

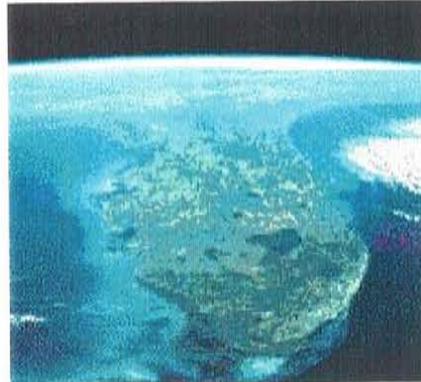
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TANK MANAGEMENT PLAN VOLUME 1 OF 2 GENERAL INFORMATION NAS KEY WEST FL
2/1/2001
BLASLAND, BOUCK AND LEE



TANK MANAGEMENT PLAN

Volume I: General Information



Naval Air Station Key West
Public Works Department
Key West, Florida

February 2001

TANK MANAGEMENT PLAN

NAVAL AIR STATION KEY WEST
KEY WEST, FLORIDA

Prepared For:

NAVAL AIR STATION
PUBLIC WORKS DEPARTMENT
CODE 1883
P.O. BOX 9007
KEY WEST, FLORIDA 33040

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Table of Contents

Executive Summary Acronyms

Volume I

| | |
|--|------------|
| Section 1. Introduction | 1-1 |
| 1.1 Objective | 1-1 |
| 1.2 Background and Base Description | 1-1 |
| 1.3 Project Approach | 1-2 |
| Section 2. Record-Keeping | 2-1 |
| 2.1 Tank Inventory and Management System | 2-1 |
| 2.1.1 NAS Key West TIMS | 2-2 |
| 2.2 Current NAS Key West Tank Management Record-Keeping | 2-3 |
| Section 3. Regulatory Requirements | 3-1 |
| 3.1 Petroleum Storage System (UST/AST) Regulatory Overview | 3-1 |
| 3.2 Chapter 62-761, FAC Summary | 3-1 |
| 3.2.1 Tank Registration | 3-1 |
| 3.2.2 Performance Standards | 3-1 |
| 3.2.3 Release Detection | 3-1 |
| 3.2.4 Repairs, Operation and Maintenance (O&M) | 3-2 |
| 3.2.5 Inspections and Records | 3-2 |
| 3.2.6 Out-of-Service and Closure Requirements | 3-3 |
| 3.2.7 Incident and Discharge Response | 3-3 |
| 3.3 Security | 3-3 |
| 3.4 Personnel Training and SPCC Procedures | 3-3 |
| 3.5 Regulatory Websites | 3-3 |
| Section 4. NAS Key West Petroleum Tanks | 4-1 |
| 4.1 Existing Tanks | 4-1 |
| 4.2 Closed Tanks | 4-2 |
| 4.3 Proposed Tanks | 4-3 |
| Section 5. Tank Program Recommendations | 5-1 |

References

Volume II

| | |
|--|------------|
| Section 6. Site Specific Tank Information | 6-1 |
| 6.1 General | 6-1 |
| 6.2 Boca Chica Field | 6-2 |
| 6.2.1 Boca Chica Tank Farm | 6-3 |

| | | |
|----------|---|------|
| 6.2.1.1 | Existing Tanks – A-924-R, A-925-R, A-929-R, A-938, A-944, A-945, A-958, A-4010 | 6-3 |
| 6.2.1.2 | Closed Tanks – A-900, A-924, A-925, A-926, A-927, A-928, A-929, A-959, A-4109 | 6-10 |
| 6.2.1.3 | Regulatory Compliance Requirement | 6-11 |
| 6.2.2 | Boca Chica WWTP | 6-12 |
| 6.2.2.1 | Existing Tank – A-4174 | 6-12 |
| 6.2.2.2 | Closed Tank – A-827 | 6-12 |
| 6.2.2.3 | Regulatory Compliance Requirements | 6-13 |
| 6.2.3 | Site A-902 – Boca Chica Truck Fill | 6-14 |
| 6.2.3.1 | Existing Tank – A-902-BR | 6-14 |
| 6.2.3.2 | Closed Tanks – A-902-A, A-902-B, A-902-C | 6-14 |
| 6.2.3.3 | Regulatory Compliance Requirements | 6-15 |
| 6.2.4 | Site A-935 – Boca Chica Truck Fill | 6-16 |
| 6.2.4.1 | Existing Tank – A-935-R | 6-16 |
| 6.2.4.2 | Closed Tank – A-935 | 6-17 |
| 6.2.4.3 | Regulatory Compliance Requirements | 6-17 |
| 6.2.5 | Site A-937 – Boca Chica Fuels Building | 6-18 |
| 6.2.5.1 | Existing Tank – A-937 | 6-18 |
| 6.2.5.2 | Regulatory Compliance Requirements | 6-18 |
| 6.2.6 | Site A-940 – Boca Chica Fresh Water Pump House – Building 940 | 6-19 |
| 6.2.6.1 | Existing Tanks – A-940-3, A-940-4, A-940-5 | 6-19 |
| 6.2.6.2 | Closed Tanks – A-940-1, A-940-2 | 6-21 |
| 6.2.6.3 | Regulatory Compliance Requirements | 6-21 |
| 6.2.7 | Site A-969 – Boca Chica Jet Test | 6-22 |
| 6.2.7.1 | Closed Tank – A-969 | 6-22 |
| 6.2.7.2 | Regulatory Compliance Requirements | 6-22 |
| 6.2.8 | Site A-986 – Boca Chica AIMD Ground Service Equipment Hangar – Building A-9866-23 | |
| 6.2.8.1 | Existing Tank – A-986-R | 6-23 |
| 6.2.8.2 | Closed Tank – A-986 | 6-23 |
| 6.2.8.3 | Regulatory Compliance Requirements | 6-23 |
| 6.2.9 | Site A-994 – Boca Chica Hurricane Shelter – Building A-994 | 6-24 |
| 6.2.9.1 | Closed Tanks – A-994, A-994-R | 6-24 |
| 6.2.9.2 | Regulatory Compliance Requirements | 6-24 |
| 6.2.10 | Site A-995 – Boca Chica Weapons Security Guard House – Building A-995 | 6-25 |
| 6.2.10.1 | Closed Tank – A-995 | 6-25 |
| 6.2.10.2 | Regulatory Compliance Requirements | 6-25 |
| 6.2.11 | Site A-1004 – Boca Chica Naval Communication Message Center - Building A-10046-26 | |
| 6.2.11.1 | Existing Tanks – A-1004, A-1004-A, A-1004-B | 6-26 |
| 6.2.11.2 | Regulatory Compliance Requirements | 6-28 |
| 6.2.12 | Site A-1005 – Boca Chica Building A-1005 | 6-29 |
| 6.2.12.1 | Closed Tank – A-1005 | 6-29 |
| 6.2.12.2 | Regulatory Compliance Requirements | 6-29 |
| 6.2.13 | Site A-1006 – Boca Chica Ground Electronic Transmitter – Building A-1006 | 6-30 |
| 6.2.13.1 | Existing Tank – A-1006-R | 6-30 |
| 6.2.13.2 | Closed Tank – A-1006 | 6-30 |
| 6.2.13.3 | Regulatory Compliance Requirements | 6-31 |
| 6.2.14 | Site A-1019 – Boca Chica Naval Communication/Message Administration | 6-32 |
| 6.2.14.1 | Existing Tank – A-1019-R | 6-32 |
| 6.2.14.2 | Closed Tanks – A-1019, A-1019-A | 6-32 |
| 6.2.14.3 | Regulatory Compliance Requirements | 6-33 |
| 6.2.15 | Site A-1020 – Boca Chica TACAN – Building A-1020 | 6-34 |
| 6.2.15.1 | Existing Tank – A-1020-R | 6-34 |
| 6.2.15.2 | Closed Tank – A-1020 | 6-34 |
| 6.2.15.3 | Regulatory Compliance Requirements | 6-35 |
| 6.2.16 | Site A-1025 – Boca Chica Transmitter – Building A-1025 | 6-36 |

| | | |
|----------|--|------|
| 6.2.16.1 | Existing Tank – A-1025-R..... | 6-36 |
| 6.2.16.2 | Closed Tank – A-1025..... | 6-36 |
| 6.2.16.3 | Regulatory Compliance Requirements..... | 6-37 |
| 6.2.17 | Site A-1103 – Boca Chica Generator Building A-1103..... | 6-38 |
| 6.2.17.1 | Existing Tank – A-1103-R..... | 6-38 |
| 6.2.17.2 | Closed Tank – A-1103..... | 6-38 |
| 6.2.17.3 | Regulatory Compliance Requirements..... | 6-39 |
| 6.2.18 | Site A-1125 – Boca Chica Alert Forces – Building A-1125..... | 6-40 |
| 6.2.18.1 | Existing Tank – A-1125..... | 6-40 |
| 6.2.18.2 | Regulatory Compliance Requirements..... | 6-40 |
| 6.2.19 | Site A-4053 – Boca Chica ASR-8 – Building A-4053..... | 6-41 |
| 6.2.19.1 | Existing Tank – A-4053-R..... | 6-41 |
| 6.2.19.2 | Closed Tank – A-4053..... | 6-41 |
| 6.2.19.3 | Regulatory Compliance Requirements..... | 6-42 |
| 6.2.20 | Site A-4054 – Boca Chica PAR – Building A-4054..... | 6-43 |
| 6.2.20.1 | Existing Tank – A-4054-R..... | 6-43 |
| 6.2.20.2 | Closed Tank – A-4054..... | 6-43 |
| 6.2.20.3 | Regulatory Compliance Requirements..... | 6-44 |
| 6.2.21 | Site A-4082 – Boca Chica TACTS – Building A-4082..... | 6-45 |
| 6.2.21.1 | Existing Tank – A-4082..... | 6-45 |
| 6.2.21.2 | Regulatory Compliance Requirements..... | 6-45 |
| 6.2.22 | Boca Chica Air Start..... | 6-46 |
| 6.2.22.1 | Existing Tank – A-4165-R..... | 6-46 |
| 6.2.22.2 | Closed Tanks – A-4163, A-4165..... | 6-46 |
| 6.2.22.3 | Regulatory Compliance Requirements..... | 6-47 |
| 6.2.23 | Boca Chica Arresting Gear..... | 6-48 |
| 6.2.23.1 | Existing Tanks – AG-103-A, AG-104-A, AG-233-A, AG-234-A, AG-263-A, AG-264-A, AG-509-A, AG-510-A, AG-759-A, AG-760-A, AG-837-A, AG-840-A..... | 6-48 |
| 6.2.23.2 | Regulatory Compliance Requirements..... | 6-50 |
| 6.3 | Boca Chica Field Industrial Area..... | 6-51 |
| 6.3.1 | Site A-126 – Boca Chica Building A-126..... | 6-52 |
| 6.3.1.1 | Closed Tank – A-126..... | 6-52 |
| 6.3.1.2 | Regulatory Compliance Requirements..... | 6-52 |
| 6.3.2 | Site A-127 – Boca Chica Flying Club..... | 6-53 |
| 6.3.2.1 | Closed Tanks – A-127-A, A-127-B, A-127-C, A-127-D..... | 6-53 |
| 6.3.2.2 | Regulatory Compliance Requirements..... | 6-53 |
| 6.3.3 | Site A-132 – Boca Chica Fire Station – A-132..... | 6-54 |
| 6.3.3.1 | Existing Tank – A-132..... | 6-54 |
| 6.3.3.2 | Closed Tanks – A-132-1, A-132-2..... | 6-54 |
| 6.3.3.3 | Regulatory Compliance Requirements..... | 6-54 |
| 6.3.4 | Site A-137 – Boca Chica Service Station..... | 6-56 |
| 6.3.4.1 | Closed Tanks – A-137-A, A-137-B..... | 6-56 |
| 6.3.4.2 | Regulatory Compliance Requirements..... | 6-56 |
| 6.3.5 | Site A-225 – Boca Chica Ground Electronic Shop – A-225..... | 6-57 |
| 6.3.5.1 | Closed Tank – A-225..... | 6-57 |
| 6.3.5.2 | Regulatory Compliance Requirements..... | 6-57 |
| 6.3.6 | Site A-229 – Boca Chica Sprinkler System Pump House – A-229..... | 6-58 |
| 6.3.6.1 | Existing Tanks – A-229-A, A-229-B..... | 6-58 |
| 6.3.6.2 | Regulatory Compliance Requirements..... | 6-59 |
| 6.3.7 | Site A-230 – Boca Chica Electrical Distribution Center - Building A-230..... | 6-60 |
| 6.3.7.1 | Existing Tank – A-230-R..... | 6-60 |
| 6.3.7.2 | Closed Tank – A-230..... | 6-60 |
| 6.3.7.3 | Regulatory Compliance Requirements..... | 6-61 |
| 6.3.8 | Site A-244 – Boca Chica Airfield Control Tower – A-244..... | 6-62 |
| 6.3.8.1 | Existing Tank – A-244-R..... | 6-62 |
| 6.3.8.2 | Closed Tank – A-244..... | 6-62 |

| | | |
|----------|---|------|
| 6.3.8.3 | Regulatory Compliance Requirements | 6-63 |
| 6.3.9 | Site A-314 – Boca Chica Navy Supply Building - A314 | 6-64 |
| 6.3.9.1 | Closed Tank – A-314 | 6-64 |
| 6.3.9.2 | Regulatory Compliance Requirements | 6-64 |
| 6.3.10 | Site A-317 – Boca Chica Motor Pool – A-317 | 6-65 |
| 6.3.10.1 | Closed Tanks – A-317-A, A-317-B, A-317-C, A-317-D, A-317-E, A-317-F, A-317-G, A-317-H, A-317-I..... | 6-65 |
| 6.3.10.2 | Regulatory Compliance Requirements | 6-65 |
| 6.3.11 | Site A-322 – Boca Chica Service Station | 6-66 |
| 6.3.11.1 | Existing Tanks – A-322-E, A-322-F, A-322-G | 6-66 |
| 6.3.11.2 | Closed Tanks – A-322-A, A-322-B, A-322-C, A-322-D | 6-68 |
| 6.3.11.3 | Regulatory Compliance Requirements | 6-68 |
| 6.3.12 | Site A-324 – Boca Chica Building A-324 | 6-69 |
| 6.3.12.1 | Closed Tank – A-324 | 6-69 |
| 6.3.12.2 | Regulatory Compliance Requirements | 6-69 |
| 6.3.13 | Site A-325 – Boca Chica CARIBROC – A-325 | 6-70 |
| 6.3.13.1 | Closed Tanks – A-325-1, A-325-2, A-325-3 | 6-70 |
| 6.3.13.2 | Regulatory Compliance Requirements | 6-70 |
| 6.3.14 | Site A-328 – Boca Chica Federal Aviation Administration Radar Facility – A-328 | 6-71 |
| 6.3.14.1 | Closed Tank – A-328 | 6-71 |
| 6.3.14.2 | Regulatory Compliance Requirements | 6-71 |
| 6.3.15 | Site A-332 – Boca Chica Building A-332 | 6-72 |
| 6.3.15.1 | Closed Tank – A-332 | 6-72 |
| 6.3.15.2 | Regulatory Compliance Requirements | 6-72 |
| 6.3.16 | Site A-419 – Boca Chica Power Plant – A-419 | 6-73 |
| 6.3.16.1 | Existing Tanks – A-419-D, A-419-E, A-419-F, A-419-G | 6-73 |
| 6.3.16.2 | Closed Tanks – A-419-A, A-419-B, A-419-C | 6-74 |
| 6.3.16.3 | Regulatory Compliance Requirements | 6-74 |
| 6.3.17 | Site A-422 – Boca Chica Building A-422 | 6-75 |
| 6.3.17.1 | Closed Tank – A-422-A | 6-75 |
| 6.3.17.2 | Regulatory Compliance Requirements | 6-75 |
| 6.3.18 | Site A-443 – Boca Chica Public Works Automotive Maintenance Shop Building – A-443-76 | 6-76 |
| 6.3.18.1 | Closed Tank – A-443 | 6-76 |
| 6.3.18.2 | Regulatory Compliance Requirements | 6-76 |
| 6.3.19 | Site A-447 – Boca Chica Potable Water Pump Station – A-447 | 6-77 |
| 6.3.19.1 | Existing Tank – A-447 | 6-77 |
| 6.3.19.2 | Regulatory Compliance Requirements | 6-77 |
| 6.3.20 | Site A-515 – Boca Chica | 6-78 |
| 6.3.20.1 | Closed Tank – A-515 | 6-78 |
| 6.3.20.2 | Regulatory Compliance Requirements | 6-78 |
| 6.3.21 | Site A-522 – Boca Chica | 6-79 |
| 6.3.21.1 | Closed Tank – A-522 | 6-79 |
| 6.3.21.2 | Regulatory Compliance Requirements | 6-79 |
| 6.3.22 | Site A-526 – Boca Chica Galley – Building A-526 | 6-80 |
| 6.3.22.1 | Existing Tank – A-526-R | 6-80 |
| 6.3.22.2 | Closed Tank – A-526 | 6-80 |
| 6.3.22.3 | Regulatory Compliance Requirements | 6-81 |
| 6.3.23 | Site A-624 – Boca Chica Bachelor Enlisted Quarters (BEQ) Building A-624 | 6-82 |
| 6.3.23.1 | Closed Tank – A-624 | 6-82 |
| 6.3.23.2 | Regulatory Compliance Requirements | 6-82 |
| 6.3.24 | Site A-625 – Boca Chica Bachelor Enlisted Quarters (BEQ) Building A-625 | 6-83 |
| 6.3.24.1 | Closed Tank – A-625 | 6-83 |
| 6.3.24.2 | Regulatory Compliance Requirements | 6-83 |
| 6.3.25 | Site A-630 – Boca Chica Bachelor Enlisted Quarters (BEQ) Building A-630 | 6-84 |
| 6.3.25.1 | Closed Tank – A-630 | 6-84 |
| 6.3.25.2 | Regulatory Compliance Requirements | 6-84 |

| | | |
|----------|---|-------|
| 6.3.26 | Site A-631 – Boca Chica Bachelor Enlisted Quarters (BEQ) Building A-631 | 6-85 |
| 6.3.26.1 | Closed Tank – A-631 | 6-85 |
| 6.3.26.2 | Regulatory Compliance Requirements | 6-85 |
| 6.3.27 | Site A-632 – Boca Chica Bachelor Enlisted Quarters (BEQ) Building A-632 | 6-86 |
| 6.3.27.1 | Closed Tank – A-632 | 6-86 |
| 6.3.27.2 | Regulatory Compliance Requirements | 6-86 |
| 6.3.28 | Site A-634 – Boca Chica Island Clipper Club Building A-634 | 6-87 |
| 6.3.28.1 | Closed Tank – A-634 | 6-87 |
| 6.3.28.2 | Regulatory Compliance Requirements | 6-87 |
| 6.3.29 | Site A-638 – Boca Chica Bachelor Enlisted Quarters (BEQ) Building A-638 | 6-88 |
| 6.3.29.1 | Existing Tank – A-638-R | 6-88 |
| 6.3.29.2 | Closed Tank – A-638 | 6-88 |
| 6.3.29.3 | Regulatory Compliance Requirements | 6-89 |
| 6.3.30 | Site A-639 – Boca Chica Bachelor Enlisted Quarters (BEQ) Building A-639 | 6-90 |
| 6.3.30.1 | Existing Tank – A-639-R | 6-90 |
| 6.3.30.2 | Closed Tank – A-639 | 6-90 |
| 6.3.30.3 | Regulatory Compliance Requirements | 6-91 |
| 6.3.31 | Site A-648 – Boca Chica Barracks | 6-92 |
| 6.3.31.1 | Existing Tank – A-648-R | 6-92 |
| 6.3.31.2 | Closed Tank – A-648 | 6-92 |
| 6.3.31.3 | Regulatory Compliance Requirements | 6-93 |
| 6.3.32 | Site A-649 – Boca Chica Barracks | 6-94 |
| 6.3.32.1 | Existing Tank – A-649-R | 6-94 |
| 6.3.32.2 | Closed Tank – A-649 | 6-94 |
| 6.3.32.3 | Regulatory Compliance Requirements | 6-95 |
| 6.3.33 | Site A-727 – Boca Chica Bachelor Enlisted Quarters (BEQ) Building A-727 | 6-96 |
| 6.3.33.1 | Existing Tank – A-727-R | 6-96 |
| 6.3.33.2 | Closed Tank – A-727 | 6-96 |
| 6.3.33.3 | Regulatory Compliance Requirements | 6-97 |
| 6.3.34 | Site A-733 – Boca Chica Hobby Shop | 6-98 |
| 6.3.34.1 | Closed Tank – A-733 | 6-98 |
| 6.3.34.2 | Regulatory Compliance Requirements | 6-98 |
| 6.3.35 | Site A-4011 – Boca Chica Naval Medical Clinic Building A-4011 | 6-99 |
| 6.3.35.1 | Existing Tank – A-4011-R | 6-99 |
| 6.3.35.2 | Closed Tank – A-4011 | 6-100 |
| 6.3.35.3 | Regulatory Compliance Requirements | 6-100 |
| 6.3.36 | Site A-4115 – Boca Chica Flying Club | 6-101 |
| 6.3.36.1 | Closed Tank – A-4115 | 6-101 |
| 6.3.36.2 | Regulatory Compliance Requirements | 6-101 |
| 6.3.37 | Site A-4173 – Boca Chica FAA Center | 6-102 |
| 6.3.37.1 | Existing Tank – A-4173 | 6-102 |
| 6.3.37.2 | Regulatory Compliance Requirements | 6-102 |
| 6.4 | Trumbo Point | 6-103 |
| 6.4.1 | Site B-14 – Trumbo Point Gasoline Pumping Station Building B-14 | 6-104 |
| 6.4.1.1 | Closed Tanks – B-14-A, B-14-B | 6-104 |
| 6.4.1.2 | Regulatory Compliance Requirements | 6-104 |
| 6.4.2 | Site B-27 – Trumbo Point Ordinance Research/Development Building B-27 | 6-105 |
| 6.4.2.1 | Existing Tank – B-27 | 6-105 |
| 6.4.2.2 | Regulatory Compliance Requirements | 6-105 |
| 6.4.3 | Site B-28 – Trumbo Point Ordinance Research/Development Building 28 | 6-106 |
| 6.4.3.1 | Existing Tank – B-28-A | 6-106 |
| 6.4.3.2 | Regulatory Compliance Requirements | 6-106 |
| 6.4.4 | Site B-43 – Trumbo Point Potable Water Pump Station Building B-43 | 6-107 |
| 6.4.4.1 | Closed Tanks – B-43, B-43-A | 6-107 |
| 6.4.4.2 | Regulatory Compliance Requirements | 6-107 |
| 6.4.5 | Site B-48 – Trumbo Point CAAC and Photo Lab/Hurricane Shelter Building B-48 | 6-108 |

| | | |
|----------|--|-------|
| 6.4.5.1 | Closed Tanks – B-48, B-48-A..... | 6-108 |
| 6.4.5.2 | Regulatory Compliance Requirements | 6-108 |
| 6.4.6 | Site C-5 – Trumbo Point Annex Fire Station Building C-5 | 6-109 |
| 6.4.6.1 | Existing Tank – C-5 | 6-109 |
| 6.4.6.2 | Regulatory Compliance Requirements | 6-109 |
| 6.4.7 | Site C-12 – Trumbo Point Annex Naval Exchange Service Station..... | 6-110 |
| 6.4.7.1 | Closed Tanks – C-12-A, C-12-B, C-12-C, C-12-D..... | 6-110 |
| 6.4.7.2 | Regulatory Compliance Requirements | 6-110 |
| 6.4.8 | Site C-59 – Trumbo Point Special Forces Barracks Building C-59 | 6-111 |
| 6.4.8.1 | Closed Tanks – C-59, C-59-A..... | 6-111 |
| 6.4.8.2 | Regulatory Compliance Requirements | 6-111 |
| 6.4.9 | Site C-60 – Trumbo Point Special Forces Barracks | 6-112 |
| 6.4.9.1 | Closed Tank – C-60..... | 6-112 |
| 6.4.9.2 | Regulatory Compliance Requirements | 6-112 |
| 6.4.10 | Site C-80 – Trumbo Point Building C-80..... | 6-113 |
| 6.4.10.1 | Closed Tank – C-80..... | 6-113 |
| 6.4.10.2 | Regulatory Compliance Requirements | 6-113 |
| 6.4.11 | Site C-83 – Trumbo Point Gymnasium – Building C-83 | 6-114 |
| 6.4.11.1 | Existing Tank – C-83 | 6-114 |
| 6.4.11.2 | Regulatory Compliance Requirements | 6-114 |
| 6.4.12 | Site C-2076 – Trumbo Point Barracks – Building C-2076 | 6-115 |
| 6.4.12.1 | Existing Tank – C-2076-R..... | 6-115 |
| 6.4.12.2 | Closed Tank – C-2076..... | 6-115 |
| 6.4.12.3 | Regulatory Compliance Requirements | 6-116 |
| 6.4.13 | Trumbo Point Fuel Farm..... | 6-117 |
| 6.4.13.1 | Existing Tanks – D-29-R, D-1292-BR..... | 6-117 |
| 6.4.13.2 | Closed Tanks – D-1, D-2, D-3, D-4, D-5, D-6, D-7, D-8, D-9, D-10, D-11, D-12, D-13, D-14, D-15, D-16, D-17, D-18, D-21, D-25, D-26-A, D-27, D-29, D-88-A, D-88-B, D- 88-C, D-88-D, D-1292, D-1292-B, D-1292-R, D-4169..... | 6-118 |
| 6.4.13.3 | Regulatory Compliance Requirements | 6-120 |
| 6.4.14 | Site Pier D-1 – Trumbo Point Pier D-1..... | 6-121 |
| 6.4.14.1 | Closed Tanks – PD-1A, PD-1B..... | 6-121 |
| 6.4.14.2 | Regulatory Compliance Requirements | 6-121 |
| 6.4.15 | Site C-1 – Trumbo Point Pier D-1 | 6-122 |
| 6.4.15.1 | Existing Tank – C-1 | 6-122 |
| 6.4.15.2 | Regulatory Compliance Requirements | 6-122 |
| 6.4.16 | Trumbo Point Hangar C-1..... | 6-123 |
| 6.4.16.1 | Existing Tanks – B-28, 149-2R..... | 6-123 |
| 6.4.16.2 | Regulatory Compliance Requirements | 6-124 |
| 6.5 | Fleming Key | 6-125 |
| 6.5.1 | Site F-01 – Special Forces Building KW-200..... | 6-126 |
| 6.5.1.1 | Existing Tanks – F-01, F-01-A, F-01-B, F-01-C, F-01-D, F-01-E | 6-126 |
| 6.5.1.2 | Regulatory Compliance Requirements | 6-131 |
| 6.5.2 | Site F-02 – Special Forces - Boat Dock | 6-132 |
| 6.5.2.1 | Existing Tank – F-02..... | 6-132 |
| 6.5.2.2 | Regulatory Compliance Requirements | 6-132 |
| 6.5.3 | Site KW-400 – Special Forces – Fire Pump Building KW-400 | 6-133 |
| 6.5.3.1 | Existing Tank – KW-400 | 6-133 |
| 6.5.3.2 | Regulatory Compliance Requirements | 6-133 |
| 6.5.4 | Site KW-600 – Special Forces – Boat Maintenance Facility Building KW-600..... | 6-134 |
| 6.5.4.1 | Existing Tank – KW-600 | 6-134 |
| 6.5.4.2 | Regulatory Compliance Requirements | 6-134 |
| 6.5.5 | Fleming Key Harry S. Truman Animal Import Center | 6-135 |
| 6.5.5.1 | Closed Tanks – USDA-1, USDA-2, USDA-3, USDA-4 | 6-135 |
| 6.5.5.2 | Regulatory Compliance Requirements | 6-135 |
| 6.5.6 | Site F-1761 – Fleming Key Harry S. Truman Animal Import Center..... | 6-136 |

| | | | |
|-------|----------|--|-------|
| | 6.5.6.1 | Existing Tank – F-1761..... | 6-136 |
| | 6.5.6.2 | Regulatory Compliance Requirements..... | 6-136 |
| 6.5.7 | | Site F-15 – Naval Research Lab..... | 6-137 |
| | 6.5.7.1 | Closed Tank – F-15..... | 6-137 |
| | 6.5.7.2 | Regulatory Compliance Requirements..... | 6-137 |
| 6.6 | | Truman Annex..... | 6-138 |
| | 6.6.1 | Site 1 – Truman Annex Tank Island (Sunset Key)..... | 6-139 |
| | 6.6.1.1 | Closed Tanks – 1, 2..... | 6-139 |
| | 6.6.1.2 | Regulatory Compliance Requirements..... | 6-139 |
| | 6.6.2 | Site 17 – Truman Annex Fuel Farm..... | 6-140 |
| | 6.6.2.1 | Closed Tank – 17..... | 6-140 |
| | 6.6.2.2 | Regulatory Compliance Requirements..... | 6-140 |
| | 6.6.3 | Site 38-R – Truman Annex Potable Water Pump Station – Building 38..... | 6-141 |
| | 6.6.3.1 | Existing Tank – 38-R..... | 6-141 |
| | 6.6.3.2 | Closed Tank – 38..... | 6-141 |
| | 6.6.3.3 | Regulatory Compliance Requirements..... | 6-141 |
| | 6.6.4 | Truman Annex Fuel Farm..... | 6-142 |
| | 6.6.4.1 | Closed Tanks – 52, 68, 69, 94, 95..... | 6-142 |
| | 6.6.4.2 | Regulatory Compliance Requirements..... | 6-142 |
| | 6.6.5 | Site 104 – Truman Annex..... | 6-143 |
| | 6.6.5.1 | Closed Tank – 104..... | 6-143 |
| | 6.6.5.2 | Regulatory Compliance Requirements..... | 6-143 |
| | 6.6.6 | Site 109 – Truman Annex..... | 6-144 |
| | 6.6.6.1 | Closed Tank – 109..... | 6-144 |
| | 6.6.6.2 | Regulatory Compliance Requirements..... | 6-144 |
| | 6.6.7 | Site 115 – Truman Annex Bulk Fuel Storage..... | 6-145 |
| | 6.6.7.1 | Closed Tank – 115..... | 6-145 |
| | 6.6.7.2 | Regulatory Compliance Requirements..... | 6-145 |
| | 6.6.8 | Site 117 – Truman Annex Bulk Fuel Storage..... | 6-146 |
| | 6.6.8.1 | Closed Tank – 117..... | 6-146 |
| | 6.6.8.2 | Regulatory Compliance Requirements..... | 6-146 |
| | 6.6.9 | Site 149 – Truman Annex Port Services – Building 149..... | 6-147 |
| | 6.6.9.1 | Existing Tank – 149-1R..... | 6-147 |
| | 6.6.9.2 | Closed Tanks – 149-1, 149-1, 149-2, 149-2, 149-2-R..... | 6-147 |
| | 6.6.9.3 | Regulatory Compliance Requirements..... | 6-148 |
| | 6.6.10 | Site 248 – Truman Annex Service Station..... | 6-149 |
| | 6.6.10.1 | Closed Tanks – 248-A, 248-B, 248-C..... | 6-149 |
| | 6.6.10.2 | Regulatory Compliance Requirements..... | 6-149 |
| | 6.6.11 | Site 290 – Truman Annex JSSROC Building 290..... | 6-150 |
| | 6.6.11.1 | Existing Tank – 290-ER..... | 6-150 |
| | 6.6.11.2 | Closed Tanks – 290, 290-A, 290-B, 290-C, 290-D, 290-E..... | 6-150 |
| | 6.6.11.3 | Regulatory Compliance Requirements..... | 6-151 |
| | 6.6.12 | Site 291 – Truman Annex Building 291..... | 6-152 |
| | 6.6.12.1 | Existing Tank – 291..... | 6-152 |
| | 6.6.12.2 | Closed Tanks – 291-A, 291-C..... | 6-152 |
| | 6.6.12.3 | Regulatory Compliance Requirements..... | 6-152 |
| | 6.6.13 | Site 437 – Truman Annex Bachelor Enlisted Quarters (BEQ) Building 437..... | 6-154 |
| | 6.6.13.1 | Existing Tank – 437-R..... | 6-154 |
| | 6.6.13.2 | Closed Tank – 437..... | 6-154 |
| | 6.6.13.3 | Regulatory Compliance Requirements..... | 6-155 |
| | 6.6.14 | Site 438 – Truman Annex Bachelor Enlisted Quarters (BEQ)..... | 6-156 |
| | 6.6.14.1 | Existing Tank – 438-R..... | 6-156 |
| | 6.6.14.2 | Closed Tank – 438..... | 6-156 |
| | 6.6.14.3 | Regulatory Compliance Requirements..... | 6-157 |
| | 6.6.15 | Site 439 – Truman Annex Bachelor Enlisted Quarters (BEQ) Building 439..... | 6-158 |
| | 6.6.15.1 | Existing Tank – 439-R..... | 6-158 |

| | | |
|----------|--|-------|
| 6.6.15.2 | Closed Tank – 439..... | 6-158 |
| 6.6.15.3 | Regulatory Compliance Requirements | 6-159 |
| 6.6.16 | Site 446 – Truman Annex | 6-160 |
| 6.6.16.1 | Closed Tank – 446..... | 6-160 |
| 6.6.16.2 | Regulatory Compliance Requirements | 6-160 |
| 6.6.17 | Site 576 – Truman Annex | 6-161 |
| 6.6.17.1 | Closed Tank – 576..... | 6-161 |
| 6.6.17.2 | Regulatory Compliance Requirements | 6-161 |
| 6.6.18 | Site 1276 – Truman Annex Service Station..... | 6-162 |
| 6.6.18.1 | Closed Tanks – 1276-A, 1276-B, 1276-C, 1276-D..... | 6-162 |
| 6.6.18.2 | Regulatory Compliance Requirements | 6-162 |
| 6.6.19 | Site 1279 – Truman Annex JIATFE Building 1279 | 6-163 |
| 6.6.19.1 | Existing Tank – 1279-BR..... | 6-163 |
| 6.6.19.2 | Closed Tanks – 1279, 1279-A, 1279-B..... | 6-163 |
| 6.6.19.3 | Regulatory Compliance Requirements | 6-164 |
| 6.6.20 | Site 1287 – Truman Annex Building 1287 Galley | 6-165 |
| 6.6.20.1 | Closed Tank – 1287..... | 6-165 |
| 6.6.20.2 | Regulatory Compliance Requirements | 6-165 |
| 6.6.21 | Site 1350 – Truman Annex Bachelor Enlisted Quarters (BEQ) Building 1350 | 6-166 |
| 6.6.21.1 | Existing Tank – 1350-R | 6-166 |
| 6.6.21.2 | Closed Tanks – 1350, 1350..... | 6-167 |
| 6.6.21.3 | Regulatory Compliance Requirements | 6-167 |
| 6.6.22 | Site 1351 – Truman Annex Bachelor Enlisted Quarters (BEQ) Building 1351 | 6-168 |
| 6.6.22.1 | Existing Tank – 1351-R | 6-168 |
| 6.6.22.2 | Closed Tanks – 1351, 1351..... | 6-168 |
| 6.6.22.3 | Regulatory Compliance Requirements | 6-169 |
| 6.6.23 | Site 1355 – Truman Annex Key West Foreign Broadcast Facility Building 1355 | 6-170 |
| 6.6.23.1 | Existing Tank – 1355 | 6-170 |
| 6.6.23.2 | Regulatory Compliance Requirements | 6-170 |
| 6.6.24 | Site 4163 – Truman Annex MUSE Building 4163..... | 6-171 |
| 6.6.24.1 | Closed Tank – 4163..... | 6-171 |
| 6.6.24.2 | Regulatory Compliance Requirements | 6-171 |
| 6.6.25 | Site OW-1 – Truman Annex Outer Mole..... | 6-172 |
| 6.6.25.1 | Closed Tanks – OW-1, OW-1-A | 6-172 |
| 6.6.25.2 | Regulatory Compliance Requirements | 6-172 |
| 6.6.26 | Site OW-102 – Truman Annex Inner Mole..... | 6-173 |
| 6.6.26.1 | Closed Tanks – OW-102, OW-102-A | 6-173 |
| 6.6.26.2 | Regulatory Compliance Requirements | 6-173 |
| 6.6.27 | Site G-1 – Former Truman Annex Commissary | 6-174 |
| 6.6.27.1 | Closed Tank – G-1..... | 6-174 |
| 6.6.27.2 | Regulatory Compliance Requirements | 6-174 |
| 6.7 | Sigsbee Park | 6-175 |
| 6.7.1 | Site V-984 – Sigsbee | 6-176 |
| 6.7.1.1 | Closed Tank – V-984 | 6-176 |
| 6.7.1.2 | Regulatory Compliance Requirements | 6-176 |
| 6.7.2 | Site V-988 – Sigsbee Sanitary Sewer Pump Station – Building V-988..... | 6-177 |
| 6.7.2.1 | Closed Tank – V-988 | 6-177 |
| 6.7.2.2 | Regulatory Compliance Requirements | 6-177 |
| 6.7.3 | Site V-1274 – Sigsbee Sewage Pump Station – Building V-1274 | 6-178 |
| 6.7.3.1 | Existing Tank – V-1274-R..... | 6-178 |
| 6.7.3.2 | Closed Tanks – V-1274, V-1274-A..... | 6-178 |
| 6.7.3.3 | Regulatory Compliance Requirements | 6-179 |
| 6.7.4 | Site V-1552 – Sigsbee Potable Water System Pump Station – Building V-1552 | 6-180 |
| 6.7.4.1 | Existing Tanks – V-1552-BR, V-1552-C | 6-180 |
| 6.7.4.2 | Closed Tanks – V-1552, V-1552-B..... | 6-181 |
| 6.7.4.3 | Regulatory Compliance Requirements | 6-181 |

| | | |
|----------|---|-------|
| 6.7.5 | Site V-1554 – Sigsbee Sewer Pump Station – Building V-1554 | 6-182 |
| 6.7.5.1 | Closed Tanks – V-1554, V-1554-R, V-1554-A..... | 6-182 |
| 6.7.5.2 | Regulatory Compliance Requirements | 6-182 |
| 6.7.6 | Sigsbee Marina – Building V-3005 | 6-183 |
| 6.7.6.1 | Existing Tank – V-4186..... | 6-183 |
| 6.7.6.2 | Closed Tank – V-3005..... | 6-183 |
| 6.7.6.3 | Regulatory Compliance Requirements | 6-184 |
| 6.7.7 | Site V-4022 – Sigsbee Park Exchange Service Station – Building 800..... | 6-185 |
| 6.7.7.1 | Existing Tanks – V-4022-H, V-4022-I, V-4022-J | 6-185 |
| 6.7.7.2 | Closed Tanks – V-4022-A, V-4022-B, V-4022-C, V-4022-D, V-4022-E, V-4022-F, V-4022-G | 6-187 |
| 6.7.7.3 | Regulatory Compliance Requirements | 6-187 |
| 6.7.8 | Site V-4111 – Sigsbee Park Navy Exchange – Building V-4111 | 6-188 |
| 6.7.8.1 | Existing Tanks – V-4111-AR, V-4111-B, V-4111-C | 6-188 |
| 6.7.8.2 | Closed Tank – V-4111-A | 6-190 |
| 6.7.8.3 | Regulatory Compliance Requirements | 6-190 |
| 6.7.9 | Site V-4114 – Sigsbee Navy Lodge – Building V-4114 | 6-191 |
| 6.7.9.1 | Existing Tank – V-4114-R..... | 6-191 |
| 6.7.9.2 | Closed Tank – V-4114 | 6-191 |
| 6.7.9.3 | Regulatory Compliance Requirements | 6-192 |
| 6.8 | Saddlebunch Key..... | 6-193 |
| 6.8.1 | Saddlebunch Transmission Site | 6-193 |
| 6.8.1.1 | Existing Tanks – J-1561-AR, J-1563-R | 6-193 |
| 6.8.1.2 | Closed Tanks – J-1561-A, J-1563 | 6-194 |
| 6.8.1.3 | Regulatory Compliance Requirements | 6-195 |
| 6.9 | Navy Branch Medical Clinic | 6-196 |
| 6.9.1 | Site L-3 – Navy Branch Medical Clinic – Building L-3..... | 6-197 |
| 6.9.1.1 | Closed Tanks – L-3-A, L-3..... | 6-197 |
| 6.9.1.2 | Regulatory Compliance Requirements | 6-197 |
| 6.9.2 | Site L-19 – Navy Branch Medical Clinic – Building L-1..... | 6-198 |
| 6.9.2.1 | Closed Tank – L-19 | 6-198 |
| 6.9.2.2 | Regulatory Compliance Requirements | 6-198 |
| 6.9.3 | Site L-39 – Navy Branch Medical Clinic..... | 6-199 |
| 6.9.3.1 | Closed Tanks – L-39, L-40, L-41, L-42, L-44..... | 6-199 |
| 6.9.3.2 | Regulatory Compliance Requirements | 6-199 |
| 6.9.4 | Site L-47 – Navy Branch Medical Clinic – Building 47 | 6-200 |
| 6.9.4.1 | Existing Tank – L-47-R | 6-200 |
| 6.9.4.2 | Closed Tank – L-47 | 6-200 |
| 6.9.4.3 | Regulatory Compliance Requirements | 6-201 |
| 6.10 | Former Hawk Missile Sites | 6-202 |
| 6.10.1 | Boca Chica Hawk Missile | 6-203 |
| 6.10.1.1 | Existing Tank – NOAA-1..... | 6-203 |
| 6.10.1.2 | Closed Tanks – B-01, B-02..... | 6-203 |
| 6.10.1.3 | Regulatory Compliance Requirements | 6-204 |
| 6.10.2 | Geiger Key Hawk Missile Site..... | 6-205 |
| 6.10.2.1 | Closed Tanks – G-01, G-02..... | 6-205 |
| 6.10.2.2 | Regulatory Compliance Requirements | 6-205 |
| 6.10.3 | Big Coppit Key | 6-206 |
| 6.10.3.1 | Closed Tanks – GATR-1, GATR | 6-206 |
| 6.10.3.2 | Regulatory Compliance Requirements | 6-206 |
| 6.10.4 | Hamaca Park..... | 6-207 |
| 6.10.4.1 | Closed Tanks – I-01, I-02 | 6-207 |
| 6.10.4.2 | Regulatory Compliance Requirements | 6-207 |

Appendices

Volume I

| | |
|------------|--|
| Appendix A | Monthly Tank Inspection Forms |
| Appendix B | 40 CFR 112 and 40 CFR 280 |
| Appendix C | Florida Administrative Codes Chapters 62-761 |
| Appendix D | Proposed Tanks at NAS Key West |

Tables

Volume I

| | | |
|---------------|--|----------------------|
| Table 2-1 | Code List | (following Page 2-3) |
| Table 2-2 | (Table 3-1) Physical Information on Storage Tank Systems | (following Page 2-3) |
| Table 3-1 | FDEP UST/AST Categories | (following Page 3-4) |
| Table 3-2 | FDEP Storage Tank Monitoring Guidelines | (following Page 3-4) |
| Table 3-3 | Reporting Requirements | (following Page 3-4) |
| Table 4-1/6-1 | Existing Tanks NAS Key West | (following Page 4-3) |
| Table 4-2/6-2 | Closed Tanks NAS Key West | (following Page 4-3) |

Volume II

| | | |
|---------------|-------------------------|----------------------|
| Table 4-1/6-1 | Existing Tanks Key West | (following Page 6-1) |
| Table 4-2/6-2 | Closed Tanks Key West | (following Page 6-1) |

