must, within six months from the time the facility becomes subject to this paragraph, ensure that all flow-through process vessels subject to this subpart comply with § 112.9(c)(2) and (c)(3).

(6) *Produced water containers.* For each produced water container, comply with § 112.9(c)(1) and (c)(4); and § 112.9(c)(2) and (c)(3), or comply with the provisions of the following paragraphs (c)(6)(i) through (v):

(i) Implement, on a regular schedule, a procedure for each produced water container that is designed to separate the free-phase oil that accumulates on the surface of the produced water. Include in the Plan a description of the procedures, frequency, amount of free-phase oil expected to be maintained inside the container, and a Professional Engineer certification in accordance with § 112.3(d)(1)(vi). Maintain records of such events in accordance with § 112.7(e). Records kept under usual and customary business practices will suffice for purposes of this paragraph. If this procedure is not implemented as described in the Plan or no records are maintained, then you must comply with § 112.9(c)(2) and (c)(3).

(ii) On a regular schedule, visually inspect and/or test the produced water container and associated piping for leaks, corrosion, or other conditions that could lead to a discharge as described in § 112.1(b) in accordance with good engineering practice.

(iii) Take corrective action or make repairs to the produced water container and any associated piping as indicated by regularly scheduled visual inspections, tests, or evidence of an oil discharge.

(iv) Promptly remove or initiate actions to stabilize and remediate any accumulations of oil discharges associated with the produced water container.

(v) If your facility discharges more than 1,000 U.S. gallons of oil in a single discharge as described in § 112.1(b), or discharges more than 42 U.S. gallons of oil in each of two discharges as described in § 112.1(b) within any twelve month period from a produced water

container subject to this subpart (excluding discharges that are the result of natural disasters, acts of war, or terrorism) then you must, within six months from the time the facility becomes subject to this paragraph, ensure that all produced water containers subject to this subpart comply with § 112.9(c)(2) and (c)(3).

(d) *Facility transfer operations, oil production facility*. (1) Periodically and upon a regular schedule inspect all aboveground valves and piping associated with transfer operations for the general condition of flange joints, valve glands and bodies, drip pans, pipe supports, pumping well polish rod stuffing boxes, bleeder and gauge valves, and other such items.

(2) Inspect saltwater (oil field brine) disposal facilities often, particularly following a sudden change in atmospheric temperature, to detect possible system upsets capable of causing a discharge.

(3) For flowlines and intra-facility gathering lines that are not provided with secondary containment in accordance with § 112.7(c), unless you have submitted a response plan under § 112.20, provide in your Plan the following:

(i) An oil spill contingency plan following the provisions of part 109 of this chapter.

(ii) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that might be harmful.

(4) Prepare and implement a written program of flowline/intra-facility gathering line maintenance. The maintenance program must address your procedures to:

(i) Ensure that flowlines and intra-facility gathering lines and associated valves and equipment are compatible with the type of production fluids, their potential corrosivity, volume, and pressure, and other conditions expected in the operational environment.

(ii) Visually inspect and/or test flowlines and intra-facility gathering lines and associated appurtenances on a periodic and regular schedule for leaks, oil discharges, corrosion, or other conditions that could lead to a discharge as described in § 112.1(b). For flowlines and intra-facility gathering lines that are not provided with secondary containment in accordance with § 112.7(c), the frequency and type of testing must allow for the implementation of a contingency plan as described under part 109 of this chapter.

(iii) Take corrective action or make repairs to any flowlines and intra-facility gathering lines and associated appurtenances as indicated by regularly scheduled visual inspections, tests, or evidence of a discharge.

(iv) Promptly remove or initiate actions to stabilize and remediate any accumulations of oil discharges associated with flowlines, intra-facility gathering lines, and associated appurtenances.

[73 FR, 74304, Dec. 5, 2008, as amended at 74 FR 58810, Nov. 13, 2009]

§ 112.10 Spill Prevention, Control, and Countermeasure Plan requirements for onshore oil drilling and workover facilities.

If you are the owner or operator of an onshore oil drilling and workover facility, you must:

(a) Meet the general requirements listed under § 112.7, and also meet the specific discharge prevention and containment procedures listed under this section.