Figures

Volume I

| | |
|------------|-------------------|
| Figure 1-1 | Site Location Map |
| Figure 1-2 | Site Vicinity Map |

Volume II

BOCA CHICA FIELD

| | |
|-------------|---|
| Figure 6-1 | Boca Chica Field (All Tanks) |
| Figure 6-2 | Boca Chica Field (Existing Tanks) |
| Figure 6-3 | Boca Chica Field (Closed Tanks) |
| Figure 6-4 | Boca Chica Tank Farm |
| Figure 6-5 | Site A-4174 (includes Tank A-4174, A-827) |
| Figure 6-6 | Site A-902 |
| Figure 6-7 | Site A-935 |
| Figure 6-8 | Site A-937 |
| Figure 6-9 | Site A-940 |
| Figure 6-10 | Site A-969 |
| Figure 6-11 | Site A-986 |
| Figure 6-12 | Site A-994 |
| Figure 6-13 | Site A-995 |
| Figure 6-14 | Site A-1004 |
| Figure 6-15 | Site A-1005 |
| Figure 6-16 | Site A-1006 |
| Figure 6-17 | Site A-1019 |
| Figure 6-18 | Site A-1020 |
| Figure 6-19 | Site A-1025 |
| Figure 6-20 | Site A-1103 |
| Figure 6-21 | Site A-1125 |
| Figure 6-22 | Site A-4053 |
| Figure 6-23 | Site A-4054 |
| Figure 6-24 | Site A-4082 |
| Figure 6-25 | Airstart (Tanks A-4165-R, A-4165) |

- Figure 6-26 Airstart (Tanks A-4163)
Figure 6-27 Typical Site Map of Arresting Gear Tanks

BOCA CHICA FIELD INDUSTRIAL AREA

- Figure 6-28 Boca Chica Field Industrial (All Tanks)
Figure 6-29 Boca Chica Field Industrial (Existing Tanks)
Figure 6-30 Boca Chica Field Industrial (Closed Tanks)
Figure 6-31 Site A-126
Figure 6-32 Site A-127
Figure 6-33 Site A-132
Figure 6-34 Site A-225
Figure 6-35 Site A-229
Figure 6-36 Site A-230 (Tanks A-230, A-4085)
Figure 6-37 Site A-244
Figure 6-38 Site A-314
Figure 6-39 Site A-317
Figure 6-40 Site A-322
Figure 6-41 Site A-325
Figure 6-42 Site A-328
Figure 6-43 Site A-419 (Tanks A-419-D, A-419-E, A-419-F, A-419-G)
Figure 6-44 Site A-419 (Tanks A-419-A, A-419-B, A-419-C)
Figure 6-45 Site A-422
Figure 6-46 Site A-443
Figure 6-47 Site A-447
Figure 6-48 Site A-526 (Tanks A-526-R, A-526, A-522)
Figure 6-49 Site A-624
Figure 6-50 Site A-625
Figure 6-51 Site A-630
Figure 6-52 Site A-631
Figure 6-53 Site A-632
Figure 6-54 Site A-634
Figure 6-55 Site A-638
Figure 6-56 Site A-639
Figure 6-57 Site A-648
Figure 6-58 Site A-649
Figure 6-59 Site A-727
Figure 6-60 Site A-4011
Figure 6-61 Site A-4115
Figure 6-62 Site A-4173

TRUMBO POINT ANNEX

- Figure 6-63 Trumbo Point (All Tanks)
Figure 6-64 Trumbo Point (Existing Tanks)
Figure 6-65 Trumbo Point (Closed Tanks)
Figure 6-66 Site B-14
Figure 6-67 Site B-27
Figure 6-68 Site B-28 (Tank B-28-A)
Figure 6-69 Site B-43
Figure 6-70 Site B-48
Figure 6-71 Site C-5
Figure 6-72 Site C-12
Figure 6-73 Site C-59 (Tank C-59)
Figure 6-74 Site C-59 (Tank C-59-A)
Figure 6-75 Site C-60
Figure 6-76 Site C-80
Figure 6-77 Site C-83

- Figure 6-78 Site C-2076
- Figure 6-79 Trumbo Point Fuel Farm
- Figure 6-80 Site D-29
- Figure 6-81 Site D-1292 (Tanks D-1292-BR, D-1292, D-1292-R, D-1292-B)
- Figure 6-82 Site D-88
- Figure 6-83 Site Pier D-1 (Tank PD-1A)
- Figure 6-84 Site Pier D-1 (Tank PD-1B)
- Figure 6-85 Hangar C-1 (Tanks 149-2-R, B-28)

FLEMING KEY

- Figure 6-86 Fleming Key (All Tanks)
- Figure 6-87 Fleming Key (Existing Tanks)
- Figure 6-88 Fleming Key (Closed Tanks)
- Figure 6-89 Site KW-200 (Tank F-01)
- Figure 6-90 Site KW-200 (Tanks F-01-A, F-01-B, F-01-C, F-01-D, F-01-E)
- Figure 6-91 Site F-02
- Figure 6-92 Site KW-400
- Figure 6-93 Site KW-600
- Figure 6-94 Site Animal Import Center (Tank USDA-1)
- Figure 6-95 Site Animal Import Center (Tanks USDA-2, USDA-3)
- Figure 6-96 Site Animal Import Center (Tank USDA-1)
- Figure 6-97 Site Animal Import Center F-1761
- Figure 6-98 Site F-15

TRUMAN ANNEX

- Figure 6-99 Truman Annex (All Tanks)
- Figure 6-100 Truman Annex (Existing Tanks)
- Figure 6-101 Truman Annex (Closed Tanks)
- Figure 6-102 Site 38
- Figure 6-103 Site 94
- Figure 6-104 Site 104
- Figure 6-105 Site 109
- Figure 6-106 Site 115/117
- Figure 6-107 Site 149
- Figure 6-108 Site 290 (Tanks 290-B, 290-E, 290-ER)
- Figure 6-109 Site 290 (Tanks 290, 290-A, 290-D)
- Figure 6-110 Site 290 (Tank 290-C)
- Figure 6-111 Site 291
- Figure 6-112 Site 437
- Figure 6-113 Sites 438, 439
- Figure 6-114 Site 439-R
- Figure 6-115 Site 1276
- Figure 6-116 Site 1279
- Figure 6-117 Site 1287
- Figure 6-118 Site 1350
- Figure 6-119 Site 1351
- Figure 6-120 Site 1355
- Figure 6-121 Site 4163
- Figure 6-122 Outer Mole (Tanks OW-1, OW-1-A)
- Figure 6-123 Inner Mole (Tanks OW-102, OW-102-A)

SIGSBEE PARK

- Figure 6-124 Sigsbee Park (All Tanks)
- Figure 6-125 Sigsbee Park (Existing Tanks)
- Figure 6-126 Sigsbee Park (Closed Tanks)
- Figure 6-127 Site V-988

Figure 6-128 Site V-1274
Figure 6-129 Site V-1552
Figure 6-130 Site V-1552 (Tanks V-1552-A, V-1552-B, V-1552-C, V-1552-BR)
Figure 6-131 Site V-1554 (Tanks V-1552)
Figure 6-132 Marina
Figure 6-133 Site V-4022
Figure 6-134 Site V-4111
Figure 6-135 Site V-4114

SADDLEBUNCH KEY

Figure 6-136 Saddlebunch Key (All Tanks)
Figure 6-137 Saddlebunch Key (Existing Tanks)
Figure 6-138 Saddlebunch Key (Closed Tanks)
Figure 6-139 Saddlebunch Transmitter Site (Tanks J-1563-R, J-1563-AR, J-1561, J-1561-A, J-1563)

NAVY BRANCH MEDICAL CLINIC

Figure 6-140 Navy Branch Medical Clinic (All Tanks)
Figure 6-141 Navy Branch Medical Clinic (Existing Tanks)
Figure 6-142 Navy Branch Medical Clinic (Closed Tanks)
Figure 6-143 Site L-3 (Tank L-3-A)
Figure 6-144 Site L-19
Figure 6-145 Medical Clinic (Tanks L-3, L-39, L-40, L-41, L-42, L-44)
Figure 6-146 Site L-47

FORMER HAWK MISSILE SITES

Figure 6-147 Hawk Missile Sites (Existing and Closed Tanks)
Figure 6-148 Hawk Missile Sites (Existing Tanks)
Figure 6-149 Hawk Missile Sites (Closed Tanks)
Figure 6-150 Typical Site Map for Hawk Missile Sites
Figure 6-151 Typical Site Map for Hawk Missile Sites

Executive Summary

This Tank Management Plan (Plan) has been prepared to comply with OPNAVINST 5090.1B (Chapter 16 – Storage Tanks), for installation-level use, in the management of above and underground storage tanks. This includes spill prevention, planning, regulatory compliance, and record keeping. The Plan lists all Navy-owned petroleum storage tanks, existing or closed, regulated and unregulated, at Naval Air Station (NAS) Key West, Florida.

Blasland, Bouck, & Lee, Inc. (BBL) developed this Tank Management Plan under Contract N62467-99-2745. In addition to meeting the requirements of OPNAVINST 5090.1B, this Plan includes recommendations for each tank to meet the regulatory requirements of Federal Regulations, 40 CFR 280 and 40 CFR 112, and Florida Department of Environmental Protection (FDEP) Chapter 62-761, Florida Administrative Code (FAC).

Since preparation of the previous Tank Management Plan in 1997, all tanks recommended for upgrading or replacement by the years 2000 or 2009 have been upgraded, removed or replaced. Therefore, as of the printing of this document, the Navy is well ahead of schedule for compliance and all tanks generally meet Category C performance standards.

A new component not in the previous Plan is the addition of detailed listings of closed tanks (**Table 4-2/6-2**), including site-specific maps.

Recommendations for best management practices are provided in this document. For instance, a new database table (**Table 4-1/6-1** of this Plan) was developed with information on existing tanks. Because tank numbers were inconsistent between various lists on base (i.e., the SPCC plan, Facility Response Plan, inspection sheets, regulatory records, etc.), a system for consistent numbering of tanks was implemented and the tank numbers presented in this Plan will now be considered the correct numbers.

This Plan is presented in two volumes for ease of use for Navy personnel. Volume 1 includes general tank management information and Volume II includes site-specific tank information and maps for existing and closed tanks.

This Plan should be considered a working document, and should be edited by hand as tank information changes.

Acronyms

The following list contains many of the acronyms and abbreviations used in this plan.

| | |
|-------------------|--|
| API | American Petroleum Institute |
| AST | Aboveground Storage Tank |
| BBL | Blasland, Bouck & Lee, Inc. |
| BCTF | Boca Chica Tank Farm |
| bls | below land surface |
| CAP | Corrective Action Plan |
| CAR | Contamination Assessment Report |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act of 1980 |
| CFR | Code of Federal Regulations |
| FAC | Florida Administrative Code |
| FRP | Facility Response Plan |
| FDEP | Florida Department of Environmental Protection |
| MSL | mean sea level |
| N/A | Not Applicable |
| NA | Natural Attenuation |
| NAS | Naval Air Station |
| NFPA | National Fire Protection Association |
| OPNAVINST | Chief of Naval Operations Instruction |
| O/W | Oil/Water Separator |
| PWC | Public Works Center |
| SAR | Site Assessment Report |
| SCB | Secondary Containment Basin |
| SOP | Standard Operating Procedures |
| SOUTHNAVFACENGCOM | Southern Division Naval Facilities Engineering Command |
| SPCC | Spill Prevention, Control and Counter measure |
| TIMS | Tank Inventory and Management System |
| TPFF | Trumbo Point Fuel Farm |
| USCG | United States Coast Guard |
| USEPA (EPA) | United States Environmental Protection Agency |
| USGS | United States Geological Survey |
| UST | Underground Storage Tank |

1. Introduction

1.1 Objective

Blasland, Bouck & Lee, Inc. (BBL) has prepared this Tank Management Plan (Plan) for SOUTHNAVFACENGCOM under Contract N62467-99-D-2745. The Plan provides an inventory of all aboveground and underground petroleum storage tanks (ASTs and USTs) at Naval Air Station (NAS) Key West, Florida. A Tank Management Plan is an operations and management document, for installation-level use, that stresses storage tank spill prevention, planning, regulatory compliance, and record keeping (OPNAVINST 5090.1B, 1999).

This Plan has been divided into two volumes for easier use. Volume I contains general tank management information, regulatory requirements, an overview of existing, closed, and proposed tanks, and general recommendations. Volume II provides specific tank descriptions and recommendations for regulatory compliance and/or best management practices. General base and site-specific maps are provided for existing tanks and for closed tanks (if the information was available). [Note: a “closed” tank is a tank that has been removed or closed-in-place in accordance with Rule 62-761.800(3), Florida Administrative Code (FAC).]

This Plan updates the information provided in the June 1997 Tank Management Plan (Rust, 1997). Since 1997, the majority of tanks on base have been closed, replaced with improved systems, or upgraded to meet regulatory requirements. New to this Plan is the addition of information and maps for closed tanks.

This Plan satisfies the requirements of OPNAVINST 5090.1B (Chapter 16 - Storage Tanks) and the UST Guidance Document (Chapter 8). The Plan addresses the regulatory requirements promulgated in the following federal and state documents:

- US EPA 40 CFR 280
- US EPA 40 CFR 112
- FDEP Chapter 62-761, FAC

1.2 Background and Base Description

NAS, Key West is located in Monroe County, Florida, approximately 150 miles southwest of Miami, (see **Figure 1-1**). The Naval Complex at NAS Key West is spread throughout several areas of the lower Florida Keys and encompasses approximately 5,000 acres. This Plan addresses the Naval Complexes at Boca Chica Key, Key West, Trumbo Point Annex, Fleming Key, Truman Annex, Sigsbee Park (Dredgers Key) and Saddlebunch Key. **Figure 1-2** shows the general location of the NAS property.

NAS Key West on Boca Chica is a Navy training facility for tactical aviation squadrons. The surrounding annexes support this mission. Storage of petroleum products is vital to operation of this facility.

The topography in and around the Key West area is typically flat and low with ground elevations ranging from 0 to 15 feet above mean sea level (MSL). The average elevation in the base area is approximately 4 to 5 feet MSL and is below the 100-year flood elevation of 8 feet MSL. Typically, the islands are bordered by low intertidal flats, which gradually slope to deeper water.

The original soils in the area are shallow marl and oolitic sands over limestone with limestone rock outcrops at many locations. Many areas at NAS Key West and the surrounding annexes have been filled and graded. In addition, many of the areas are essentially land mass developed from the disposal of dredge material (i.e., Sigsbee Park and parts of Trumbo Point Annex).

Approximately 50 percent of the Key West area is drained by storm sewers. Drainage occurs via overland flow and gravity feed to storm sewer systems that route runoff to the nearby ocean. The average annual rainfall in Key West is 40 inches with approximately half of the annual rainfall occurring in the months from June to October. The Keys have periodically been subject to hurricane activity (NAS, SPCC Plan, February 2000).

1.3 Project Approach

Prior to visiting the NAS Key West facility, BBL reviewed the following documents:

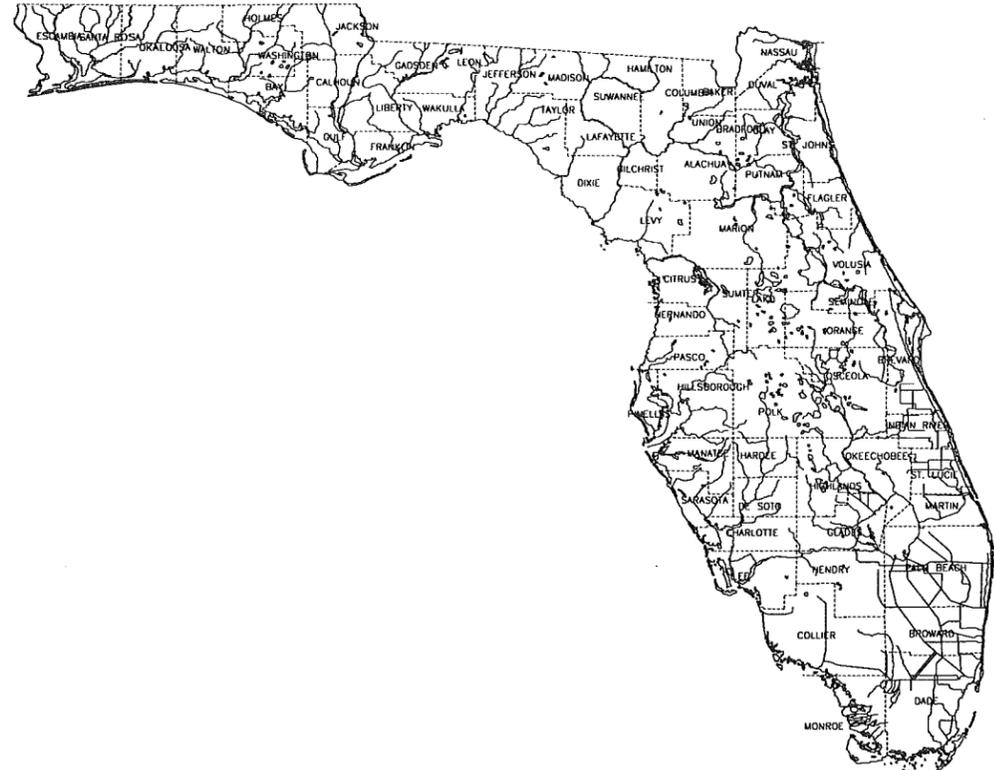
- TIMS Data Base, October 1999 (NAS)
- Oil Spill Prevention Control and Counter measures (SPCC) Plan, February 2000 (NAS)
- OPA 90 Facility Response Plan (FRP), February 1996 (NAS)
- NAS Key West Monthly Inspection Sheets, 2000
- FDEP List of Registered Tanks, August 2000
- Final Tank Management Plan, Naval Air Station Key West, Key West, Florida, June 1997 (RUST)
- NAS Key West Tank Manager's Database and Files
- Compliance Inspection Reports, 2000
- Numerous Environmental Reports for Sites on Base (Closure Reports, CARs, SARs, etc.)
- Available Site Maps

Information contained within reference materials provided tank location, status, material of construction, location of piping, and information on corrosion protection or leak detection. (Construction and site drawings on all tanks were not available.) These data were used to compile an initial list of existing and closed tanks.

Site visits were made to each existing tank location during the period August 2000 through January 2001. The aboveground tanks, associated piping, secondary containment, and leak detection devices at each site were inspected for compliance with State and Federal regulations. Data collected by this survey was used to update the site maps provided in **Section 6.0**. Due to the inaccessibility of underground tanks, information was gathered from Base reports, regulatory compliance inspections, and contract files.

For closed tanks, information was obtained from closure reports, assessment reports, and databases. In several cases, site maps and detailed tank information was unavailable. In such cases, the tank was assumed to be located at the building with the same number. For instance, Tank A-332 was presumed to be located near Building A-332.

Upon completion of field activities, all data (field and researched) were reviewed and evaluated. An updated TIMS database was generated (see **Section 2.0**). Tables providing existing and closed tank information (**Sections 4.0** and **6.0**) were also generated. Compliance recommendations and best engineering practices are included in **Sections 5.0** and **6.0** of this Plan.



AREA OF INTEREST



NAS KEY WEST
BOCA CHICA KEY

Marquesas
Keys

Fleming
Key

Key West

Stock Island

Saddlebunch

Big Coppitt Key

Sugarloaf
Key

Sugarloaf
Shores

Key

Summerland
Key

Cudjoe

Ram
Rod
Key

Torch
Key

Big
Pine
Key

1

Marathon

Key Colony
Beach

Duck Key

Layton

Lower
Matecumel
Key

NAVAL AIR STATION
KEY WEST, FLORIDA
TANK MANAGEMENT PLAN

SITE
LOCATION MAP

BBL

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

FIGURE
1-1



GULF OF MEXICO

SADDLEBUNCH

BOCA CHICA
HAWK MISSILE
SITE

FLEMING KEY

TRUMBO POINT ANNEX

NAVAL BRANCH
MEDICAL CLINIC

SIGSBEE PARK

US HIGHWAY 1

TRUMBO POINT ANNEX

KEY WEST

INTERNATIONAL AIRPORT
HAMACA HAWK MISSILE
SITE

BOCA CHICA FIELD
INDUSTRIAL AREA
SITE

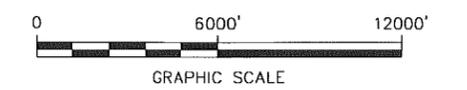
BOCA CHICA FIELD

GEIGER KEY
HAWK MISSILE
SITE

TRUMAN ANNEX

FORMER
TRUMAN ANNEX
COMMISSARY

ATLANTIC OCEAN



NAVAL AIR STATION
KEY WEST, FLORIDA
TANK MANAGEMENT PLAN

SITE VICINITY MAP

BBL BLASLAND, BOUCK & LEE, INC.
engineers & scientists

FIGURE
1-2

2. Record-Keeping

2.1 Tank Inventory and Management System

The Tank Inventory and Management System database, otherwise known as TIMS, was originally designed to be run on standard MS-DOS computer systems. The program was developed in 1992 by SOUTHNAVFACENGCOM and was used by personnel in the management of petroleum storage tanks. An updated Table 3-1 of TIMS in Microsoft Excel format was created by NAS Key West Public Works Department in 1998. This TIMS database was submitted annually to the State. In 1999, it was discontinued as the station was considered in compliance.

The TIMS database was created in the following manner: after all storage tank information was researched and confirmed, the data was entered into Table 3-1 of TIMS database. The primary fields for data entry were:

- Tank identification number
- Year of tank installation
- Tank regulated or not with the State
- Tank contents
- Tank capacity
- Tank design (i.e., aboveground or underground)
- Tank and associated piping materials of construction
- Types of leak detection
- Tank status (i.e., active, closed, etc.)
- Last date of tank system testing

Additional fields for data entry could also be included in the TIMS database. The additional information included:

- Proposed interim compliance measures
- Target dates
- Estimated budget
- Inventory recording
- Spill history
- Miscellaneous remarks

Data entry into the TIMS consisted of identification numbers, numeric values, codes, and verbal descriptions. Identification numbers were used to uniquely identify each tank that had existed or currently existed. Any tanks installed as replacements for older tanks had a distinct identification number in name, however similar as to establish a site history. Numeric values were also input as were tank installation dates and tank capacities. Codes were used to input tank contents, tank and piping construction, leak detection methods, and tank status. These codes can be found as **Table 2-1**, located at the end of this section. The codes in **Table 2-1** are from the original TIMS computer program, but have been updated with new FDEP codes (FDEP Storage Tank Registration Instructions, July 7, 1998). An example is an "A" was input for tank contents containing leaded gasoline. Written descriptions were used to identify proposed interim compliance measures, inventory recording, and spill history.

Program utilities allowed indexing and sorting of the data as well as final printouts. There are three types of output files available for printing that could be generated by the D-base algorithm system TIMS.

- Physical Information on Storage System (Table 3-1) of TIMS
- Management and Planning Information (Table 3-2) of TIMS
- Physical and Planning Information (Table 3-3) of TIMS

Similar tables can be generated from the Excel format prepared by NAS Key West, if desired.

2.1.1 NAS Key West TIMS

The October 1999 TIMS database in Excel format was provided by NAS Key West Public Works Department and was updated for this Plan. Although NAS Key West has discontinued use of TIMS for tank management, it is useful as a historical record of tanks. Therefore, TIMS Table 3-1 was updated to include all known current and former petroleum tanks on base.

Since 1999, many new tanks have been installed, either as new systems or as replacements to older systems. Similarly, many more tanks have since been closed, either by removal or closing in place, or taken out of service. Also, during research for this Plan, several former tanks were discovered that were never listed on the TIMS. Available information on these tanks was added to the TIMS table.

The updated TIMS database information in Microsoft Excel format is presented in **Table 2-2**, (which is comparable to Table 3-1 of TIMS). The storage tank information in the now current TIMS database has been compiled from the following:

- Existing TIMS information (October 1999)
- NAS Key West Tank Manager's Database
- FDEP Tank registration data
- Construction plans
- Personnel interviews
- NAS Key West OPA 90 FRP (1996)
- NAS Key West SPCC Plan (2000)
- Tank Management Plan (1997)
- Physical survey of tank sites
- Tank closure reports
- Available site maps

The storage tank identification numbers were assigned by the Navy Public Works Department Tank Manager. During the data gathering process, several discrepancies were discovered in tank numbering. Tank numbers varied between inspection logs, TIMS, SPCC Plan, regulatory records, the FRP, and tank labeling. These discrepancies were resolved by the Navy based on the following criteria. Tank numbers are assigned based on the number of the building the tank services or the closest numbered structure. Multiple tanks at one site are given letter affixes (i.e., A-317-A, A-317-B, A-317-C). Replacement tanks are given R affixes. For instance, a replacement tank for tank 1279-B would be 1279-BR. Following this format, tanks can be generally located based on tank number alone. There are exceptions to this system at NAS Key West, but they are few. For instance, tank V-4186 at Sigsbee Marina was named for its planning number, not as a replacement to V-3005.

There were also discrepancies as to tank size, contents, age, and design between available tank listings. This information was corrected on the TIMS by physical information noted on the tanks, the SPCC plan, the FRP, Tank Manager knowledge, and registration information.

Note that NAS Key West has always used the “Proposed Interim Compliance Measures” column more as a comments column, rather than using the program codes. BBL’s update of the TIMS continued this system.

On **Table 2-2**, corrections and additions to the October 1999 TIMS are in bold.

All petroleum tanks identified at NAS Key West have been incorporated into **Section 6.0** of this Plan. This chapter itemizes each tank, providing a description of pertinent tank information including recommended actions to meet regulatory requirements, and location maps. Tanks found at locations that are not property of the U.S. Navy were not included (i.e., USCG tanks). Per the scope of work, only petroleum storage tanks were updated and included.

2.2 Current NAS Key West Tank Management Record-Keeping

In addition to the TIMS database, the Tank Manager also kept his own database that listed tank numbers, FDEP Facility IDs, type, size, status, regulatory action, and point of contact (POC) person and phone extension. The Tank Manager’s database was incomplete, but pertinent information has been incorporated in **Tables 4-1/6-1** and **4-2/6-2** in **Sections 4.0** and **6.0** of this Plan for existing and closed tanks. **Tables 4-1/6-1** and **4-2/6-2** will replace the Tank Manager’s database. **Section 4.0** of this Plan describes the data inputs to these tables.

In recent years, NAS Key West Public Works Department has upgraded and/or replaced all tanks to meet regulatory requirements. Monthly inspections are performed on each tank, regulated or unregulated, to ensure the tanks are in proper working order. Records of these inspections are kept with the Tank Manager. **Appendix A** includes monthly tank inspection forms for:

- Vaulted tanks;
- ASTs with secondary containment;
- Interstitial monitor alarms;
- High-level alarms;
- Sumps;
- Dispenser lines; and
- POC lists.

Discrepancies and maintenance problems are noted and reported to the Tank Manager to order repairs and/or corrections. Tank Inspectors receive annual training to update them on tank regulations and maintenance requirements to ensure all NAS Key West tanks remain in compliance.

Records that the base must maintain regarding tank maintenance, repair, and operational practices are detailed in Rule 62-761.710, FAC (**Appendix C**).

TABLE 2-1
CODE LIST
TANK INVENTORY AND MANAGEMENT SYSTEM DATA BASE

| FILL TYPE | | | | |
|-----------------------|--|---|--|---|
| P | Pressurized System | S | Suction (Negative Pressure) System | |
| TANK CONTENTS | | | | |
| A | Leaded Gasoline | K | Kerosene | S Chlorine Compound |
| B | Unleaded Gasoline | L | Waste Oil/Used Oil | T Hazardous Substance (CERCLA) |
| C | Gasohol | M | Fuel Oil: On-Site Heating Only; USTs or ASTs <30K Gals | U Mineral Acid |
| D | Vehicular Diesel | N | Fuel Oil: Distribution; or On-Site Heating - ASTs >30K Gals | V Grades 5 and 6, Bunker 'C' Residual Oils |
| E | Aviation Gasoline | O | New and Lube Oil | W Petroleum-Based Additive Product |
| F | Jet Diesel Fuel | P | Generic Gasoline - Grade Unknown | X Miscellaneous Petroleum-Based Product |
| G | Diesel Fuel - Emergency Generator | Q | Pesticide | Y Unknown Substance |
| H | Diesel Fuel - Generator or Pump | R | Ammonia Compound | Z Other Substance: Please Identify |
| TANK CONSTRUCTION | | | | |
| A | Overfill Protection - Ball Check Valve | J | Secondary Containment: Synthetic Liner | S Other DEP Approved Secondary Containment System |
| B | Interior Lined or Lined Bottom Steel | K | Secondary Containment: Concrete, Synthetic, or Off-Site Clay | U Field Erected Tank |
| C | Bare, Painted, or Asphalted Steel | L | Compartmented | V Pipeless UST with Secondary Containment |
| D | Unknown | M | Spill Containment Bucket | W Tank Built on Supports |
| E | Fiberglass | N | Overfill Protection - Flow Shut Off | X Concrete |
| F | Fiberglass - Clad Steel Composite | O | Overfill Protection - Tight Fill | Y Polyethylene |
| G | Sacrificial Anode: Cathodic Prot and Coated | P | Level Gauges, High-Level Alarms | Z Other DEP Approved Tank Material |
| H | Impressed Current: Cathodic Prot and Coated | Q | Other DEP Approved Protection Method | |
| I | Double-Walled: Single Material | R | Double-Wall Construction: Dual Material | |
| PIPE CONSTRUCTION | | | | |
| A | Aboveground, No Contact with Soil | G | Synthetic Liner or Box/Trench Liner in Pipe Containment Area | M Double-Walled: Dual Material |
| B | Steel or Galvanized Metal | H | Airport/Seaport Hydrant System | N Approved Synthetic Material |
| C | Fiberglass | I | Suction Piping System | P Internal Piping: Internal Sump Riser, Connected to Tank |
| D | External Protective Coating | J | Pressurized Piping System | Y Unknown |
| E | Cathodically Protected with Sacrificial Anode or Impressed Current | K | Dispenser Lines | Z Other DEP Approved Piping Material |
| F | Double-Walled: Single Material | L | Bulk Product System | |
| LEAK DETECTION METHOD | | | | |
| A | Site Suitability Plan | J | Interstitial Monitoring - Piping Liner | S Statistical Inventory Reconciliation (SIR) (USTs) |
| B | Site Suitability Plan Exemption | K | Interstitial Monitoring - Double-Walled Piping | T Annual Tightness Test with Inventory (USTs) |
| C | Groundwater Monitoring Plan | L | Automatic Tank Gauging System (USTs) | U Bulk Product Piping Pressure Test |
| D | SPCC Plan | M | Manual Tank Gauging System (USTs) | V Suction Pump Check Valve |
| E | Interstitial Monitoring of UST Synthetic Liners | N | Groundwater Monitoring Wells | W Fiber-Optic Technologies |
| F | Interstitial Space - Double-Walled Tank | O | Vapor Monitoring Wells | X None |
| G | Electronic Line Leak Detector with Flow Shutoff | P | Vapor Monitoring with Dilution Procedures | Y Unknown |
| H | Mechanical Line Leak Detector | Q | Visual Inspection of AST Systems | Z Other DEP Approved Monitoring Method |
| I | Not Required - See Rule for Exemptions | R | Interstitial Monitoring of AST Tank Bottom | |

TABLE 2-1
CODE LIST
TANK INVENTORY AND MANAGEMENT SYSTEM DATA BASE

| TANK STATUS | | | | | |
|--|--|---|--|---|---|
| A | Properly Closed In Place | F | Unmaintained Tank | V | Temporary Out-of-Service |
| B | Removed from the Site | T | Out-of-Service Tank | Z | Non-Regulated Product |
| E | Construction Modified | U | In-Service | | |
| INTERIM COMPLIANCE PROCEDURE FOR TANKS LESS THAN 20,000 GALLONS | | | | | |
| A | Annual Tank Testing | E | Install Overfill Protection | M | Replace with Aboveground Tank |
| B | Biennial Tank Testing | F | Inventory Reconciliation | N | Replace with UST System |
| C | Install Line Leak Detector (Pressure System) | K | Being Investigated Under Other Programs | | |
| D | Install Compliance Monitoring Wells | L | Scheduled for Removal or Abandonment | | |
| INTERIM COMPLIANCE PROCEDURE FOR TANKS GREATER THAN 20,000 GALLONS | | | | | |
| D | Install Compliance Monitoring Wells | H | Groundwater Monitoring Plan | K | Being Investigated Under Other Programs |
| F | Inventory Reconciliation (Marginal) | I | Tracer Tests | | |
| G | SPCC Plan | J | Drain, Inspect, Clean, and Repair Each Three Years | | |

Sources:

Florida Department of Environmental Protection, Storage Tank Facility Registration Form, Registration Instructions and Codes List, July 7, 1998

TABLE 2-2 (TABLE 3-1)
 PHYSICAL INFORMATION ON STORAGE SYSTEMS
 TANK INVENTORY AND MANAGEMENT SYSTEM DATA BASE
 U.S. NAVY STORAGE SYSTEMS MANAGEMENT PLAN
 ACTIVITY ID# FL44KWTNAS NAVAL AIR STATION CONTACT: JIM SIMMEN (305) 293-2061

| TANK NO. | YEAR | CONTENTS | REGULATED | TANK SIZE GALLONS | ABOVE/ UNDER | PRESS/S UCT | TANK CONST | PIPE CONST | LEAK DETECT TYPE | STATUS | LAST TEST DATE | PROPOSED INTERIM COMPLIANCE MEASURES |
|----------|------|----------|-----------|-------------------|--------------|-------------|------------|------------|------------------|--------|----------------|--------------------------------------|
| A969 | 87 | G | YES | 5,000 | A | S | CPW | A | X | B | | REMOVED |
| D27 | 42 | V | YES | 10,000 | U | S | MUX | BIJ | BD | B | | REMOVED |
| L39 | 42 | A | YES | 1,000 | U | S | CW | B | X | B | | REMOVED |
| L42 | 42 | A | YES | 250 | U | S | C | B | X | B | | REMOVED |
| L44 | 42 | N | YES | 1,000 | U | S | C | B | X | B | | REMOVED |
| V1552 | 65 | N | YES | 280 | U | S | C | B | X | B | | REMOVED |
| V4111A | 90 | F | YES | 550 | U | S | EIMN | CDGI | DFM | B | | REMOVED |
| V-4111-B | 90 | L | NO | 200 | U | | X | CDGI | X | U | | IN COMPLIANCE |
| A127-B | 0 | E | YES | 560 | A | S | CW | B | X | B | | REMOVED |
| A127-C | 0 | E | YES | 560 | A | S | CW | B | X | B | | REMOVED |
| A127-D | 0 | E | YES | 1,000 | A | S | CW | B | X | B | | REMOVED |
| A317-A | 54 | A | YES | 2,000 | U | S | C | B | X | B | | REMOVED |
| A317-B | 54 | A | YES | 2,000 | U | S | C | B | X | B | | REMOVED |
| A317-C | 59 | A | YES | 2,000 | U | S | C | B | X | B | | REMOVED |
| A317-D | 54 | A | YES | 2,000 | U | S | C | B | X | B | | REMOVED |
| A317-E | 54 | A | YES | 2,000 | U | S | C | B | X | B | | REMOVED |
| A317-F | 59 | A | YES | 2,000 | U | S | C | B | X | B | | REMOVED |
| A317-G | 74 | D | YES | 6,000 | U | S | EM | CI | BD | B | | REMOVED |
| A317-H | 74 | B | YES | 6,000 | U | S | EM | C | BD | B | | REMOVED |
| A317-I | 74 | B | YES | 6,000 | U | S | EM | C | BD | B | | REMOVED |
| A322-A | 74 | B | YES | 10,000 | U | S | E | B | M | B | | REMOVED |
| A322-B | 61 | A | YES | 6,000 | U | S | C | B | M | B | | REMOVED |
| A322-C | 61 | B | YES | 6,000 | U | S | C | B | M | B | | REMOVED |
| A902A | 0 | B | YES | 1,500 | A | S | CRP | A | X | B | | REMOVED |
| A924 | 51 | E | YES | 25,000 | A | S | CKUW | ABL | X | B | | REMOVED |
| A925 | 51 | E | YES | 25,000 | A | S | CKUW | ABL | X | B | | REMOVED |
| A-938 | 53 | F | YES | 239,000 | A | P | BCPQSU | ABILE | BDQZ | U | | UPGRADED 99 |
| A-944 | 53 | F | YES | 239,000 | A | P | BCPQSU | ABILE | BDQZ | U | | UPGRADED 99 |
| A-945 | 57 | F | YES | 213,000 | A | P | BCPQSU | ABILE | BDQZ | U | | UPGRADED 99 |
| A-958 | 61 | F | YES | 298,000 | A | P | BCPQSU | ABILE | BDQZ | U | | UPGRADED 99 |
| B14-A | 42 | D | YES | 25,000 | U | S | C | B | X | A | | CLOSED IN PLACE |
| B14-B | 42 | D | YES | 10,000 | U | S | C | B | X | A | | CLOSED IN PLACE |
| D1 | 42 | D | YES | 586,000 | U | S | MUX | BIJ | BDM | B | | REMOVED |
| | | | | | | | | | | | | |

Bold indicates changes to October 1999 TIMS.

TABLE 2-2 (TABLE 3-1)
 PHYSICAL INFORMATION ON STORAGE SYSTEMS
 TANK INVENTORY AND MANAGEMENT SYSTEM DATA BASE
 U.S. NAVY STORAGE SYSTEMS MANAGEMENT PLAN
 ACTIVITY ID# FL44KWTNAS NAVAL AIR STATION CONTACT: JIM SIMMEN (305) 293-2061

| TANK NO. | YEAR | CONTENTS | REGULATED | TANK SIZE GALLONS | ABOVE/ UNDER | PRESS /SUCTION | TANK CONST | PIPE CONST | LEAK DETECT TYPE | STATUS | LAST TEST DATE | PROPOSED INTERIM COMPLIANCE MEASURES |
|---|------|------------------|-----------|-------------------|-----------------|-------------------|---------------|---------------|------------------------|--------|----------------------|---|
| D15 | 42 | V | YES | 37,485 | U | S | X | NONE | X | B | | REMOVED |
| D17 | 42 | L | YES | 18,742 | U | S | X | NONE | X | B | | REMOVED |
| D18 | 42 | L | YES | 18,742 | U | S | X | NONE | X | B | | REMOVED |
| D2 | 42 | D | YES | 586,000 | U | S | MUX | BIJ | BDM | B | | REMOVED |
| D3 | 42 | D | YES | 586,000 | U | S | MUX | BIJ | BDM | B | | REMOVED |
| D4 | 42 | D | YES | 1,134,000 | U | S | MUX | BIJ | BDM | B | | REMOVED |
| V3005 | 70 | B | YES | 4,000 | U | S | E | BIJ | BDM | B | | REMOVED |
| V4022A | 83 | B | YES | 10,000 | U | S | EM | CI | BDM | B | | REMOVED |
| V4022B | 83 | B | YES | 10,000 | U | S | EM | CI | BDM | B | | REMOVED |
| V4022C | 83 | B | YES | 10,000 | U | S | EM | CI | BDM | B | | REMOVED |
| V4022D | 83 | D | YES | 6,000 | U | S | EM | CI | BDM | B | | REMOVED |
| A127-A | O | E | YES | 5,000 | A | S | CW | BIJ | X | B | | REMOVED |
| A959 | 61 | G | YES | 298,000 | A | S | CSU | ABIJL | X | B | | REMOVED |
| A902B | 70 | L | YES | 800 | A | S | CW | | D | B | | REMOVED |
| A902C | 90 | B | YES | 800 | A | S | CKW | ABI | D | B | | REMOVED |
| D21 | 42 | D | YES | 10,000 | U | S | UX | BIJ | BD | B | | REMOVED |
| D6 | 42 | L | YES | 1,134,000 | U | S | MUX | BIJ | BDM | B | | REMOVED |
| L41 | 42 | Y | YES | 2,500 | U | S | C | B | X | B | | REMOVED |
| A126 | 86 | L | YES | 4,000 | A | S | CP | B | X | B | | REMOVED |
| A322-D | 61 | L | YES | 4,000 | U | S | C | B | X | B | | REMOVED |
| D88-A | O | Y | YES | 25,000 | U | S | C | B | X | B | | REMOVED |
| D88-B | O | Y | YES | 25,000 | U | S | C | B | X | B | | REMOVED |
| D88-C | O | Y | YES | 25,000 | U | S | C | B | X | B | | REMOVED |
| D88-D | O | Y | YES | 25,000 | U | S | C | B | X | B | | REMOVED |
| P8 | 13 | Z (Water) | YES | 740,000 | A | S | XPS | B | X | B | | REMOVED |
| 94 | 41 | O | YES | 835,000 | A | S | XPS | B | X | B | | REMOVED |
| 115 | 41 | N | YES | 227,178 | A | S | CPS | B | X | B | | REMOVED |
| 117 | 41 | N | YES | 25,000 | A | S | CPS | B | X | B | | REMOVED |
| 149-1 | 89 | B | YES | 2,000 | A | S | CKW | ABCI | D | B | | REMOVED |
| 149-2 | 89 | B | YES | 1,000 | A | S | CKW | ABCI | D | B | | REMOVED |
| 248-A | 40 | B | YES | 5,000 | U | S | C | B | DM | B | | REMOVED |
| 248-B | 40 | B | YES | 5,000 | U | S | C | B | DM | B | | REMOVED |
| 248-C | 40 | A | YES | 8,000 | U | S | C | B | D | B | | REMOVED |
| 1276-D | 61 | L | YES | 550 | U | S | C | B | X | B | | REMOVED |
| 1276-A | 61 | Y | YES | 10,000 | U | S | C | B | X | B | | REMOVED |
| Bold indicates changes to October 1999 TIMS. | | | | | | | | | | | | |

TABLE 2-2 (TABLE 3-1)
 PHYSICAL INFORMATION ON STORAGE SYSTEMS
 TANK INVENTORY AND MANAGEMENT SYSTEM DATA BASE
 U.S. NAVY STORAGE SYSTEMS MANAGEMENT PLAN
 ACTIVITY ID# FL44KWTNAS NAVAL AIR STATION CONTACT: JIM SIMMEN (305) 293-2061

| TANK NO. | YEAR | CONTENTS | REGULATED | TANK SIZE GALLONS | ABOVE/ UNDER | PRESS /SUCTION | TANK CONST | PIPE CONST | LEAK DETECT TYPE | STATUS | LAST TEST DATE | PROPOSED INTERIM COMPLIANCE MEASURES |
|---|------|----------|-----------|-------------------|--------------|----------------|------------|------------|------------------|--------|----------------|--------------------------------------|
| 1276-B | 61 | Y | YES | 10,000 | U | S | C | B | X | B | | REMOVED |
| 1276-C | 74 | B | YES | 10,000 | U | S | E | B | X | B | | REMOVED |
| 1279-A | 87 | L | YES | 300 | U | S | C | B | D | B | | REMOVED |
| A994 | 85 | F | YES | 560 | A | S | CKW | ABIJ | D | B | | REMOVED |
| C2076 | 85 | M | NO | 1,000 | A | S | CKW | ABIJ | D | B | | REMOVED |
| D29 | 85 | F | YES | 560 | A | S | CKW | AIJ | BD | B | | REMOVED |
| B48 | 69 | G | NO | 500 | A | S | CW | AIJ | X | B | | REMOVED |
| A940-1 | 53 | N | NO | 275 | A | S | CWP | A | X | B | | REMOVED |
| A940-2 | 0 | N | NO | 185 | A | S | CW | A | X | B | | REMOVED |
| A1006 | 69 | G | NO | 300 | A | S | CKW | ABIJ | D | B | | REMOVED |
| C60 | O | N | NO | 275 | A | S | CW | A | X | B | | REMOVED |
| C80 | O | N | NO | 250 | A | S | CW | A | X | B | | REMOVED |
| C-83 | 42 | F | NO | 275 | A | S | CW | AIJ | DQ | U | | IN COMPLIANCE |
| L40 | 42 | N | NO | 500 | A | S | CW | B | X | B | | REMOVED |
| A634 | 64 | M | NO | 265 | A | S | CW | AI | D | B | | REMOVED |
| A638 | 53 | M | NO | 1,000 | A | S | CKW | ABI | D | B | | REMOVED |
| A639 | 53 | M | NO | 1,000 | A | S | CW | ABI | D | B | | REMOVED |
| 648 | O | M | NO | 1,000 | A | S | CPW | A | X | B | | REMOVED |
| 649 | O | M | NO | 1,000 | A | S | CPW | A | X | B | | REMOVED |
| A727 | 53 | M | NO | 1,500 | A | S | CKW | ABI | D | B | | REMOVED |
| A733 | 65 | M | NO | 2,000 | A | S | CP | NONE | X | B | | REMOVED |
| A827 | 74 | F | NO | 330 | A | S | CKW | ABIJ | D | B | | REMOVED |
| G1 | O | N | NO | 650 | A | S | CR | A | X | B | | REMOVED |
| J1563 | 67 | N | NO | 10,000 | A | S | CPR | BC | CD | B | | REMOVED |
| L3 | 69 | N | NO | 3,000 | U | S | CG | BC | X | B | | REMOVED |
| V1274 | 90 | N | NO | 110 | A | S | CW | A | X | B | | REMOVED |
| V1554 | 90 | F | NO | 110 | A | S | CKW | ABIJ | D | B | | REMOVED |
| V984 | 72 | N | NO | 330 | A | S | CW | A | X | B | | REMOVED |
| V-988 | 90 | F | NO | 110 | A | S | CKW | AIJ | D | T | | OUT OF SERVICE |
| A-1004 | 87 | F | YES | 2,000 | A | S | CKW | AIJ | DQ | U | | IN COMPLIANCE |
| A1005 | O | N | NO | 2,000 | A | S | KW | B | X | B | | REMOVED |
| A1019 | 75 | N | NO | 200 | A | S | CW | A | X | B | | REMOVED |
| A1020 | 67 | F | NO | 300 | A | S | CKW | ABIJ | D | B | | REMOVED |
| A1025 | 60 | F | YES | 2,000 | A | S | CKW | ABIJ | D | B | | REMOVED |
| A1103 | 65 | F | YES | 4,000 | A | S | CKW | ABIJ | D | B | | REMOVED |
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TABLE 2-2 (TABLE 3-1)
 PHYSICAL INFORMATION ON STORAGE SYSTEMS
 TANK INVENTORY AND MANAGEMENT SYSTEM DATA BASE
 U.S. NAVY STORAGE SYSTEMS MANAGEMENT PLAN
 ACTIVITY ID# FL44KWTNAS NAVAL AIR STATION CONTACT: JIM SIMMEN (305) 293-2061

| TANK NO. | YEAR | CONTENTS | REGULATED | TANK SIZE GALLONS | ABOVE/ UNDER | PRESS /SUCTION | TANK CONST | PIPE CONST | LEAK DETECT TYPE | STATUS | LAST TEST DATE | PROPOSED INTERIM COMPLIANCE MEASURES |
|----------|------|----------|-----------|----------------------|-----------------|-------------------|---------------|---------------|------------------------|--------|-------------------|---|
| A1305 | O | N | NO | O | | | C | S | X | B | | REMOVED |
| A-132 | 61 | F | NO | 300 | A | S | CKW | ABIJ | DQ | U | | IN COMPLIANCE |
| A132-1 | O | O | NO | 300 | A | | CW | Y | X | B | | REMOVED |
| A132-2 | O | O | NO | 550 | A | | CPW | Y | E | B | | REMOVED |
| A137-A | 75 | M | NO | 10,000 | A | S | CPW | B | X | B | | REMOVED |
| A137-B | O | M | NO | 15,000 | A | S | CPW | B | X | B | | REMOVED |
| A225 | 85 | G | NO | 60 | A | S | CW | ABIJ | X | B | | REMOVED |
| A230 | 46 | F | Y | 2,000 | A | S | CWY | ABCIJ | D | B | | REMOVED |
| A244 | 54 | N | NO | 1,000 | U | S | C | BC | X | B | | REMOVED |
| A314 | 80 | F | NO | 300 | A | S | CW | ABIJ | D | B | | REMOVED |
| A325-1 | 63 | F | YES | 18,000 | A | S | CKW | ABIJ | D | B | | REMOVED |
| A325-2 | 63 | N | NO | 6,000 | A | S | CPW | BC | X | B | | REMOVED |
| A325-3 | 63 | F | NO | 250 | A | S | C | AIJ | D | B | | REMOVED |
| A328 | 68 | F | YES | 1,000 | A | S | CKW | AIJY | D | B | | REMOVED |
| A332 | 64 | G | YES | 2,000 | A | S | CW | B | X | B | | REMOVED |
| A-4010 | O | F | NO | 185 | A | S | CKW | ABIJ | DQ | U | | IN COMPLIANCE |
| A4011 | 87 | F | NO | 300 | A | S | CKW | AIJ | D | B | | REMOVED |
| A419-A | 44 | F | YES | 4,000 | A | S | CSW | ABCI | DM | B | | REMOVED |
| A419-B | 44 | F | YES | 4,000 | A | S | CSW | ABCI | DM | B | | REMOVED |
| A419-C | 44 | F | YES | 4,000 | A | S | CSW | ABCI | DM | B | | REMOVED |
| A4053 | O | N | NO | 1,000 | U | S | C | B | X | B | | REMOVED |
| A515 | 63 | M | NO | 2,000 | U | S | C | B | X | B | | REMOVED |
| A522 | 82 | M | NO | 700 | A | S | CW | A | X | B | | REMOVED |
| A624 | 61 | M | NO | 550 | A | S | CKW | AI | D | B | | REMOVED |
| A625 | 61 | M | NO | 550 | A | S | CRW | ABIJ | D | B | | REMOVED |
| A630 | 64 | M | NO | 560 | A | S | CKW | ABIJ | D | B | | REMOVED |
| A632 | 64 | M | NO | 560 | A | S | CKW | ABIJ | D | B | | REMOVED |
| 38 | O | F | NO | 300 | A | S | CW | AIJY | X | B | | REMOVED |
| 109 | O | M | NO | 2,000 | A | S | CPS | B | X | B | | REMOVED |
| 290 | 87 | G | Y | 700 | A | S | CKW | ABIJ | D | B | | REMOVED |
| 290-A | 87 | G | Y | 750 | A | S | CKW | ABIJ | D | B | | REMOVED |
| 437 | 58 | M | NO | 1,000 | U | S | C | BI | D | B | | REMOVED |
| 438 | 58 | M | NO | 1,000 | U | S | C | BI | D | B | | REMOVED |
| 439 | 58 | M | NO | 1,000 | U | S | C | BI | D | B | | REMOVED |
| 446 | 64 | N | NO | 280 | A | S | CPW | B | X | B | | REMOVED |

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 PHYSICAL INFORMATION ON STORAGE SYSTEMS
 TANK INVENTORY AND MANAGEMENT SYSTEM DATA BASE
 U.S. NAVY STORAGE SYSTEMS MANAGEMENT PLAN
 ACTIVITY ID# FL44KWTNAS NAVAL AIR STATION CONTACT: JIM SIMMEN (305) 293-2061

| TANK NO. | YEAR | CONTENTS | REGULATED | TANK SIZE GALLONS | ABOVE/ UNDER | PRESS /SUCTION | TANK CONST | PIPE CONST | LEAK DETECT TYPE | STATUS | LAST TEST DATE | PROPOSED INTERIM COMPLIANCE MEASURES |
|----------|------|----------|-----------|-------------------|--------------|----------------|------------|------------|------------------|--------|----------------|--------------------------------------|
| 576 | 54 | N | NO | 1,000 | U | | C | B | X | B | | REMOVED |
| 1279B | 88 | F | YES | 3,000 | A | S | CKW | ABIJ | D | B | | REMOVED |
| 1287 | 75 | M | NO | 2,000 | A | S | CW | B | X | B | | REMOVED |
| 1350 | 66 | M | NO | 1,000 | U | S | C | BI | D | B | | REMOVED |
| A-935-R | 95 | L | NO | 250 | A | P | CIO | ACI | FDQ | U | | VAULTED |
| A-924-R | 96 | L | YES | 10,000 | A | P | CIO | ACI | FDQ | U | | VAULTED |
| A-925-R | 96 | L | YES | 10,000 | A | | CIO | ACI | FDQ | U | | VAULTED |
| A-929 | 60 | L | YES | 1,500 | U | | C | B | D | B | | REMOVED |
| A-937 | O | F | NO | 500 | A | S | CKW | AB | DQ | U | | IN COMPLIANCE |
| A-940-3 | 94 | F | NO | 300 | A | S | CKW | AI | DQ | U | | IN COMPLIANCE |
| A-940-4 | 94 | F | NO | 250 | A | S | CKW | AI | DQ | U | | IN COMPLIANCE |
| A-940-5 | 94 | F | NO | 300 | A | S | CKW | AI | DQ | U | | IN COMPLIANCE |
| A986 | O | L | NO | O | U | | D | Y | Y | B | | REMOVED |
| A995 | O | F | NO | 265 | A | S | CW | ABIJ | X | B | | REMOVED |
| A-1004-A | O | F | NO | 50 | A | S | CKW | ABI | Q | U | | IN COMPLIANCE |
| A-1004-B | O | F | NO | 50 | A | S | CKW | ABI | Q | U | | IN COMPLIANCE |
| A-1019-R | 94 | F | NO | 25 | A | S | CWY | ACI | DQ | U | | IN COMPLIANCE |
| 1125 | O | F | NO | 275 | A | S | CKW | AB | DQ | U | | IN COMPLIANCE |
| A-4053-R | 84 | F | NO | 500 | A | S | CKW | ABI | DQ | U | | IN COMPLIANCE |
| A-4082 | 94 | F | NO | 500 | A | S | CIWO | AIJ | FDQ | U | | VAULTED |
| A4165 | O | F | YES | 1,000 | A | S | CW | AIJ | X | B | | REMOVED |
| A-4163 | O | G | NO | 500 | A | S | CW | | X | B | | REMOVED |
| A-229-A | 78 | H | NO | 200 | A | S | CWK | ABI | DM | U | | UPGRADED 97 |
| A-229-B | 78 | H | NO | 200 | A | S | CWK | ABI | DQ | U | | UPGRADED 97 |
| A-244-R | 96 | F | NO | 500 | A | S | CIW | ABI | FDQ | U | | VAULTED |
| A-422-A | 54 | F | YES | 300 | U | S | C | B | X | B | | REMOVED (aka A418) |
| A-419-D | O | F | NO | 300 | A | S | CIW | ABI | DFQ | U | | VAULTED |
| A-419-E | O | F | NO | 300 | A | S | CIW | ABI | DFQ | U | | VAULTED |
| A443 | O | L | NO | 2,000 | U | | CUX | AY | X | B | | REMOVED |
| A-447 | 44 | F | NO | 265 | A | S | CRWY | ABI | DQ | U | | IN COMPLIANCE |
| A-526-R | 96 | M | NO | 500 | A | S | CIM | ABI | DFQ | U | | VAULTED |
| A631 | 53 | M | NO | 560 | A | S | CKW | ABI | D | B | | REMOVED |
| A4115 | 92 | E | YES | 2,000 | A | S | CKW | ABIY | D | B | | REMOVED |
| B-27 | 75 | F | NO | 150 | A | S | CM | AB | DQ | U | | IN COMPLIANCE |

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 U.S. NAVY STORAGE SYSTEMS MANAGEMENT PLAN
 ACTIVITY ID# FL44KWTNAS NAVAL AIR STATION CONTACT: JIM SIMMEN (305) 293-2061

| TANK NO. | YEAR | CONTENTS | REGULATED | TANK SIZE GALLONS | ABOVE/ UNDER | PRESS /SUCTION | TANK CONST | PIPE CONST | LEAK DETECT TYPE | STATUS | LAST TEST DATE | PROPOSED INTERIM COMPLIANCE MEASURES |
|-----------|------|----------|-----------|-------------------|--------------|----------------|------------|------------|------------------|--------|----------------|--------------------------------------|
| B-28 | 94 | B | NO | 250 | A | S | Y | AI | DQ | T | | OUT OF SERVICE |
| B-28-A | 76 | F | NO | 150 | A | S | C | A | Q | U | | IN COMPLIANCE |
| PD-1-A | 80 | L | NO | 4,800 | U | | UX | BJ | X | T | | OUT OF SERVICE |
| PD-1-B | 85 | L | NO | 650 | U | | EI | BJ | X | T | | OUT OF SERVICE |
| B43 | 54 | A | YES | 280 | U | S | C | BJ | D | B | | REMOVED |
| B43A | O | Y | NO | 50 | A | S | CW | AI | X | B | | REMOVED |
| B48A | O | G | NO | 150 | A | S | C | | X | B | | REMOVED |
| C-5 | 76 | G | NO | 30 | A | S | C | A | X | T | | OUT OF SERVICE |
| C12-A | 76 | B | YES | 10,000 | U | S | EM | C | X | B | | REMOVED |
| C12-B | 76 | B | YES | 10,000 | U | S | EM | C | X | B | | REMOVED |
| C12-C | 76 | B | YES | 6,000 | U | S | E | Y | Y | B | | REMOVED |
| C12-D | 76 | B | YES | 10,000 | U | S | E | Y | Y | B | | REMOVED |
| C59 | 83 | B | NO | 300 | A | S | RWY | AJ | X | B | | REMOVED |
| C59A | 83 | F | NO | 50 | A | S | C | | X | B | | REMOVED |
| D25 | O | L | YES | 3,500 | U | | UX | BIJ | B | B | | REMOVED |
| D26A | 56 | H | YES | 500 | U | S | C | BIJ | B | B | | REMOVED |
| D-1292-BR | 91 | B | YES | 20,000 | A | S | CRW | AFIK | ABDKQ | U | | IN COMPLIANCE |
| D4169 | 92 | L | NO | 250 | A | S | CIMW | AJ | BDK | B | | REMOVED |
| F-15 | 88 | F | NO | 100 | A | S | C | | X | U | | REMOVED/CONVERTED |
| KW-400 | 93 | H | NO | 250 | A | S | CRW | AGI | KDQ | U | | IN COMPLIANCE |
| KW-600 | 94 | L | NO | 400 | U | | E | Y | DM | U | | OUT OF SERVICE |
| F-01 | 94 | G | YES | 2,650 | A | S | CKW | AGI | KDQ | U | | IN COMPLIANCE |
| F-01-A | 93 | H | NO | 50 | A | S | CY | AI | Q | U | | IN COMPLIANCE |
| F-01-B | 93 | G | NO | 50 | A | S | CY | AI | Q | U | | IN COMPLIANCE |
| F-01-C | 93 | G | NO | 50 | A | S | CY | AI | Q | U | | IN COMPLIANCE |
| F-01-D | 94 | H | NO | 25 | A | S | CY | AI | Q | U | | IN COMPLIANCE |
| F-01-E | 94 | L | NO | 400 | U | | E | Y | DM | U | | IN COMPLIANCE |
| F-02 | 95 | B | YES | 4,000 | A | S | CIWP | ABI | DQ | U | | VAULTED |
| 290-C | 75 | G | NO | 25 | A | S | C | | X | B | | REMOVED |
| 290-D | O | G | NO | 25 | A | S | C | | X | B | | REMOVED |
| 290-B | O | F | YES | 1,500 | A | S | CKW | AIJ | | B | | REMOVED |
| 290-E | O | G | NO | 25 | A | S | CW | AIJ | X | B | | REMOVED |
| 1279 | O | B | NO | 100 | A | S | CKW | A | X | B | | REMOVED |
| AG-509-A | 98 | B | NO | 12 | A | S | C | B | DQ | U | | IN COMPLIANCE |
| AG-510-A | 98 | B | NO | 12 | A | S | C | B | DQ | U | | IN COMPLIANCE |
| AG-759-A | 98 | B | NO | 12 | A | S | C | B | DQ | U | | IN COMPLIANCE |
| AG-760-A | 98 | B | NO | 12 | A | S | C | B | DQ | U | | IN COMPLIANCE |

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 PHYSICAL INFORMATION ON STORAGE SYSTEMS
 TANK INVENTORY AND MANAGEMENT SYSTEM DATA BASE
 U.S. NAVY STORAGE SYSTEMS MANAGEMENT PLAN
 ACTIVITY ID# FL44KWTNAS NAVAL AIR STATION CONTACT: JIM SIMMEN (305) 293-2061

| TANK NO. | YEAR | CONTENTS | REGULATED | TANK SIZE | ABOVE/ UNDER | PRESS /SUCT | TANK CONST | PIPE CONST | LEAK DETECT | STATUS | LAST TEST DATE | PROPOSED INTERIM COMPLIANCE MEASURES |
|---|------|----------|-----------|-----------|--------------|-------------|------------|------------|-------------|--------|----------------|--------------------------------------|
| 1351 | 66 | M | NO | 1,000 | U | S | C | BI | D | B | | REMOVED |
| 1355 | 95 | F | NO | 250 | A | S | CLOW | AI | DFQ | U | | VAULTED |
| 4163 | 93 | G | YES | 560 | A | S | CKW | ABI | D | B | | REMOVED |
| OW-1 | 90 | L | YES | 4,000 | U | | E | AD | D | A | | CLOSED IN PLACE |
| OW-1A | 85 | L | NO | 650 | U | | EI | AJ | X | A | | CLOSED IN PLACE |
| OW-102 | 90 | L | YES | 4,000 | U | | E | AD | D | A | | CLOSED IN PLACE |
| OW102A | 85 | L | NO | 650 | U | | EI | AJ | X | A | | CLOSED IN PLACE |
| V1274A | O | G | NO | 250 | A | S | C | | X | B | | REMOVED |
| V-1552-BR | 95 | H | NO | 500 | A | S | CIO | ABI | FDQ | U | | VAULTED |
| V1552C | O | H | NO | 10 | A | S | C | AJ | Q | U | | IN COMPLIANCE |
| V1554A | O | L | NO | 20 | A | | E | AB | D | U | | REMOVED |
| V4022E | O | Y | YES | 1,000 | U | | D | Y | Y | B | | REMOVED |
| V4022F | O | Y | YES | 1,000 | U | | D | Y | Y | B | | REMOVED |
| V4022G | O | Y | YES | 1,000 | U | | D | Y | Y | B | | REMOVED |
| V-4111-C | O | F | NO | 25 | A | S | C | ABI | Q | U | | IN COMPLIANCE |
| V4114 | 90 | M | NO | 550 | A | S | CRW | ABI | X | B | | REMOVED |
| J1561 | 94 | F | YES | 10,000 | A | S | CKW | IJ | X | B | | REMOVED |
| J1561A | 79 | F | NO | 100 | A | S | C | ABI | X | U | | REMOVED |
| L3A | 95 | F | YES | 3,000 | A | S | CKW | ABI | X | B | | REMOVED |
| 19 | O | G | NO | 300 | A | S | CW | ABI | X | B | | REMOVED |
| L47 | O | M | NO | 300 | A | S | C | ABI | X | U | | REMOVED |
| G-01 | O | G | YES | 2,000 | A | S | CKW | Y | X | A | | CLOSED IN PLACE |
| G-02 | O | G | NO | 500 | A | S | CW | Y | X | A | | CLOSED IN PLACE |
| A-4011-R | 98 | F | NO | 500 | A | S | CIO | ABI | FDQ | U | | VAULTED |
| A4054 | 96 | G | NO | 500 | A | S | CI | ABI | FDQ | U | | REMOVED |
| A-638-R | 98 | M | NO | 1,000 | A | S | CIO | ABI | FDQ | U | | VAULTED |
| A-639-R | 98 | M | NO | 1,000 | A | S | CIO | ABI | FDQ | U | | VAULTED |
| C-2076-R | 99 | F | YES | 1,000 | A | S | CIP | ABI | FDQ | U | | VAULTED |
| A-4085 | 98 | F | YES | 1,500 | A | S | CIM | ABI | FDQ | U | | VAULTED |
| 290-ER | 98 | F | YES | 6,000 | A | S | CIP | ABI | FDQ | U | | VAULTED |
| A-1025-R | 99 | F | NO | 500 | A | S | CIM | ABI | FDQ | U | | VAULTED |
| V-4111-AR | 98 | F | NO | 500 | A | S | CIM | ABI | FDQ | U | | VAULTED |
| Bold indicates changes to October 1999 TIMS. | | | | | | | | | | | | |

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 ACTIVITY ID# FL44KWTNAS NAVAL AIR STATION CONTACT: JIM SIMMEN (305) 293-2061

| TANK NO. | YEAR | CONTENTS | REGULATED | TANK SIZE GALLONS | ABOVE/ UNDER | PRESS /SUCTION | TANK CONST | PIPE CONST | LEAK DETECT TYPE | STATUS | LAST TEST DATE | PROPOSED INTERIM COMPLIANCE MEASURES |
|----------|------|----------|-----------|-------------------|--------------|----------------|------------|------------|------------------|--------|----------------|--------------------------------------|
| A-902-BR | 98 | L | NO | 500 | A | | CIRM | ABI | FDQ | U | | VAULTED |
| A994R | 98 | G | NO | 500 | A | S | CIR | ABI | FDQ | U | | REMOVED |
| A-4165-R | 98 | F | NO | 500 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| A-648-R | 96 | M | NO | 500 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| A-649-R | 98 | M | NO | 500 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| A-727-R | 98 | M | NO | 500 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| A-1006-R | 98 | F | NO | 250 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| A-1103-R | 98 | F | YES | 1,000 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| A-4054-R | 98 | F | NO | 500 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| A-1020-R | 98 | F | NO | 250 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| 291 | 97 | F | YES | 3500 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| 437-R | 97 | M | NO | 500 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| 438-R | 97 | M | NO | 500 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| 439-R | 97 | M | NO | 500 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| 1350-R | 97 | M | NO | 500 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| 1351-R | 97 | M | NO | 500 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| V-4111-R | 97 | F | NO | 500 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| D-29-R | 98 | F | NO | 500 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| A-322-E | 99 | B | YES | 10000 | A | S | CIRMP | FI | FDQ | U | | VAULTED |
| 22-F | 99 | B | YES | 6000 | A | S | CIRMP | FI | FDQ | U | | VAULTED |
| A-322-G | 99 | D | YES | 6000 | A | S | CIRMP | FI | FDQ | U | | VAULTED |
| V-4186 | 99 | B | YES | 5000 | A | S | CIRM | FI | FDQ | U | | VAULTED |
| V-4022-H | 99 | B | YES | 10000 | U | P | CIRMP | FI | D | U | | DOUBLE WALL |
| V-4022-I | 99 | B | YES | 6000 | U | P | CIRMP | FI | D | U | | DOUBLE WALL |
| V-4022-J | 99 | D | YES | 6000 | U | P | CIRMP | FI | D | U | | DOUBLE WALL |
| V-1554-R | 98 | F | NO | 500 | A | S | CIRM | ABI | FDQ | U | | REMOVED |
| A-230-R | 98 | F | YES | 2,000 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| A-419-F | 98 | F | NO | 5000 | A | S | CIRMP | ABI | FDQ | U | | VAULTED |
| A-419-G | 98 | F | NO | 5000 | A | S | CIRMP | ABI | FDQ | U | | VAULTED |
| 38-R | 98 | F | NO | 250 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| V-1274-R | 98 | F | NO | 500 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| V-1554-R | 98 | F | NO | 150 | A | S | CIRM | ABI | FDQ | U | | REMOVED |
| L-47-R | 98 | F | NO | 250 | A | S | CIRM | ABI | FDQ | U | | VAULTED |
| AG-103-A | 98 | B | NO | 12 | A | S | C | B | DQ | U | | IN COMPLIANCE |
| AG-104-A | 98 | B | NO | 12 | A | S | C | B | DQ | U | | IN COMPLIANCE |
| AG-233-A | 98 | B | NO | 12 | A | S | C | B | DQ | U | | IN COMPLIANCE |
| AG-234-A | 98 | B | NO | 12 | A | S | C | B | DQ | U | | IN COMPLIANCE |
| AG-263-A | 98 | B | NO | 12 | A | S | C | B | DQ | U | | IN COMPLIANCE |
| AG-264-A | 98 | B | NO | 12 | A | S | C | B | DQ | U | | IN COMPLIANCE |
| AG-837-A | 98 | B | NO | 12 | A | S | C | B | DQ | U | | IN COMPLIANCE |
| AG-840-A | 98 | B | NO | 12 | A | S | C | B | DQ | U | | IN COMPLIANCE |

id indicates changes to October 1999 TIMS.

TABLE 2-2 (TABLE 3-1)
 PHYSICAL INFORMATION ON STORAGE SYSTEMS
 TANK INVENTORY AND MANAGEMENT SYSTEM DATA BASE
 U.S. NAVY STORAGE SYSTEMS MANAGEMENT PLAN
 ACTIVITY ID# FL44KWTNAS NAVAL AIR STATION CONTACT: JIM SIMMEN (305) 293-2061

| TANK NO. | YEAR | CONTENTS | REGULATED | TANK SIZE GALLONS | ABOVE/ UNDER | PRESS /SUCTION | TANK CONST | PIPE CONST | LEAK DETECT TYPE | STATUS | LAST TEST DATE | PROPOSED |
|----------|------|----------|-----------|-------------------|--------------|----------------|------------|------------|------------------|--------|----------------|-----------------------------|
| | | | | | | | | | | | | INTERIM COMPLIANCE MEASURES |
| A-324 | O | Y | - | - | A | S | | | Y | B | UNK | REMOVED |
| A-526 | O | G | YES | 1,000 | U | S | C | C | Y | B | UNK | REMOVED |
| A-900 | O | G | NO | 500 | A | S | | C | Y | B | UNK | REMOVED |
| A-926 | O | E | YES | 50,000 | A | S | | C | Y | B | UNK | REMOVED |
| A-928 | O | E | YES | 50,000 | A | S | | C | Y | B | UNK | REMOVED |
| A-928 | O | E | YES | 100,000 | A | S | | C | Y | B | UNK | REMOVED |
| A-935 | O | F | YES | 1,000 | U | S | | C | Y | B | UNK | REMOVED |
| A-1019-A | O | G | NO | 20 | A | S | | C | Y | B | UNK | REMOVED |
| A-4109 | 87 | L | YES | 4,000 | A | S | C | C | Y | B | UNK | REMOVED |
| D-5 | O | Y | YES | 586,000 | U | S | X | C | Y | B | UNK | REMOVED |
| D-7 | O | Y | YES | 586,000 | A | S | X | C | Y | B | UNK | REMOVED |
| D-8 | O | Y | YES | | A | S | X | C | Y | B | UNK | REMOVED |
| D-9 | O | Y | YES | | A | S | X | C | Y | B | UNK | REMOVED |
| D-10 | O | Y | YES | | A | S | X | C | Y | B | UNK | REMOVED |
| D-11 | O | Y | YES | | A | S | X | C | Y | B | UNK | REMOVED |
| D-12 | O | Y | YES | | A | S | X | C | Y | B | UNK | REMOVED |
| D-13 | O | Y | YES | | A | S | X | C | Y | B | UNK | REMOVED |
| D-14 | O | Y | YES | | A | S | X | C | Y | B | UNK | REMOVED |
| D-16 | O | Y | YES | 18,242 | A | S | X | C | Y | B | UNK | REMOVED |
| D-1292 | O | Y | YES | 14,950 | A | S | | C | Y | B | UNK | REMOVED |
| D-1292-B | O | B | YES | 20,000 | A | S | C | C | Y | B | UNK | REMOVED |
| D-1292-R | O | Y | | | | S | C | C | Y | B | UNK | REMOVED |
| D-1293 | O | Y | YES | 14,950 | A | S | C | C | Y | B | UNK | REMOVED |
| USDA-1 | O | Y | YES | 8,000 | U | S | C | C | Y | B | UNK | REMOVED |
| USDA-2 | O | Y | YES | 4,000 | U | S | C | C | Y | B | UNK | REMOVED |
| USDA-3 | O | Y | YES | 4,000 | U | S | C | C | Y | B | UNK | REMOVED |
| USDA-4 | O | Y | NO | 250 | A | S | C | C | Y | B | UNK | REMOVED |
| 1 | O | Z(water) | | 1,680,000 | A | S | C | C | Y | B | UNK | REMOVED |
| 2 | O | Z(water) | | 1,680,000 | A | S | C | C | Y | B | UNK | REMOVED |
| 17 | O | Y | | 70,000 | A | S | C | C | Y | B | UNK | REMOVED |
| 52 | O | Y | YES | 74,000 | A | S | C | C | Y | B | UNK | REMOVED |
| 68 | O | Y | YES | 71,000 | A | S | C | C | Y | B | UNK | REMOVED |
| 69 | O | Y | YES | 91,000 | A | S | C | C | Y | B | UNK | REMOVED |
| 95 | O | | YES | 420,000 | A | S | C | C | Y | B | UNK | REMOVED |
| 104 | O | | | | A | S | C | C | Y | B | UNK | REMOVED |
| 149-1 | O | D | YES | 4,000 | A | S | C | C | Y | B | UNK | REMOVED |
| 149-2 | O | B | YES | 2,000 | A | S | C | C | Y | B | UNK | REMOVED |
| 290-A | O | G | YES | 750 | A | S | C | C | Y | B | UNK | REMOVED |
| 291-A | O | | YES | 3,800 | A | S | C | C | Y | B | UNK | REMOVED |
| 291-C | O | | | | A | S | C | C | Y | B | UNK | REMOVED |
| 1351 | O | G | NO | 50 | A | S | C | C | Y | B | UNK | REMOVED |
| V-1552-A | O | | | | | S | C | C | Y | R | UNK | REMOVED |
| V-1552-B | O | | | | | S | C | C | Y | R | UNK | REMOVED |
| | | | | | | | | | | | | |

Bold indicates changes to October 1999 TIMS.

TABLE 2-2 (TABLE 3-1)
 PHYSICAL INFORMATION ON STORAGE SYSTEMS
 TANK INVENTORY AND MANAGEMENT SYSTEM DATA BASE
 U.S. NAVY STORAGE SYSTEMS MANAGEMENT PLAN
 ACTIVITY ID# FL44KWTNAS NAVAL AIR STATION CONTACT: JIM SIMMEN (305) 293-2061

| TANK NO. | YEAR | CONTENTS | REGULATED | TANK SIZE GALLONS | ABOVE/ UNDER | PRESS /SUCT | TANK CONST | PIPE CONST | LEAK DETECT TYPE | STATUS | LAST TEST DATE | PROPOSED INTERIM COMPLIANCE MEASURES |
|---|------|----------|-----------|-------------------|--------------|-------------|------------|------------|------------------|--------|----------------|--------------------------------------|
| B-01 | O | G | YES | 2,000 | A | | | | | B | | REMOVED |
| B-02 | O | G | NO | 500 | A | | | | | B | | REMOVED |
| GATR-1 | O | G | YES | 4,000 | A | | | | | B | | REMOVED |
| GATR-2 | O | G | NO | 50 | A | | | | | B | | REMOVED |
| I-01 | O | G | YES | 2,000 | A | | | | | B | | REMOVED |
| I-02 | O | G | NO | 500 | A | | | | | B | | REMOVED |
| A-929-R | 98 | L | NO | 500 | A | S | CIP | ABI | FDQ | U | | VAULTED |
| A-986-R | 99 | L | NO | 500 | U | | | | | U | | O/W |
| A-4173 | 98 | F | YES | 2,000 | A | S | CIP | ABI | FDQ | U | | VAULTED |
| A-4174 | 99 | F | NO | 500 | A | S | CIOP | ABI | FDQRG | U | | VAULTED |
| NOAA-1 | O | G | YES | 1,000 | A | S | CIP | ABI | FDQ | U | | VAULTED |
| C-1 | O | F | NO | 250 | A | S | CK | B | Q | U | | |
| 149-2R | O | B | YES | 1,000 | A | S | CIO | ABI | FDQ | T | | OUT OF SERVICE |
| F-1761 | O | | NO | 250 | A | S | C | | | T | | OUT OF SERVICE |
| 149-1R | 96 | B | YES | 1,000 | A | S | CIP | ABI | FDQ | U | | VAULTED |
| 1279-BR | 99 | F | YES | 6,000 | A | S | CIP | ABI | FDQ | U | | VAULTED |
| J-1561-AR | 2000 | F | NO | 200 | A | S | CI | ACI | Q | U | | |
| J-1563-R | 94 | F | YES | 10,000 | A | S | CIO | ABI | FDQ | U | | |
| Bold indicates changes to October 1999 TIMS. | | | | | | | | | | | | |

3. Regulatory Requirements

3.1 Petroleum Storage System (UST/AST) Regulatory Overview

The actions and schedules established in this Tank Management Plan for both USTs and ASTs are based on the requirements set forth in Federal Regulations 40 CFR 112 and 40 CFR 280 respectively, (attached as **Appendix B**); and Florida Administrative Code (FAC) Chapter 62-761, revised July 13, 1998 (**Appendix C**). The schedules and directives established in the Consent Agreement between the FDEP and United States Navy, dated June 10, 1993, which applied to upgrading, replacement or closure of all regulated USTs located at any Navy installation in the State of Florida by December 31, 2000, have been met at NAS Key West.

The EPA has delegated authority to the FDEP to administer Federal management tank program regulations in the State of Florida. As part of this delegation, Florida has adopted regulations that are generally more stringent than the EPA regulations. The intent of the Florida regulations is to allow the use of engineering judgment to tailor the degree of fail-safe engineering to each facility based on spill risk, volume, spill impact zones, etc. This approach promotes the use of state-of-the-art prevention measures since the cost of spill cleanup and/or ground-water remediation exceeds the cost of prevention measures. Based on the facility location, 40 CFR 280 supercedes Chapter 62-761, FAC if the facility “could reasonably be expected to cause substantial harm to the environment by discharging into or on the navigable water or adjoining shorelines” (see Appendix C of 40 CFR 112). As such, nearly every tank, regulated or unregulated, at NAS Key West has secondary containment.

3.2 Chapter 62-761, FAC Summary

The following subsections generally summarize the regulatory requirements of Chapter 62-761, FAC for all regulated petroleum storage tanks at NAS Key West. Refer to **Appendix C** for detailed information.

3.2.1 Tank Registration

Rule 62-761.400, FAC outlines registration and financial responsibility requirements for ASTs and USTs. In general, USTs with capacities greater than 110 gallons and ASTs with capacities greater than 550 gallons must be registered. Exemptions to the size criteria are outlined in Rule 62-761.300, FAC.

3.2.2 Performance Standards

Section 4.0 of this Plan describes the tanks at NAS Key West. There are 109 operating existing tanks on base. According to Chapter 62-761, FAC guidelines, these tanks include: three regulated USTs; four oil/water separators or other process tanks, which are non-regulated; 28 regulated ASTs; and 75 non-regulated ASTs. All of the regulated tanks have been installed or upgraded to meet the regulatory performance standards of Category C Storage Tank Systems, as defined in **Table 3-1**. Performance standards for Category C Storage Tank Systems are provided in Rule 62-761.500, FAC (**Appendix C**).

3.2.3 Release Detection

Rule 62-761.600, FAC describes release detection standards for regulated ASTs and USTs.

At least once a month (but no more than 35 days) monitoring of tanks and piping must be performed to visually inspect leak detection devices to ensure the system is working properly and leaks have not occurred. A leak

detection device or method must be able to detect a 0.2 gallon per hour leak rate or a release of 150 gallons within one month. For Category C systems, release detection methods shall be either interstitial or visual monitoring of secondary containment. Small diameter pressurized piping shall have a line leak detector. A breach of integrity test shall be performed every five years for systems with closed interstitial spaces, unless the test is continuous (Section 62-761.610 (1)(b), FAC).

A breach of integrity test for Category C systems must be performed for double-walled USTs, double-bottomed ASTs, and for double-walled integrated piping that is in contact with soil. Double-walled shop-fabricated ASTs, piping sumps, and dispenser liners are not required to be tested for breach of integrity. The tests are performed at installation and every five years thereafter (Section 62-761.640(3)(a)(2), FAC).

Small diameter (3 inches or less), single-walled piping in contact with soil must have one of the following release detection systems:

- For suction or gravity piping – an annual line tightness test or external monitoring or release detection method.
- Pressurized piping – mechanical line leak detector or electronic line leak detector.

Release detection is not required for 1) piping associated with suction pumps with a single check valve installed directly below the suction pipes or 2) manifold piping systems.

Small diameter piping not in contact with soil must be visually inspected monthly.

Small diameter piping with secondary containment must have:

- Interstitial monitoring;
- Breach of integrity testing every five years; and
- A line leak detector with flow restrictor or automatic shutoff.

Bulk product piping in contact with soil must be pressure tested annually or have a monthly release detection system (Rule 62-761.640(2), FAC). For piping not in contact with soil, a monthly visual inspection will suffice. Bulk product piping with secondary containment in contact with soil must have interstitial monitoring and a breach of integrity test every five years.

Table 3-2 summarizes leak (release) detection method, monitoring, and maintenance schedules.

3.2.4 Repairs, Operation and Maintenance (O&M)

Rule 62-761.700 describes the requirements of the owner/operator to perform repairs, operations, and maintenance of AST and UST systems. The purpose of these procedures is to reduce or prevent releases to the environment. O&M for the system includes monthly examinations of spill containment devices (including removing water, as necessary), monitoring fuel transfers, annual testing of release detection devices, managing petroleum contact water, monitoring exterior coatings, and inventory control. **Subsection 3.2.3** of this Plan summarizes tank and piping integrity testing requirements.

3.2.5 Inspections and Records

Inspections should be performed in accordance with written procedures developed by the facility owner/operator. The written procedures and a record of the inspections should be signed by the appropriate supervisor or inspector,

and should be maintained for three years as a part of the SPCC Plan. Copies of forms and procedures used at NAS Key West are provided in **Appendix A** and discussed in **Section 2.0** of this Plan.

3.2.6 Out-of-Service and Closure Requirements

USTs may be taken out-of-service for a maximum of two years. ASTs may be taken out-of-service for a maximum of five years, or 10 years for systems with secondary containment. O&M procedures should continue as if the system was still active.

Closure requirements for storage tank systems shall be performed in accordance with Rule 62-761.800(3), FAC.

3.2.7 Incident and Discharge Response

An “incident” is a situation that indicates a discharge may have occurred. A “discharge” includes spilling, leaking, seeping, pouring, misapplying, emitting, emptying, or dumping of any regulated substance, which affects land and the surface and ground water of the State.

Table 3-3 summarizes reporting requirements.

Rule 62-761.820, FAC details incident and discharge response (**Appendix C**). In general, prompt action must be taken to investigate an incident or discharge and corrective action taken, including free product recovery. Within three days of discovery of a discharge, a test must be performed on the system if necessary to confirm a discharge and the system must be taken out-of-service until repaired, replaced, or closed. A discharge of petroleum may result in corrective actions under Chapter 62-770, FAC.

3.3 Security

All handling, processing, and oil storage areas should be fully fenced, and entrance gates locked and/or guarded when not in operation. The Boca Chica Tank Farm, the facility’s main bulk oil storage area, and the Trumbo Point Fuel Farm, are fully fenced with locked gates. All other tanks are located within secure areas of the base or within fenced and locked enclosures.

3.4 Personnel Training and SPCC Procedures

Owners or operators are responsible for instructing personnel in the proper operation and maintenance (O&M) of equipment to prevent spills and to inform them of applicable pollution control laws, rules and regulations. At NAS Key West, Tank Inspectors receive annual training.

Each applicable facility should have a designated point of contact (POC) to prevent oil spills and report to line management.

Owners or operators should schedule and conduct spill prevention briefings which discuss response activities for spill events or other failures, malfunctioning components, and recently developed or proposed precautionary measures.

3.5 Regulatory Websites

The Internet is the best source to get the latest petroleum storage tank rules, forms, and guidelines. Regulatory agencies frequently change and update these materials.

FDEP petroleum storage tank rules, forms, and guidelines can be found on the Internet at: <http://www.dep.state.fl.us>
 FDEP forms can now be completed online.

EPA rules can be found at: <http://www.epa.gov>

Table 3-1
FDEP UST/AST Categories

| Aboveground Storage Tanks (ASTs) >550 gallons | | Underground Storage Tanks (USTs) >110 gallons | |
|---|---|---|---|
| Category | Date Installed or Upgraded | Category | Date Installed or Upgraded |
| A | On or before March 12, 1991 | A | Systems containing pollutants installed on or before June 30, 1992 or containing hazardous substances installed before January 1, 1991. |
| B | After March 12, 1991, and before July 13, 1998 | B | Systems containing pollutants installed after June 10, 1992 or containing hazardous substances installed on or after January 1, 1991 and before July 13, 1998 |
| C | After July 13, 1998. Tank removed and/or relocated after July 13, 1998. | C | Systems containing pollutants or hazardous substances installed after July 13, 1998. Tanks removed and/or relocated after July 13, 1998. |

**Table 3-2
FDEP Storage Tank Standards and Monitoring Guidelines**

| LEAK DETECTION | |
|--|--|
| NEW TANKS (Category C) | Monthly Monitoring* or Monthly Inventory Control and Breach of Integrity Testing Every Five Years (You can only use this choice for 10 years after installation) – not required for shop-fabricated ASTs, piping sumps, and dispenser liners. |
| NEW & EXISTING PRES-SURIZED PIPING (Choice of one from each set) | Automatic Flow Restrictor Annual Line Testing Automatic Shutoff Device and Monthly Monitoring* Continuous Alarm System (except automatic tank gauging) |
| NEW & EXISTING SUCTION OR GRAVITY PIPING | Monthly Monitoring* or (except automatic tank gauging) Annual Line Testing No Requirements (if the system has the characteristics described in Rule 62-761.610(4)(a)(3), FAC |
| <p>*MONTHLY MONITORING INCLUDES AT LEAST ONE OF THESE: Automatic Tank Gauging Vapor Monitoring Interstitial Monitoring Ground-Water Monitoring And Visual Inspection Note: For USTs totally submerged in ground water, monthly monitoring of the interstice is required for the presence of water.</p> | |

| CORROSION PROTECTION METHODS | |
|-------------------------------------|--|
| NEW TANKS (Category C) | Coated and Cathodically Protected Steel or Fiberglass or Steel Tank Clad with Fiberglass |
| NEW PIPING | Coated and Cathodically Protected Steel or Fiberglass |
| EXISTING PIPING | Same Options as for New Piping or Cathodically Protected Steel |

| SPILL/OVERFILL PREVENTION |
|--|
| <p>ALL TANKS MUST HAVE AT LEAST ONE OF THESE: Catchment Basins and Automatic Shutoff Devices or Overfill Alarms or Ball Float Valves</p> |

Note: For exemptions to the requirements in this table, refer to Chapter 62-761, FAC.