(b) Position or locate mobile drilling or workover equipment so as to prevent a discharge as described in § 112.1(b).

(c) Provide catchment basins or diversion structures to intercept and contain discharges of fuel, crude oil, or oily drilling fluids.

(d) Install a blowout prevention (BOP) assembly and well control system before drilling below any casing string or during workover operations. The BOP assembly and well control system must be capable of controlling any well-head pressure that may be encountered while that BOP assembly and well control system are on the well.

§ 112.11 Spill Prevention, Control, and Countermeasure Plan requirements for offshore oil drilling, production, or workover facilities.

If you are the owner or operator of an offshore oil drilling, production, or workover facility, you must:

(a) Meet the general requirements listed under § 112.7, and also meet the specific discharge prevention and containment procedures listed under this section.

(b) Use oil drainage collection equipment to prevent and control small oil discharges around pumps, glands, valves, flanges, expansion joints, hoses, drain lines, separators, treaters, tanks, and associated equipment. You must control and direct facility drains toward a central collection sump to prevent the facility from having a discharge as described in § 112.1(b). Where drains and sumps are not practicable, you must remove oil contained in collection equipment as often as necessary to prevent overflow.

(c) For facilities employing a sump system, provide adequately sized sump and drains and make available a spare pump to remove liquid from the sump and assure that oil does not escape. You must employ a regularly scheduled preventive maintenance inspection and testing program to assure reliable operation of the liquid removal system and pump start-up device. Redundant automatic sump pumps and control devices may be required on some installations.

(d) At facilities with areas where separators and treaters are equipped with dump valves which predominantly fail in the closed position and where pollution risk is high, specially equip the facility to prevent the discharge of oil. You must prevent the discharge of oil by:

(1) Extending the flare line to a diked area if the separator is near shore;

(2) Equipping the separator with a high liquid level sensor that will automatically shut in wells producing to the separator; or

(3) Installing parallel redundant dump valves.

(e) Equip atmospheric storage or surge containers with high liquid level sensing devices that activate an alarm or control the flow, or otherwise prevent discharges.

(f) Equip pressure containers with high and low pressure sensing devices that activate an alarm or control the flow.

(g) Equip containers with suitable corrosion protection.

(h) Prepare and maintain at the facility a written procedure within the Plan for inspecting and testing pollution prevention equipment and systems.

(i) Conduct testing and inspection of the pollution prevention equipment and systems at the facility on a scheduled periodic basis, commensurate with the complexity, conditions, and circumstances of the facility and any other appropriate regulations. You must use simulated discharges for testing and inspecting human and equipment pollution control and countermeasure systems.

(j) Describe in detailed records surface and subsurface well shut-in valves and devices in use at the facility for each well sufficiently to determine their method of activation or control, such as pressure differential, change in fluid or flow conditions, combination of pressure and flow, manual or remote control mechanisms.

(k) Install a BOP assembly and well control system during workover operations and before drilling below any casing string. The BOP assembly and well control system must be capable of controlling any well-head pressure that may be encountered while the BOP assembly and well control system are on the well.

(l) Equip all manifolds (headers) with check valves on individual flowlines.

(m) Equip the flowline with a high pressure sensing device and shut-in valve at the wellhead if the shut-in well pressure is greater than the working pressure of the flowline and manifold valves up to and including the header valves. Alternatively you may provide a pressure relief system for flowlines.

(n) Protect all piping appurtenant to the facility from corrosion, such as with protective coatings or cathodic protection.

(o) Adequately protect sub-marine piping appurtenant to the facility against environmental stresses and

other activities such as fishing operations.

(p) Maintain sub-marine piping appurtenant to the facility in good operating condition at all times. You must periodically and according to a schedule inspect or test such piping for failures. You must document and keep a record of such inspections or tests at the facility.

Subpart C—Requirements for Animal Fats and Oils and Greases, and Fish and Marine Mammal Oils; and for Vegetable Oils, including Oils from Seeds, Nuts, Fruits, and Kernels

SOURCE: 67 FR 57149, July 17, 2002, unless otherwise noted.

§ 112.12 Spill Prevention, Control, and Countermeasure Plan requirements.

If you are the owner or operator of an onshore facility, you must:

(a) Meet the general requirements for the Plan listed under § 112.7, and the specific discharge prevention and containment procedures listed in this section.