Table 3-3

| INCIDENT AND DISCHARGE REPORTING REQUIREMENTS | | | |
|---|---------------------|---------------------|------------------|
| Incident Notification Form [Form 62-761.900(6)] | | | |
| Source (a) | Reporting Threshold | Report To | Timeframe |
| 1. - 4. Failed SIR (1), tightness, pressure or breach of integrity test; inspection results indicating a leak could have occurred (holes, etc.); unusual operating conditions; odors. | NA (2) | NRC (3), County (4) | Within 24 hours* |
| 5. Loss of substance on impervious surface. | >100 gallons | NRC (3), County (4) | Within 24 hours* |
| 6. Loss of substance inside diked area with secondary containment. | >500 gallons | NRC (3), County (4) | Within 24 hours* |
| 7. Positive response of leak detection devices or methods. | NA | NRC (3), County (4) | Within 24 hours* |
| 8. Free product in piping sump. | NA | NRC (3), County (4) | Within 24 hours* |

Table 3-3 (cont.)

| INCIDENT AND DISCHARGE REPORTING REQUIREMENTS | | | |
|--|-----------------------|---------------------|------------------|
| Discharge Reporting Form [Form 62-761.900(1)] | | | |
| Source (a) | Reporting Threshold | Report To | Timeframe |
| 1. Results of tests indicating a release to surface water, soil, or ground water from a UST system. | NA (2) | NRC (3), County (4) | Immediately |
| 2. Free product or sheen in soil, surface water, ground water, basement floors, utilities, or surrounding areas. | Free product or sheen | NRC (3), County (4) | Immediately |
| 3. Spill on a pervious surface. | ≥25 gallons | NRC (3), County (4) | Within 24 hours* |
| 4. Stained soils observed during a closure assessment. | Staining | NRC (3), County (4) | Within 24 hours* |

Notes:

- (1) Statistical Inventory Reconciliation
- (2) NA = Not Applicable
- (3) National Response Center (EPA and Coast Guard) – 1-800-424-8802
- (4) Monroe County – 308-292-6894
- (a) From Rule 62-761.450, FAC

* Not required if it is determined within 24 hours that discharge did not occur.

4. NAS Key West Petroleum Tanks

This section provides a summary of tanks (existing, closed, and proposed) at NAS Key West.

The number of petroleum storage tanks has greatly decreased at NAS Key West since preparation of the 1997 Tank Management Plan. The 1997 Tank Management Plan reported a total of approximately 165 tanks, including approximately 35 regulated ASTs and approximately 33 regulated USTs (Rust, June 1997). Currently, the total number of tanks on base is 109, including 28 regulated ASTs and three regulated USTs. By reducing the number of tanks, particularly USTs, NAS Key West has reduced its exposure to potential spills and regulatory requirements.

Section 6.0 provides tank-specific information and site-specific maps of existing tanks at NAS Key West. The following is a summary of tank information at NAS Key West.

4.1 Existing Tanks

Table 4-1/6-1 (at the end of this section and Section 6.0) is a list of all current tanks at NAS Key West, including in-service and out-of-service. The list includes the tank ID number, general location, FDEP Facility ID (if known), type (i.e. AST, UST, or O/W separator, or process tank), whether the tank is regulated under Chapter 62-761, FAC or not, capacity, contents, installation date, comments, and aliases. The alias column is provided because several sources of information at NAS Key West and regulatory records indicated different tank numbers for the same tank. The tank ID numbers listed in Table 4-1/6-1 are now considered the correct tank number.

The following summarizes existing tanks on base by location.

| BOCA CHICA | TOTAL | Regulated | Unregulated | Out of Service |
|----------------|-------|-----------|-------------|----------------|
| Tanks (total) | 63 | 16 | 47 | 0 |
| ASTs | 62 | 16 | 46 | 0 |
| USTs | 0 | 0 | 0 | 0 |
| O/W separators | 1 | 0 | 1 | 0 |
| Other | 0 | 0 | 0 | 0 |

| TRUMBO POINT ANNEX | TOTAL | Regulated | Unregulated | Out of Service |
|--------------------|-------|-----------|-------------|---------------------------------------|
| Tanks (total) | 10 | 3 | 7 | 3 |
| ASTs | 10 | 3 | 7 | 3 (2 unregulated) (1 regulated) |
| USTs | 0 | 0 | 0 | 0 |
| O/W separators | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 0 |

| FLEMING KEY | TOTAL | Regulated | Unregulated | Out of Service |
|----------------|-------|-----------|-------------|-----------------|
| Tanks (total) | 10 | 2 | 8 | 2 |
| ASTs | 8 | 2 | 6 | 1 (unregulated) |
| USTs | 0 | 0 | 0 | 0 |
| O/W separators | 2 | 0 | 2 | 1 (unregulated) |
| Other | 0 | 0 | 0 | 0 |

| TRUMAN ANNEX | TOTAL | Regulated | Unregulated | Out of Service |
|----------------|-------|-----------|-------------|----------------|
| Tanks (total) | 11 | 4 | 7 | 0 |
| ASTs | 11 | 4 | 7 | 0 |
| USTs | 0 | 0 | 0 | 0 |
| O/W separators | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 0 |

| SIGSBEE PARK | TOTAL | Regulated | Unregulated | Out of Service |
|----------------------|-------|-----------|-------------|-----------------|
| Tanks (total) | 11 | 4 | 7 | 1 |
| ASTs | 7 | 1 | 6 | 1 (unregulated) |
| USTs | 3 | 3 | 0 | 0 |
| O/W separators | 0 | 0 | 0 | 0 |
| Other (Process Tank) | 1 | 0 | 1 | 0 |

| SADDLEBUNCH KEY | TOTAL | Regulated | Unregulated | Out of Service |
|-----------------|-------|-----------|-------------|----------------|
| Tanks (total) | 2 | 1 | 1 | 0 |
| ASTs | 2 | 1 | 1 | 0 |
| USTs | 0 | 0 | 0 | 0 |
| O/W separators | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 0 |

| NAVY BRANCH MEDICAL CLINIC | TOTAL | Regulated | Unregulated | Out of Service |
|----------------------------|-------|-----------|-------------|----------------|
| Tanks (total) | 1 | 0 | 1 | 0 |
| ASTs | 1 | 0 | 1 | 0 |
| USTs | 0 | 0 | 0 | 0 |
| O/W separators | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 0 |

| FORMER HAWK MISSILE SITES | TOTAL | Regulated | Unregulated | Out of Service |
|---------------------------|-------|-----------|-------------|----------------|
| Tanks (total) | 1 | 1 | 0 | 0 |
| ASTs | 1 | 1 | 0 | 0 |
| USTs | 0 | 0 | 0 | 0 |
| O/W separators | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 0 |

4.2 Closed Tanks

Table 4-2/6-2 (at the end of this section and **Section 6.0**) lists 229 identified closed tanks as of January 22, 2001. A closed tank is a closed-in-place tank or removed tank. This table includes the Tank ID number, general location, facility ID, type, regulated or unregulated, capacity, contents, closure date, closure method (removed or closed in place), whether a closure report was prepared or not, if there are any environmental concerns remaining, comments, and aliases (whether a tank was known by another name).

Many of the tanks were closed prior to regulations specifying closure requirements. The dates of closure for all tanks on base is unknown. Most recently closed tanks (after 1995) had closure assessments, if required. Those sites still under assessment or remediation are listed in the "Comments" column of **Table 4-2/6-2**. Two of the sites closed in recent years may need additional assessment, according to available records. These sites are:

Tank B-01 – A Contamination Assessment was recommended in the Closure Report, but not performed.

Tank G-01 – A Contamination Assessment was recommended in the Closure Report, but not performed.

4.3 Proposed Tanks

There are currently only two proposed tanks for NAS Key West:

- 1) One 1,000-gallon regulated double-wall AST with associated 50-gallon day tank at Building A-324 on Boca Chica. The tank will contain JP-5 and will be used for an emergency generator. A copy of the plumbing floor plan is included in **Appendix D**.
- 2) One approximate 5,000-gallon regulated double-wall AST between Buildings 290 and 291 at Truman Annex. The tank will contain diesel or JP-5 for 2 emergency generators. Plans were not available at the time this Tank Management Plan was prepared. An approximate site location can be found on **Figure 6-111** of **Section 6.0** in **Volume II** of this Plan.

4/2001 J.M.S.
 The crossed
 root tanks are do not
 Unregulated and do not
 need ID.

TABLE 4-1/TABLE 6-1
 EXISTING TANKS AT NAS KEY WEST
 1/22/01

| TANK ID | LOCATION | FAC. ID | TYPE ^a | REGULATED Y/N | CAPACITY GAL. | CONTENTS | INSTALL DATE ^b | COMMENTS | ALIASES |
|---|--------------------|--------------------|-------------------|------------------|----------------------------------|--------------------------------|------------------------------|--|----------------|
| BOCA CHICA TANKS (63 Tanks Total Existing) | | | | | | | | | |
| A-132 | BC-Fire Station | | A | N | 300 ² | F | 61 | Upgraded with sec. containment. | |
| A-229-A | BC-Bldg A229 | | A | N | 200 ² | F | 78/97 | Upgraded with sec. containment. | |
| A-229-B | BC-Bldg A229 | | A | N | 200 ² | F | 78/97 | Upgraded with sec. containment. | |
| ✓A-230-R | BC- Bldg A230 | 9400051 | A | Y | 2000 ¹ | F | 99 | Vaulted. | A-230, A-230-B |
| Gone A-244-R | BC-Tower | 9400045 | A | N | 500 ² | F | 96 | Vaulted. | A-244, A-244A |
| ✓A-322-E | BC-Service Sta. | 9400045 | A | Y | 10000 ² | B1 ¹ 2 ³ | 99 | Vaulted. | |
| ✓A-322-F | BC-Service Sta. | 9400045 | A | Y | 6000 ² | B1 ¹ 2 ³ | 99 | Vaulted. | |
| ✓A-322-G | BC-Service Sta. | 9400045 | A | Y | 6000 ² | D1 ¹ 2 ³ | 99 | Vaulted. | |
| ✓A-419-D | BC-Power Plant | 9700016 | A | N | 300 ² | F | 99 | Vaulted. | |
| ✓A-419-E | BC-Power Plant | 9700016 | A | N | 300 ² | F | 99 | Vaulted. | |
| ✓A-419-F | BC-Power Plant | 9700016 | A | Y | 5000 ² | F | 99 | Vaulted. | |
| ✓A-419-G | BC-Power Plant | 9700016 | A | Y | 5000 ² | F | 99 | Vaulted. | |
| A-447 | BC-Bldg 447 | | A | N | 265 | F | 44 | Secondary containment. | A-447A. |
| Gone A-526-R | BC-Galley | 9700017 | A | N | 500 ² | F | 96 | Vaulted. | A-526, A-526A |
| A-638-R | BC-Bldg A638 | | A | N | 1000 ¹ 1 ² | M1 | 99 | Vaulted. | A-638 |
| A-639-R | BC-Bldg A639 | | A | N | 1000 ¹ 1 ² | M1 | 99 | Vaulted. | A-639 |
| A-648-R | BC-barracks | | A | N | 500 ¹ 1 ² | F | 97 | Vaulted. | A-648 |
| A-649-R | BC-barracks | | A | N | 500 ¹ 1 ² | F | 97 | Vaulted. | A-649 |
| A-727-R | BC-barracks | | A | N | 500 ¹ 1 ² | F | 98 | Vaulted. | A-727 |
| ✓A-902-BR | BC-Truck Fill | 9400050 | A | N | 500 ² | L1 ¹ 2 | 97 | Vaulted. | A-902 |
| ✓A-924-R | BC-Tank Farm | 8624969 | A | Y | 10000 ² | L1 ¹ 2 ³ | 96 | Tank to be moved S. of Bldg. A929. | A-924A |
| ✓A-925-R | BC-Tank Farm | 8624969 | A | Y | 10000 ² | L1 ¹ 2 ³ | 96 | Tank to be moved s. of Bldg. A929. | A-925A |
| ✓A-929-R | BC-Tank Farm | 8624969 | A | N | 500 ² | L1 ¹ 2 | 98 | Vaulted. | A-929 |
| ✓A-935-R | BC-Truck Fill | 9400050 | A | N | 250 ¹ | L1 ¹ 2 | 97 | Vaulted. | |
| A-937 | BC-Fuels Bldg. | | A | N | 500¹ | F | 44 | To be taken out of service 1/01. Removed 2/01 JMS | |
| ✓A-938 | BC-Tank Farm | 8624969 | A | Y | 239,000 ² | F | 53/99 | Double bottom. | |
| A-940-3 | BC-Fire Extng. Sys | | A | N | 300 ¹ | F | 95 | Secondary containment. | |
| A-940-4 | BC-Fire Extng. Sys | | A | N | 250 ¹ | F | 95 | Secondary containment. | |
| A-940-5 | BC-Fire Extng. Sys | | A | N | 300 ¹ | F | 95 | Secondary containment. | |
| ✓A-944 | BC-Tank Farm | 8624969 | A | Y | 239000 ² | F | 53/99 | Double bottom. | |
| ✓A-945 | BC-Tank Farm | 8624969 | A | Y | 213000 ² | F | 57/99 | Double bottom. | |
| ✓A-958 | BC-Tank Farm | 8624969 | A | Y | 298000 ² | F | 61/99 | Double bottom. | |
| A-986-R | BC-Bldg.986 | | O/W | N | 500 ² | L2 | 99 | Vaulted | |

**TABLE 4-1/TABLE 6-1
EXISTING TANKS AT NAS KEY WEST
1/22/01**

| TANK ID | LOCATION | FAC. ID | TYPE ^a | REGULATED | CAPACITY GAL. | CONTENTS | INSTALL | COMMENTS | ALIASES |
|---------------------|---------------------|--------------------|-------------------|-----------|---|----------|-------------------|-------------------------|-------------------|
| | | | | Y/N | | | DATE ^b | | |
| A-1004 | BC-Bldg. A1004 | 9400052 | A | Y | 2000 | F | 87 | Secondary containment. | |
| A-1004-A | BC-Bldg. A1004 | 9400052 | A | N | 50 | F | | Secondary containment. | |
| A-1004-B | BC-Bldg. A1004 | 9400052 | A | N | 50 | F | | Secondary containment. | |
| A-1006-R | BC-Bldg. A1006 | | A | N | 250 ¹ / ₂ | F | 94 | Vaulted. | A-1006 |
| A-1019-R | BC-Bldg. A1019 | | A | N | 25 ¹ / ₂ | F | 95 | Secondary containment. | A-1019A, A-1019 |
| A-1020-R | BC-TACAN sta. | | A | N | 250 ¹ / ₂ | F | 98 | Vaulted. | A-1020 |
| A-1025-R | BC-Transmitter Site | 9700021 | A | N | 500 ¹ / ₂ | F | 99 | Vaulted. | A-1025 |
| A-1103-R | BC-Generator Bldg. | 9400054 | A | Y | 1000 ¹ / ₁ | F | 98 | Vaulted. | A-1103A |
| A-1125 | BC-Bldg. 1125 | | A | N | 275 ¹ / ₂ | F | | Secondary containment. | |
| A-4010 | BC-Tank Farm | 8624969 | A | N | 185 ¹ / ₂ | F | 53 | Secondary containment. | |
| A-4011-R | BC-med clinic | | A | N | 500 ¹ / ₁ | F | 98 | Vaulted. | A-314 (formerly). |
| A-4053-R | BC-Radar Site | | A | N | 500 ¹ / ₁ | F | 84 | Secondary containment. | A-4053, A-4053-A |
| A-4054-R | BC-PAR | | A | N | 500 ¹ / ₂ | F | 98 | Vaulted. | A-4054 |
| A-4082 | BC KW Tacts | | A | N | 500 ¹ / ₁ / ₂ | F | 94 | Vaulted. | |
| A-4085 | BC-RATCC | | A | Y | 1500 ¹ / ₁ / ₂ | F | 98 | Vaulted. | A-230-C |
| A-4165-R | BC-Airstart 2 | 9700126 | A | N | 500 ¹ / ₂ | F | 98 | Vaulted. | A-4165 |
| A-4173 | BC-FAA Ctr | 9602597 | A | Y | 2000 ¹ / ₁ / ₂ | F | 98 | Vaulted. Remote system. | 1A. |
| A-4174 | BC-WWTP | | A | N | 500 | F | 99 | Vaulted. | A-827 |
| AG103-A | BC-arresting gear | | A | N | 12 | B1\3 | 98 | | |
| AG104-A | BC-arresting gear | | A | N | 12 | B1\3 | 98 | | |
| AG233-A | BC-arresting gear | | A | N | 12 | B1\3 | 98 | | |
| AG234-A | BC-arresting gear | | A | N | 12 | B1\3 | 98 | | |
| AG263-A | BC-arresting gear | | A | N | 12 | B1\3 | 98 | | |
| AG264-A | BC-arresting gear | | A | N | 12 | B1\3 | 98 | | |
| AG509-A | BC-arresting gear | | A | N | 12 | B1\3 | 98 | | |
| AG510-A | BC-arresting gear | | A | N | 12 | B1\3 | 98 | | |
| AG759-A | BC-arresting gear | | A | N | 12 | B1\3 | 98 | | |
| AG760-A | BC-arresting gear | | A | N | 12 | B1\3 | 98 | | |
| AG837-A | BC-arresting gear | | A | N | 12 | B1\3 | 98 | | |
| AG840-A | BC-arresting gear | | A | N | 12 | B1\3 | 98 | | |

**TABLE 4-1/TABLE 6-1
EXISTING TANKS AT NAS KEY WEST
1/22/01**

| TANK ID | LOCATION | FAC. ID | TYPE ^a | REGULATED Y/N | CAPACITY GAL. | CONTENTS | INSTALL DATE ^b | COMMENTS | ALIASES |
|---|---------------------------------------|--------------------|-------------------|------------------|------------------|----------|------------------------------|---|---------------|
| TRUMBO POINT TANKS (10 Tanks Total Existing) | | | | | | | | | |
| B-27 | TP-Nav. Air Weopon Ctr | | A | N | 150\1\2 | F | 75 | New sec.containment. Not fixed in place. | |
| B-28-A | TP-Nav. Air Weopon Ctr | | A | N | 150\1\2 | F | 76 | New sec.containment. Not fixed in place. | |
| B-28 | TP-Hangar C-1 | | A | N | 250\2 | B\1 | 94 | Temporary storage. Out of service. | |
| C-1 | TP-Pier D-1 | | A | N | 250\1 | F | | Not fixed in place. Fuels forklifts. | D-1? |
| C-5 | TP-Firestation | | A | N | 30\1\2 | G\1 | 76 | Out of service. | |
| C-83 | TP | | A | N | 275 | F | 44 | Secondary containment. | |
| ✓C-2076-R | TP-BOQ | 9800230 | A | Y | 1000\1\2 | F | 99 | Vaulted. | C-2076 |
| ✓D-29-R | TP-Fuel Farm | 9200359 | A | N | 500\2 | F | 98 | Vaulted. | D29 |
| ✓D-1292-BR | TP-Fuel Farm | 9200359 | A | Y | 20000\2 | B\1 | 91 | Secondary containment. | D1292B, D1292 |
| ✓149-2R | TP-Hangar C-1 | 8839992 | A | Y | 1000\1 | B\1 | | Vaulted. Out of service. Formerly at TA Spill Resp. | |
| FLEMING KEY TANKS (10 Tanks Total Existing) | | | | | | | | | |
| ✓F-01 | F-special forces | 9700006 | A | Y | 2650\2 | G\1\2\3 | 94 | Secondary containment. | |
| ✓F-01-A | F-spcl fcs-Bldg. KW200 | 9700006 | A | N | 50\1 | H\3 | 93 | Floor drain to F-01-E | |
| ✓F-01-B | F-spcl fcs-Bldg. KW200 | 9700006 | A | N | 50\1 | G\3 | 93 | Floor drain to F-01-E | |
| ✓F-01-C | F-spcl fcs-Bldg. KW200 | 9700006 | A | N | 50\1 | G\3 | 93 | Floor drain to F-01-E | |
| ✓F-01-D | F-spcl fcs-Bldg. KW200 | 9700006 | A | N | 25\1 | H\3 | 94 | Floor drain to F-01-E | |
| ✓F-01-E | F-spcl fcs-Bldg. KW200 | 9700006 | O/W | N | 400\1\2 | L\2\3 | 94 | | KW200 |
| ✓F-02 | F-sp forces boat launch | 9700006 | A | Y | 4000 | B\1\2 | 95 | Vaulted | |
| KW-400 | F-sp forces dive tower | | A | N | 250\2 | G\2 | 93 | Secondary containment. | |
| KW-600 | F-Sp forces | | O/W | N | 400 | L\2 | 94 | Out of service. | |
| F-1761 | F-Animal Control Ctr | 9100022 | A | N | 250 | | | Out of service. | |
| TRUMAN ANNEX TANKS (12 Tanks Total Existing) | | | | | | | | | |
| 38-R | TA- Caroline St. | | A | N | 250\1 | F | 98\3 | Vaulted. | 38 |
| ✓149-1R | TA- oil spill response | 9400055 | A | Y | 1000\1 | B\1\2 | 96 | Vaulted. | 149-1 |
| ✓290-ER | TA- Caroline <i>JSSROc</i> | 9700003 | A | Y | 6000\1 | F | 97 | Vaulted. + 2 tanks ~50 gal each under gen. | 290E |
| ✓291 | TA-Bldg 291 - <i>JIAFFE</i> | 9700846 | A | Y | 3500\3 | F | 97 | Vaulted. | 291R |
| ✓437-R | TA-barracks | 9400058 | A | N | 500\2 | F | 97 | Vaulted. | 437 |
| ✓438-R | TA-barracks | 9400058 | A | N | 500\1 | F | 97 | Vaulted. | 438, 438-A |
| ✓439-R | TA-barracks | 9400058 | A | N | 500\1 | F | 97 | Vaulted. | 439 and 439-A |
| ✓1279-BR | TA-JIAFFE East | 9400058 | A | Y | 6000\1 | F | 99* | Vaulted. | 1279, 1279B |
| 1350-R | TA-barracks | | A | N | 500\2 | F | 97 | Vaulted. | 1350 |
| 1351-R | TA-barracks | | A | N | 500\2 | F | 97 | Vaulted. | 1351 |
| 1355 | TA Bldg 1355 | | A | N | 250\1 | F | 95 | Vaulted. | |
| 290R | TA- <i>JIAFFE</i> | 9400058 | A | Y | 4000 | F | 01 | Vaulted | |

**TABLE 4-1/TABLE 6-1
EXISTING TANKS AT NAS KEY WEST
1/22/01**

| TANK ID | LOCATION | FAC. ID | TYPE ^a | REGULATED Y/N | CAPACITY GAL. | CONTENTS | INSTALL DATE ^b | COMMENTS | ALIASES |
|---|--------------------------|--------------------|-------------------|------------------|-----------------------------------|---|------------------------------|--|------------------|
| SIGSBEE TANKS (11 Tanks Total Existing) | | | | | | | | | |
| V-1274-R | S-Lift station | | A | N | 500 ¹ / ₂ | F | 98 | Vaulted. | V-1274, V-1274A |
| W-1552-BR | S-Pump Station | 9400057 | A | N | 500 ¹ / ₂ | F | 95 | Vaulted. | V-1552-B |
| W-1552-C | S-Pump Station | 9400057 | A | N | 10 ¹ / ₃ | H ¹ / ₃ | | | |
| V-4186 | S-Marina | 8839992 | A | Y | 5000 ¹ / ₂ | B ¹ / ₁ / ₂ / ₃ | 99 | Vaulted. | V-3005, V-3005-R |
| V-4022-H | S-service station | 9400056 | U | Y | 10,000 | B ¹ / ₃ | 99 | Double wall. | V-4022E |
| V-4022-I | S-service station | 9400056 | U | Y | 6,000 | B ¹ / ₃ | 99 | Double wall. | V-4022F |
| V-4022-J | S-service station | 9400056 | U | Y | 6,000 | D ¹ / ₃ | 99 | Double wall. | V-4022G |
| V-4111-AR | S-Commissary | 9400057 | A | N | 500 ¹ / ₂ | F | 98 | Vaulted. | V-4111A |
| V-4111-B | S-Commissary | 9400057 | P | N | 200 | L | | Emergency transformer oil reservoir, never used. | |
| V-4111-C | S-Commissary | 9400057 | A | N | 25 | F | | Out of service. | |
| W-4114-R | S-Lodge | | A | N | 500 ¹ / ₂ | F | 98 | Vaulted. | V-4114 |
| SADDLEBUNCH TANKS (2 Tanks Total Existing) | | | | | | | | | |
| J-1561-AR | Saddlebunch Bldg. 1561 | 9200333 | A | N | 200 | F | 100 | New. | J1561A. |
| J-1563-R | Saddlebunch Bldg. 1561 | 9200333 | A | Y | 10000 ¹ / ₁ | F | 94 | Secondary containment. | |
| NAVY BRANCH MEDICAL CLINIC TANKS (1 Tank Total Existing) | | | | | | | | | |
| L-47-R | Medical Clinic | 9200204 | A | N | 250 ¹ / ₁ | F | 99 | Vaulted. | L-47 |
| FORMER HAWK MISSILE SITE TANKS (1 Tank Total Existing) | | | | | | | | | |
| NOAA-1 | BC-Fmr Hawk Missile Site | 9700008 | A | Y | 1000 ¹ / ₁ | G ¹ / ₁ | | Vaulted. | |

NOTES:

Tank Source Information for tanks was based on site visit, SPCC plan, Tims (from SPCC plan), Navy Tank Manager records, and Navy Tank Inspection List, in that order.

¹1 = from site visit ²2 = from SPCC Plan Table 4-1 ³3 from TIMs ⁴4 Inspection List ⁵5 Facility Response Plan

BC = Boca Chica S = Sigsbee F = Fleming Key TA = Truman Annex TP = Trumbo Point

All installation dates are from Table 4-1 through 4-4 of SPCC Plan, except * = from closure report.

See Table 2-1 for codes.

a\ A = Aboveground Storage Tank, U = Underground Storage Tank, O/W = Oil/water separator, P = Process (Overflow) Tank

b\ year upgraded

Source: Blasland, Bouck & Lee, Inc., 2001.

TABLE 4-2 (.E 6-2)
 CLOSED TANKS AT NAS KEY WEST
 1/22/01

| TANK ID | LOCATION | FAC. ID | TYPE ^a | REG. ^b Y/N | CAPACITY GAL. | CONTENT | CLOSE DATE ^c | CLOSURE METHOD ^c | CLOSURE REPORT Y/ | CONCERNS Y/N | COMMENTS | ALIASES |
|---|--------------------|---------|-------------------|-----------------------|--------------------|----------------|-------------------------|-----------------------------|-------------------|----------------|---|-----------|
| BOCA CHICA TANKS (86 Total Closed Tanks) | | | | | | | | | | | | |
| A-126 | BC-Bldg A-126 | | A | Y | 4000 | G1 | 4/23/96 | R | Y | N | NFA received fm FDEP 8/23/99. | |
| A-127-A | BC-Flying Club | 9700019 | A | Y | 5000 ³ | E | 92 | R | | Y | Site under NA monitoring. | |
| A-127-B | BC-Flying Club | 9700019 | A | Y | 560 ³ | E | 92 | R | | Y | Site under NA monitoring. | |
| A-127-C | BC-Flying Club | 9700019 | A | Y | 560 ³ | E | 92 | R | | Y | Site under NA monitoring. | |
| A-127-D | BC-Flying Club | 9700019 | A | Y | 1000 ³ | E | 92 | R | | Y | Site under NA monitoring. | |
| A-132-1 | BC-Firehouse | | A | N | 300 ² | O | 92 | R | | N ² | | |
| A-132-2 | BC-Firehouse | | A | Y | 550 ² | O | 92 | R | | N ² | | |
| A-137-A | BC-Service Station | 9400049 | A | Y | 10000 ³ | M | | R | | | | |
| A-137-B | BC-Service Station | 9400049 | A | Y | 15000 ³ | M | | R | | | | |
| A-225 | BC-Bldg A-225 | | A | N | 60 ³ | G | 97 | R | | | | |
| A-230 | BC-Tower | 9400051 | A | Y | 4000 ² | F ³ | 99 | R | | | | |
| A-244 | BC-Control Tower | 9400051 | U | N ³ | 1000 | N ³ | 9/97/95 | R | Y | N | FDEP issued NFA 8/28/98. | |
| A-314 | BC-Bldg. 314 | | A | N | 300 ³ | F | | R ⁴ | | | | |
| A-317-A | BC-Motor Pool | 9400049 | U | Y | 2000 | A | 92 ² | R | | Y | Site under assessment. | |
| A-317-B | BC-Motor Pool | 9400049 | U | Y | 2000 | A | 92 | R | | Y | Site under assessment. | |
| A-317-C | BC-Motor Pool | 9400049 | U | Y | 2000 | A | 92 | R | | Y | Site under assessment. | |
| A-317-D | BC-Motor Pool | 9400049 | U | Y | 2000 | A | 92 | R | | Y | Site under assessment. | |
| A-317-E | BC-Motor Pool | 9400049 | U | Y | 2000 | A | 92 | R | | Y | Site under assessment. | |
| A-317-F | BC-Motor Pool | 9400049 | U | Y | 2000 | A | 92 | R | | Y | Site under assessment. | |
| A-317-G | BC-Motor Pool | 9400049 | U | Y | 6000 | D | 4/6/99 | R | Y | Y | Site under assessment. | |
| A-317-H | BC-Motor Pool | 9400049 | U | Y | 6000 | B | 4/6/99 | R | Y | Y | Site under assessment. | |
| A-317-I | BC-Motor Pool | 9400049 | U | Y | 6000 | B | 4/6/99 | R | Y | Y | Site under assessment. | |
| A-322-A | BC-NEX | 9400045 | U | Y | 10000 | B | 8/10/95 | R | Y | Y | Site under NA monitoring. | |
| A-322-B | BC-NEX | 9400045 | U | Y | 6000 | A ³ | 8/10/95 | R | Y | Y | Site under NA monitoring. | |
| A-322-C | BC-NEX | 9400045 | U | Y | 6000 | B | 8/10/95 | R | Y | Y | Site under NA monitoring. | |
| A-322-D | BC-NEX | 9400045 | U | Y | 4000 | L | 8/12/95 | R | Y | Y | Site under NA monitoring. | |
| A-324 | BC | | A | | | | | R | | | | |
| A-325-1 | BC-CARIBROC | 9700015 | A | Y | 18000 | F | 8/26/98 | R | Y | N | | |
| A-325-2 | BC-CARIBROC | 9700015 | A | N ³ | 6000 ¹ | N ³ | 4/23/96 | R | Y | N | Secondary containment. No samples collected during closure. | |
| A-325-3 | BC-CARIBROC | 9700015 | A | N ² | 250 ² | F ³ | 98 | R | | N | | |
| A-328 | BC-Bldg. A328 | | A | Y | 1000 ¹ | F | 4/13/98 | R | Y | N | | |
| A-332 | BC-Bldg. A-332 | | A | Y | 2000 | G | 4/19/96 | R | Y | N | | |
| A-419-A | BC-Power Plant | 9700016 | A | Y | 4000 | F | 4/8/99 | R | Y | N | FDEP issued NFA 8/10/00. | |
| A-419-B | BC-Power Plant | 9700016 | A | Y | 4000 | F | 4/8/99 | R | Y | N | FDEP issued NFA 8/10/00. | |
| A-419-C | BC-Power Plant | 9700016 | A | Y | 4000 | F | 4/8/99 | R | Y | N | FDEP issued NFA 8/10/00. | |
| A-422-A | BC-Bldg A422 | 9700024 | U | Y | 3001 | G | 8/25/98 | R | Y | N | FDEP issued NFA 8/10/00. | aka A-418 |
| A-443 | BC | | U | N ³ | 2000 ³ | L | | R | | | | |
| A-515 | BC | | U | Y | 2000 ³ | M ³ | | R | | | | |

TABLE 4-2 (PAGE 6-2)
 CLOSED TANKS AT NAS KEY WEST
 1/22/01

| TANK ID | LOCATION | FAC. ID | TYPE ^a | REG. ^b Y/N | CAPACITY GAL. | CONTENT | CLOSE DATE ^c | CLOSURE METHOD ^c | CLOSURE REPORT Y/ | CONCERNS Y/N | COMMENTS | ALIASES |
|----------|----------------------|---------|-------------------|-----------------------|---------------|---------|-------------------------|-----------------------------|-------------------|--------------|---|---------|
| A-522 | BC | | A | N\3 | 700\3 | M | | R | | | | |
| A-526 | BC-Galley | 8624969 | U | Y | 1000 | G | 8/19/95 | R | Y | N | | |
| A-624 | BC- Bldg. A624 | | A | N | 500 | G | 8/2/96 | R | Y | N | Building removed. | |
| A-625 | BC | | A | N\3 | 550 | M | 96 | R | | | Building removed. | |
| A-630 | BC-Bldg. 630 | | A | N | 560 | M | 4/19/97 | R | Y | N | Building removed. | |
| A-631 | BC-Bldg. 631 | | A | N | 560 | M | 4/19/97 | R | Y | N | Building removed. | |
| A-632 | BC-Bldg. 632 | | A | N | 560 | M | 4/19/97 | R | Y | N | Building removed. | |
| A-634 | BC-Clipper Club | | A | N | 265 | M\3 | 4/19/97 | R | Y | N | | |
| A-638 | BC-BEQ | | U | N | 1000\3 | M\2 | 98 | R | | | | |
| A-639 | BC-BEQ | | A | N\3 | 1000\3 | M\3 | | R | | | | |
| A-648 | BC-barracks | | A | N | 1000 | M\3 | 4/26/96 | R | Y | N | | |
| A-649 | BC-barracks | | A | N | 1000 | M\3 | 4/26/96 | R | Y | N | | |
| A-727 | BC | | A | N\3 | 1500\2 | M\2 | 97 | R | | | | |
| A-733 | BC-Hobby Shop | | A | N | 2000 | M\3 | 4/17/96 | R | Y | N | | A-733-R |
| A-827 | BC-Sewage TP | | A | N | 330\2 | F\3 | | R\3 | | | | |
| A-900 | BC-TF | 8624969 | A | N | 500 | G | 4/14/96 | R | Y | ? | Secondary containment. No samples collected during closure. | |
| A-902-A | BC-Truck Fill Stand | 9400050 | A | Y | 1500 | B | | R | | N | | |
| A-902-B | BC-Truck Fill Stand | 9400050 | A | Y | 800 | L | 4/18/97 | R | Y | N | | |
| A-902-C | BC-Truck Fill Stand | 9400050 | A | Y | 800 | B | 11/17/97 | R | Y | N | FDEP issued NFA order 8/27/99. | |
| A-924 | BC-TF | 8624969 | A | Y | 25000 | E | 11/12/96 | R | Y | Y | Under NA monitoring. | |
| A-925 | BC-TF | 8624969 | A | Y | 25000 | E | 11/12/96 | R | Y | Y | Under NA monitoring. | |
| A-926 | BC-TF | 8624969 | A | Y | 50000\4 | E | 1980'S | R | | | Under NA monitoring. | |
| A-927 | BC-TF | 8624969 | A | Y | 50000\4 | E | 1980'S | R | | | Under NA monitoring. | |
| A-928 | BC-TF | 8624969 | A | Y | 100000\4 | E | 1980'S | R | | | Under NA monitoring. | |
| A-929 | BC-TF | 8624969 | U | Y | 1500\1 | L | | R | Y | Y | Site under NA monitoring. | |
| A-935 | BC-Truck Fill Stand | 9400050 | U | Y | 1000 | F | 9/28/95 | R | Y | Y | Site under additional assessment. | A-902-B |
| A-940-1 | | | A | N | 275\3 | N\3 | | R | | | | |
| A-940-2 | | | A | N | 185\3 | N\3 | | R | | | | |
| A-959 | BC-TF | 8624969 | A | Y | 298000\3 | F | 11/12/96 | R | Y | Y | Under NA monitoring. | |
| A-969 | BC-Jet Test | 9400046 | A | Y | 5000 | F | 5/1/97 | R | Y | N | Site remediated. FDEP issued NFA order. | |
| A-986 | BC | | U | N\3 | ?\3 | L | | R | | | | |
| A-994 | BC-Hurricane Shelter | 9700077 | A | Y | 560 | F | 5/28/98 | R | Y | Y | Under NA monitoring. | |
| A-994-R | BC-Hurricane Shelter | 9700077 | A | | | | | | | | | |
| A-995 | BC-Weapons | | A | N | 265\1 | F | 4/18/97 | R | Y | N | | |
| A-1005 | BC-Bldg. A1005 | 9400052 | A | N\2 | 2000 | N\3 | 9/25/96 | R | Y | N | | |
| A-1006 | BC | | A | N | 300\2 | G | 98\2 | R | | | | |
| A-1019 | BC | | A | N | 200\3 | N\3 | | R | | | | |
| A-1019-A | | | A | N | 20 | G | | | | | | |
| A-1020 | BC | | A | N | 300\3 | F\3 | | R | | | | |

TABLE 4-2 (E 6-2)
 CLOSED TANKS AT NAS KEY WEST
 1/22/01

| TANK ID | LOCATION | FAC. ID | TYPE ^a | REG. ^b Y/N | CAPACITY GAL. | CONTENT | CLOSE DATE ^c | CLOSURE METHOD ^c | CLOSURE REPORT Y/ | CONCERNS Y/N | COMMENTS | ALIASES |
|---|---------------------|----------|-------------------|-----------------------|---------------|---------|-------------------------|-----------------------------|-------------------|--------------|--------------------------|----------|
| A-1025 | Bldg. A-1025 | | A | Y | 2000\3 | F\3 | | R | | N | | |
| A-1103 | BC-Bldg. A-1103 | | A | Y | 4000\1 | F | 6/3/98 | R | Y | N | | |
| A-4011 | BC | | A | N | 300\3 | F\3 | | R | | | | |
| A-4053 | BC | | U | N\3 | 1000\3 | N\3 | | R | | | | |
| A-4054 | BC | | A | N | 500 | G | | | | | | |
| A-4109 | BC-TF | 8624969 | A | Y | 4000 | L | 4/23/96 | R | Y | Y | Under assessment. | |
| A-4115 | BC | | A | Y | 2000\3 | E\3 | | R | | N | Remediated. | |
| A-4163 | BC-Air Start | 9700126 | A | N | 500\1 | G | 5/28/98 | R | Y | N | Remediated. | A-4165-A |
| A-4165 | BC-Air Start | 9700126 | A | Y | 1000 | F | 5/28/98 | R | Y | N | Remediated. | |
| TRUMBO POINT TANKS (48 Total Closed Tanks) | | | | | | | | | | | | |
| B-14-A | TP-Pier D-3 | 9200334 | U | | 25000\1 | D | 7/31/95 | I | Y | Y | Under assessment | |
| B-14-B | TP-Pier D-3 | 9200334 | U | | 10000\1 | D | 7/31/95 | I | Y | Y | Under assessment | |
| B-43 | TP-Bldg 43 | | U | Y | 280\1 | A | 1/27/97 | R | Y | Y | Under remediation. | |
| B-43-A | TP-Bldg 43 | | A | N | 50\1 | A | 1/27/97 | R | Y | Y | Under remediation. | |
| B-48 | TP-Bldg. B-48 | | A | N | 500 | G | 4/19/97 | R | Y | N | | |
| B-48-A | | | A | N | 150\3 | G\3 | | R | | | | |
| C-12-A | TP-Service Sta. | 9400070 | U | Y | 10000\3 | B | 7/30/96 | R | Y | N | FDEP issued NFA 8/28/98. | |
| C-12-B | TP-Service Sta. | 9400070 | U | Y | 10000\3 | B | 7/30/96 | R | Y | N | FDEP issued NFA 8/28/98. | |
| C-12-C | TP-Service Sta. | 9400070 | U | Y | 6000\3 | B | 7/30/96 | R | Y | N | FDEP issued NFA 8/28/98. | |
| C-12-D | TP-Service Sta. | 9400070 | U | Y | 10000\3 | B | 7/30/96 | R | Y | N | FDEP issued NFA 8/28/98. | |
| C-59 | TP | | A | N | 300\3 | G | | R | | | | |
| C-59-A | TP | | A | N | 50\2 | G | | R | | | | |
| C-60 | TP-Sp. Fcs Barracks | 97000067 | A | N | 275\1 | N\3 | 4/11/96 | R | Y | N | FDEP issued NFA 8/28/98. | |
| C-80 | TP-Bldg. C-80 | | A | N | 250\1 | N\3 | 4/30/96 | R | Y | Y | FDEP issued NFA 8/28/98. | |
| C-2076 | TP-BOQ | | A | M\3 | 1000\3 | M\3 | 99\2 | R | | Y | Needs remediation. | |
| D-1 | TP-FF | 9200359 | U | Y | 586000\2 | D\3 | | R | | | Under remediation. | |
| D-2 | TP-FF | 9200359 | U | Y | 586000\2 | D\3 | | R | | | Under remediation. | |
| D-3 | TP-FF | 9200359 | U | Y | 586000\2 | D\3 | 98 | R | | | Under remediation. | |
| D-4 | TP-FF | 9200359 | U | Y | 1134000\1 | D | 11/96-4/97 | R | Y | Y | Under remediation. | |
| D-5 | TP-FF | 9200359 | U | Y | 586000\2 | | 84 | R | | | Under remediation. | |
| D-6 | TP-FF | 9200359 | U | Y | 1134000\1 | L | 11/96-4/97 | R | Y | Y | Under remediation. | |
| D-7 | TP-FF | 9200359 | U | Y | 586000\2 | | 84 | R | | | Under remediation. | |
| D-8 | TP-FF | 9200359 | U | | | | | R | | | Under remediation. | |
| D-9 | TP-FF | 9200359 | U | | | | | R | | | Under remediation. | |
| D-10 | TP-FF | 9200359 | U | | | | | R | | | Under remediation. | |
| D-11 | TP-FF | 9200359 | U | | | | | R | | | Under remediation. | |
| D-12 | TP-FF | 9200359 | U | | | | | R | | | Under remediation. | |
| D-13 | TP-FF | 9200359 | U | | | | | R | | | Under remediation. | |
| D-14 | TP-FF | 9200359 | U | | | | | R | | | Under remediation. | |

TABLE 4-2 (E 6-2)
 CLOSED TANKS AT NAS KEY WEST
 1/22/01

| TANK ID | LOCATION | FAC. ID | TYPE ^a | REG. ^b Y/N | CAPACITY GAL. | CONTENT | CLOSE DATE ^c | CLOSURE METHOD ^c | CLOSURE REPORT Y/ | CONCERNS Y/N | COMMENTS | ALIASES |
|---|----------------------|---------|-------------------|-----------------------|---------------|---------|-------------------------|-----------------------------|-------------------|--------------|---|---------|
| D-15 | TP-FF | 9200359 | U | Y | 37485/2 | V? | 7/95-8/95 | R | Y | Y | Under remediation. | |
| D-16 | TP-FF | 9200359 | U | Y | 18742/2 | V? | 7/95-8/95 | R | Y | Y | Under remediation. | |
| D-17 | TP-FF | 9200359 | U | Y | 18742/2 | L? | 7/95-8/95 | R | Y | Y | Under remediation. | |
| D-18 | TP-FF | 9200359 | U | Y | 18742/2 | L? | 7/95-8/95 | R | Y | Y | Under remediation. | |
| D-21 | TP-FF | 9200359 | U | Y | 10000 | D | 2/3/97 | R | Y | Y | Under remediation. | |
| D-25 | TP-FF | 9200359 | U | Y | 3500/3 | L/3 | | R | | | Under remediation. | |
| D-26-A | TP-FF | 9200359 | U | Y | 500/2 | H | 1/28/97 | R | Y | Y | Under remediation. | |
| D-27 | TP-FF | 9200359 | U | Y | 10000 | V | 2/10/97 | R | Y | Y | Under remediation. | |
| D-29 | TP-FF | 9200359 | A | Y | 560/1 | F/3 | 5/21/98 | R | Y | N | Under remediation. | |
| D-88-A | TP-FF | 9200359 | U | Y | 25000/2 | Y/3 | 92 | R | | N | HRS - No Further Rem. order 10/10/96. | |
| D-88-B | TP-FF | 9200359 | U | Y | 25000/2 | Y/3 | 92 | R | | N | HRS -No Further Rem.order 10/10/96. | |
| D-88-C | TP-FF | 9200359 | U | Y | 25000/2 | Y/3 | 92 | R | | N | HRS - No Further Rem.order 10/10/96. | |
| D-88-D | TP-FF | 9200359 | U | Y | 25000/2 | Y/3 | 92 | R | | N | HRS -No Further Rem.order 10/10/96. | |
| D-1292 | TP-FF | 9200359 | A | Y | 14950 | | 84 | R | | Y | Under remediation. | D-1293 |
| D-1292-B | TP-FF | 9200359 | A | Y | 20000 | B | | R | | | Under remediation. | |
| D-1292-R | TP-FF | 9200359 | | | | | | R | | | Under remediation. | D-1292 |
| D-4169 | TP-FF | 9200359 | A | N | 250/2 | | | R | | | | |
| PD-1A | TP-NAWC | | U | Y | 4800 | L | | I | | | Closed in-place. | |
| PD-1B | TP-NAWC | | O/W | N | 650 | L | | R | | | Removed. | |
| FLEMING KEY TANKS (5 Total Closed Tanks) | | | | | | | | | | | | |
| USDA-1 | Animal Import Ctr | 9103622 | U | Y | 8000/2 | | | R | | N | | |
| USDA-2 | Animal Import Ctr | | U | Y | 4000/2 | | | R | | N | | |
| USDA-3 | Animal Import Ctr | | U | Y | 4000/2 | | | R | | N | | |
| USDA-4 | Animal Import Ctr | | A | N | 250/2 | | | R | | N | | |
| F-15 | F-NRL | | A | N | 100/3 | G/3 | 88/3 | I | | | Converted to propane. | |
| TRUMAN ANNEX TANKS (51 Total Closed Tanks) | | | | | | | | | | | | |
| 1 | TA-Tank Island | 8624727 | A | Y | 1680000/2 | | 87 | R | | | Never used. | |
| 2 | TA-Tank Island | 8624727 | A | Y | 1680000/2 | | 87 | R | | | Never used. | |
| 17 | TA-Fuel Farm | 9200364 | A | Y | 70000/2 | | 87 | R | | | | |
| 38 | TA-Caroline st. | | A | N | 300/3 | F | | R | | | | |
| 52 | TA-Fuel Farm | 9200364 | A | Y | 74000/2 | | 87 | R | | | | |
| 68 | TA-Fuel Farm | 9200364 | A | Y | 71000/2 | | 87 | R | | | | |
| 69 | TA-Fuel Farm | 9200364 | A | Y | 91000/2 | | 87 | R | | | | |
| 94 | TA-Fuel Farm | 9200364 | A | Y | 835000/2 | | 80/4 | R | | | | |
| 95 | TA-Fuel Farm | 9200364 | A | Y | 420000/2 | | 87 | R | | | | |
| 104 | | | A | | | | 92/4 | R | | | | |
| 109 | | | A | N/3 | 2000/2 | M/3 | | R | | | | |
| 115 | TA-Bulk Fuel Storage | 9700020 | A | Y | 227178/2 | N/1 | | R | Y | N | Closure assess date 4/30/96 - Tank removed prior. | |

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 CLOSED TANKS AT NAS KEY WEST
 1/22/01

| TANK ID | LOCATION | FAC. ID | TYPE ^a | REG. ^b Y/N | CAPACITY GAL. | CONTENT | CLOSE DATE ^c | CLOSURE METHOD ^c | CLOSURE REPORT Y/N | CONCERNS Y/N | COMMENTS | ALIASES |
|----------|----------------------|----------|-------------------|-----------------------|--------------------|----------------|-------------------------|-----------------------------|--------------------|--------------|---|---------|
| 117 | TA-Bulk Fuel Storage | 9700020 | A | Y | 25000 ² | N1 | | R | Y | N | Closure assess date 4/30/96 - Tank removed prior. | |
| OW-1 | TA-outer mole | 9700855? | O/W | Y ² | 4000 | L | 2/10/98 | I | Y | N | | |
| OW-1-A | TA-outer mole | 9700855? | O/W | N | 650 | L | 2/10/98 | I | Y | N | | |
| OW-102 | TA-inner mole | 9400069 | O/W | Y ² | 4000 | L | 2/10/98 | I | Y | N | | |
| OW-102-A | TA-inner mole | 9400069 | O/W | N | 650 | L | 2/10/98 | I | Y | N | | |
| 149-1 | TA-Port Ops | | A | Y | 2000 ³ | B ³ | 80 ³ | R | | | | |
| 149-1 | TA | | A | Y | 4000 | D | 8/23/96 | R | Y | Y | Soil IRA performed. NFA recommended. | |
| 149-2 | TA-Port Ops | | A | Y | 1000 ³ | B ³ | 80 ³ | R | | | | |
| 149-2 | TA | | A | Y | 2000 | B | 8/23/96 | R | Y | Y | Soil IRA performed. NFA recommended. | |
| 248-A | TA-Service Sta. | 9200364 | U | Y | 5000 | B | 95 ³ | R | | | | |
| 248-B | TA-Service Sta. | 9200364 | U | Y | 5000 | B | 95 ³ | R | | | | |
| 248-C | TA-Service Sta. | 9200364 | U | Y | 8000 ³ | A ³ | 92 ³ | R | | | | |
| 290 | TA-JIATFE | 9700003 | A | Y | 700 ¹ | G | 11/17/97 | R | Y | N | Only analyzed for PAHs. | |
| 290-A | TA-JIATFE | 9700003 | A | Y | 750 ¹ | G | 11/17/97 | R | Y | N | Only analyzed for PAHs. | |
| 290-B | TA-CARIBROC | 9700846 | A | Y | 1500 ² | G | 97 ³ | R | | | | |
| 290-C | TA-CARIBROC | | A | N | 25 ² | G | 97 ³ | R | | | | |
| 290-D | TA-CARIBROC | | A | N | 25 ² | F | 97 ³ | R | | | | |
| 290-E | TA-CARIBROC | | A | N | 25 | G | | R | | | | |
| 291-A | TA-Bldg. 291 | 9700846 | A | Y | 3800 | | | | | | | |
| 291-C | TA-Bldg. 291 | 9700846 | A | | | | | R | | | Inside Bldg. | |
| 437 | TA-Bldg.437 Barracks | | U | N | 1000 | M | 1/17/97 | R | Y | N | | |
| 438 | TA-Bldg.438 Barracks | | U | N | 1000 | M | 1/16/97 | R | Y | N | | |
| 439 | TA-Bldg.439 Barracks | | U | N | 1000 | M | 1/17/97 | R | Y | N | | |
| 446 | | | A | N | 280 ² | M | 92 ³ | R | | | | |
| 576 | | | U | N ³ | 1000 | N ³ | 92 ³ | R | | | | |
| 1276-A | TA-Service Station | 9400059 | U | Y | 10000 | Y ³ | 92 | R | | | | |
| 1276-B | TA-Service Station | 9400059 | U | Y | 10000 | Y ³ | 92 | R | | | | |
| 1276-C | TA-Service Station | 9400059 | U | Y | 10000 | B | 8/14/95 | R | Y | N | HRS - No Further Rem. order 10/10/96. | |
| 1276-D | TA-Service Station | 9400059 | U | Y | 550 ¹ | L | 8/12/95 | R | Y | N | HRS - No Further Rem. order 10/10/96. | |
| 1279 | TA-Bldg.1280 | 9400058 | A | N | 100 | B | | R | | N | | |
| 1279-A | TA-Bldg.1280 | 9400058 | U | Y | 300 | L | 9/15/99 | R | Y | N | | |
| 1279-B | TA-Bldg.1280 | 9400058 | A | Y | 3000 ² | F | 6/11/00 | R | Y | N | FDEP issued NFA 10/30/00. | |
| 1287 | TA-Bldg. 1287 Galley | | A | N | 2000 ¹ | M ³ | 4/26/96 | R | Y | N | FDEP issued NFA 8/28/98. | |
| 1350 | TA-Bldg. 1350 | | U | N | 1000 | M | 1/17/97 | R | Y | N | | |
| 1350 | TA-barracks-in bldg | | A | N | 50 | G | 8/1/96 | R | Y | N | Day tank inside building. | |
| 1351 | TA-Bldg. 1351 | | U | N | 1000 | M | 1/17/97 | R | Y | N | | |
| 1351 | TA-barracks-in bldg | | A | N | 50 | G | 8/1/96 | R | Y | N | Day tank inside building. | |
| 4163 | TA-Muse | 9400058? | A | Y | 560 ¹ | G | 4/27/98 | R | Y | N | | |
| G-1 | Former Commissary | | A | N ² | 650 ² | N | 90 | R | | | | |

**TABLE 4-2 (E 6-2)
CLOSED TANKS AT NAS KEY WEST
1/22/01**

| TANK ID | LOCATION | FAC. ID | TYPE ^a | REG. ^b Y/N | CAPACITY GAL. | CONTENT | CLOSE DATE ^c | CLOSURE METHOD ^c | CLOSURE REPORT Y/ N | CONCERNS Y/N | COMMENTS | ALIASES |
|--|-----------------------|---------|-------------------|--------------------------|--------------------|----------------|----------------------------|--------------------------------|---------------------------|-----------------|--------------------------------------|---------|
| SIGSBEE TANKS (19 Total Closed Tanks) | | | | | | | | | | | | |
| V-984 | S-lift station | | A | N | 330 ³ | N ³ | | R | | | | |
| V-988 | S-lift station | | A | N | 110 ² | F | 1/1/01 | R | | | | |
| V-1274 | S-lift station | | A | N | 110 ³ | N ³ | | R | | | | |
| V-1274-A | S-lift station | | A | N | 250 ³ | G ³ | | R | | | | |
| V-1552 | S-Pot Wtr Pmp Sta. | 9400057 | U | Y | 280 | N | 9/26/95 | R | Y | N | FDEP issued NFA 8/28/98. | |
| V-1552-B | | | | | | | | R | | | | |
| V-1554 | S-lift station | | A | N | 110 ³ | F ³ | | R | | | | |
| V-1554-R | S-lift station | | A | N | 150 ² | F ³ | 11/15/00 | R | | N | | |
| V-1554-A | S-lift station | | OW | N | 20 | L | 11/15/00 | R | | N | | |
| V-3005 | S-Marina | 8839992 | U | Y | 4000 | B | 1/28/99 | R | Y | Y | Under assessment | |
| V-4022-A | S-Service Station | 9400056 | U | Y | 10000 | B ⁴ | 10/19/98 | R | Y | N | FDEP issued NFA 5/10/99. | |
| V-4022-B | S-Service Station | 9400056 | U | Y | 10000 | B ⁴ | 10/19/98 | R | Y | N | FDEP issued NFA 5/10/99. | |
| V-4022-C | S-Service Station | 9400056 | U | Y | 10000 | B ⁴ | 10/19/98 | R | Y | N | FDEP issued NFA 5/10/99. | |
| V-4022-D | S-Service Station | 9400056 | U | Y | 6000 | B ⁴ | 10/19/98 | R | Y | N | FDEP issued NFA 5/10/99. | |
| V-4022-E | S-Service Station | 9400056 | U | Y | 1000 | B | 8/6/96 | R | Y | Y | FDEP issued NFA 5/10/99. | |
| V-4022-F | S-Service Station | 9400056 | U | Y | 1000 | B | 8/6/96 | R | Y | Y | FDEP issued NFA 5/10/99. | |
| V-4022-G | S-Service Station | 9400056 | U | Y | 1000 | B | 8/6/96 | R | Y | Y | FDEP issued NFA 5/10/99. | |
| V-4111-A | S-Commisary | 9400057 | U | Y | 560 | G | 5/21/98 | R | Y | N | | |
| V-4114 | S-lodge | | A | N ³ | 550 ³ | M ³ | | R | | | | |
| SADDLEBUNCH TANKS (3 Total Closed Tanks) | | | | | | | | | | | | |
| J-1561 | Bldg. 1561 | 9200333 | A | Y | 10000 | F ³ | 94 | R | | N | | |
| J-1561-A | Bldg. 1561 | 9200333 | A | N | 100 | F ³ | 94 | R | | N | | |
| J-1563 | Bldg. 1561 | 9200333 | A | Y | 10000 ³ | N ³ | 94 | R | | N | | |
| NAVY BRANCH MEDICAL CLINIC TANKS (9 Total Closed Tanks) | | | | | | | | | | | | |
| L-3 | Branch Medical Clinic | 9200284 | U | N ³ | 3000 | N | 8/18/95 | R | Y | N | HRS - No Further Rem.order 10/8/96. | |
| L-3-A | Branch Medical Clinic | 9200284 | A | Y | 3000 | F | 4/3/98 | R | Y | N | | |
| L-19 | Branch Medical Clinic | 9200284 | A | N | 350 | G | 8/1/96 | R | Y | N | No assessment/visual only. | |
| L-39 | Branch Medical Clinic | 9200284 | U | Y | 1000 ¹ | | 11/6/92 | R | Y | Y | FDEP issued NFA 8/28/98. | |
| L-40 | Branch Medical Clinic | 9200284 | A | N | 500 ³ | N | | R | | | | |
| L-41 | Branch Medical Clinic | 9200284 | U | Y | 2500 ¹ | | 11/6/92 | R | Y | Y | FDEP issued NFA 8/28/98. | |
| L-42 | Branch Medical Clinic | 9200284 | U | Y | 250 | A | 8/17/95 | R | Y | N | HRS - No Further Rem.order 10/8/96. | |
| L-44 | Branch Medical Clinic | 9200284 | U | Y | 1000 | N ³ | 8/18/95 | R | Y | N | HRS - No Further Rem. order 10/8/96. | |
| L-47 | Branch Medical Clinic | 9200284 | A | N | 300 ³ | M ³ | | R | | | | |

**TABLE 4-2 (.E 6-2)
CLOSED TANKS AT NAS KEY WEST
1/22/01**

| TANK ID | LOCATION | FAC. ID | TYPE ^a | REG. ^b Y/N | CAPACITY GAL. | CONTENT | CLOSE DATE ^c | CLOSURE METHOD ^c | CLOSURE REPORT Y/ | CONCERNS Y/N | COMMENTS | ALIASES |
|--|-----------------|---------|-------------------|-----------------------|---------------|---------|-------------------------|-----------------------------|-------------------|--------------|------------------------------|---------|
| FORMER HAWK MISSILE SITE TANKS (9 Total Closed Tanks) | | | | | | | | | | | | |
| B-01 | BC-Hawk Missile | | A | Y | 2000 | G | 4/14/96 | R | Y | Y | Site assessment recommended. | |
| B-02 | BF-Hawk Missile | | A | N | 500 | G | 4/14/96 | R | Y | N | | |
| G-01 | Geiger Key Hawk | 9300860 | A | Y | 2000 | G | 4/27/96 | I | Y | Y | Site assessment recommended. | |
| G-02 | Geiger Key Hawk | 9300860 | A | N | 500\1 | G | 4/27/96 | I | Y | N | | |
| GATR-1 | Big Coppit Key | | A | Y | 4000 | G | 8/16/96 | R | Y | N | | |
| GATR | Big Coppit Key | | A | N | 50 | G | 8/16/96 | R | Y | N | | |
| I-01 | Hamaca Park | 9402036 | A | Y | 2000 | G | 4/26/96 | R | Y | Y | CAR submitted to FDEP. | |
| I-02 | Hamaca Park | 9402036 | A | N | 500 | G | 4/26/96 | R | Y | N | | |

NOTES:

Information for tanks was based on (1) Closure Reports, (2) Navy Tank Manager records, (3) TIMs (from SPCC plan), and (4) other sources, in that order.

a\ A=aboveground U=underground O/W=oil/water separator

b\ Regulated under Chapter 62-761, Florida Administrative Code (Yes/No)

c\ R=removed I=Closed in Place

BC = Boca Chica S = Sigsbee F = Fleming Key TA = Truman Annex TP = Trumbo Point

CA = Contamination Assessment

FDEP = Florida Department of Environmental Protection

HRS = Monroe County Department of Health and Rehabilitative Services

IRA = Initial Remedial Action

NA = Natural Attenuation

NFA = No Further Action

PAHs = Polynuclear Aromatic Hydrocarbons

Rem. = Remediation

NA = not applicable

See Table 2-1 for codes

a\ A = Aboveground Storage Tank, U = Underground Storage Tank, O/W = Oil/water separator

b\ year upgraded

Source: Blasland, Bouck & Lee, Inc., 2001.

5. Tank Program Recommendations

NAS Key West has successfully upgraded the tank program in recent years. All ASTs and USTs on base generally meet the performance standards promulgated in Chapter 62-761, FAC. **Section 6.0 (Volume II of Plan)** addresses specific recommendations by tank, to bring a tank into compliance or better management. The following summarizes recommendations and suggestions provided in this Tank Management Plan:

1. Periodically there are operations or maintenance problems requiring service to the system (i.e. maintaining paint on tanks and piping, repairing broken or “alarmed” monitors on interstitial monitoring, repairing tie-downs and bolts, etc.). The problems need to be addressed rapidly by the Navy to ensure that a problem noted on one regulatory compliance inspection is not repeated in a subsequent inspection.
2. All ASTs should have correct tank information stenciled on them for proper identification. Information should include the complete tank ID, size, and contents. This will prevent any confusion resulting from different tank names on different Navy lists (i.e., monthly inspection sheets), Navy documents (i.e., SPCC Plan and FRP), and regulatory lists.
3. The status of some “out of service” tanks should be evaluated to assess future needs. If there appear to be no plans to use these tanks in the future they should be closed. Tanks suggested for closure include C-5 (system is broken and in poor repair), KW-600, F-1761, and V-4111-C.
4. Add locks to fill ports and discharge valves on Tanks A-132, A-230, A-419-D through G, A-447, A-1004, and F-01.
5. Install anti-siphon valves on all regulated aboveground storage tank piping routed outside secondary containment.
6. The tank closure reports for Tanks B-01 and G-01 at former Hawk Missile sites recommended contamination assessments be performed. The Navy must perform site assessments in accordance with Chapter 62-770, FAC.
7. **Tables 4-1/6-1 and 4-2/6-2** of this Plan should be regularly updated.
8. The Navy should ensure that all Navy documents and regulatory records and registrations have consistent IDs for all tanks.

In conclusion, the Navy has been very proactive at bringing all tanks on base in compliance. By properly maintaining these tanks and records, NAS Key West will have a solid tank program in place for years to come.

References

- ABB Environmental Services, Inc., June 1993. *Contamination Assessment Report Addendum, Building 352, PHMRON Maintenance Ramp, Truman Annex, Naval Air Station Key West, Florida.*
- ABB Environmental Services, Inc., September 1993. *Contamination Assessment Report Addendum, Base Exchange Service Station, Building A-322, Boca Chica Field, Naval Air Station Key West, Florida.*
- ABB Environmental Services, Inc., September 1993. *Contamination Assessment Report Addendum, Building 103, Truman Annex, Naval Air Station Key West, Florida.*
- ABB Environmental Services, Inc., January 1994. *Monitoring Only Plan Base Exchange Service Station, Building A-322, Boca Chica Field, Naval Air Station Key West, Florida.*
- ABB Environmental Services, Inc., June 1994. *Contamination Assessment Report, Jet Engine Test Cell, Building A-969, Boca Chica Field, Naval Air Station Key West, Florida.*
- ABB Environmental Services, Inc., August 1994. *Remedial Action Plan, Electric Power Plant, Building 103, Naval Air Station Key West, Florida.*
- Bechtel Environmental, Inc., January 1999. *Project Completion Report for Delivery Order No. 0094, Flying Club Site Petroleum Remediation at Naval Air Station, Key West, Florida.*
- Blasland, Bouck & Lee, Inc., February 1996. *Boca Chica Tank Farm Contamination Assessment Report.*
- Blasland, Bouck & Lee, Inc., October 1996. *Boca Chica Tank Farm Contamination Assessment Report Addendum.*
- Blasland, Bouck, & Lee, Inc., October 1996. *Sigsbee Marina, Contamination Assessment Report, Naval Air Station Key West, Sigsbee Park, Dredgers Key, Florida.*
- Blasland, Bouck, & Lee, Inc., August 1997. *Contamination Assessment Report, Hamaca Hawk Missile Site, Naval Air Station Key West, Key West, Florida.*
- Blasland, Bouck, & Lee, Inc., August 1997. *Contamination Assessment Report, Boca Chica Air Start, Naval Air Station Key West, Boca Chica Key, Florida.*
- Blasland, Bouck, & Lee, Inc., June 1998. *NAS Key West, Boca Chica Air Start Site, Supplemental Assessment Report.*
- Blasland, Bouck, & Lee, Inc., December 1999. *Site Assessment Report (SAR) Former AST at Building A-994, Boca Chic, NAS Key West, Florida, FDEP Facility ID No. 449700024.*
- Blasland, Bouck, & Lee, Inc., January 2000. *Site Assessment Report (SAR) Former UST at Building A-422, Boca Chic, NAS Key West, Florida, FDEP Facility ID No. 449700077.*
- Blasland, Bouck, & Lee, Inc., May 2000. *Site Assessment Report (SAR) Former ASTs at Building A-419, Boca Chic, NAS Key West, Florida, FDEP Facility ID No. 449700016.*

Blasland, Bouck, & Lee, Inc., May 2000. *Natural Attenuation Monitoring Report, Former AST at Building A-994, Boca Chic, NAS Key West, Florida, FDEP Facility ID No. 449700077.*

Blasland, Bouck, & Lee, Inc., July 2000. *Baseline Sampling Report, Site C-2076, Trumbo Point BOQ, NAS Key West, Florida, FDEP Facility ID No. 449800230.*

Blasland, Bouck, & Lee, Inc., August 2000. *Site Assessment Report (SAR) Pipeline site/A-929 Site, Boca Chica, NAS Key West, Florida, FDEP Facility ID No. 448624969.*

Blasland, Bouck, & Lee, Inc., September 2000. *Site Assessment Report (SAR) Building 1280 JIATF East, Truman Annex, NAS Key West, Florida.*

Blasland, Bouck, & Lee, Inc., October 2000. *Site Assessment Report (SAR) Boca Chica Pipeline Runway 7/25 Site and Marina Site, NAS Key West, Florida.*

Blasland, Bouck, & Lee, Inc., October 2000. *Site Assessment Report Sigsbee Marina, Sigsbee Park, Dredgers Key, NAS Key West, Florida.*

Chief of Naval Operations Instruction (OPNAVINST) 5090.1B, Chapter 10, September 1999.

Eco-Care, Inc., May 1997, *Tank Closure Assessment Report, Naval Air Station, Truman Annex Building 437, Key West, Florida.*

Eco-Care, Inc., May 1997, *Tank Closure Assessment Report, Naval Air Station, Truman Annex Building 438, Key West, Florida.*

Eco-Care, Inc., May 1997, *Tank Closure Assessment Report, Naval Air Station, Truman Annex Building 439, Key West, Florida.*

Eco-Care, Inc., May 1997, *Tank Closure Assessment Report, Naval Air Station, Truman Annex Building 1350, Key West, Florida.*

Eco-Care, Inc., May 1997, *Tank Closure Assessment Report, Naval Air Station, Truman Annex Building 1351, Key West, Florida.*

Eco-Care, Inc., May 1997, *Tank Closure Assessment Report, Naval Air Station, Trumbo Point Fuel Farm, Tank D-4, Key West, Florida.*

Eco-Care, Inc., May 1997, *Tank Closure Assessment Report, Naval Air Station, Trumbo Point Fuel Farm, Tank D-6, Key West, Florida.*

Eco-Care, Inc., May 1997, *Tank Closure Assessment Report, Naval Air Station, Trumbo Point Fuel Farm, Tank D-21, Key West, Florida.*

Eco-Care, Inc., May 1997, *Tank Closure Assessment Report, Naval Air Station, Trumbo Point Fuel Farm, Tank D-26A, Key West, Florida.*

Eco-Care, Inc., May 1997, *Tank Closure Assessment Report, Naval Air Station, Trumbo Point Fuel Farm, Tank D-27, Key West, Florida.*

Eco-Care, Inc., May 1997, *Tank Closure Assessment Report, Naval Air Station, Trumbo Point Fuel Farm, Building 43 and Building 43A, Key West, Florida.*

Eco-Care, Inc., December 1998, *Tank Closure Assessment Report, Sigsbee NEX Fuel Station, Tank #4022A, B, C & D, Key West, Florida.*

Eco-Care, Inc., November 1998, *Tank Closure Assessment Report, Naval Air Station Boca Chica Building A422, Key West, Florida.*

Eco-Care, Inc., March 1999, *Tank Closure Assessment Report, Sigsbee NEX Marina, Facility ID #8839992, Tank #V3005A, Key West, Florida.*

Eco-Care, Inc., June 2000, *Tank Closure Assessment Report/Source Removal Report, Naval Air Station, Truman Annex, Building 1280, Key West, Florida, Facility ID #9400058, AST 1279-B.*

Eco-Care, Inc., September 1999, *Tank Closure Assessment Report, Naval Air Station, Boca Chica, Building 419, Key West, Florida, Facility ID #9700016.*

Eco-Care, Inc., September 1999, *Tank Closure Assessment Report, Naval Air Station, Truman Annex Building 1280, Key West, Florida, Facility ID #9400058.*

Eco-Care, Inc., September 1999, *Tank Closure Assessment Report, Naval Air Station, Boca Chica Building 317, Key West, Florida, Facility ID #9400049.*

Enterprise Engineering, Inc., March 1999. *Upgrade Tanks, Fillstands & Piping, Upgrade Boca Chica Tank Farm ASTs (Part A), NECA Project Number B0128. Upgrade Fillstand and Underground Piping (Part B), NECA Project Number B0129.*

Florida Department of Environmental Protection, Tank Registration Listing, August 25, 2000.

Harding Lawson Associates, December 1999, *Remedial Action Plan, Trumbo Point Fuel Farm, Naval Air Station Key West, Trumbo Point Annex, Key West, Florida.*

Navy Public Works Center Pensacola, May 1997, *Closure Assessment Report Aboveground/Underground Storage Tank Systems, Naval Air Station, Truman Annex, Trumbo Point, Key West, Florida.*

Navy Public Works Center Pensacola, *Closure Assessment Aboveground Storage Tank Systems, Naval Air Station, Truman Annex, Trumbo Point, Key West, Florida.*

Navy Public Works Center Pensacola, November 1997, *Closure Assessment Supplement Tanks 290 and 290A, JIATFE Truman Annex Key West, Florida.*

Navy Public Works Center Pensacola, July 1997, *Closure Assessment Report Aboveground Storage Tank Building A-969, Naval Air Station Key West, Key West, Florida.*

Navy Public Works Center Pensacola, July 1997, *Closure Assessment Report Aboveground Storage Tank Building A-632, Naval Air Station Key West, Key West, Florida.*

Navy Public Works Center Pensacola, July 1997, *Closure Assessment Report Aboveground Storage Tank Building A-631, Naval Air Station Key West, Key West, Florida.*

Navy Public Works Center Pensacola, July 1997, *Closure Assessment Report Aboveground Storage Tank Building A-630, Naval Air Station Key West, Key West, Florida.*

Navy Public Works Center Pensacola, July 1997, *Closure Assessment Report Aboveground Storage Tank Building A-995, Naval Air Station Key West, Key West, Florida.*

Navy Public Works Center Pensacola, July 1997, *Closure Assessment Report Aboveground Storage Tank Building B-48, Naval Air Station Trumbo Point, Key West, Florida.*

Navy Public Works Center Pensacola, July 1997, *Closure Assessment Report Aboveground Storage Tank Building A-634, Naval Air Station Key West, Key West, Florida.*

Navy Public Works Center Pensacola, July 1997, *Closure Assessment Report Aboveground Storage Tank Building A-902, Naval Air Station Key West, Key West, Florida.*

Navy Public Works Center Pensacola, November 1997, *Closure Assessment Form Tank A902C, Boca Chica Truck Fill Stand, NAS Key West, Florida.*

Navy Public Works Center Pensacola, May 1998, *Closure Assessment Report Underground Storage Tanks Inner and Outer Mole Piers, Naval Air Station Truman Annex, Key West, Florida.*

Navy Public Works Center Pensacola, July 1998, *Closure Assessment Report Aboveground Storage Tank Building A-4165, Naval Air Station Key West, Key West, Florida.*

Navy Public Works Center Pensacola, July 1998, *Closure Assessment Report Aboveground Storage Tank Building A-994, Naval Air Station Key West, Key West, Florida.*

Navy Public Works Center Pensacola, July 1998, *Site Assessment Report Site V-1552, Potable Water System Pump Station, Sigsbee Road, Dredgers Key, Key West, Florida.*

Navy Public Works Center Pensacola, July 1998, *Site Assessment Report Site 1287, Truman Point Annex, Key West, Florida.*

Navy Public Works Center Pensacola, July 1998, *Closure Assessment Report Aboveground Storage Tank Building 4163, Naval Air Station Truman Annex, Key West, Florida.*

Navy Public Works Center Pensacola, July 1998, *Closure Assessment Report Aboveground Storage Tank Building A-328, Naval Air Station Key West, Key West, Florida.*

Navy Public Works Center Pensacola, July 1998, *Closure Assessment Report Underground Storage Tank Building V-4111, Naval Air Station Sigsbee Park, Key West, Florida.*

Navy Public Works Center Pensacola, July 1998, *Site Assessment Report, Site V-4022, Sigsbee Park Exchange Service Station, Dredgers Key, Key West, Florida.*

Navy Public Works Center Pensacola, February 1998, *Closure Assessment Report Aboveground Storage Tank Building A-1005, Naval Air Station Key West, Key West, Florida.*

Navy Public Works Center Pensacola, June 1998, *Closure Assessment Report Aboveground Storage Tank Building L-3, Branch Medical Clinic, Key West, Florida.*

Navy Public Works Center Pensacola, July 1998, *Site Assessment Report Site L-41, Naval Branch Medical Clinic, Key West, Florida.*

Navy Public Works Center Pensacola, July 1998, *Site Assessment Report Site L-39, Naval Branch Medical Clinic, Key West, Florida.*

Navy Public Works Center Pensacola, July 1998, *Closure Assessment Report Aboveground Storage Tank Building A-328, Naval Air Station, Key West, Florida.*

Navy Public Works Center Pensacola, July 1998, *Closure Assessment Report Aboveground Storage Tank Building D-29, Naval Air Station, Trumbo Point, Key West, Florida.*

Navy Public Works Center Pensacola, July 1998, *Site Assessment Report FDEP Facility ID #449400051, Site A-244, Boca Chica Airfield Control Tower, NAS Key West, Florida.*

Navy Public Works Center Pensacola, July 1998. *Site Assessment Report Site C-80, Trumbo Point Annex, Key West, Florida.*

Navy Public Works Center Pensacola, July 1998. *Site Assessment Report FDEP Facility ID number 44/9400070, Site C-12, Trumbo Point Annex, Former Site of Naval Exchange Service Station, Key, Key West, Florida.*

Navy Public Works Center Pensacola, August 1998, *Closure Assessment Report Underground Pipeline Building A-1025, Naval Air Station Key West, Key West, Florida.*

Navy Public Works Center Pensacola, August 1998, *Closure Assessment Report Aboveground Storage Tank Building A-1103, Naval Air Station Key West, Key West, Florida.*

Navy Public Works Center Pensacola, August 1998, *Closure Assessment Report Aboveground Storage Tank Building A-325, Naval Air Station Key West, Key West, Florida.*

Navy Public Works Center Pensacola, August 1998, *Closure Assessment Report Underground Storage Tank Building A-929, Naval Air Station Key West, Key West, Florida.*

Navy Public Works Center Pensacola, June 1999. *Site Assessment Report Site A-929, Boca Chica Tank Farm, Boca Chica Key, Florida, FDEP Facility ID 448624969.*

Navy Public Works Center Pensacola, May 1999. *Site Assessment Report Site A-126, PWC Equipment Storage Area, Boca Chica, Florida, FDEP Facility ID 449400048.*

Navy Public Works Center Pensacola, May 1999. *Site Assessment Report FDEP Facility ID 449400049 Site A-317, Public Works Department Motor Pool, Boca Chica, Florida.*

Navy Public Works Center Pensacola, June 1999. *Site Assessment Report Site C-2076, Trumbo Point BOQ, NAS Key West, Florida.*

Navy Public Works Center Pensacola, January 29, 1999. *Second Quarter Monitoring Only Plan, Boca Chica Tank Farm (BCTF), Naval Air Station Key West, Boca Chica Key, Florida. FDEP Facility ID #448624969.*

Navy Public Works Center Pensacola, January 15, 1999. *Fifth Quarter Monitoring Only Plan, Base Exchange Service Station, Building A-322, Boca Chica Field, Naval Air Station Key West, Key West, Florida. FDEP Facility ID #449400045.*

Omega Environmental Services, Inc, October 1995, *UST Closure Report Tank V1552, Naval Air Station, Key West, Florida.*

Omega Environmental Services, Inc, October 1995, *UST Closure Report Tank A244, Naval Air Station, Key West, Florida.*

Omega Environmental Services, Inc, September 1995, *UST Closure Report Tanks D15, D16, D17, D18, Naval Air Station, Key West, Florida.*

Omega Environmental Services, Inc, October 1995, *UST Closure Report Tank A902B, Naval Air Station, Key West, Florida. (Note: should be A-935).*

Omega Environmental Services, Inc, September 1995, *UST Closure Report Tank A526, Naval Air Station, Key West, Florida.*

Omega Environmental Services, Inc, September 1995, *UST Closure Report Tanks B14A, B14B, Naval Air Station, Key West, Florida.*

Omega Environmental Services, Inc, September 1995, *UST Closure Report Tank 1276C, Naval Air Station, Key West, Florida.*

Omega Environmental Services, Inc, September 1995, *UST Closure Report Tank 1276D, Naval Air Station, Key West, Florida.*

Omega Environmental Services, Inc, September 1995, *UST Closure Report Tank 322D, Naval Air Station, Key West, Florida.*

Omega Environmental Services, Inc, September 1995, *UST Closure Report Tank 322A, 322C, Naval Air Station, Key West, Florida.*

Omega Environmental Services, Inc, September 1995, *UST Closure Report Tank L44, Naval Air Station, Key West, Florida.*

Omega Environmental Services, Inc, September 1995, *UST Closure Report Tank L3, Naval Air Station, Key West, Florida.*

Omega Environmental Services, Inc, September 1995, *UST Closure Report Tank L42, Naval Air Station, Key West, Florida.*

Omega Environmental Services, Inc., May 1998. *Closure Assessment Report, Underground Storage Tanks, Inner and Outer Mole Piers, Naval Air Station, Truman Annex, Key West, Florida.*

Pond & Company, February 2000, *API 653 Tank Inspections Tanks #944, #938, #958 & #1292, Key West, Florida.*

Pond & Company, February 2000, *API 653 Tank Inspection Tank 945, Key West, Florida.*

PSG Corrosion Engineering , Inc., December 1999, *DFSP NAS Key West, Florida, Cathodic Protection Survey Report.*

Rust Environment and Infrastructure, June 1997, *Final Tank Management Plan, Naval Air Station Key West, Key West, Florida.*

Tetra Tech NUS, Inc., July 14, 2000, *Annual Groundwater Monitoring Plan Report, Flying Club UST Site 9, Naval Air Station, Key West, Florida.*

Tetra Tech NUS, Inc., April 1999. *Site Assessment Report for Building A902 Truck Fill Stand, Boca Chica Field, NAS Key West, Florida.*

Tetra Tech NUS, Inc., April 26, 2000, *Health and Safety Plan for Treatability Study for Contamination at Building 189-Truman Annex, Naval Air Station, Key West.*

U. S. Naval Air Station Key West, Florida, *Oil Spill Prevention Control and Countermeasures Plan*, April 1996, revised February 2000.

U. S. Naval Air Station Key West, Florida, *OPA 90 Facility Response Plan*, February 1996, revised June 1999, revised February 2000.

U. S. Navy *Storage Systems Management Plan*, Tank Inventory and Management System Database, October 1999.

HOW TO FILL OUT THE MONTHLY VAULTED TANK INSPECTION FORM

DATE INSPECTED: Tanks need to be inspected once a month. Please inspect the tank before the 15th of the month and forward a copy of your inspection sheet to Environmental (e-mail or fax 293-2542).

WETTING ON CEMENT: If the tank is leaking, the cement pad will be stained. If there are stains on the cement, place "Yes". Otherwise place "No".

CRACKS: Cracks appear in the tank walls or cement foundation. Place a "Yes" in this box if cracks appear.

CORROSION ON TANK-PIPES: Corrosion (rust) builds up on the valves and pipes. This corrosion resembles warts in tight clumps. If there is corrosion, place a "Yes" in this box.

BLISTERS ON TANK: If the paint is peeling or blistering off the tank, place "Yes" in this box. Otherwise place a "No".

LEAK GAUGE: If the interstitial gauge on the double walled tank displays fuel in the interstice, contact Environmental (293-2061) and place a "Yes".

TEST HI-LEVEL ALARM: Some tanks have alarms instead of the visual interstitial leak gauge. Test the alarm button to make sure it is functioning.

SIGNATURE: The inspector should sign his name on the inspection form to verify that the tank was inspected for that month.

* DO NOT PLACE CHECK MARKS IN BOXES (Use Yes or No).

* IF MAJOR LEAK OCCURS, CALL FIRE DEPARTMENT AT 293-3333.

HOW TO FILL OUT THE MONTHLY ABOVEGROUND STORAGE
TANK AND SECONDARY CONTAINMENT INSPECTION FORM

DATE INSPECTED: Tanks need to be inspected once a month. Please inspect the tank before the 15th of the month and forward a copy of your inspection sheet to Environmental (e-mail or fax 293-2542).

WETTING ON CEMENT: If the tank is leaking, the cement pad will be stained. If there are stains on the cement, place "Yes". Otherwise place "No".

CRACKS: Cracks appear in the secondary containment walls and foundation. Place a "Yes" in this box if cracks appear.

CORROSION ON TANK: Corrosion (rust) builds up on the valves and pipes. This corrosion resembles warts in tight clumps. If there is corrosion, place a "Yes" in this box.

BLISTERS ON TANK: If the paint is peeling or blistering off the tank, place "Yes" in this box. Otherwise place a "No".

LEAKAGE: If the tank is leaking fuel into the secondary containment, contact me immediately (293-2061). If a major leak, call Fire Department 293-3333.

SECONDARY CONTAINMENT VALVE CLOSED AND LOCKED: The drain valve to the secondary containment must be closed and locked at all times except when the secondary containment is being drained. When draining the secondary containment, use drainage log.

SIGNATURE: The inspector should sign his name on the inspection form to verify that the tank was inspected for that month.

* DO NOT PLACE CHECK MARKS IN BOXES IN PLACE OF " YES" OR " NO" .

PART 112—OIL POLLUTION PREVENTION

- Sec.
- 112.1 General applicability.
 - 112.2 Definitions.
 - 112.3 Requirements for preparation and implementation of Spill Prevention Control and Countermeasure Plans.
 - 112.4 Amendment of SPCC Plans by Regional Administrator.
 - 112.5 Amendment of Spill Prevention Control and Countermeasure Plans by owners or operators.
 - 112.7 Guidelines for the preparation and implementation of a Spill Prevention Control and Countermeasure Plan.
 - 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

AUTHORITY: 33 U.S.C. 1321 and 1361; E.O. 12777 (October 18, 1991), 3 CFR, 1991 Comp., p. 351.

SOURCE: 38 FR 34165, Dec. 11, 1973, unless otherwise noted.

§ 112.1 General applicability.

(a) This part establishes 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.

(b) Except as provided in paragraph (d) of this section, this part applies to owners or operators of non-transportation-related onshore and offshore facilities engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing or consuming oil and oil products, and which, due to their location, could reasonably be expected to discharge oil in harmful quantities, as defined in part 110 of this chapter, into or upon the navigable waters of the United States or adjoining shorelines.

(c) As provided in section 313 (86 Stat. 875) departments, agencies, and instrumentalities of the

Federal government are subject to these regulations to the same extent as any person, except for the provisions of § 112.6.

(d) This part does not apply to:

(1) Facilities, equipment or operations which are not subject to the jurisdiction of the Environmental Protection Agency, as follows:

(i) Onshore and offshore facilities, which, due to their location, could not reasonably be expected to discharge oil into or upon the navigable waters of the United States or adjoining shorelines. This determination shall be based solely upon a consideration of the geographical, locational aspects of the facility (such as proximity to navigable waters or adjoining shorelines, land contour, drainage, etc.) and shall exclude consideration of manmade features such as dikes, equipment or other structures which may serve to restrain, hinder, contain, or otherwise prevent a discharge of oil from reaching navigable waters of the United States or adjoining shorelines; and

(ii) Equipment or operations of vessels or transportation-related onshore and offshore facilities which are subject to authority and control of the Department of Transportation, as defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency, dated November 24, 1971, 36 FR 24000.

(2) Those facilities which, although otherwise subject to the jurisdiction of the Environmental Protection Agency, meet both of the following requirements:

(i) The underground buried storage capacity of the facility is 42,000 gallons or less of oil, and

(ii) The storage capacity, which is not buried, of the facility is 1,320 gallons or less of oil, provided no single container has a capacity in excess of 660 gallons.

(e) This part provides for the preparation and implementation of Spill Prevention Control and Countermeasure Plans prepared in accordance with § 112.7, designed to complement existing laws, regulations, rules, standards, policies and procedures pertaining to safety standards, fire prevention and pollution prevention rules, so as to form a comprehensive balanced Federal/State spill prevention program to minimize the potential for oil discharges. 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.

[38 FR 34165, Dec. 11, 1973, as amended at 41 FR 12657, Mar. 26, 1976]

§ 112.2 Definitions.

For the purposes of this part:

Adverse weather means the weather conditions that make it difficult for response equipment and

§ 112.2

personnel to cleanup or remove spilled oil, and that will 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 are intended to function.

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 Clean Water Act.

Contract or other approved means: (1) A written contractual agreement with an oil spill removal organization(s) 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(s) 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 areas; and/or

(4) Other specific arrangements 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. For purposes of this part, the term *discharge* shall not include any discharge of oil which is authorized by a permit issued pursuant to section 13 of the River and Harbor Act of 1899 (30 Stat. 1121, 33 U.S.C. 407), or sections 402 or 405 of the FWPCA Amendments of 1972 (86 Stat. 816 *et seq.*, 33 U.S.C. 1251 *et seq.*).

Fish and wildlife and sensitive environments means areas that may be identified by either 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/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 archeological 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 of oil, or exposure to a product of reactions resulting from a discharge of oil.

Maximum extent practicable means 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 considers 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.

The term *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.

Navigable waters do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

Offshore facility means any facility of any kind located in, on, or under any of the navigable waters of the United States, which is not a transportation-related facility.

Oil means oil of any kind or in any form, including, but not limited to petroleum, fuel oil, sludge, oil refuse and oil mixed with wastes other than dredged spoil.

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, which is not a transportation-related facility.

§ 112.3

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 such facility immediately prior to such abandonment.