(b) *Facility drainage.* (1) Restrain drainage from diked storage areas by valves to prevent a discharge into the drainage system or facility effluent treatment system, except where facility systems are designed to control such discharge. You may empty diked areas by pumps or ejectors; however, you must manually activate these pumps or ejectors and must inspect the condition of the accumulation before starting, to ensure no oil will be discharged.

(2) Use valves of manual, open-and-closed design, for the drainage of diked areas. You may not use flapper-type drain valves to drain diked areas. If your facility drainage drains directly into a watercourse and not into an on-site wastewater treatment plant, you must inspect and may drain uncontaminated retained stormwater, subject to the requirements of paragraphs (c)(3)(ii), (iii), and (iv) of this section.

(3) Design facility drainage systems from undiked areas with a potential for a discharge (such as where piping is located outside containment walls or where tank truck discharges may occur outside the loading area) to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility. You must not locate catchment basins in areas subject to periodic flooding.

(4) If facility drainage is not engineered as in paragraph (b)(3) of this section, equip the final discharge of all ditches inside the facility with a diversion system that would, in the event of an uncontrolled discharge, retain oil in the facility.

(5) Where drainage waters are treated in more than one treatment unit and such treatment is continuous, and pump transfer is needed, provide two ''lift'' pumps and permanently install at least one of the pumps. Whatever techniques you use, you must engineer facility drainage systems to prevent a discharge as described in § 112.1(b) in case there is an equipment failure or human error at the facility.

(c) *Bulk storage containers.* (1) Not use a container for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature.

(2) Construct all bulk storage tank installations (except mobile refuelers and other non-transportation-related tank trucks) so that you provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must ensure that diked areas are sufficiently impervious to contain discharged oil. Dikes, containment curbs, and pits are commonly employed for this purpose. You may also use an alternative system consisting of a drainage trench enclosure that must be arranged so that any discharge will terminate and be safely confined in a facility catchment basin or holding pond.

(3) Not allow drainage of uncontaminated rainwater from the diked area into a storm drain or discharge of an effluent into an open watercourse, lake, or pond, bypassing the facility treatment system unless you:

(i) Normally keep the bypass valve sealed closed.

(ii) Inspect the retained rainwater to ensure that its presence will not cause a discharge as described in § 112.1(b).

(iii) Open the bypass valve and reseal it following drainage under responsible supervision; and

(iv) Keep adequate records of such events, for example, any records required under permits issued in accordance with §§ 122.41(j)(2) and 122.41(m)(3) of this chapter.

(4) Protect any completely buried metallic storage tank installed on or after January 10, 1974 from corrosion by coatings or cathodic protection compatible with local soil conditions. You must regularly leak test such completely buried metallic storage tanks.

(5) Not use partially buried or bunkered metallic tanks for the storage of oil, unless you protect the buried section of the tank from corrosion. You must protect partially buried and bunkered tanks from corrosion by coatings or cathodic protection compatible with local soil conditions.

(6) *Bulk storage container inspections.*

(i) Except for containers that meet the criteria provided in paragraph (c)(6)(ii) of this section, test or inspect each aboveground container for integrity on a regular schedule and whenever you make material repairs. You must determine, in accordance with industry standards, the appropriate qualifications for personnel performing tests and inspections, the frequency and type of testing and inspections, which take into account container size, configuration, and design (such as containers that are: shop-built, field-erected, skid-mounted, elevated, equipped with a liner, double-walled, or partially buried). Examples of these integrity tests include, but are not limited to: Visual inspection, hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or other systems of non-destructive testing. You must keep comparison records and you must also inspect the container's supports and foundations. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of inspections and tests kept under usual and customary business practices satisfy the recordkeeping requirements of this paragraph.

(ii) For bulk storage containers that are subject to 21 CFR part 110, are elevated, constructed of austenitic stainless steel, have no external insulation, and are shop-fabricated, conduct formal visual inspection on a regular schedule. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. You must determine and document in the Plan the appropriate qualifications for personnel performing tests and inspections. Records of inspections and tests kept under usual and customary business practices satisfy the recordkeeping requirements of this paragraph (c)(6).