Person includes an individual, firm, corporation, association, and a partnership.

Regional Administrator, means the Regional Administrator of the Environmental Protection Agency, or his designee, in and for the Region in which the facility is located.

Spill event means a discharge of oil into or upon the navigable waters of the United States or adjoining shorelines in harmful quantities, as defined at 40 CFR part 110.

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, 36 FR 24080.

United States means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Canal Zone, Guam, American Samoa, the Virgin Islands, and the Trust Territory of the Pacific Islands.

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.

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.

[38 FR 34165, Dec. 11, 1973, as amended at 58 FR 45039, Aug. 25, 1993; 59 FR 34097, July 1, 1994]

§ 112.3 Requirements for preparation and implementation of Spill Prevention Control and Countermeasure Plans.

(a) Owners or operators of onshore and offshore facilities in operation on or before the effective date of this part that have discharged or, due to their location, could reasonably be expected to discharge oil in harmful quantities, as defined in 40 CFR part 110, into or upon the navigable waters of the United States or adjoining shorelines, shall prepare a Spill Prevention Control and Countermeasure Plan (hereinafter "SPCC Plan"), in writing and in accordance with § 112.7. Except as provided for in paragraph (f) of this section, such SPCC Plan shall be prepared within six months after the effective date of this part and shall be fully implemented as soon as possible, but not later than one year after the effective date of this part.

(b) Owners or operators of onshore and offshore facilities that become operational after the effective date of this part, and that have discharged or could reasonably be expected to discharge oil in harmful quantities, as defined in 40 CFR part 110, into or upon the navigable waters of the United States or adjoining shorelines, shall prepare an SPCC Plan in accordance with § 112.7. Except as provided for in paragraph (f) of this section, such SPCC Plan shall be prepared within six months after the date such facility begins operations and shall be fully implemented as soon as possible, but not later than one year after such facility begins operations.

(c) Owners or operators of onshore and offshore mobile or portable facilities, such as onshore drilling or workover rigs, barge mounted offshore drilling or workover rigs, and portable fueling facilities shall prepare and implement an SPCC Plan as required by paragraphs (a), (b) and (d) of this section. The owners or operators of such facility need not prepare a new SPCC Plan each time the facility is moved to a new site. The SPCC Plan may be a general plan, prepared in accordance with § 112.7, using good engineering practice. When the mobile or portable facility is moved, it must be located and installed using the spill prevention practices outlined in the SPCC Plan for the facility. No mobile or portable facility subject to this regulation shall operate unless the SPCC Plan has been implemented. The SPCC Plan shall only apply while the facility is in a fixed (non-transportation) operating mode.

(d) No SPCC Plan shall be effective to satisfy the requirements of this part unless it has been reviewed by a Registered Professional Engineer and certified to by such Professional Engineer. By means of this certification the engineer, having examined the facility and being familiar with the provisions of this part, shall attest that the SPCC Plan has been prepared in accordance with good engineering practices. Such certification shall in no way relieve the owner or operator of an onshore or offshore facility of his duty to prepare and fully implement such Plan in accordance with § 112.7, as required by paragraphs (a), (b) and (c) of this section.

(e) Owners or operators of a facility for which an SPCC Plan is required pursuant to paragraph (a), (b) or (c) of this section shall maintain a complete copy of the Plan at such facility if the facility is normally attended at least 8 hours per day, or at the nearest field office if the facility is not so attended, and shall make such Plan available to the Regional Administrator for on-site review during normal working hours.

(f) *Extensions of time.* (1) The Regional Administrator may authorize an extension of time for the preparation and full implementation of an SPCC

§ 112.4

Plan beyond the time permitted for the preparation and implementation of an SPCC Plan pursuant to paragraph (a), (b) or (c) of this section where he finds that the owner or operator of a facility subject to paragraphs (a), (b) or (c) of this section cannot fully comply with the requirements of this part 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 their respective agents or employees.

(2) Any owner or operator seeking an extension of time pursuant to paragraph (f)(1) of this section may submit a letter of request to the Regional Administrator. Such letter shall include:

(i) A complete copy of the SPCC Plan, if completed;

(ii) A full explanation of the cause for any such delay and the specific aspects of the SPCC Plan affected by the delay;

(iii) A full discussion of actions being taken or contemplated to minimize or mitigate such delay;

(iv) 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, such owner or operator may present additional oral or written statements in support of his letter of request.

(3) The submission of a letter of request for extension of time pursuant to paragraph (f)(2) of this section shall in no way relieve the owner or operator from his obligation to comply with the requirements of § 112.3 (a), (b) or (c). Where an extension of time is authorized by the Regional Administrator for particular equipment or other specific aspects of the SPCC Plan, such extension shall in no way affect the owner's or operator's obligation to comply with the requirements of § 112.3 (a), (b) or (c) with respect to other equipment or other specific aspects of the SPCC Plan for which an extension of time has not been expressly authorized.

[38 FR 34165, Dec. 11, 1973, as amended at 41 FR 12657, Mar. 26, 1976]

§ 112.4 Amendment of SPCC Plans by Regional Administrator.

(a) Notwithstanding compliance with § 112.3, whenever a facility subject to § 112.3 (a), (b) or (c) has: Discharged more than 1,000 U.S. gallons of oil into or upon the navigable waters of the United States or adjoining shorelines in a single spill event, or discharged oil in harmful quantities, as defined in 40 CFR part 110, into or upon the navigable waters of the United States or adjoining

shorelines in two spill events, reportable under section 311(b)(5) of the FWPCA, occurring within any twelve month period, the owner or operator of such facility shall submit to the Regional Administrator, within 60 days from the time such facility becomes subject to this section, the following:

(1) Name of the facility;

(2) Name(s) of the owner or operator of the facility;

(3) Location of the facility;

(4) Date and year of initial facility operation;

(5) Maximum storage or handling capacity of the facility and normal daily throughput;

(6) Description of the facility, including maps, flow diagrams, and topographical maps;

(7) A complete copy of the SPCC Plan with any amendments;

(8) The cause(s) of such spill, including a failure analysis of system or subsystem in which the failure occurred;

(9) The corrective actions and/or countermeasures taken, including an adequate description of equipment repairs and/or replacements;

(10) Additional preventive measures taken or contemplated to minimize the possibility of recurrence;

(11) Such other information as the Regional Administrator may reasonably require pertinent to the Plan or spill event.

(b) Section 112.4 shall not apply until the expiration of the time permitted for the preparation and implementation of an SPCC Plan pursuant to § 112.3 (a), (b), (c) and (f).

(c) A complete copy of all information provided to the Regional Administrator pursuant to paragraph (a) of this section shall be sent at the same time to the State agency in charge of water pollution control activities in and for the State in which the facility is located. Upon receipt of such information such State agency may conduct a review and make recommendations to the Regional Administrator as to further procedures, methods, equipment and other requirements for equipment necessary to prevent and to contain discharges of oil from such facility.

(d) After review of the SPCC Plan for a facility subject to paragraph (a) of this section, together with all other information submitted by the owner or operator of such facility, and by the State agency under paragraph (c) of this section, the Regional Administrator may require the owner or operator of such facility to amend the SPCC Plan if he finds that the Plan does not meet the requirements of this part or that the amendment of the Plan is necessary to prevent and to contain discharges of oil from such facility.

(e) When the Regional Administrator proposes to require an amendment to the SPCC Plan, he shall notify the facility operator by certified mail

§ 112.7

addressed to, or by personal delivery to, the facility owner or operator, that he proposes to require an amendment to the Plan, and shall specify the terms of such amendment. If the facility owner or operator is a corporation, a copy of such notice shall also be mailed to the registered agent, if any, of such corporation in the State where such facility is located. Within 30 days from receipt of such notice, the facility owner or operator may submit written information, views, and arguments on the amendment. After considering all relevant material presented, the Regional Administrator shall notify the facility owner or operator of any amendment required or shall rescind the notice. The amendment required by the Regional Administrator shall become part of the Plan 30 days after such notice, unless the Regional Administrator, for good cause, shall specify another effective date. The owner or operator of the facility shall implement the amendment of the Plan as soon as possible, but not later than six months after the amendment becomes part of the Plan, unless the Regional Administrator specifies another date.

(f) An owner or operator may appeal a decision made by the Regional Administrator requiring an amendment to an SPCC Plan. The appeal shall be made to the Administrator of the United States Environmental Protection Agency and must be made in writing within 30 days of receipt of the notice from the Regional Administrator requiring the amendment. A complete copy of the appeal must be sent to the Regional Administrator at the time the appeal is made. The appeal shall contain a clear and concise statement of the issues and points of fact in the case. It may also contain additional information from the owner or operator, or from any other person. The Administrator or his designee may request additional information from the owner or operator, or from any other person. The Administrator or his designee shall render a decision within 60 days of receiving the appeal and shall notify the owner or operator of his decision.

[38 FR 34165, Dec. 11, 1973, as amended at 41 FR 12658, Mar. 26, 1976]

§ 112.5 Amendment of Spill Prevention Control and Countermeasure Plans by owners or operators.

(a) Owners or operators of facilities subject to § 112.3 (a), (b) or (c) shall amend the SPCC Plan for such facility in accordance with § 112.7 whenever there is a change in facility design, construction, operation or maintenance which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shore lines. Such amendments shall be fully implemented as soon as possible, but not later than six months after such change occurs.

(b) Notwithstanding compliance with paragraph (a) of this section, owners and operators of facilities subject to § 112.3 (a), (b) or (c) shall complete a review and evaluation of the SPCC Plan at least once every three years from the date such facility becomes subject to this part. As a result of this review and evaluation, the owner or operator shall amend the SPCC Plan within six months of the review to include more effective prevention and control technology if: (1) Such technology will significantly reduce the likelihood of a spill event from the facility, and (2) if such technology has been field-proven at the time of the review.

(c) No amendment to an SPCC Plan shall be effective to satisfy the requirements of this section unless it has been certified by a Professional Engineer in accordance with § 112.3(d).

§ 112.7 Guidelines for the preparation and implementation of a Spill Prevention Control and Countermeasure Plan.

The SPCC Plan shall be a carefully thought-out plan, prepared in accordance with good engineering practices, and which has the full approval of management at a level with authority to commit the necessary resources. If the plan calls for additional facilities or procedures, methods, or equipment not yet fully operational, these items should be discussed in separate paragraphs, and the details of installation and operational start-up should be explained separately. The complete SPCC Plan shall follow the sequence outlined below, and include a discussion of the facility's conformance with the appropriate guidelines listed:

(a) A facility which has experienced one or more spill events within twelve months prior to the effective date of this part should include a written description of each such spill, corrective action taken and plans for preventing recurrence.

(b) Where experience indicates a reasonable potential for equipment failure (such as tank overflow, rupture, or leakage), the plan should include 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 major type of failure.

(c) Appropriate containment and/or diversionary structures or equipment to prevent discharged oil from reaching a navigable water course should be provided. One of the following preventive systems or its equivalent should be used as a minimum:

(1) Onshore facilities:

(i) Dikes, berms or retaining walls sufficiently impervious to contain spilled oil;

(ii) Curbing;

(iii) Culverting, gutters or other drainage systems;

(iv) Weirs, booms or other barriers;

(v) Spill diversion ponds;

(vi) Retention ponds;

§ 112.7

(vii) Sorbent materials.

(2) Offshore facilities:

(i) Curbing, drip pans;

(ii) Sumps and collection systems.

(d) When it is determined that the installation of structures or equipment listed in § 112.7(c) to prevent discharged oil from reaching the navigable waters is not practicable from any onshore or offshore facility, the owner or operator should clearly demonstrate such impracticability and provide the following:

(1) A strong oil spill contingency plan following the provision of 40 CFR part 109.

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

(c) In addition to the minimal prevention standards listed under § 112.7(c), sections of the Plan should include a complete discussion of conformance with the following applicable guidelines, other effective spill prevention and containment procedures (or, if more stringent, with State rules, regulations and guidelines):

(1) *Facility drainage (onshore); (excluding production facilities)*. (i) Drainage from diked storage areas should be restrained by valves or other positive means to prevent a spill or other excessive leakage of oil into the drainage system or inplant effluent treatment system, except where plan systems are designed to handle such leakage. Diked areas may be emptied by pumps or ejectors; however, these should be manually activated and the condition of the accumulation should be examined before starting to be sure no oil will be discharged into the water.

(ii) Flapper-type drain valves should not be used to drain diked areas. Valves used for the drainage of diked areas should, as far as practical, be of manual, open-and-closed design. When plant drainage drains directly into water courses and not into wastewater treatment plants, retained storm water should be inspected as provided in paragraphs (e)(2)(iii) (B), (C) and (D) of this section before drainage.

(iii) Plant drainage systems from undiked areas should, if possible, flow into ponds, lagoons or catchment basins, designed to retain oil or return it to the facility. Catchment basins should not be located in areas subject to periodic flooding.

(iv) If plant drainage is not engineered as above, the final discharge of all in-plant ditches should be equipped with a diversion system that could, in the event of an uncontrolled spill, return the oil to the plant.

(v) Where drainage waters are treated in more than one treatment unit, natural hydraulic flow should be used. If pump transfer is needed, two "lift" pumps should be provided, and at least one

of the pumps should be permanently installed when such treatment is continuous. In any event, whatever techniques are used facility drainage systems should be adequately engineered to prevent oil from reaching navigable waters in the event of equipment failure or human error at the facility.

(2) *Bulk storage tanks (onshore); (excluding production facilities)*. (i) No tank should be used 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, etc.

(ii) All bulk storage tank installations should be constructed so that a secondary means of containment is provided for the entire contents of the largest single tank plus sufficient freeboard to allow for precipitation. Diked areas should be sufficiently impervious to contain spilled oil. Dikes, containment curbs, and pits are commonly employed for this purpose, but they may not always be appropriate. An alternative system could consist of a complete drainage trench enclosure arranged so that a spill could terminate and be safely confined in an in-plant catchment basin or holding pond.

(iii) Drainage of rainwater from the diked area into a storm drain or an effluent discharge that empties into an open water course, lake, or pond, and bypassing the in-plant treatment system may be acceptable if:

(A) The bypass valve is normally sealed closed.

(B) Inspection of the run-off rain water ensures compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR part 110.

(C) The bypass valve is opened, and resealed following drainage under responsible supervision.

(D) Adequate records are kept of such events.

(iv) Buried metallic storage tanks represent a potential for undetected spills. A new buried installation should be protected from corrosion by coatings, cathodic protection or other effective methods compatible with local soil conditions. Such buried tanks should at least be subjected to regular pressure testing.

(v) Partially buried metallic tanks for the storage of oil should be avoided, unless the buried section of the shell is adequately coated, since partial burial in damp earth can cause rapid corrosion of metallic surfaces, especially at the earth/air interface.

(vi) Aboveground tanks should be subject to periodic integrity testing, taking into account tank design (floating roof, etc.) and using such techniques as hydrostatic testing, visual inspection or a system of non-destructive shell thickness testing. Comparison records should be kept where appropriate, and tank supports and foundations should be included in these inspections. In addition, the

§ 112.7

outside of the tank should frequently be observed by operating personnel for signs of deterioration, leaks which might cause a spill, or accumulation of oil inside diked areas.

(vii) To control leakage through defective internal heating coils, the following factors should be considered and applied, as appropriate.

(A) The steam return or exhaust lines from internal heating coils which discharge into an open water course should be monitored for contamination, or passed through a settling tank, skimmer, or other separation or retention system.

(B) The feasibility of installing an external heating system should also be considered.

(viii) New and old tank installations should, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to avoid spills. Consideration should be given to providing one or more of the following devices:

(A) High liquid level alarms with an audible or visual signal at a constantly manned operation or surveillance station; in smaller plants an audible air vent may suffice.

(B) Considering size and complexity of the facility, high liquid level pump cutoff devices set to stop flow at a predetermined tank content level.

(C) Direct audible or code signal communication between the tank gauger and the pumping station.

(D) A fast response system for determining the liquid level of each bulk storage tank such as digital computers, telepulse, or direct vision gauges or their equivalent.

(E) Liquid level sensing devices should be regularly tested to insure proper operation.

(ix) Plant effluents which are discharged into navigable waters should have disposal facilities observed frequently enough to detect possible system upsets that could cause an oil spill event.

(x) Visible oil leaks which result in a loss of oil from tank seams, gaskets, rivets and bolts sufficiently large to cause the accumulation of oil in diked areas should be promptly corrected.

(xi) Mobile or portable oil storage tanks (onshore) should be positioned or located so as to prevent spilled oil from reaching navigable waters. A secondary means of containment, such as dikes or catchment basins, should be furnished for the largest single compartment or tank. These facilities should be located where they will not be subject to periodic flooding or washout.

(3) *Facility transfer operations, pumping, and in-plant process (onshore); (excluding production facilities).*

(i) Buried piping installations should have a protective wrapping and coating and should be cathodically protected if soil conditions warrant. If a section of buried line is exposed for any reason, it should be carefully examined for deterioration. If corrosion damage is found, additional

examination and corrective action should be taken as indicated by the magnitude of the damage. An alternative would be the more frequent use of exposed pipe corridors or galleries.

(ii) When a pipeline is not in service, or in standby service for an extended time the terminal connection at the transfer point should be capped or blank-flanged, and marked as to origin.

(iii) Pipe supports should be properly designed to minimize abrasion and corrosion and allow for expansion and contraction.

(iv) All aboveground valves and pipelines should be subjected to regular examinations by operating personnel at which time 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 should be assessed. In addition, periodic pressure testing may be warranted for piping in areas where facility drainage is such that a failure might lead to a spill event.

(v) Vehicular traffic granted entry into the facility should be warned verbally or by appropriate signs to be sure that the vehicle, because of its size, will not endanger above ground piping.

(4) *Facility tank car and tank truck loading/unloading rack (onshore).* (i) Tank car and tank truck loading/unloading procedures should meet the minimum requirements and regulation established by the Department of Transportation.

(ii) Where rack area drainage does not flow into a catchment basin or treatment facility designed to handle spills, a quick drainage system should be used for tank truck loading and unloading areas. The containment system should be designed to hold at least maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded in the plant.

(iii) An interlocked warning light or physical barrier system, or warning signs, should be provided in loading/unloading areas to prevent vehicular departure before complete disconnect of flexible or fixed transfer lines.

(iv) Prior to filling and departure of any tank car or tank truck, the lowermost drain and all outlets of such vehicles should be closely examined for leakage, and if necessary, tightened, adjusted, or replaced to prevent liquid leakage while in transit.

(5) *Oil production facilities (onshore)*—(i) *Definition.* An onshore production facility may include all wells, flowlines, separation equipment, storage facilities, gathering lines, and auxiliary non-transportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator.

(ii) *Oil production facility (onshore) drainage.* (A) At tank batteries and central treating stations where an accidental discharge of oil would have

§ 112.7

a reasonable possibility of reaching navigable waters, the dikes or equivalent required under § 112.7(c)(1) should have drains closed and sealed at all times except when rainwater is being drained. Prior to drainage, the diked area should be inspected as provided in paragraphs (e)(2)(iii) (B), (C), and (D) of this section. Accumulated oil on the rainwater should be picked up and returned to storage or disposed of in accordance with approved methods.

(B) Field drainage ditches, road ditches, and oil traps, sumps or skimmers, if such exist, should be inspected at regularly scheduled intervals for accumulation of oil that may have escaped from small leaks. Any such accumulations should be removed.

(iii) *Oil production facility (onshore) bulk storage tanks.* (A) No tank should be used for the storage of oil unless its material and construction are compatible with the material stored and the conditions of storage.

(B) All tank battery and central treating plant installations should be provided with a secondary means of containment for the entire contents of the largest single tank if feasible, or alternate systems such as those outlined in § 112.7(c)(1). Drainage from undiked areas should be safely confined in a catchment basin or holding pond.

(C) All tanks containing oil should be visually examined by a competent person for condition and need for maintenance on a scheduled periodic basis. Such examination should include the foundation and supports of tanks that are above the surface of the ground.

(D) New and old tank battery installations should, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to prevent spills. Consideration should be given to one or more of the following:

(1) Adequate tank capacity to assure that a tank will not overflow should a pumper/gauger be delayed in making his regular rounds.

(2) Overflow equalizing lines between tanks so that a full tank can overflow to an adjacent tank.

(3) Adequate vacuum protection to prevent tank collapse during a pipeline run.

(4) High level sensors to generate and transmit an alarm signal to the computer where facilities are a part of a computer production control system.

(iv) *Facility transfer operations, oil production facility (onshore).* (A) All above ground valves and pipelines should be examined periodically on a scheduled basis for general condition of items such as flange joints, valve glands and bodies, drip pans, pipeline supports, pumping well polish rod stuffing boxes, bleeder and gauge valves.

(B) Salt water (oil field brine) disposal facilities should be examined often, particularly following a sudden change in atmospheric temperature to de-

tect possible system upsets that could cause an oil discharge.

(C) Production facilities should have a program of flowline maintenance to prevent spills from this source. The program should include periodic examinations, corrosion protection, flowline replacement, and adequate records, as appropriate, for the individual facility.

(6) *Oil drilling and workover facilities (onshore).* (i) Mobile drilling or workover equipment should be positioned or located so as to prevent spilled oil from reaching navigable waters.

(ii) Depending on the location, catchment basins or diversion structures may be necessary to intercept and contain spills of fuel, crude oil, or oily drilling fluids.

(iii) Before drilling below any casing string or during workover operations, a blowout prevention (BOP) assembly and well control system should be installed that is capable of controlling any well head pressure that is expected to be encountered while that BOP assembly is on the well. Casing and BOP installations should be in accordance with State regulatory agency requirements.

(7) *Oil drilling, production, or workover facilities (offshore).* (i) Definition: "An oil drilling, production or workover facility (offshore)" may include all drilling or workover equipment, wells, flowlines, gathering lines, platforms, and auxiliary nontransportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator.

(ii) Oil drainage collection equipment should be used to prevent and control small oil spillage around pumps, glands, valves, flanges, expansion joints, hoses, drain lines, separators, treaters, tanks, and allied equipment. Drains on the facility should be controlled and directed toward a central collection sump or equivalent collection system sufficient to prevent discharges of oil into the navigable waters of the United States. Where drains and sumps are not practicable oil contained in collection equipment should be removed as often as necessary to prevent overflow.

(iii) For facilities employing a sump system, sump and drains should be adequately sized and a spare pump or equivalent method should be available to remove liquid from the sump and assure that oil does not escape. A regular scheduled preventive maintenance inspection and testing program should be employed 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.

(iv) In areas where separators and treaters are equipped with dump valves whose predominant mode of failure is in the closed position and pollution risk is high, the facility should be specially

§ 112.7

equipped to prevent the escape of oil. This could be accomplished by extending the flare line to a diked area if the separator is near shore, equipping it with a high liquid level sensor that will automatically shut-in wells producing to the separator, parallel redundant dump valves, or other feasible alternatives to prevent oil discharges.

(v) Atmospheric storage or surge tanks should be equipped with high liquid level sensing devices or other acceptable alternatives to prevent oil discharges.

(vi) Pressure tanks should be equipped with high and low pressure sensing devices to activate an alarm and/or control the flow or other acceptable alternatives to prevent oil discharges.

(vii) Tanks should be equipped with suitable corrosion protection.

(viii) A written procedure for inspecting and testing pollution prevention equipment and systems should be prepared and maintained at the facility. Such procedures should be included as part of the SPCC Plan.

(ix) Testing and inspection of the pollution prevention equipment and systems at the facility should be conducted by the owner or operator on a scheduled periodic basis commensurate with the complexity, conditions and circumstances of the facility or other appropriate regulations.

(x) Surface and subsurface well shut-in valves and devices in use at the facility should be sufficiently described to determine method of activation or control, e.g., pressure differential, change in fluid or flow conditions, combination of pressure and flow, manual or remote control mechanisms. Detailed records for each well, while not necessarily part of the plan should be kept by the owner or operator.

(xi) Before drilling below any casing string, and during workover operations a blowout preventer (BOP) assembly and well control system should be installed that is capable of controlling any wellhead pressure that is expected to be encountered while that BOP assembly is on the well. Casing and BOP installations should be in accordance with State regulatory agency requirements.

(xii) Extraordinary well control measures should be provided should emergency conditions, including fire, loss of control and other abnormal conditions, occur. The degree of control system redundancy should vary with hazard exposure and probable consequences of failure. It is recommended that surface shut-in systems have redundant or "fail close" valving. Subsurface safety valves may not be needed in producing wells that will not flow but should be installed as required by applicable State regulations.

(xiii) In order that there will be no misunderstanding of joint and separate duties and obligations to perform work in a safe and pollution free

manner, written instructions should be prepared by the owner or operator for contractors and subcontractors to follow whenever contract activities include servicing a well or systems appurtenant to a well or pressure vessel. Such instructions and procedures should be maintained at the offshore production facility. Under certain circumstances and conditions such contractor activities may require the presence at the facility of an authorized representative of the owner or operator who would intervene when necessary to prevent a spill event.

(xiv) All manifolds (headers) should be equipped with check valves on individual flowlines.

(xv) 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 associated with that individual flowline, the flowline should be equipped with a high pressure sensing device and shut-in valve at the wellhead unless provided with a pressure relief system to prevent over pressuring.

(xvi) All pipelines appurtenant to the facility should be protected from corrosion. Methods used, such as protective coatings or cathodic protection, should be discussed.

(xvii) Sub-marine pipelines appurtenant to the facility should be adequately protected against environmental stresses and other activities such as fishing operations.

(xviii) Sub-marine pipelines appurtenant to the facility should be in good operating condition at all times and inspected on a scheduled periodic basis for failures. Such inspections should be documented and maintained at the facility.

(8) *Inspections and records.* Inspections required by this part should be in accordance with written procedures developed for the facility by the owner or operator. These written procedures and a record of the inspections, signed by the appropriate supervisor or inspector, should be made part of the SPCC Plan and maintained for a period of three years.

(9) *Security (excluding oil production facilities).*

(i) All plants handling, processing, and storing oil should be fully fenced, and entrance gates should be locked and/or guarded when the plant is not in production or is unattended.

(ii) The master flow and drain valves and any other valves that will permit direct outward flow of the tank's content to the surface should be securely locked in the closed position when in non-operating or non-standby status.

(iii) The starter control on all oil pumps should be locked in the "off" position or located at a site accessible only to authorized personnel when the pumps are in a non-operating or non-standby status.

§ 112.20

(iv) The loading/unloading connections of oil pipelines should be securely capped or blank-flanged when not in service or standby service for an extended time. This security practice should also apply to pipelines that are emptied of liquid content either by draining or by inert gas pressure.

(v) Facility lighting should be commensurate with the type and location of the facility. Consideration should be given to: (A) Discovery of spills occurring during hours of darkness, both by operating personnel, if present, and by non-operating personnel (the general public, local police, etc.) and (B) prevention of spills occurring through acts of vandalism.

(10) *Personnel, training and spill prevention procedures.* (i) Owners or operators are responsible for properly instructing their personnel in the operation and maintenance of equipment to prevent the discharges of oil and applicable pollution control laws, rules and regulations.

(ii) Each applicable facility should have a designated person who is accountable for oil spill prevention and who reports to line management.

(iii) Owners or operators should schedule and conduct spill prevention briefings for their operating personnel at intervals frequent enough to assure adequate understanding of the SPCC Plan for that facility. Such briefings should highlight and describe known spill events or failures, malfunctioning components, and recently developed precautionary measures.

§ 112.20 Facility response plans.

(a) The owner or operator of any non-transportation-related onshore facility that, because of its location, could reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines shall prepare and submit a facility response plan to the Regional Administrator, according to the following provisions:

(1) For the owner or operator of a facility in operation on or before February 18, 1993 who is required to prepare and submit a response plan under 33 U.S.C. 1321(j)(5), the Oil Pollution Act of 1990 (Pub. L. 101-380, 33 U.S.C. 2701 *et seq.*) requires the submission of a response plan that satisfies the requirements of 33 U.S.C. 1321(j)(5) no later than February 18, 1993.

(i) The owner or operator of an existing facility that was in operation on or before February 18, 1993 who submitted a response plan by February 18, 1993 shall revise the response plan to satisfy the requirements of this section and resubmit the response plan or updated portions of the response plan to the Regional Administrator by February 18, 1995.

(ii) The owner or operator of an existing facility in operation on or before February 18, 1993 who

failed to submit a response plan by February 18, 1993 shall prepare and submit a response plan that satisfies the requirements of this section to the Regional Administrator before August 30, 1994.

(2) The owner or operator of a facility in operation on or after August 30, 1994 that satisfies the criteria in paragraph (f)(1) of this section or that is notified by the Regional Administrator pursuant to paragraph (b) of this section shall prepare and submit a facility response plan that satisfies the requirements of this section to the Regional Administrator.

(i) For a facility that commenced operations after February 18, 1993 but prior to August 30, 1994, and is required to prepare and submit a response plan based on the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan or updated portions of the response plan, along with a completed version of the response plan cover sheet contained in Appendix F to this part, to the Regional Administrator prior to August 30, 1994.

(ii) For a newly constructed facility that commences operation after August 30, 1994, and is required to prepare and submit a response plan based on the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan, along with a completed version of the response plan cover sheet contained in Appendix F to this part, to the Regional Administrator prior to the start of operations (adjustments to the response plan to reflect changes that occur at the facility during the start-up phase of operations must be submitted to the Regional Administrator after an operational trial period of 60 days).

(iii) For a facility required to prepare and submit a response plan after August 30, 1994, as a result of a planned change in design, construction, operation, or maintenance that renders the facility subject to the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan, along with a completed version of the response plan cover sheet contained in Appendix F to this part, to the Regional Administrator before the portion of the facility undergoing change commences operations (adjustments to the response plan to reflect changes that occur at the facility during the start-up phase of operations must be submitted to the Regional Administrator after an operational trial period of 60 days).

(iv) For a facility required to prepare and submit a response plan after August 30, 1994, as a result of an unplanned event or change in facility characteristics that renders the facility subject to the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan, along with a completed version of the response plan cover sheet contained in Appendix F to this

part, to the Regional Administrator within six months of the unplanned event or change.

(3) In the event the owner or operator of a facility that is required to prepare and submit a response plan uses an alternative formula that is comparable to one contained in Appendix C to this part to evaluate the criterion in paragraph (f)(1)(ii)(B) or (f)(1)(ii)(C) of this section, the owner or operator shall attach documentation to the response plan cover sheet contained in Appendix F to this part that demonstrates the reliability and analytical soundness of the alternative formula.

(b)(1) The Regional Administrator may at any time require the owner or operator of any non-transportation-related onshore facility to prepare and submit a facility response plan under this section after considering the factors in paragraph (f)(2) of this section. If such a determination is made, the Regional Administrator shall notify the facility owner or operator in writing and shall provide a basis for the determination. If the Regional Administrator notifies the owner or operator in writing of the requirement to prepare and submit a response plan under this section, the owner or operator of the facility shall submit the response plan to the Regional Administrator within six months of receipt of such written notification.

(2) The Regional Administrator shall review plans submitted by such facilities to determine whether the facility could, because of its location, reasonably be expected to cause significant and substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines.

(c) The Regional Administrator shall determine whether a facility could, because of its location, reasonably be expected to cause significant and substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines, based on the factors in paragraph (f)(3) of this section. If such a determination is made, the Regional Administrator shall notify the owner or operator of the facility in writing and:

- (1) Promptly review the facility response plan;
- (2) Require amendments to any response plan that does not meet the requirements of this section;
- (3) Approve any response plan that meets the requirements of this section; and
- (4) Review each response plan periodically thereafter on a schedule established by the Regional Administrator provided that the period between plan reviews does not exceed five years.

(d)(1) The owner or operator of a facility for which a response plan is required under this part shall revise and resubmit revised portions of the response plan within 60 days of each facility

change that materially may affect the response to a worst case discharge, including:

- (i) A change in the facility's configuration that materially alters the information included in the response plan;
- (ii) A change in the type of oil handled, stored, or transferred that materially alters the required response resources;
- (iii) A material change in capabilities of the oil spill removal organization(s) that provide equipment and personnel to respond to discharges of oil described in paragraph (h)(5) of this section;
- (iv) A material change in the facility's spill prevention and response equipment or emergency response procedures; and
- (v) Any other changes that materially affect the implementation of the response plan.

(2) Except as provided in paragraph (d)(1) of this section, amendments to personnel and telephone number lists included in the response plan and a change in the oil spill removal organization(s) that does not result in a material change in support capabilities do not require approval by the Regional Administrator. Facility owners or operators shall provide a copy of such changes to the Regional Administrator as the revisions occur.

(3) The owner or operator of a facility that submits changes to a response plan as provided in paragraph (d)(1) or (d)(2) of this section shall provide the EPA-issued facility identification number (where one has been assigned) with the changes.

(4) The Regional Administrator shall review for approval changes to a response plan submitted pursuant to paragraph (d)(1) of this section for a facility determined pursuant to paragraph (f)(3) of this section to have the potential to cause significant and substantial harm to the environment.

(e) If the owner or operator of a facility determines pursuant to paragraph (a)(2) of this section that the facility could not, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines, the owner or operator shall complete and maintain at the facility the certification form contained in Appendix C to this part and, in the event an alternative formula that is comparable to one contained in Appendix C to this part is used to evaluate the criterion in paragraph (f)(1)(ii)(B) or (f)(1)(ii)(C) of this section, the owner or operator shall attach documentation to the certification form that demonstrates the reliability and analytical soundness of the comparable formula and shall notify the Regional Administrator in writing that an alternative formula was used.

(f)(1) A facility could, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on

§ 112.20

the navigable waters or adjoining shorelines pursuant to paragraph (a)(2) of this section, if it meets any of the following criteria applied in accordance with the flowchart contained in Attachment C-I to Appendix C to this part:

(i) The facility transfers oil over water to or from vessels and has a total oil storage capacity greater than or equal to 42,000 gallons; or

(ii) The facility's total oil storage capacity is greater than or equal to 1 million gallons, and one of the following is true:

(A) The facility does not have secondary containment for each aboveground storage area sufficiently large to contain the capacity of the largest aboveground oil storage tank within each storage area plus sufficient freeboard to allow for precipitation;

(B) The facility is located at a distance (as calculated using the appropriate formula in Appendix C to this part or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III of the "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see Appendix E to this part, section 10, for availability) and the applicable Area Contingency Plan prepared pursuant to section 311(j)(4) of the Clean Water Act;

(C) The facility is located at a distance (as calculated using the appropriate formula in Appendix C to this part or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake; or

(D) The facility has had a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years.

(2)(i) To determine whether a facility could, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines pursuant to paragraph (b) of this section, the Regional Administrator shall consider the following:

(A) Type of transfer operation;

(B) Oil storage capacity;

(C) Lack of secondary containment;

(D) Proximity to fish and wildlife and sensitive environments and other areas determined by the Regional Administrator to possess ecological value;

(E) Proximity to drinking water intakes;

(F) Spill history; and

(G) Other site-specific characteristics and environmental factors that the Regional Administrator determines to be relevant to protecting the environment from harm by discharges of oil into or on navigable waters or adjoining shorelines.

(ii) Any person, including a member of the public or any representative from a Federal, State, or local agency who believes that a facility subject to this section could, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines may petition the Regional Administrator to determine whether the facility meets the criteria in paragraph (f)(2)(i) of this section. Such petition shall include a discussion of how the factors in paragraph (f)(2)(i) of this section apply to the facility in question. The RA shall consider such petitions and respond in an appropriate amount of time.

(3) To determine whether a facility could, because of its location, reasonably be expected to cause significant and substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines, the Regional Administrator may consider the factors in paragraph (f)(2) of this section as well as the following:

(i) Frequency of past spills;

(ii) Proximity to navigable waters;

(iii) Age of oil storage tanks; and

(iv) Other facility-specific and Region-specific information, including local impacts on public health.

(g)(1) All facility response plans shall be consistent with the requirements of the National Oil and Hazardous Substance Pollution Contingency Plan (40 CFR part 300) and applicable Area Contingency Plans prepared pursuant to section 311(j)(4) of the Clean Water Act. The facility response plan should be coordinated with the local emergency response plan developed by the local emergency planning committee under section 303 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (42 U.S.C. 11001 et seq.). Upon request, the owner or operator should provide a copy of the facility response plan to the local emergency planning committee or State emergency response commission.

(2) The owner or operator shall review relevant portions of the National Oil and Hazardous Substances Pollution Contingency Plan and applicable Area Contingency Plan annually and, if necessary, revise the facility response plan to ensure consistency with these plans.

(3) The owner or operator shall review and update the facility response plan periodically to reflect changes at the facility.

(h) A response plan shall follow the format of the model facility-specific response plan included in Appendix F to this part, unless an equivalent response plan has been prepared to meet State or other Federal requirements. A response plan that does not follow the specified format in Appendix F to this part shall have an emergency response

§ 112.20

action plan as specified in paragraphs (h)(1) of this section and be supplemented with a cross-reference section to identify the location of the elements listed in paragraphs (h)(2) through (h)(10) of this section. To meet the requirements of this part, a response plan shall address the following elements, as further described in Appendix F to this part:

(1) *Emergency response action plan.* The response plan shall include an emergency response action plan in the format specified in paragraphs (h)(1)(i) through (viii) of this section that is maintained in the front of the response plan, or as a separate document accompanying the response plan, and that includes the following information:

(i) The identity and telephone number of a qualified individual having full authority, including contracting authority, to implement removal actions;

(ii) The identity of individuals or organizations to be contacted in the event of a discharge so that immediate communications between the qualified individual identified in paragraph (h)(1) of this section and the appropriate Federal officials and the persons providing response personnel and equipment can be ensured;

(iii) A description of information to pass to response personnel in the event of a reportable spill;

(iv) A description of the facility's response equipment and its location;

(v) A description of response personnel capabilities, including the duties of persons at the facility during a response action and their response times and qualifications;

(vi) Plans for evacuation of the facility and a reference to community evacuation plans, as appropriate;

(vii) A description of immediate measures to secure the source of the discharge, and to provide adequate containment and drainage of spilled oil; and

(viii) A diagram of the facility.

(2) *Facility information.* The response plan shall identify and discuss the location and type of the facility, the identity and tenure of the present owner and operator, and the identity of the qualified individual identified in paragraph (h)(1) of this section.

(3) *Information about emergency response.* The response plan shall include:

(i) The identity of private personnel and equipment necessary to remove to the maximum extent practicable a worst case discharge and other discharges of oil described in paragraph (h)(5) of this section, and to mitigate or prevent a substantial threat of a worst case discharge (To identify response resources to meet the facility response plan requirements of this section, owners or operators shall follow Appendix E to this part or, where not

appropriate, shall clearly demonstrate in the response plan why use of Appendix E of this part is not appropriate at the facility and make comparable arrangements for response resources);

(ii) Evidence of contracts or other approved means for ensuring the availability of such personnel and equipment;

(iii) The identity and the telephone number of individuals or organizations to be contacted in the event of a discharge so that immediate communications between the qualified individual identified in paragraph (h)(1) of this section and the appropriate Federal official and the persons providing response personnel and equipment can be ensured;

(iv) A description of information to pass to response personnel in the event of a reportable spill;

(v) A description of response personnel capabilities, including the duties of persons at the facility during a response action and their response times and qualifications;

(vi) A description of the facility's response equipment, the location of the equipment, and equipment testing;

(vii) Plans for evacuation of the facility and a reference to community evacuation plans, as appropriate;

(viii) A diagram of evacuation routes; and

(ix) A description of the duties of the qualified individual identified in paragraph (h)(1) of this section, that include:

(A) Activate internal alarms and hazard communication systems to notify all facility personnel;

(B) Notify all response personnel, as needed;

(C) Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification;

(D) Notify and provide necessary information to the appropriate Federal, State, and local authorities with designated response roles, including the National Response Center, State Emergency Response Commission, and Local Emergency Planning Committee;

(E) Assess the interaction of the spilled substance with water and/or other substances stored at the facility and notify response personnel at the scene of that assessment;

(F) Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion);

(G) Assess and implement prompt removal actions to contain and remove the substance released;

§ 112.20

(H) Coordinate rescue and response actions as previously arranged with all response personnel;

(I) Use authority to immediately access company funding to initiate cleanup activities; and

(J) Direct cleanup activities until properly relieved of this responsibility.

(4) *Hazard evaluation.* The response plan shall discuss the facility's known or reasonably identifiable history of discharges reportable under 40 CFR part 110 for the entire life of the facility and shall identify areas within the facility where discharges could occur and what the potential effects of the discharges would be on the affected environment. To assess the range of areas potentially affected, owners or operators shall, where appropriate, consider the distance calculated in paragraph (f)(1)(ii) of this section to determine whether a facility could, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines.

(5) *Response planning levels.* The response plan shall include discussion of specific planning scenarios for:

(i) A worst case discharge, as calculated using the appropriate worksheet in Appendix D to this part. In cases where the Regional Administrator determines that the worst case discharge volume calculated by the facility is not appropriate, the Regional Administrator may specify the worst case discharge amount to be used for response planning at the facility. For complexes, the worst case planning quantity shall be the larger of the amounts calculated for each component of the facility;

(ii) A discharge of 2,100 gallons or less, provided that this amount is less than the worst case discharge amount. For complexes, this planning quantity shall be the larger of the amounts calculated for each component of the facility; and

(iii) A discharge greater than 2,100 gallons and less than or equal to 36,000 gallons or 10 percent of the capacity of the largest tank at the facility, whichever is less, provided that this amount is less than the worst case discharge amount. For complexes, this planning quantity shall be the larger of the amounts calculated for each component of the facility.

(6) *Discharge detection systems.* The response plan shall describe the procedures and equipment used to detect discharges.

(7) *Plan implementation.* The response plan shall describe:

(i) Response actions to be carried out by facility personnel or contracted personnel under the response plan to ensure the safety of the facility and to mitigate or prevent discharges described in paragraph (h)(5) of this section or the substantial threat of such discharges;

(ii) A description of the equipment to be used for each scenario;

(iii) Plans to dispose of contaminated cleanup materials; and

(iv) Measures to provide adequate containment and drainage of spilled oil.

(8) *Self-inspection, drills/exercises, and response training.* The response plan shall include:

(i) A checklist and record of inspections for tanks, secondary containment, and response equipment;

(ii) A description of the drill/exercise program to be carried out under the response plan as described in § 112.21;

(iii) A description of the training program to be carried out under the response plan as described in § 112.21; and

(iv) Logs of discharge prevention meetings, training sessions, and drills/exercises. These logs may be maintained as an annex to the response plan.

(9) *Diagrams.* The response plan shall include site plan and drainage plan diagrams.

(10) *Security systems.* The response plan shall include a description of facility security systems.

(11) *Response plan cover sheet.* The response plan shall include a completed response plan cover sheet provided in Section 2.0 of Appendix F to this part.

(i)(1) In the event the owner or operator of a facility does not agree with the Regional Administrator's determination that the facility could, because of its location, reasonably be expected to cause substantial harm or significant and substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines, or that amendments to the facility response plan are necessary prior to approval, such as changes to the worst case discharge planning volume, the owner or operator may submit a request for reconsideration to the Regional Administrator and provide additional information and data in writing to support the request. The request and accompanying information must be submitted to the Regional Administrator within 60 days of receipt of notice of the Regional Administrator's original decision. The Regional Administrator shall consider the request and render a decision as rapidly as practicable.

(2) In the event the owner or operator of a facility believes a change in the facility's classification status is warranted because of an unplanned event or change in the facility's characteristics (i.e., substantial harm or significant and substantial harm), the owner or operator may submit a request for reconsideration to the Regional Administrator and provide additional information and data in writing to support the request. The Regional Administrator

shall consider the request and render a decision as rapidly as practicable.

(3) After a request for reconsideration under paragraph (i)(1) or (i)(2) of this section has been denied by the Regional Administrator, an owner or operator may appeal a determination made by the Regional Administrator. The appeal shall be made to the EPA Administrator and shall be made in writing within 60 days of receipt of the decision from the Regional Administrator that the request for reconsideration was denied. A complete copy of the appeal must be sent to the Regional Administrator at the time the appeal is made. The appeal shall contain a clear and concise statement of the issues and points of fact in the case. It also may contain additional information from the owner or operator, or from any other person. The EPA Administrator may request additional information from the owner or operator, or from any other person. The EPA Administrator shall render a decision as rapidly as practicable and shall notify the owner or operator of the decision.

[59 FR 34098, July 1, 1994]

§ 112.21 Facility response training and drills/exercises.

(a) The owner or operator of any facility required to prepare a facility response plan under § 112.20 shall develop and implement a facility response training program and a drill/exercise program that satisfy the requirements of this section. The owner or operator shall describe the programs in the response plan as provided in § 112.20(h)(8).

(b) The facility owner or operator shall develop a facility response training program to train those personnel involved in oil spill response activities. It is recommended that the training program be based on the USCG's Training Elements for Oil Spill Response, as applicable to facility operations. An alternative program can also be acceptable subject to approval by the Regional Administrator.

(1) The owner or operator shall be responsible for the proper instruction of facility personnel in the procedures to respond to discharges of oil and in applicable oil spill response laws, rules, and regulations.

(2) Training shall be functional in nature according to job tasks for both supervisory and non-supervisory operational personnel.

(3) Trainers shall develop specific lesson plans on subject areas relevant to facility personnel involved in oil spill response and cleanup.

(c) The facility owner or operator shall develop a program of facility response drills/exercises, including evaluation procedures. A program that follows the National Preparedness for Response Exercise Program (PREP) (see Appendix E to this part, section 10, for availability) will be deemed satisfactory for purposes of this section. An alter-

native program can also be acceptable subject to approval by the Regional Administrator.

[59 FR 34101, July 1, 1994]

APPENDIX A TO PART 112—MEMORANDUM OF UNDERSTANDING BETWEEN THE SECRETARY OF TRANSPORTATION AND THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

SECTION II—DEFINITIONS

The Environmental Protection Agency and the Department of Transportation agree that for the purposes of Executive Order 11548, the term:

(1) *Non-transportation-related onshore and offshore facilities* means:

(A) Fixed onshore and offshore oil well drilling facilities including all equipment and appurtenances related thereto used in drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(B) Mobile onshore and offshore oil well drilling platforms, barges, trucks, or other mobile facilities including all equipment and appurtenances related thereto when such mobile facilities are fixed in position for the purpose of drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(C) Fixed onshore and offshore oil production structures, platforms, derricks, and rigs including all equipment and appurtenances related thereto, as well as completed wells and the wellhead separators, oil separators, and storage facilities used in the production of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(D) Mobile onshore and offshore oil production facilities including all equipment and appurtenances related thereto as well as completed wells and wellhead equipment, piping from wellheads to oil separators, oil separators, and storage facilities used in the production of oil when such mobile facilities are fixed in position for the purpose of oil production operations, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(E) Oil refining facilities including all equipment and appurtenances related thereto as well as in-plant processing units, storage units, piping, drainage systems and waste treatment units used in the refining of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(F) Oil storage facilities including all equipment and appurtenances related thereto as well as fixed bulk plant storage, terminal oil storage facilities, consumer storage, pumps and drainage systems used in the storage of oil, but excluding inline or breakout storage tanks needed for the continuous operation of a pipeline system and any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

Pt. 112, App. B

(G) Industrial, commercial, agricultural or public facilities which use and store oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(H) Waste treatment facilities including in-plant pipelines, effluent discharge lines, and storage tanks, but excluding waste treatment facilities located on vessels and terminal storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels and associated systems used for off-loading vessels.

(I) Loading racks, transfer hoses, loading arms and other equipment which are appurtenant to a nontransportation-related facility or terminal facility and which are used to transfer oil in bulk to or from highway vehicles or railroad cars.

(J) Highway vehicles and railroad cars which are used for the transport of oil exclusively within the confines of a nontransportation-related facility and which are not intended to transport oil in interstate or intrastate commerce.

(K) Pipeline systems which are used for the transport of oil exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce, but excluding pipeline systems used to transfer oil in bulk to or from a vessel.

(2) *Transportation-related onshore and offshore facilities* means:

(A) Onshore and offshore terminal facilities including transfer hoses, loading arms and other equipment and appurtenances used for the purpose of handling or transferring oil in bulk to or from a vessel as well as storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels, but excluding terminal waste treatment facilities and terminal oil storage facilities.

(B) Transfer hoses, loading arms and other equipment appurtenant to a non-transportation-related facility which is used to transfer oil in bulk to or from a vessel.

(C) Interstate and intrastate onshore and offshore pipeline systems including pumps and appurtenances related thereto as well as in-line or breakout storage tanks needed for the continuous operation of a pipeline system, and pipelines from onshore and offshore oil production facilities, but excluding onshore and offshore piping from wellheads to oil separators and pipelines which are used for the transport of oil exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce or to transfer oil in bulk to or from a vessel.

(D) Highway vehicles and railroad cars which are used for the transport of oil in interstate or intrastate commerce and the equipment and appurtenances related thereto, and equipment used for the fueling of locomotive units, as well as the rights-of-way on which they operate. Excluded are highway vehicles and railroad cars and motive power used exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended for use in interstate or intrastate commerce.

APPENDIX B TO PART 112—MEMORANDUM OF UNDERSTANDING AMONG THE SECRETARY OF THE INTERIOR, SECRETARY OF TRANSPORTATION, AND ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

PURPOSE

This Memorandum of Understanding (MOU) establishes the jurisdictional responsibilities for offshore facilities, including pipelines, pursuant to section 311 (j)(1)(c), (j)(5), and (j)(6)(A) of the Clean Water Act (CWA), as amended by the Oil Pollution Act of 1990 (Public Law 101-380). The Secretary of the Department of the Interior (DOI), Secretary of the Department of Transportation (DOT), and Administrator of the Environmental Protection Agency (EPA) agree to the division of responsibilities set forth below for spill prevention and control, response planning, and equipment inspection activities pursuant to those provisions.

BACKGROUND

Executive Order (E.O.) 12777 (56 FR 54757) delegates to DOI, DOT, and EPA various responsibilities identified in section 311(j) of the CWA. Sections 2(b)(3), 2(d)(3), and 2(e)(3) of E.O. 12777 assigned to DOI spill prevention and control, contingency planning, and equipment inspection activities associated with offshore facilities. Section 311(a)(11) defines the term "offshore facility" to include facilities of any kind located in, on, or under navigable waters of the United States. By using this definition, the traditional DOI role of regulating facilities on the Outer Continental Shelf is expanded by E.O. 12777 to include inland lakes, rivers, streams, and any other inland waters.

RESPONSIBILITIES

Pursuant to section 2(i) of E.O. 12777, DOI redelegates, and EPA and DOT agree to assume, the functions vested in DOI by sections 2(b)(3), 2(d)(3), and 2(e)(3) of E.O. 12777 as set forth below. For purposes of this MOU, the term "coast line" shall be defined as in the Submerged Lands Act (43 U.S.C. 1301(e)) to mean "the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters."

1. To EPA, DOI redelegates responsibility for non-transportation-related offshore facilities located landward of the coast line.

2. To DOT, DOI redelegates responsibility for transportation-related facilities, including pipelines, located landward of the coast line. The DOT retains jurisdiction for deepwater ports and their associated seaward pipelines, as delegated by E.O. 12777.

3. The DOI retains jurisdiction over facilities, including pipelines, located seaward of the coast line, except for deepwater ports and associated seaward pipelines delegated by E.O. 12777 to DOT.

EFFECTIVE DATE

This MOU is effective on the date of the final execution by the indicated signatories.

LIMITATIONS

1. The DOI, DOT, and EPA may agree in writing to exceptions to this MOU on a facility-specific basis. Affected parties will receive notification of the exceptions.
2. Nothing in this MOU is intended to replace, supersede, or modify any existing agreements between or among DOI, DOT, or EPA.

MODIFICATION AND TERMINATION

Any party to this agreement may propose modifications by submitting them in writing to the heads of the other agency/department. No modification may be adopted except with the consent of all parties. All parties shall indicate their consent to or disagreement with any proposed modification within 60 days of receipt. Upon the request of any party, representatives of all parties shall meet for the purpose of considering exceptions or modifications to this agreement. This MOU may be terminated only with the mutual consent of all parties.

Dated: November 8, 1993.
 Bruce Babbitt,
Secretary of the Interior.
 Dated: December 14, 1993.
 Federico Peña,
Secretary of Transportation.
 Dated: February 3, 1994.
 Carol M. Browner,
Administrator, Environmental Protection Agency.

[59 FR 34102, July 1, 1994]

APPENDIX C TO PART 112—SUBSTANTIAL HARM CRITERIA

1.0 Introduction

The flowchart provided in Attachment C-1 to this appendix shows the decision tree with the criteria to identify whether a facility "could reasonably be expected to cause substantial harm to the environment by discharging into or on the navigable waters or adjoining shorelines." In addition, the Regional Administrator has the discretion to identify facilities that must prepare and submit facility-specific response plans to EPA.

1.1 Definitions

1.1.1 *Great Lakes* means Lakes Superior, Michigan, Huron, Erie, and Ontario, their connecting and tributary waters, the Saint Lawrence River as far as Saint Regis, and adjacent port areas.

1.1.2 *Higher Volume Port Areas* include

- (1) Boston, MA;
- (2) New York, NY;
- (3) Delaware Bay and River to Philadelphia, PA;
- (4) St. Croix, VI;
- (5) Pascagoula, MS;
- (6) Mississippi River from Southwest Pass, LA to Baton Rouge, LA;
- (7) Louisiana Offshore Oil Port (LOOP), LA;
- (8) Lake Charles, LA;
- (9) Sabine-Neches River, TX;
- (10) Galveston Bay and Houston Ship Channel, TX;
- (11) Corpus Christi, TX;
- (12) Los Angeles/Long Beach Harbor, CA;
- (13) San Francisco Bay, San Pablo Bay, Carquinez Strait, and Suisun Bay to Antioch, CA;

- (14) Straits of Juan de Fuca from Port Angeles, WA to and including Puget Sound, WA;
- (15) Prince William Sound, AK; and
- (16) Others as specified by the Regional Administrator for any EPA Region.

1.1.3 *Inland Area* means the area shoreward of the boundary lines defined in 46 CFR part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area shoreward of the lines of demarcation (COLREG lines as defined in 33 CFR 80.740—80.850). The inland area does not include the Great Lakes.

1.1.4 *Rivers and Canals* means a body of water confined within the inland area, including the Intracoastal Waterways and other waterways artificially created for navigating that have project depths of 12 feet or less.

2.0 Description of Screening Criteria for the Substantial Harm Flowchart

A facility that has the potential to cause substantial harm to the environment in the event of a discharge must prepare and submit a facility-specific response plan to EPA in accordance with Appendix F to this part. A description of the screening criteria for the substantial harm flowchart is provided below:

2.1 *Non-Transportation-Related Facilities With a Total Oil Storage Capacity Greater Than or Equal to 42,000 Gallons Where Operations Include Over-Water Transfers of Oil.* A non-transportation-related facility with a total oil storage capacity greater than 42,000 gallons that transfers oil over water to or from vessels must submit a response plan to EPA. Daily oil transfer operations at these types of facilities occur between barges and vessels and onshore bulk storage tanks over open water. These facilities are located adjacent to navigable water.

2.2 *Lack of Adequate Secondary Containment at Facilities With a Total Oil Storage Capacity Greater Than or Equal to 1 Million Gallons.* Any facility with a total oil storage capacity greater than or equal to 1 million gallons without secondary containment sufficiently large to contain the capacity of the largest aboveground oil storage tank within each area plus sufficient freeboard to allow for precipitation must submit a response plan to EPA. Secondary containment structures that meet the standard of good engineering practice for the purposes of this part include berms, dikes, retaining walls, curbing, culverts, gutters, or other drainage systems.

2.3 *Proximity to Fish and Wildlife and Sensitive Environments at Facilities With a Total Oil Storage Capacity Greater Than or Equal to 1 Million Gallons.* A facility with a total oil storage capacity greater than or equal to 1 million gallons must submit its response plan if it is located at a distance such that a discharge from the facility could cause injury (as defined at 40 CFR 112.2) to fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see Appendix E to this part, section 10, for availability) and the applicable Area Contingency Plan. Facility owners or operators must determine the distance at which an oil spill could cause injury to fish and wildlife and sensitive environments using the appropriate formula presented in Attachment C-III to this appendix or a comparable formula.

2.4 *Proximity to Public Drinking Water Intakes at Facilities with a Total Storage Oil Capacity Greater Than or Equal to 1 Million Gallons.* A facility with a total stor-

Pt. 112, App. C

age capacity greater than or equal to 1 million gallons must submit its response plan if it is located at a distance such that a discharge from the facility would shut down a public drinking water intake, which is analogous to a public water system as described at 40 CFR 143.2(c). The distance at which an oil spill from an SPCC-regulated facility would shut down a public drinking water intake shall be calculated using the appropriate formula presented in Attachment C-III to this appendix or a comparable formula.

2.5 Facilities That Have Experienced Reportable Oil Spills in an Amount Greater Than or Equal to 10,000 Gallons Within the Past 5 Years and That Have a Total Oil Storage Capacity Greater Than or Equal to 1 Million Gallons. A facility's oil spill history within the past 5 years shall be considered in the evaluation for substantial harm. Any facility with a total oil storage capacity greater than or equal to 1 million gallons that has experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the past 5 years must submit a response plan to EPA.

3.0 Certification for Facilities That Do Not Pose Substantial Harm

If the facility does not meet the substantial harm criteria listed in Attachment C-1 to this appendix, the owner or operator shall complete and maintain at the facility the certification form contained in Attachment C-II to this appendix. In the event an alternative formula that is comparable to the one in this appendix is used to evaluate the substantial harm criteria, the owner or operator shall attach documentation to the certification form that demonstrates the reliability and analytical soundness of the comparable formula and shall notify the Regional Administrator in writing that an alternative formula was used.

4.0 References

Chow, V.T. 1959. Open Channel Hydraulics. McGraw Hill.

USCG IFR (58 FR 7353, February 5, 1993). This document is available through EPA's rulemaking docket as noted in Appendix E to this part, section 10.

ATTACHMENTS TO APPENDIX C

EC01MR92.009

ATTACHMENT C-II—CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name: _____
Facility Address: _____

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?
Yes _____ No _____

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes _____ No _____

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula¹) such that a discharge from the fa-

cility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see Appendix E to this part, section 10, for availability) and the applicable Area Contingency Plan.

Yes _____ No _____

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula¹) such that a discharge from the facility would shut down a public drinking water intake²?

Yes _____ No _____

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?

Yes _____ No _____

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Signature _____

Name (please type or print) _____

Title _____

Date _____

ATTACHMENT C-III—CALCULATION OF THE PLANNING DISTANCE

1.0 Introduction

1.1 The facility owner or operator must evaluate whether the facility is located at a distance such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments or disrupt operations at a public drinking water intake. To quantify that distance, EPA considered oil transport mechanisms over land and on still, tidal influence, and moving navigable waters. EPA has determined that the primary concern for calculation of a planning distance is the transport of oil in navigable waters during adverse weather conditions. Therefore, two formulas have been developed to determine distances for planning purposes from the point of discharge at the facility to the potential site of impact on moving and still waters, respectively. The formula for oil transport on moving navigable water is based on the velocity of the water body and the time interval for arrival of re-

¹ If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

² For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

sponse resources. The still water formula accounts for the spread of discharged oil over the surface of the water. The method to determine oil transport on tidal influence areas is based on the type of oil spilled and the distance down current during ebb tide and up current during flood tide to the point of maximum tidal influence.

1.2 EPA's formulas were designed to be simple to use. However, facility owners or operators may calculate planning distances using more sophisticated formulas, which take into account broader scientific or engineering principles, or local conditions. Such comparable formulas may result in different planning distances than EPA's formulas. In the event that an alternative formula that is comparable to one contained in this appendix is used to evaluate the criterion in 40 CFR 112.20(f)(1)(ii)(B) or (f)(1)(ii)(C), the owner or operator shall attach documentation to the response plan cover sheet contained in Appendix F to this part that demonstrates the reliability and analytical soundness of the alternative formula and shall notify the Regional Administrator in writing that an alternative formula was used.¹

1.3 A regulated facility may meet the criteria for the potential to cause substantial harm to the environment without having to perform a planning distance calculation. For facilities that meet the substantial harm criteria because of inadequate secondary containment or oil spill history, as listed in the flowchart in Attachment C-1 to this appendix, calculation of the planning distance is unnecessary. For facilities that do not meet the substantial harm criteria for secondary containment or oil spill history as listed in the flowchart, calculation of a planning distance for proximity to fish and wildlife and sensitive environments and public drinking water intakes is required, unless it is clear without performing the calculation (e.g., the facility is located in a wetland) that these areas would be impacted.

1.4 A facility owner or operator who must perform a planning distance calculation on navigable water is only required to do so for the type of navigable water conditions (i.e., moving water, still water, or tidal-influenced water) applicable to the facility. If a facility owner or operator determines that more than one type of navigable water condition applies, then the facility owner or operator is required to perform a planning distance calculation for each navigable water type to determine the greatest single distance that oil may be transported. As a result, the final planning distance for oil transport on water shall be the greatest individual distance rather than a summation of each calculated planning distance.

1.5 The planning distance formula for transport on moving waterways contains three variables: the velocity of the navigable water (v), the response time interval (t),

and a conversion factor (c). The velocity, v, is determined by using the Chezy-Manning equation, which, in this case, models the flood flow rate of water in open channels. The Chezy-Manning equation contains three variables which must be determined by facility owners or operators. Manning's Roughness Coefficient (for flood flow rates), n, can be determined from Table 1 of this attachment. The hydraulic radius, r, can be estimated using the average mid-channel depth from charts provided by the sources listed in Table 2 of this attachment. The average slope of the river, s, can be determined using topographic maps that can be ordered from the U.S. Geological Survey, as listed in Table 2 of this attachment.

1.6 Table 3 of this attachment contains specified time intervals for estimating the arrival of response resources at the scene of a discharge. Assuming no prior planning, response resources should be able to arrive at the discharge site within 12 hours of the discovery of any oil discharge in Higher Volume Port Areas and within 24 hours in Great Lakes and all other river, canal, inland, and nearshore areas. The specified time intervals in Table 3 of Appendix C are to be used only to aid in the identification of whether a facility could cause substantial harm to the environment. Once it is determined that a plan must be developed for the facility, the owner or operator shall reference Appendix E to this part to determine appropriate resource levels and response times. The specified time intervals of this appendix include a 3-hour time period for deployment of boom and other response equipment. The Regional Administrator may identify additional areas as appropriate.

2.0 Oil Transport on Moving Navigable Waters

2.1 The facility owner or operator must use the following formula or a comparable formula as described in § 112.20(a)(3) to calculate the planning distance for oil transport on moving navigable water:

$d = v \times t \times c$; where

d: the distance downstream from a facility within which fish and wildlife and sensitive environments could be injured or a public drinking water intake would be shut down in the event of an oil discharge (in miles);
v: the velocity of the river/navigable water of concern (in ft/sec) as determined by Chezy-Manning's equation (see below and Tables 1 and 2 of this attachment);
t: the time interval specified in Table 3 based upon the type of water body and location (in hours); and
c: constant conversion factor $0.68 \text{ sec} \cdot \text{mile/hr} \cdot \text{ft}$ ($3600 \text{ sec/hr} + 5280 \text{ ft/mile}$).

2.2 Chezy-Manning's equation is used to determine velocity:

$v = 1.49/n \times r^{2/3} \times s^{1/2}$; where

v=the velocity of the river of concern (in ft/sec);

n=Manning's Roughness Coefficient from Table 1 of this attachment;

r=the hydraulic radius; the hydraulic radius can be approximated for parabolic channels by multiplying the average mid-channel depth of the river (in feet) by 0.667 (sources for obtaining the mid-channel depth are listed in Table 2 of this attachment); and

s=the average slope of the river (unitless) obtained from U.S. Geological Survey topographic maps at the address listed in Table 2 of this attachment.

¹ For persistent oils or non-persistent oils, a worst case trajectory model (i.e., an alternative formula) may be substituted for the distance formulas described in still, moving, and tidal waters, subject to Regional Administrator's review of the model. An example of an alternative formula that is comparable to the one contained in this appendix would be a worst case trajectory calculation based on credible adverse winds, currents, and/or river stages, over a range of seasons, weather conditions, and river stages. Based on historical information or a spill trajectory model, the Agency may require that additional fish and wildlife and sensitive environments or public drinking water intakes also be protected.

Pt. 112, App. C

TABLE 1.—MANNING'S ROUGHNESS COEFFICIENT FOR NATURAL STREAMS

[NOTE: Coefficients are presented for high flow rates at or near flood stage.]

| Stream description | Roughness coefficient (n) |
|------------------------------------|---------------------------|
| Minor Streams (Top Width <100 ft.) | |
| Clean: | |
| Straight | 0.03 |
| Winding | 0.04 |
| Sluggish (Weedy, deep pools): | |
| No trees or brush | 0.06 |
| Trees and/or brush | 0.10 |
| Major Streams (Top Width >100 ft.) | |
| Regular section: | |
| (No boulders/brush) | 0.035 |
| Irregular section: | |
| (Brush) | 0.05 |

TABLE 2.—SOURCES OF R AND S FOR THE CHEZY-MANNING EQUATION

All of the charts and related publications for navigational waters may be ordered from:

Distribution Branch
(N/CG33)
National Ocean Service
Riverdale, Maryland 20737-1199
Phone: (301) 436-6990

There will be a charge for materials ordered and a VISA or Mastercard will be accepted.

The mid-channel depth to be used in the calculation of the hydraulic radius (r) can be obtained directly from the following sources:

Charts of Canadian Coastal and Great Lakes Waters:

Canadian Hydrographic Service
Department of Fisheries and Oceans Institute

P.O. Box 8080
1675 Russell Road
Ottawa, Ontario K1G 3H6
Canada

Phone: (613) 998-4931

Charts and Maps of Lower Mississippi River

(Gulf of Mexico to Ohio River and St. Francis, White, Big Sunflower, Atchafalaya, and other rivers):

U.S. Army Corps of Engineers
Vicksburg District
P.O. Box 60

Vicksburg, Mississippi 39180
Phone: (601) 634-5000

Charts of Upper Mississippi River and Illinois Waterway to Lake Michigan:

U.S. Army Corps of Engineers

TABLE 2.—SOURCES OF R AND S FOR THE CHEZY-MANNING EQUATION—Continued

Rock Island District
P.O. Box 2004

Rock Island, Illinois 61204
Phone: (309) 794-5552

Charts of Missouri River:
U.S. Army Corps of Engineers
Omaha District
6014 U.S. Post Office and Courthouse
Omaha, Nebraska 68102
Phone: (402) 221-3900

Charts of Ohio River:
U.S. Army Corps of Engineers
Ohio River Division
P.O. Box 1159
Cincinnati, Ohio 45201
Phone: (513) 684-3002

Charts of Tennessee Valley Authority Reservoirs, Tennessee River and Tributaries:

Tennessee Valley Authority
Maps and Engineering Section
416 Union Avenue
Knoxville, Tennessee 37902
Phone: (615) 632-2921

Charts of Black Warrior River, Alabama River, Tombigbee River, Apalachicola River and Pearl River:

U.S. Army Corps of Engineers
Mobile District
P.O. Box 2288
Mobile, Alabama 36628-0001
Phone: (205) 690-2511

The average slope of the river (s) may be obtained from topographic maps:

U.S. Geological Survey
Map Distribution
Federal Center
Bldg. 41
Box 25286
Denver, Colorado 80225

Additional information can be obtained from the following sources:

1. The State's Department of Natural Resources (DNR) or the State's Aids to Navigation office;
2. A knowledgeable local marina operator; or
3. A knowledgeable local water authority (e.g., State water commission)

2.3 The average slope of the river (s) can be determined from the topographic maps using the following steps:

- (1) Locate the facility on the map.
- (2) Find the Normal Pool Elevation at the point of discharge from the facility into the water (A).

(3) Find the Normal Pool Elevation of the public drinking water intake or fish and wildlife and sensitive environment located downstream (B) (Note: The owner or operator should use a minimum of 20 miles downstream as a cutoff to obtain the average slope if the location of a specific public drinking water intake or fish and wildlife and sensitive environment is unknown).

(4) If the Normal Pool Elevation is not available, the elevation contours can be used to find the slope. Determine elevation of the water at the point of discharge from the facility (A). Determine the elevation of the water at the appropriate distance downstream (B). The formula presented below can be used to calculate the slope.

(5) Determine the distance (in miles) between the facility and the public drinking water intake or fish and wildlife and sensitive environments (C).

(6) Use the following formula to find the slope, which will be a unitless value: Average Slope= $((A \cdot B) \text{ (ft)/C (miles)}) \times [1 \text{ mile}/5280 \text{ feet}]$

2.4 If it is not feasible to determine the slope and mid-channel depth by the Chezy-Manning equation, then the river velocity can be approximated on-site. A specific length, such as 100 feet, can be marked off along the shoreline. A float can be dropped into the stream above the mark, and the time required for the float to travel the distance can be used to determine the velocity in feet per second. However, this method will not yield an average velocity for the length of the stream, but a velocity only for the specific location of measurement. In addition, the flow rate will vary depending on weather conditions such as wind and rainfall. It is recommended that facility owners or operators repeat the measurement under a variety of conditions to obtain the most accurate estimate of the surface water velocity under adverse weather conditions.

2.5 The planning distance calculations for moving and still navigable waters are based on worst case discharges of persistent oils. Persistent oils are of concern because they can remain in the water for significant periods of time and can potentially exist in large quantities downstream. Owners or operators of facilities that store persistent as well as non-persistent oils may use a comparable formula. The volume of oil discharged is not included as part of the planning distance calculation for moving navigable waters. Facilities that will meet this substantial harm criterion are those with facility capacities greater than or equal to 1 million gallons. It is assumed that these facilities are capable of having an oil discharge of sufficient quantity to cause injury to fish and wildlife and sensitive environments or shut down a public drinking water intake. While owners or operators of transfer facilities that store greater than or equal to 42,000 gallons are not required to use a planning distance formula for purposes of the substantial harm criteria, they should use a planning distance calculation in the development of facility-specific response plans.

TABLE 3.—SPECIFIED TIME INTERVALS

| Operating areas | Substantial harm planning time (hrs) |
|--------------------------|---|
| Higher volume port area. | 12 hour arrival+3 hour deployment=15 hours. |
| Great Lakes ... | 24 hour arrival+3 hour deployment=27 hours. |

TABLE 3.—SPECIFIED TIME INTERVALS—
Continued

| Operating areas | Substantial harm planning time (hrs) |
|---|---|
| All other rivers and canals, inland, and nearshore areas. | 24 hour arrival+3 hour deployment=27 hours. |

2.6 Example of the Planning Distance Calculation for Oil Transport on Moving Navigable Waters. The following example provides a sample calculation using the planning distance formula for a facility discharging oil into the Monongahela River:

(1) Solve for v by evaluating n, r, and s for the Chezy-Manning equation:

Find the roughness coefficient, n, on Table 1 of this attachment for a regular section of a major stream with a top width greater than 100 feet. The top width of the river can be found from the topographic map.

n=0.035.

Find slope, s, where A=727 feet, B=710 feet, and C=25 miles.

Solving:

$$s = [(727 \text{ ft} - 1710 \text{ ft}) / 25 \text{ miles}] \times [1 \text{ mile} / 5280 \text{ feet}] = 1.3 \times 10^{-4}$$

The average mid-channel depth is found by averaging the mid-channel depth for each mile along the length of the river between the facility and the public drinking water intake or the fish or wildlife or sensitive environment (or 20 miles downstream if applicable). This value is multiplied by 0.667 to obtain the hydraulic radius. The mid-channel depth is found by obtaining values for r and s from the sources shown in Table 2 for the Monongahela River.

Solving:

$$r = 0.667 \times 20 \text{ feet} = 13.33 \text{ feet}$$

Solve for v using:

$$v = 1.49 \times r^{2/3} \times s^{1/2}$$

$$v = [1.49 \times 0.035] \times (13.33)^{2/3} \times (1.3 \times 10^{-4})^{1/2}$$

$$v = 2.73 \text{ feet/second}$$

(2) Find t from Table 3 of this attachment. The Monongahela River's resource response time is 27 hours.

(3) Solve for planning distance, d:

$$d = v \times t \times c$$

$$d = (2.73 \text{ ft/sec}) \times (27 \text{ hours}) \times (0.68 \text{ sec} \cdot \text{mile/hr} \cdot \text{ft})$$

$$d = 50 \text{ miles}$$

Therefore, 50 miles downstream is the appropriate planning distance for this facility.

3.0 Oil Transport on Still Water

3.1 For bodies of water including lakes or ponds that do not have a measurable velocity, the spreading of the oil over the surface must be considered. Owners or operators of facilities located next to still water bodies may use a comparable means of calculating the planning distance. If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable calculation must be attached to the response plan cover sheet.

3.2 Example of the Planning Distance Calculation for Oil Transport on Still Water. To assist those facilities which could potentially discharge into a still body of

Pt. 112, App. C

water, the following analysis was performed to provide an example of the type of formula that may be used to calculate the planning distance. For this example, a worst case discharge of 2,000,000 gallons is used.

(1) The surface area in square feet covered by an oil spill on still water, A_1 , can be determined by the following formula,² where V is the volume of the spill in gallons and C is a constant conversion factor:

$$A_1 = 10^5 \times V^{3/4} \times C$$

$$C = 0.1643$$

$$A_1 = 10^5 \times (2,000,000 \text{ gallons})^{3/4} \times (0.1643)$$

$$A_1 = 8.74 \times 10^8 \text{ ft}^2$$

(2) The spreading formula is based on the theoretical condition that the oil will spread uniformly in all directions forming a circle. In reality, the outfall of the discharge will direct the oil to the surface of the water where it intersects the shoreline. Although the oil will not spread uniformly in all directions, it is assumed that the discharge will spread from the shoreline into a semi-circle (this assumption does not account for winds or wave action).

(3) The area of a circle = πr^2

(4) To account for the assumption that oil will spread in a semi-circular shape, the area of a circle is divided by 2 and is designated as A_2 .

$$A_2 = (\pi r^2) / 2$$

Solving for the radius, r , using the relationship $A_1 = A_2$:

$$8.74 \times 10^8 \text{ ft}^2 = (\pi r^2) / 2$$

$$\text{Therefore, } r = 23,586 \text{ ft}$$

$$r = 23,586 \text{ ft} \div 5,280 \text{ ft/mile} = 4.5 \text{ miles}$$

Assuming a 20 knot wind under storm conditions:

$$1 \text{ knot} = 1.15 \text{ miles/hour}$$

$$20 \text{ knots} \times 1.15 \text{ miles/hour/knot} = 23 \text{ miles/hr}$$

Assuming that the oil slick moves at 3 percent of the wind's speed:³

$$23 \text{ miles/hour} \times 0.03 = 0.69 \text{ miles/hour}$$

(5) To estimate the distance that the oil will travel, use the times required for response resources to arrive at different geographic locations as shown in Table 3 of this attachment.

For example:

$$\text{For Higher Volume Port Areas: } 15 \text{ hrs} \times 0.69 \text{ miles/hr} = 10.4 \text{ miles}$$

$$\text{For Great Lakes and all other areas: } 27 \text{ hrs} \times 0.69 \text{ miles/hr} = 18.6 \text{ miles}$$

(6) The total distance that the oil will travel from the point of discharge, including the distance due to spreading, is calculated as follows:

$$\text{Higher Volume Port Areas: } d = 10.4 + 4.5 \text{ miles or approximately } 15 \text{ miles}$$

$$\text{Great Lakes and all other areas: } d = 18.6 + 4.5 \text{ miles or approximately } 23 \text{ miles}$$

4.0 Oil Transport on Tidal-Influence Areas

4.1 The planning distance method for tidal influence navigable water is based on worst case discharges of persistent and non-persistent oils. Persistent oils are of pri-

mary concern because they can potentially cause harm over a greater distance. For persistent oils discharged into tidal waters, the planning distance is 15 miles from the facility down current during ebb tide and to the point of maximum tidal influence or 15 miles, whichever is less, during flood tide.

4.2 For non-persistent oils discharged into tidal waters, the planning distance is 5 miles from the facility down current during ebb tide and to the point of maximum tidal influence or 5 miles, whichever is less, during flood tide.

4.3 *Example of Determining the Planning Distance for Two Types of Navigable Water Conditions.* Below is an example of how to determine the proper planning distance when a facility could impact two types of navigable water conditions: moving water and tidal water.

(1) Facility X stores persistent oil and is located downstream from locks along a slow moving river which is affected by tides. The river velocity, v , is determined to be 0.5 feet/second from the Chezy-Manning equation used to calculate oil transport on moving navigable waters. The specified time interval, t , obtained from Table 3 of this attachment for river areas is 27 hours. Therefore, solving for the planning distance, d :

$$d = v \times t \times c$$

$$d = (0.5 \text{ ft/sec}) \times (27 \text{ hours}) \times (0.68 \text{ sec} \cdot \text{mile/hr} \cdot \text{ft})$$

$$d = 9.18 \text{ miles.}$$

(2) However, the planning distance for maximum tidal influence down current during ebb tide is 15 miles, which is greater than the calculated 9.18 miles. Therefore, 15 miles downstream is the appropriate planning distance for this facility.

5.0 Oil Transport Over Land

5.1 Facility owners or operators must evaluate the potential for oil to be transported over land to navigable waters of the United States. The owner or operator must evaluate the likelihood that portions of a worst case discharge would reach navigable waters via open channel flow or from sheet flow across the land, or be prevented from reaching navigable waters when trapped in natural or man-made depressions excluding secondary containment structures.

5.2 As discharged oil travels over land, it may enter a storm drain or open concrete channel intended for drainage. It is assumed that once oil reaches such an inlet, it will flow into the receiving navigable water. During a storm event, it is highly probable that the oil will either flow into the drainage structures or follow the natural contours of the land and flow into the navigable water. Expected minimum and maximum velocities are provided as examples of open concrete channel and pipe flow. The ranges listed below reflect minimum and maximum velocities used as design criteria.⁴ The calculation below demonstrates that the time required for oil to travel through a storm drain or open concrete channel to navigable water is negligible and can be considered instantaneous. The velocities are:

For open concrete channels:

$$\text{maximum velocity} = 25 \text{ feet per second}$$

$$\text{minimum velocity} = 3 \text{ feet per second}$$

For storm drains:

⁴The design velocities were obtained from Howard County, Maryland Department of Public Works' Storm Drainage Design Manual.

²Huang, J.C. and Monastero, F.C., 1982. *Review of the State-of-the-Art of Oil Pollution Models*. Final report submitted to the American Petroleum Institute by Raytheon Ocean Systems, Co., East Providence, Rhode Island.

³*Oil Spill Prevention & Control*. National Spill Control School, Corpus Christi State University, Thirteenth Edition, May 1990.

maximum velocity=25 feet per second
 minimum velocity=2 feet per second

5.3 Assuming a length of 0.5 mile from the point of discharge through an open concrete channel or concrete storm drain to a navigable water, the travel times (distance/velocity) are:

1.8 minutes at a velocity of 25 feet per second
 14.7 minutes at a velocity of 3 feet per second
 22.0 minutes for at a velocity of 2 feet per second

5.4 The distances that shall be considered to determine the planning distance are illustrated in Figure C-1 of this attachment. The relevant distances can be described as follows:

D1=Distance from the nearest opportunity for discharge, X₁, to a storm drain or an open concrete channel leading to navigable water.

D2=Distance through the storm drain or open concrete channel to navigable water.

D3=Distance downstream from the outfall within which fish and wildlife and sensitive environments could be injured or a public drinking water intake would be shut down as determined by the planning distance formula.

D4=Distance from the nearest opportunity for discharge, X₂, to fish and wildlife and sensitive environments not bordering navigable water.

5.5 A facility owner or operator whose nearest opportunity for discharge is located within 0.5 mile of a navigable water must complete the planning distance calculation (D3) for the type of navigable water near the facility or use a comparable formula.

5.6 A facility that is located at a distance greater than 0.5 mile from a navigable water must also calculate a planning distance (D3) if it is in close proximity (i.e., D1 is less than 0.5 mile and other factors are conducive to oil travel over land) to storm drains that flow to navigable waters. Factors to be considered in assessing oil transport over land to storm drains shall include the topography of the surrounding area, drainage patterns, man-made barriers (excluding secondary containment structures), and soil distribution and porosity. Storm drains or concrete drainage channels that are located in close proximity to the facility can provide a direct pathway to navigable waters, regardless of the length of the drainage pipe. If D1 is less than or equal to 0.5 mile, a discharge from the facility could pose substantial harm because the time to travel the distance from the storm drain to the navigable water (D2) is virtually instantaneous.

5.7 A facility's proximity to fish and wildlife and sensitive environments not bordering a navigable water, as depicted as D4 in Figure C-1 of this attachment, must also be considered, regardless of the distance from the facility to navigable waters. Factors to be considered in assessing oil transport over land to fish and wildlife and sensitive environments should include the topography of the surrounding area, drainage patterns, man-made barriers (excluding secondary containment structures), and soil distribution and porosity.

5.8 If a facility is not found to pose substantial harm to fish and wildlife and sensitive environments not bordering navigable waters via oil transport on land, then supporting documentation should be maintained at the facility. However, such documentation should be submitted with the response plan if a facility is found to pose substantial harm.

EC01MR92.010

[59 FR 34102, July 1, 1994]

APPENDIX D TO PART 112—DETERMINATION OF A WORST CASE DISCHARGE PLANNING VOLUME

1.0 Instructions

1.1 An owner or operator is required to complete this worksheet if the facility meets the criteria, as presented in Appendix C to this part, or it is determined by the RA that the facility could cause substantial harm to the environment. The calculation of a worst case discharge planning volume is used for emergency planning purposes, and is required in 40 CFR 112.20 for facility owners or operators who must prepare a response plan. When planning for the amount of resources and equipment necessary to respond to the worst case discharge planning volume, adverse weather conditions must be taken into consideration. An owner or operator is required to determine the facility's worst case discharge planning volume from either Part A of this appendix for an onshore storage facility, or Part B of this appendix for an onshore production facility. The worksheet considers the provision of adequate secondary containment at a facility.

1.2 For onshore storage facilities and production facilities, permanently manifolded oil storage tanks are defined as tanks that are designed, installed, and/or operated in such a manner that the multiple tanks function as one storage unit (i.e., multiple tank volumes are equalized). In a worst case discharge scenario, a single failure could cause the discharge of the contents of more than one tank. The owner or operator must provide evidence in the response plan that tanks with common piping or piping systems are not operated as one unit. If such evidence is provided and is acceptable to the RA, the worst case discharge planning volume would be based on the capacity of the largest oil storage tank within a common secondary containment area or the largest oil storage tank within a single secondary containment area, whichever is greater. For permanently manifolded tanks that function as one oil storage unit, the worst case discharge planning volume would be based on the combined oil storage capacity of all manifolded tanks or the capacity of the largest single oil storage tank within a secondary containment area, whichever is greater. For purposes of this rule, permanently manifolded tanks that are separated by internal divisions for each tank are considered to be single tanks and individual manifolded tank volumes are not combined.

1.3 For production facilities, the presence of exploratory wells, production wells, and oil storage tanks must be considered in the calculation. Part B of this appendix takes these additional factors into consideration and provides steps for their inclusion in the total worst case discharge planning volume. Onshore oil production facilities may include all wells, flowlines, separation equipment, storage facilities, gathering lines, and auxiliary non-transportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator. Although a potential worst case discharge planning volume is calculated within each section of the worksheet, the final worst case amount depends on the risk parameter that results in the greatest volume.

1.4 Marine transportation-related transfer facilities that contain fixed aboveground onshore structures used for bulk oil storage are jointly regulated by EPA and the U.S. Coast Guard (USCG), and are termed "complexes."

Pt. 112, App. D

Because the USCG also requires response plans from transportation-related facilities to address a worst case discharge of oil, a separate calculation for the worst case discharge planning volume for USCG-related facilities is included in the USCG IFR (see Appendix E to this part, section 10, for availability). All complexes that are jointly regulated by EPA and the USCG must compare both calculations for worst case discharge planning volume derived by using the EPA and USCG methodologies and plan for whichever volume is greater.

PART A: WORST CASE DISCHARGE PLANNING VOLUME CALCULATION FOR ONSHORE STORAGE FACILITIES¹

Part A of this worksheet is to be completed by the owner or operator of an SPCC-regulated facility (excluding oil production facilities) if the facility meets the criteria as presented in Appendix C to this part, or if it is determined by the RA that the facility could cause substantial harm to the environment. If you are the owner or operator of a production facility, please proceed to Part B of this worksheet.

A.1 SINGLE-TANK FACILITIES

For facilities containing only one aboveground oil storage tank, the worst case discharge planning volume equals the capacity of the oil storage tank. If adequate secondary containment (sufficiently large to contain the capacity of the aboveground oil storage tank plus sufficient freeboard to allow for precipitation) exists for the oil storage tank, multiply the capacity of the tank by 0.8.

- (1) FINAL WORST CASE VOLUME: _____ GAL
(2) Do not proceed further.

A.2 SECONDARY CONTAINMENT—MULTIPLE-TANK FACILITIES

Are *all* aboveground oil storage tanks or groups of aboveground oil storage tanks at the facility *without* adequate secondary containment?²
_____ (Y/N)

A.2.1 If the answer is yes, the final worst case discharge planning volume equals the *total aboveground oil storage capacity at the facility*.

- (1) FINAL WORST CASE VOLUME: _____ GAL
(2) Do not proceed further.

A.2.2 If the answer is no, calculate the total aboveground oil storage capacity of tanks without adequate secondary containment. If *all* aboveground oil storage tanks or groups of aboveground oil storage tanks at the facility have adequate secondary containment, ENTER "0" (zero).

_____ GAL

A.2.3 Calculate the capacity of the largest single aboveground oil storage tank within an adequate secondary containment area or the combined capacity of a group of aboveground oil storage tanks permanently manifolded together, whichever is greater, PLUS THE VOLUME FROM QUESTION A.2.2.

¹ "Storage facilities" represent all facilities subject to this part, excluding oil production facilities.

² Secondary containment is defined in 40 CFR 112.7(c)(2). Acceptable methods and structures for containment are also given in 40 CFR 112.7(c)(1).

FINAL WORST CASE VOLUME:³ _____ GAL

PART B: WORST CASE DISCHARGE PLANNING VOLUME CALCULATION FOR ONSHORE PRODUCTION FACILITIES

Part B of this worksheet is to be completed by the owner or operator of an SPCC-regulated oil production facility if the facility meets the criteria presented in Appendix C to this part, or if it is determined by the RA that the facility could cause substantial harm. A production facility consists of all wells (producing and exploratory) and related equipment in a single geographical oil or gas field operated by a single operator.