(7) Control leakage through defective internal heating coils by monitoring the steam return and exhaust lines for contamination from internal heating coils that discharge into an open watercourse, or pass the steam return or exhaust lines through a settling tank, skimmer, or other separation or retention system.

(8) Engineer or update each container installation in accordance with good engineering practice to avoid discharges. You must provide at least one of the following devices:

(i) High liquid level alarms with an audible or visual signal at a constantly attended operation or surveillance station. In smaller facilities an audible air vent may suffice.

(ii) High liquid level pump cutoff devices set to stop flow at a predetermined container content level.

(iii) Direct audible or code signal communication between the container gauger and the pumping station.

(iv) A fast response system for determining the liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If you use this alternative, a person must be present to monitor gauges and the overall filling of bulk storage containers.

(v) You must regularly test liquid level sensing devices to ensure proper operation.

Appendix K:

Naval Air Station Corpus Christi Release Detection Response Levels

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REPORTABLE QUANTITY
NAVAL AIR STATION CORPUS CHRISTI

Facility Name: Naval Air Station Corpus Christi Emergency Contact: 911 (NASCC Fire Department)

Upon determining that a reportable discharge or spill has occurred, the responsible person must notify the state. The threshold quantity that triggers the requirement to report a spill is called the reportable quantity (RQ). The reportable quantity depends on the type of substance released and where released (e.g. into water vs. on land); different kinds of spills are subject to different provisions of state and federal rules.

- State of Texas Spill-Reporting 800-832-8224

Type of Spill	Where discharged	Reportable Quantity	Rule, or responsible agency
Any oil	Coastal waters	Visible sheen or film	Texas General Land Office 31 TAC 19
Petroleum product, used oil	Onto land	25 gallons	30 TAC 327
Petroleum product, used oil	Directly into water	Visible sheen or film	30 TAC 327
Petroleum Storage tanks (USTs or ASTs)	Onto land	25 gallons	30 TAC 334
Petroleum Storage tanks (USTs or ASTs)	Into water	Visible sheen	30 TAC 334

State of Texas Spill-Reporting Hotline 800-832-8224, Since the Texas Commission on Environmental Quality (TCEQ) is part of the State Emergency Response Commission (SERC), reporting a spill to the State's spill reporting hot line, 1-800-832-8224, constitutes reporting to the SERC.

Texas General Land Office (GLO)
The GLO is the state's lead agency for responding to oil spills that enter, or threaten to enter, coastal waters. When oil spills into coastal waters, the Oil Spill Prevention and Response Program goes into action, working with the United States Coast Guard and the responsible party and directing resources aimed at stopping, containing and cleaning up oil spills.

Texas Commission on Environmental Quality (TCEQ) Emergency Response
The TCEQ is the state's lead agency in responding to spills of all hazardous substances, including refined petroleum products from pipelines; releases of crude oil being transported over the roadway; and discharges of any other substances that may cause pollution or that may harm air quality.

31 TAC 19.2 Definitions
Harmful quantity of oil--The presence of oil from an unauthorized discharge in a quantity sufficient either to create a visible film or sheen upon or discoloration of the surface of the water or a shoreline, tidal flat, beach, or marsh, or to cause a sludge or emulsion to be deposited beneath the surface of the water or on a shoreline, tidal flat, beach, or marsh.

30 TAC 327.4 Reportable Quantities
The RQ for petroleum product and used oil shall be:

- for spills or discharges onto land--25 gallons; or
- for spills or discharges directly into water in the state--quantity sufficient to create a sheen.

30 TAC 334.75 Reporting of Surface Spills and Overfills
Owners and operators of aboveground storage tanks (AST) and underground storage tank (UST) systems must contain and immediately clean up a spill or overfill, report the spill or overfill to the agency within 24 hours, and begin corrective action in the following cases:

REPORTABLE QUANTITY
NAVAL AIR STATION CORPUS CHRISTI

(1) any spill or overfill of petroleum substance from an UST or any spill or overfill of petroleum product from an AST that results in a release to the environment that exceeds 25 gallons, or that causes a sheen on nearby surface water; and

(2) any spill or overfill of a hazardous substance that results in a release from an UST to the environment that equals or exceeds its reportable quantity under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (40 Code of Federal Regulations (CFR) Part 302).