B.1 SINGLE-TANK FACILITIES

B.1.1 For facilities containing only one aboveground oil storage tank, the worst case discharge planning volume equals the capacity of the aboveground oil storage tank plus the production volume of the well with the highest output at the facility. If adequate secondary containment (sufficiently large to contain the capacity of the aboveground oil storage tank plus sufficient freeboard to allow for precipitation) exists for the storage tank, multiply the capacity of the tank by 0.8.

B.1.2 For facilities with production wells producing by pumping, if the rate of the well with the highest output is known and the number of days the facility is unattended can be predicted, then the production volume is equal to the pumping rate of the well multiplied by the greatest number of days the facility is unattended.

B.1.3 If the pumping rate of the well with the highest output is estimated or the maximum number of days the facility is unattended is estimated, then the production volume is determined from the pumping rate of the well multiplied by 1.5 times the greatest number of days that the facility has been or is expected to be unattended.

B.1.4 Attachment D-1 to this appendix provides methods for calculating the production volume for exploratory wells and production wells producing under pressure.

- (1) FINAL WORST CASE VOLUME: _____ GAL
(2) Do not proceed further.

B.2 SECONDARY CONTAINMENT—MULTIPLE-TANK FACILITIES

Are *all* aboveground oil storage tanks or groups of aboveground oil storage tanks at the facility *without* adequate secondary containment?

_____ (Y/N)

B.2.1 If the answer is yes, the final worst case volume equals the total aboveground oil storage capacity without adequate secondary containment plus the production volume of the well with the highest output at the facility.

(1) For facilities with production wells producing by pumping, if the rate of the well with the highest output is known and the number of days the facility is unattended can be predicted, then the production volume is equal to the pumping rate of the well multiplied by the greatest number of days the facility is unattended.

³ All complexes that are jointly regulated by EPA and the USCG must also calculate the worst case discharge planning volume for the transportation-related portions of the facility and plan for whichever volume is greater.

(2) If the pumping rate of the well with the highest output is estimated or the maximum number of days the facility is unattended is estimated, then the production volume is determined from the pumping rate of the well multiplied by 1.5 times the greatest number of days that the facility has been or is expected to be unattended.

(3) Attachment D-1 to this appendix provides methods for calculating the production volumes for exploratory wells and production wells producing under pressure.

(A) FINAL WORST CASE VOLUME: _____ GAL

(B) Do not proceed further.

B.2.2 If the answer is no, calculate the total above-ground oil storage capacity of tanks without adequate secondary containment. If all aboveground oil storage tanks or groups of aboveground oil storage tanks at the facility have adequate secondary containment, ENTER "0" (zero).

_____ GAL

B.2.3 Calculate the capacity of the largest single aboveground oil storage tank within an adequate secondary containment area or the combined capacity of a group of aboveground oil storage tanks permanently manifolded together, whichever is greater, plus the production volume of the well with the highest output, PLUS THE VOLUME FROM QUESTION B.2.2. Attachment D-1 provides methods for calculating the production volumes for exploratory wells and production wells producing under pressure.

(1) FINAL WORST CASE VOLUME: 4 _____ GAL

(2) Do not proceed further.

ATTACHMENTS TO APPENDIX D

ATTACHMENT D-1—METHODS TO CALCULATE PRODUCTION VOLUMES FOR PRODUCTION FACILITIES WITH EXPLORATORY WELLS OR PRODUCTION WELLS PRODUCING UNDER PRESSURE

1.0 Introduction

The owner or operator of a production facility with exploratory wells or production wells producing under pressure shall compare the well rate of the highest output well (rate of well), in barrels per day, to the ability of response equipment and personnel to recover the volume of oil that could be discharged (rate of recovery), in barrels per day. The result of this comparison will determine the method used to calculate the production volume for the production facility. This production volume is to be used to calculate the worst case discharge planning volume in Part B of this appendix.

2.0 Description of Methods

2.1 Method A

If the well rate would overwhelm the response efforts (i.e., rate of well/rate of recovery ≥ 1), then the production volume would be the 30-day forecasted well rate for a well 10,000 feet deep or less, or the 45-day forecasted well rate for a well deeper than 10,000 feet.

(1) For wells 10,000 feet deep or less:
Production volume=30 days \times rate of well.

⁴All complexes that are jointly regulated by EPA and the USCG must also calculate the worst case discharge planning volume for the transportation-related portions of the facility and plan for whichever volume is greater.

(2) For wells deeper than 10,000 feet:

Production volume=45 days \times rate of well.

2.2 Method B

2.2.1 If the rate of recovery would be greater than the well rate (i.e., rate of well/rate of recovery < 1), then the production volume would equal the sum of two terms:

Production volume=discharge volume₁ + discharge volume₂

2.2.2 The first term represents the volume of the oil discharged from the well between the time of the blowout and the time the response resources are on scene and recovering oil (discharge volume₁).

Discharge volume₁=(days unattended+days to respond) \times (rate of well)

2.2.3 The second term represents the volume of oil discharged from the well after the response resources begin operating until the spill is stopped, adjusted for the recovery rate of the response resources (discharge volume₂).

(1) For wells 10,000 feet deep or less:

Discharge volume₂=[30 days \cdot (days unattended + days to respond)] \times (rate of well) \times (rate of well/rate of recovery)

(2) For wells deeper than 10,000 feet:

Discharge volume₂=[45 days \cdot (days unattended + days to respond)] \times (rate of well) \times (rate of well/rate of recovery)

3.0 Example

3.1 A facility consists of two production wells producing under pressure, which are both less than 10,000 feet deep. The well rate of well A is 5 barrels per day, and the well rate of well B is 10 barrels per day. The facility is unattended for a maximum of 7 days. The facility operator estimates that it will take 2 days to have response equipment and personnel on scene and responding to a blowout, and that the projected rate of recovery will be 20 barrels per day.

(1) First, the facility operator determines that the highest output well is well B. The facility operator calculates the ratio of the rate of well to the rate of recovery:

10 barrels per day/20 barrels per day=0.5 Because the ratio is less than one, the facility operator will use Method B to calculate the production volume.

(2) The first term of the equation is:

Discharge volume₁=(7 days + 2 days) \times (10 barrels per day)=90 barrels

(3) The second term of the equation is:

Discharge volume₂=[30 days $-$ (7 days + 2 days)] \times (10 barrels per day) \times (0.5)=105 barrels

(4) Therefore, the production volume is:

Production volume=90 barrels + 105 barrels=195 barrels

3.2 If the recovery rate was 5 barrels per day, the ratio of rate of well to rate of recovery would be 2, so the facility operator would use Method A. The production volume would have been:

30 days \times 10 barrels per day=300 barrels

[59 FR 34110, July 1, 1994; 59 FR 49006, Sept. 26, 1994]

Pt. 112, App. E

APPENDIX E TO PART 112—DETERMINATION AND EVALUATION OF REQUIRED RESPONSE RESOURCES FOR FACILITY RESPONSE PLANS

1.0 Purpose and Definitions

1.1 The purpose of this appendix is to describe the procedures to identify response resources to meet the requirements of § 112.20. To identify response resources to meet the facility response plan requirements of 40 CFR 112.20(h), owners or operators shall follow this appendix or, where not appropriate, shall clearly demonstrate in the response plan why use of this appendix is not appropriate at the facility and make comparable arrangements for response resources.

1.2 Definitions.

1.2.1 *Nearshore* is an operating area defined as extending seaward 12 miles from the boundary lines defined in 46 CFR part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area extending 12 miles from the line of demarcation (COLREG lines) defined in 49 CFR 80.740 and 80.850.

1.2.2 *Non-persistent oils or Group 1 oils* include:

- (1) A petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions:
 - (A) At least 50 percent of which by volume, distill at a temperature of 340 degrees C (645 degrees F); and
 - (B) At least 95 percent of which by volume, distill at a temperature of 370 degrees C (700 degrees F); and
- (2) A non-petroleum oil with a specific gravity less than 0.8.

1.2.3 *Non-petroleum oil* is oil of any kind that is not petroleum-based. It includes, but is not limited to, animal and vegetable oils.

1.2.4 *Ocean* means the nearshore area.

1.2.5 *Operating area* means Rivers and Canals, Inland, Nearshore, and Great Lakes geographic location(s) in which a facility is handling, storing, or transporting oil.

1.2.6 *Operating environment* means Rivers and Canals, Inland, Great Lakes, or Ocean. These terms are used to define the conditions in which response equipment is designed to function.

1.2.7 *Persistent oils* include:

- (1) A petroleum-based oil that does not meet the distillation criteria for a non-persistent oil. Persistent oils are further classified based on specific gravity as follows:
 - (A) Group 2—specific gravity less than 0.85;
 - (B) Group 3—specific gravity equal to or greater than 0.85 and less than 0.95;
 - (C) Group 4—specific gravity equal to or greater than 0.95 and less than 1.0; or
 - (D) Group 5—specific gravity equal to or greater than 1.0.
- (2) A non-petroleum oil with a specific gravity of 0.8 or greater. These oils are further classified based on specific gravity as follows:
 - (A) Group 2—specific gravity equal to or greater than 0.8 and less than 0.85;
 - (B) Group 3—specific gravity equal to or greater than 0.85 and less than 0.95;
 - (C) Group 4—specific gravity equal to or greater than 0.95 and less than 1.0; or
 - (D) Group 5—specific gravity equal to or greater than 1.0.

1.2.8 Other definitions are included in § 112.2 and section 1.1 of Appendix C.

2.0 Equipment Operability and Readiness

2.1 All equipment identified in a response plan must be designed to operate in the conditions expected in the facility's geographic area (i.e., operating environment). These conditions vary widely based on location and season. Therefore, it is difficult to identify a single stockpile of response equipment that will function effectively in each geographic location (i.e., operating area).

2.2 Facilities handling, storing, or transporting oil in more than one operating environment as indicated in Table 1 of this appendix must identify equipment capable of successfully functioning in each operating environment.

2.3 When identifying equipment for the response plan (based on the use of this appendix), a facility owner or operator must consider the inherent limitations of the operability of equipment components and response systems. The criteria in Table 1 of this appendix shall be used to evaluate the operability in a given environment. These criteria reflect the general conditions in certain operating environments.

2.3.1 The Regional Administrator may require documentation that the boom identified in a facility response plan meets the criteria in Table 1 of this appendix. Absent acceptable documentation, the Regional Administrator may require that the boom be tested to demonstrate that it meets the criteria in Table 1 of this appendix. Testing must be in accordance with ASTM F 715, ASTM F 989, or other tests approved by EPA as deemed appropriate (see Appendix E to this part, section 10, for general availability of documents).

2.4 Table 1 of this appendix lists criteria for oil recovery devices and boom. All other equipment necessary to sustain or support response operations in an operating environment must be designed to function in the same conditions. For example, boats that deploy or support skimmers or boom must be capable of being safely operated in the significant wave heights listed for the applicable operating environment.

2.5 A facility owner or operator shall refer to the applicable Area Contingency Plan (ACP), where available, to determine if ice, debris, and weather-related visibility are significant factors to evaluate the operability of equipment. The ACP may also identify the average temperature ranges expected in the facility's operating area. All equipment identified in a response plan must be designed to operate within those conditions or ranges.

2.6 This appendix provides information on response resource mobilization and response times. The distance of the facility from the storage location of the response resources must be used to determine whether the resources can arrive on-scene within the stated time. A facility owner or operator shall include the time for notification, mobilization, and travel of resources identified to meet the medium and Tier 1 worst case discharge requirements identified in section 4.3 of this appendix (for medium discharges) and section 5.3 of this appendix (for worst case discharges). The facility owner or operator must plan for notification and mobilization of Tier 2 and 3 response resources as necessary to meet the requirements for arrival on-scene in accordance with section 5.3 of this appendix. An on-water speed of 5 knots and a land speed of 35 miles per hour is assumed, unless the facility owner or operator can demonstrate otherwise.

2.7 In identifying equipment, the facility owner or operator shall list the storage location, quantity, and manufacturer's make and model. For oil recovery devices, the

effective daily recovery capacity, as determined using section 6 of this appendix, must be included. For boom, the overall boom height (draft and freeboard) shall be included. A facility owner or operator is responsible for ensuring that the identified boom has compatible connectors.

3.0 *Determining Response Resources Required for Small Discharges*

3.1 A facility owner or operator shall identify sufficient response resources available, by contract or other approved means as described in § 112.2, to respond to a small discharge. A small discharge is defined as any discharge volume less than or equal to 2,100 gallons, but not to exceed the calculated worst case discharge. The equipment must be designed to function in the operating environment at the point of expected use.

3.2 Complexes that are regulated by EPA and the USCG must also consider planning quantities for the transportation-related transfer portion of the facility. The USCG planning level that corresponds to EPA's "small discharge" is termed "the average most probable discharge." The USCG revisions to 33 CFR part 154 define "the average most probable discharge" as a discharge of 50 barrels (2,100 gallons). Owners or operators of complexes must compare oil spill volumes for a small discharge and an average most probable discharge and plan for whichever quantity is greater.

3.3 The response resources shall, as appropriate, include:

3.3.1 One thousand feet of containment boom (or, for complexes with marine transfer components, 1,000 feet of containment boom or two times the length of the largest vessel that regularly conducts oil transfers to or from the facility, whichever is greater), and a means of deploying it within 1 hour of the discovery of a spill;

3.3.2 Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a small discharge or greater which is available at the facility within 2 hours of the detection of an oil discharge; and

3.3.3 Oil storage capacity for recovered oily material indicated in section 9.2 of this appendix.

4.0 *Determining Response Resources Required for Medium Discharges*

4.1 A facility owner or operator shall identify sufficient response resources available, by contract or other approved means as described in § 112.2, to respond to a medium discharge of oil for that facility. This will require response resources capable of containing and collecting up to 36,000 gallons of oil or 10 percent of the worst case discharge, whichever is less. All equipment identified must be designed to operate in the applicable operating environment specified in Table 1 of this appendix.

4.2 Complexes that are regulated by EPA and the USCG must also consider planning quantities for the transportation-related transfer portion of the facility. The USCG planning level that corresponds to EPA's "medium discharge" is termed "the maximum most probable discharge." The USCG revisions to 33 CFR part 154 define "the maximum most probable discharge" as a discharge of 1,200 barrels (50,400 gallons) or 10 percent of the worst case discharge, whichever is less. Owners or operators of complexes must compare spill volumes for a medium discharge and a maximum most probable discharge and plan for whichever quantity is greater.

4.3 Oil recovery devices identified to meet the applicable medium discharge volume planning criteria must be located such that they are capable of arriving on-scene within 6 hours in higher volume port areas and the Great Lakes and within 12 hours in all other areas. Higher volume port areas and Great Lakes areas are defined in section 1.1 of Appendix C to this part.

4.4 Because rapid control, containment, and removal of oil are critical to reduce spill impact, the owner or operator must determine response resources using an effective daily recovery capacity for oil recovery devices equal to 50 percent of the planning volume applicable for the facility as determined in section 4.1 of this appendix. The effective daily recovery capacity for oil recovery devices identified in the plan must be determined using the criteria in section 6 of this appendix.

4.5 In addition to oil recovery capacity, the plan shall, as appropriate, identify sufficient quantity of containment boom available, by contract or other approved means as described in § 112.2, to arrive within the required response times for oil collection and containment and for protection of fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see Appendix E to this part, section 10, for availability) and the applicable ACP. While the regulation does not set required quantities of boom for oil collection and containment, the response plan shall identify and ensure, by contract or other approved means as described in § 112.2, the availability of the quantity of boom identified in the plan for this purpose.

4.6 The plan must indicate the availability of temporary storage capacity to meet section 9.2 of this appendix. If available storage capacity is insufficient to meet this level, then the effective daily recovery capacity must be derated (downgraded) to the limits of the available storage capacity.

4.7 The following is an example of a medium discharge volume planning calculation for equipment identification in a higher volume port area: The facility's largest aboveground storage tank volume is 840,000 gallons. Ten percent of this capacity is 84,000 gallons. Because 10 percent of the facility's largest tank, or 84,000 gallons, is greater than 36,000 gallons, 36,000 gallons is used as the planning volume. The effective daily recovery capacity is 50 percent of the planning volume, or 18,000 gallons per day. The ability of oil recovery devices to meet this capacity must be calculated using the procedures in section 6 of this appendix. Temporary storage capacity available on-scene must equal twice the daily recovery capacity as indicated in section 9.2 of this appendix, or 36,000 gallons per day. This is the information the facility owner or operator must use to identify and ensure the availability of the required response resources, by contract or other approved means as described in § 112.2. The facility owner shall also identify how much boom is available for use.

5.0 *Determining Response Resources Required for the Worst Case Discharge to the Maximum Extent Practicable*

5.1 A facility owner or operator shall identify and ensure the availability of, by contract or other approved means as described in § 112.2, sufficient response resources to respond to the worst case discharge of oil to

Pt. 112, App. E

the maximum extent practicable. Section 7 of this appendix describes the method to determine the necessary response resources. A worksheet is provided as Attachment E-1 at the end of this appendix to simplify the procedures involved in calculating the planning volume for response resources for the worst case discharge.

5.2 Complexes that are regulated by EPA and the USCG must also consider planning for the worst case discharge at the transportation-related portion of the facility. The USCG requires that transportation-related facility owners or operators use a different calculation for the worst case discharge in the revisions to 33 CFR part 154. Owners or operators of complex facilities that are regulated by EPA and the USCG must compare both calculations of worst case discharge derived by EPA and the USCG and plan for whichever volume is greater.

5.3 Oil spill response resources identified in the response plan and available, by contract or other approved means as described in § 112.2, to meet the applicable worst case discharge planning volume must be located such that they are capable of arriving at the scene of a discharge within the times specified for the applicable response tier listed below:

| | Tier 1 | Tier 2 | Tier 3 |
|---|--------------|--------------|--------|
| Higher volume port areas. | 6 hrs | 30 hrs | 54 hrs |
| Great Lakes | 12 hrs | 36 hrs | 60 hrs |
| All other river and canal, inland, and nearshore areas. | 12 hrs | 36 hrs | 60 hrs |

The three levels of response tiers apply to the amount of time in which facility owners or operators must plan for response resources to arrive at the scene of a spill to respond to the worst case discharge planning volume. For example, at a worst case discharge in an inland area, the first tier of response resources (i.e., that amount of on-water and shoreline cleanup capacity necessary to respond to the fraction of the worst case discharge as indicated through the series of steps described in sections 7.2 and 7.3 of this appendix) would arrive at the scene of the discharge within 12 hours; the second tier of response resources would arrive within 36 hours; and the third tier of response resources would arrive within 60 hours.

5.4 The effective daily recovery capacity for oil recovery devices identified in the response plan must be determined using the criteria in section 6 of this appendix. A facility owner or operator shall identify the storage locations of all response resources used for each tier. The owner or operator of a facility whose required daily recovery capacity exceeds the applicable contracting caps in Table 5 of this appendix shall, as appropriate, identify sources of additional equipment, their location, and the arrangements made to obtain this equipment during a response. The owner or operator of a facility whose calculated planning volume exceeds the applicable contracting caps in Table 5 of this appendix shall, as appropriate, identify sources of additional equipment equal to twice the cap listed in Tier 3 or the amount necessary to reach the calculated planning volume, whichever is lower. The resources identified above the cap shall be capable of arriving on-scene not later than the Tier 3 response times in section 5.3 of this appendix. No contract is required. While general listings of available response equipment

may be used to identify additional sources (i.e., "public" resources vs. "private" resources), the response plan shall identify the specific sources, locations, and quantities of equipment that a facility owner or operator has considered in his or her planning. When listing USCG-classified oil spill removal organization(s) that have sufficient removal capacity to recover the volume above the response capacity cap for the specific facility, as specified in Table 5 of this appendix, it is not necessary to list specific quantities of equipment.

5.5 A facility owner or operator shall identify the availability of temporary storage capacity to meet section 9.2 of this appendix. If available storage capacity is insufficient, then the effective daily recovery capacity must be derated (downgraded) to the limits of the available storage capacity.

5.6 When selecting response resources necessary to meet the response plan requirements, the facility owner or operator shall, as appropriate, ensure that a portion of those resources is capable of being used in close-to-shore response activities in shallow water. For any EPA-regulated facility that is required to plan for response in shallow water, at least 20 percent of the on-water response equipment identified for the applicable operating area shall, as appropriate, be capable of operating in water of 6 feet or less depth.

5.7 In addition to oil spill recovery devices, a facility owner or operator shall identify sufficient quantities of boom that are available, by contract or other approved means as described in § 112.2, to arrive on-scene within the specified response times for oil containment and collection. The specific quantity of boom required for collection and containment will depend on the facility-specific information and response strategies employed. A facility owner or operator shall, as appropriate, also identify sufficient quantities of oil containment boom to protect fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see Appendix E to this part, section 10, for availability), and the applicable ACP. Refer to this guidance document for the number of days and geographic areas (i.e., operating environments) specified in Table 2 of this appendix.

5.8 A facility owner or operator shall also identify, by contract or other approved means as described in § 112.2, the availability of an oil spill removal organization(s) (as described in § 112.2) capable of responding to a shoreline cleanup operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline. The volume of oil that shall, as appropriate, be planned for is calculated through the application of factors contained in Tables 2 and 3 of this appendix. The volume calculated from these tables is intended to assist the facility owner or operator to identify an oil spill removal organization with sufficient resources and expertise.

6.0 Determining Effective Daily Recovery Capacity for Oil Recovery Devices

6.1 Oil recovery devices identified by a facility owner or operator must be identified by the manufacturer, model, and effective daily recovery capacity. These capacities must be used to determine whether there is sufficient capacity to meet the applicable planning criteria for a small discharge, a medium discharge, and a worst case discharge to the maximum extent practicable.

6.2 To determine the effective daily recovery capacity of oil recovery devices, the formula listed in section 6.2.1 of this appendix shall be used. This formula considers potential limitations due to available daylight, weather, sea state, and percentage of emulsified oil in the recovered material. The RA may assign a lower efficiency factor to equipment listed in a response plan if it is determined that such a reduction is warranted.

6.2.1 The following formula shall be used to calculate the effective daily recovery capacity:

$$R = T \times 24 \text{ hours} \times E$$

where:

R—Effective daily recovery capacity;

T—Throughput rate in barrels per hour (nameplate capacity); and

E—20 percent efficiency factor (or lower factor as determined by the Regional Administrator).

6.2.2 For those devices in which the pump limits the throughput of liquid, throughput rate shall be calculated using the pump capacity.

6.2.3 For belt or mop type devices, the throughput rate shall be calculated using the speed of the belt or mop through the device, assumed thickness of oil adhering to or collected by the device, and surface area of the belt or mop. For purposes of this calculation, the assumed thickness of oil will be 1/4 inch.

6.2.4 Facility owners or operators that include oil recovery devices whose throughput is not measurable using a pump capacity or belt/mop speed may provide information to support an alternative method of calculation. This information must be submitted following the procedures in section 6.3.2 of this appendix.

6.3 As an alternative to section 6.2 of this appendix, a facility owner or operator may submit adequate evidence that a different effective daily recovery capacity should be applied for a specific oil recovery device. Adequate evidence is actual verified performance data in spill conditions or tests using American Society of Testing and Materials (ASTM) Standard F 631-80, F 808-83 (1988), or an equivalent test approved by EPA as deemed appropriate (see Appendix E to this part, section 10, for general availability of documents).

6.3.1 The following formula must be used to calculate the effective daily recovery capacity under this alternative:

$$R = D \times U$$

where:

R—Effective daily recovery capacity;

D—Average Oil Recovery Rate in barrels per hour (Item 26 in F 808-83; Item 13.1.15 in F 631-80; or actual performance data); and

U—Hours per day that equipment can operate under spill conditions. Ten hours per day must be used unless a facility owner or operator can demonstrate that the recovery operation can be sustained for longer periods.

6.3.2 A facility owner or operator submitting a response plan shall provide data that supports the effective daily recovery capacities for the oil recovery devices listed. The following is an example of these calculations:

(1) A weir skimmer identified in a response plan has a manufacturer's rated throughput at the pump of 267 gallons per minute (gpm).

$$267 \text{ gpm} = 381 \text{ barrels per hour (bph)}$$

$$R = 381 \text{ bph} \times 24 \text{ hr/day} \times 0.2 = 1,829 \text{ barrels per day}$$

(2) After testing using ASTM procedures, the skimmer's oil recovery rate is determined to be 220 gpm. The facility owner or operator identifies sufficient resources available to support operations for 12 hours per day.

$$220 \text{ gpm} = 314 \text{ bph}$$

$$R = 314 \text{ bph} \times 12 \text{ hr/day} = 3,768 \text{ barrels per day}$$

(3) The facility owner or operator will be able to use the higher capacity if sufficient temporary oil storage capacity is available. Determination of alternative efficiency factors under section 6.2 of this appendix or the acceptability of an alternative effective daily recovery capacity under section 6.3 of this appendix will be made by the Regional Administrator as deemed appropriate.

7.0 Calculating Planning Volumes for a Worst Case Discharge

7.1 A facility owner or operator shall plan for a response to the facility's worst case discharge. The planning for on-water oil recovery must take into account a loss of some oil to the environment due to evaporative and natural dissipation, potential increases in volume due to emulsification, and the potential for deposition of oil on the shoreline. The procedures for non-petroleum oils are discussed in section 7.7 of this appendix.

7.2 The following procedures must be used by a facility owner or operator in determining the required on-water oil recovery capacity:

7.2.1 The following must be determined: the worst case discharge volume of oil in the facility; the appropriate group(s) for the types of oil handled, stored, or transported at the facility [persistent (Groups 2, 3, 4, 5) or non-persistent (Group 1)]; and the facility's specific operating area. See sections 1.2.2 and 1.2.7 of this appendix for the definitions of non-persistent and persistent oils, respectively. Facilities that handle, store, or transport oil from different oil groups must calculate each group separately, unless the oil group constitutes 10 percent or less by volume of the facility's total oil storage capacity. This information is to be used with Table 2 of this appendix to determine the percentages of the total volume to be used for removal capacity planning. Table 2 of this appendix divides the volume into three categories: oil lost to the environment; oil deposited on the shoreline; and oil available for on-water recovery.

7.2.2 The on-water oil recovery volume shall, as appropriate, be adjusted using the appropriate emulsification factor found in Table 3 of this appendix. Facilities that handle, store, or transport oil from different petroleum groups must compare the on-water recovery volume for each oil group (unless the oil group constitutes 10 percent or less by volume of the facility's total storage capacity) and use the calculation that results in the largest on-water oil recovery volume to plan for the amount of response resources for a worst case discharge.

7.2.3 The adjusted volume is multiplied by the on-water oil recovery resource mobilization factor found in Table 4 of this appendix from the appropriate operating area and response tier to determine the total on-water oil recovery capacity in barrels per day that must be identified or contracted to arrive on-scene within the applicable time for each response tier. Three tiers are specified. For higher volume port areas, the contracted tiers of resources must be located such that they are capable of arriving on-scene within 6 hours for Tier 1, 30 hours for Tier 2, and 54 hours for Tier 3 of the discovery of an oil discharge.

Pt. 112, App. E

For all other rivers and canals, inland, nearshore areas, and the Great Lakes, these tiers are 12, 36, and 60 hours.

7.2.4 The resulting on-water oil recovery capacity in barrels per day for each tier is used to identify response resources necessary to sustain operations in the applicable operating area. The equipment shall be capable of sustaining operations for the time period specified in Table 2 of this appendix. The facility owner or operator shall identify and ensure the availability, by contract or other approved means as described in § 112.2, of sufficient oil spill recovery devices to provide the effective daily oil recovery capacity required. If the required capacity exceeds the applicable cap specified in Table 5 of this appendix, then a facility owner or operator shall ensure, by contract or other approved means as described in § 112.2, only for the quantity of resources required to meet the cap, but shall identify sources of additional resources as indicated in section 5.4 of this appendix. The owner or operator of a facility whose planning volume exceeded the cap in 1993 must make arrangements to identify and ensure the availability, by contract or other approved means as described in § 112.2, for additional capacity to be under contract by 1998 or 2003, as appropriate. For a facility that handles multiple groups of oil, the required effective daily recovery capacity for each oil group is calculated before applying the cap. The oil group calculation resulting in the largest on-water recovery volume must be used to plan for the amount of response resources for a worst case discharge, unless the oil group comprises 10 percent or less by volume of the facility's total oil storage capacity.

7.3 The procedures discussed in sections 7.3.1–7.3.3 of this appendix must be used to calculate the planning volume for identifying shoreline cleanup capacity (for Group 1 through Group 4 oils).

7.3.1 The following must be determined: the worst case discharge volume of oil for the facility; the appropriate group(s) for the types of oil handled, stored, or transported at the facility [persistent (Groups 2, 3, or 4) or non-persistent (Group 1)]; and the geographic area(s) in which the facility operates (*i.e.*, operating areas). For a facility handling, storing, or transporting oil from different groups, each group must be calculated separately. Using this information, Table 2 of this appendix must be used to determine the percentages of the total volume to be used for shoreline cleanup resource planning.

7.3.2 The shoreline cleanup planning volume must be adjusted to reflect an emulsification factor using the same procedure as described in section 7.2.2 of this appendix.

7.3.3 The resulting volume shall be used to identify an oil spill removal organization with the appropriate shoreline cleanup capability.

7.4 A response plan must identify response resources with fire fighting capability. The owner or operator of a facility that handles, stores, or transports Group 1 through Group 4 oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. It is recommended that the facility owner or operator ensure, by contract or other approved means as described in § 112.2, the availability of these resources. The response plan must also identify an individual located at the facility to work with the fire department for Group 1 through Group 4 oil fires. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to a worst case scenario. The individual may be the quali-

fied individual identified in the response plan or another appropriate individual located at the facility.

7.5 The following is an example of the procedure described above in sections 7.2 and 7.3 of this appendix: A facility with a 270,000 barrel (11.3 million gallons) capacity for #6 oil (specific gravity 0.96) is located in a higher volume port area. The facility is on a peninsula and has docks on both the ocean and bay sides. The facility has four aboveground oil storage tanks with a combined total capacity of 80,000 barrels (3.36 million gallons) and no secondary containment. The remaining facility tanks are inside secondary containment structures. The largest aboveground oil storage tank (90,000 barrels or 3.78 million gallons) has its own secondary containment. Two 50,000 barrel (2.1 million gallon) tanks (that are not connected by a manifold) are within a common secondary containment tank area, which is capable of holding 100,000 barrels (4.2 million gallons) plus sufficient freeboard.

7.5.1 The worst case discharge for the facility is calculated by adding the capacity of all aboveground oil storage tanks without secondary containment (80,000 barrels) plus the capacity of the largest aboveground oil storage tank inside secondary containment. The resulting worst case discharge volume is 170,000 barrels or 7.14 million gallons.

7.5.2 Because the requirements for Tiers 1, 2, and 3 for inland and nearshore exceed the caps identified in Table 5 of this appendix, the facility owner will contract for a response to 10,000 barrels per day (bpd) for Tier 1, 20,000 bpd for Tier 2, and 40,000 bpd for Tier 3. Resources for the remaining 7,850 bpd for Tier 1, 9,750 bpd for Tier 2, and 7,600 bpd for Tier 3 shall be identified but need not be contracted for in advance. The facility owner or operator shall, as appropriate, also identify or contract for quantities of boom identified in their response plan for the protection of fish and wildlife and sensitive environments within the area potentially impacted by a worst case discharge from the facility. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments," (see Appendix E to this part, section 10, for availability) and the applicable ACP. Attachment C–III to Appendix C provides a method for calculating a planning distance to fish and wildlife and sensitive environments and public drinking water intakes that may be impacted in the event of a worst case discharge.

7.6 The procedures discussed in sections 7.6.1–7.6.3 of this appendix must be used to determine appropriate response resources for facilities with Group 5 oils.

7.6.1 The owner or operator of a facility that handles, stores, or transports Group 5 oils shall, as appropriate, identify the response resources available by contract or other approved means, as described in § 112.2. The equipment identified in a response plan shall, as appropriate, include:

(1) Sonar, sampling equipment, or other methods for locating the oil on the bottom or suspended in the water column;

(2) Containment boom, sorbent boom, silt curtains, or other methods for containing the oil that may remain floating on the surface or to reduce spreading on the bottom;

(3) Dredges, pumps, or other equipment necessary to recover oil from the bottom and shoreline;

(4) Equipment necessary to assess the impact of such discharges; and

(5) Other appropriate equipment necessary to respond to a discharge involving the type of oil handled, stored, or transported.

7.6.2 Response resources identified in a response plan for a facility that handles, stores, or transports Group 5 oils under section 7.6.1 of this appendix shall be capable of being deployed (on site) within 24 hours of discovery of a discharge to the area where the facility is operating.

7.6.3 A response plan must identify response resources with fire fighting capability. The owner or operator of a facility that handles, stores, or transports Group 5 oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. It is recommended that the owner or operator ensure, by contract or other approved means as described in § 112.2, the availability of these resources. The response plan shall also identify an individual located at the facility to work with the fire department for Group 5 oil fires. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to respond to a worst case discharge. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

7.7 The procedures described in sections 7.7.1-7.7.5 of this appendix must be used to determine appropriate response plan development and evaluation criteria for facilities that handle, store, or transport non-petroleum oils. Refer to section 8 of this appendix for information on the limitations on the use of dispersants for inland and near-shore areas.

7.7.1 An owner or operator of a facility that handles, stores, or transports non-petroleum oil must provide information in his or her plan that identifies:

(1) Procedures and strategies for responding to a worst case discharge of non-petroleum oils to the maximum extent practicable; and

(2) Sources of the equipment and supplies necessary to locate, recover, and mitigate such a discharge.

7.7.2 An owner or operator of a facility that handles, stores, or transports non-petroleum oil must ensure that any equipment identified in a response plan is capable of operating in the conditions expected in the geographic area(s) (i.e., operating environments) in which the facility operates using the criteria in Table 1 of this appendix. When evaluating the operability of equipment, the facility owner or operator must consider limitations that are identified in the appropriate ACPs, including:

(1) Ice conditions;

(2) Debris;

(3) Temperature ranges; and

(4) Weather-related visibility.

7.7.3 The owner or operator of a facility that handles, stores, or transports non-petroleum oil must identify the response resources that are available by contract or other approved means, as described in § 112.2. The equipment described in the response plan shall, as appropriate, include:

(1) Containment boom, sorbent boom, or other methods for containing oil floating on the surface or to protect shorelines from impact;

(2) Oil recovery devices appropriate for the type of non-petroleum oil carried; and

(3) Other appropriate equipment necessary to respond to a discharge involving the type of oil carried.

7.7.4 Response resources identified in a response plan according to section 7.7.3 of this appendix must be capable of commencing an effective on-scene response within the applicable tier response times in section 5.3 of this appendix.

7.7.5 A response plan must identify response resources with fire fighting capability. The owner or operator of a facility that handles, stores, or transports non-petroleum oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. It is recommended that the owner or operator ensure, by contract or other approved means as described in § 112.2, the availability of these resources. The response plan must also identify an individual located at the facility to work with the fire department for non-petroleum fires. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to a worst case scenario. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

8.0 *Determining the Availability of Alternative Response Methods*

8.1 For dispersants to be identified in a response plan, they must be on the NCP Product Schedule that is maintained by EPA. (Some States have a list of approved dispersants for use within State waters. These State-approved dispersants are listed on the NCP Product Schedule.)

8.2 Identification of dispersant application in the plan does not imply that the use of this technique will be authorized. Actual authorization for use during a spill response will be governed by the provisions of the NCP and the applicable ACP. To date, dispersant application has not been approved by ACPs for inland areas or shallow nearshore areas.

9.0 *Additional Equipment Necessary to Sustain Response Operations*

9.1 A facility owner or operator shall, as appropriate, ensure that sufficient numbers of trained personnel and boats, aerial spotting aircraft, containment boom, sorbent materials, boom anchoring materials, and other supplies are available to sustain response operations to completion. All such equipment must be suitable for use with the primary equipment identified in the response plan. A facility owner or operator is not required to list these resources, but shall certify their availability.

9.2 A facility owner or operator shall evaluate the availability of adequate temporary storage capacity to sustain the effective daily recovery capacities from equipment identified in the plan. Because of the inefficiencies of oil spill recovery devices, response plans must identify daily storage capacity equivalent to twice the effective daily recovery capacity required on-scene. This temporary storage capacity may be reduced if a facility owner or operator can demonstrate by waste stream analysis that the efficiencies of the oil recovery devices, ability to decant waste, or the availability of alternative temporary storage or disposal locations will reduce the overall volume of oily material storage requirement.

Pt. 112, App. E

9.3 A facility owner or operator shall ensure that his or her planning includes the capability to arrange for disposal of recovered oil products. Specific disposal procedures will be addressed in the applicable ACP.

10.0 References and Availability

10.1 All materials listed in this section are part of EPA's rulemaking docket, and are located in the Superfund Docket, Room M2615, at the U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 (Docket Number SPCC-2P). The docket is available for inspection between 9:00 a.m. and 4:00 p.m., Monday through Friday, excluding Federal holidays. Appointments to review the docket can be made by calling 202-260-3046. The public may copy a maximum of 266 pages from any regulatory docket at no cost. If the number of pages copied exceeds 266, however, a charge of 15 cents will be incurred for each additional page, plus a \$25.00 administrative fee. Charges for copies and docket hours are subject to change.

10.2 The docket will mail copies of materials to requestors who are outside the Washington D.C. metro area. Materials may be available from other sources, as noted in this section. The ERNS/SPCC Information line at 202-260-2342 or the RCRA/Superfund Hotline at 800-424-

9346 may also provide additional information on where to obtain documents. To contact the RCRA/Superfund Hotline in the Washington, DC metropolitan area, dial 703-412-9810. The Telecommunications Device for the Deaf (TDD) Hotline number is 800-553-7672, or, in the Washington, DC metropolitan area, 703-412-3323.

10.3 Documents Referenced

(1) National Preparedness for Response Exercise Program (PREP). The PREP draft guidelines are available from United States Coast Guard Headquarters (G-MEP-4), 2100 Second Street, SW., Washington, DC 20593. (See 58 FR 53990, October 19, 1993, Notice of Availability of PREP Guidelines).

(2) "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (published in the FEDERAL REGISTER by DOC/NOAA at 59 FR 14713, March 29, 1994). The guidance is available in the Superfund Docket (see sections 10.1 and 10.2 of this appendix).

(3) ASTM Standards. ASTM F 715, ASTM F 989, ASTM F 631-80, ASTM F 808-83 (1988). The ASTM standards are available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103-1187.

TABLE 1 TO APPENDIX E—RESPONSE RESOURCE OPERATING CRITERIA

| Oil Recovery Devices | | | | |
|-------------------------|--|--------------------------------------|-----------|-----|
| Operating environment | | Significant wave height ¹ | Sea state | |
| Rivers and Canals | | ≤ 1 foot | | 1 |
| Inland | | ≤ 3 feet | | 2 |
| Great Lakes | | ≤ 4 feet | | 2-3 |
| Ocean | | ≤ 6 feet | | 3-4 |

| Boom | | | | |
|---|-------------------|---------------------|---------------------|------------|
| Boom property | Use | | | |
| | Rivers and canals | Inland | Great Lakes | Ocean |
| Significant Wave Height ¹ | ≤ 1 | ≤ 3 | ≤ 4 | ≤ 6 |
| Sea State | 1 | 2 | 2-3 | 3-4 |
| Boom height—Inches (draft plus freeboard) | 6-18 | 18-42 | 18-42 | ≥ 42 |
| Reserve Buoyancy to Weight Ratio | 2:1 | 2:1 | 2:1 | 3:1 to 4:1 |
| Total Tensile Strength—pounds | 4,500 | 15,000-20,000 | 15,000-20,000 | ≥ 20,000 |
| Skirt Fabric Tensile Strength—pounds | 200 | 300 | 300 | 500 |
| Skirt Fabric Tear Strength—pounds | 100 | 100 | 100 | 125 |

¹Oil recovery devices and boom shall be at least capable of operating in wave heights up to and including the values listed in Table 1 for each operating environment.

TABLE 2 TO APPENDIX E—REMOVAL CAPACITY PLANNING TABLE

| Spill location | Rivers and canals | | | Nearshore/inland Great Lakes | | |
|----------------------------------|-----------------------------|--------------------------------|---------------------|------------------------------|--------------------------------|---------------------|
| | 3 days | | | 4 days | | |
| | Percent natural dissipation | Percent recovered floating oil | Percent oil onshore | Percent natural dissipation | Percent recovered floating oil | Percent oil Onshore |
| 1. Non-persistent oils | 80 | 10 | 10 | 80 | 20 | 10 |
| 2. Light crudes | 40 | 15 | 45 | 50 | 50 | 30 |
| 3. Medium crudes and fuels | 20 | 15 | 65 | 30 | 50 | 50 |
| 4. Heavy crudes and fuels | 5 | 20 | 75 | 10 | 50 | 70 |

Group 5 oils are defined in section 1.2.7 of this appendix; the response resource considerations are outlined in section 7.6 of this appendix.

¹Non-petroleum oils are defined in section 1.2.3 of this appendix; the response resource considerations are outlined in section 7.7 of this appendix.

TABLE 3 TO APPENDIX E—EMULSIFICATION FACTORS FOR PETROLEUM OIL GROUPS¹

| | |
|--|-----|
| Non-Persistent Oil: | |
| Group 1 | 1.0 |
| Persistent Oil: | |
| Group 2 | 1.8 |
| Group 3 | 2.0 |
| Group 4 | 1.4 |
| Group 5 oils are defined in section 1.2.7 of this appendix; the response resource considerations are outlined in section 7.6 of this appendix. | |

¹ See sections 1.2.2 and 1.2.7 of this appendix for group designations for non-persistent and persistent oils, respectively.

TABLE 4 TO APPENDIX E—ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

| Operating area | Tier 1 | Tier 2 | Tier 3 |
|------------------------------|--------|--------|--------|
| Rivers and Canals | 0.30 | 0.40 | 0.60 |
| Inland/Nearshore Great Lakes | 0.15 | 0.25 | 0.40 |

Note: These mobilization factors are for total resources mobilized, not incremental response resources.

TABLE 5 TO APPENDIX E—RESPONSE CAPABILITY CAPS BY OPERATING AREA

| | Tier 1 | Tier 2 | Tier 3 |
|---|-----------------------|----------------------|----------------|
| February 18, 1993: | | | |
| All except Rivers & Canals, Great Lakes | 10K bbls/day | 20K bbls/day | 40K bbls/day. |
| Great Lakes | 5K bbls/day | 10K bbls/day | 20K bbls/day. |
| Rivers & Canals | 1.5K bbls/day | 3.0K bbls/day | 6.0K bbls/day. |
| February 18, 1998: | | | |
| All except Rivers & Canals, Great Lakes | 12.5K bbls/day | 25K bbls/day | 50K bbls/day. |
| Great Lakes | 6.35K bbls/day | 12.3K bbls/day | 25K bbls/day. |
| Rivers & Canals | 1.875K bbls/day | 3.75K bbls/day | 7.5K bbls/day. |
| February 18, 2003: | | | |
| All except Rivers & Canals, Great Lakes | TBD | TBD | TBD. |
| Great Lakes | TBD | TBD | TBD. |
| Rivers & Canals | TBD | TBD | TBD. |

Note: The caps show cumulative overall effective daily recovery capacity, not incremental increases.
 TBD=To Be Determined.

ATTACHMENTS TO APPENDIX E

EC01MR92.011
 EC01MR92.012
 EC01MR92.013
 EC01MR92.014
 [59 FR 34111, July 1, 1994; 59 FR 49006, Sept. 26, 1994]

APPENDIX F TO PART 112—FACILITY-SPECIFIC
RESPONSE PLAN*Table of Contents*

- 1.0 Model Facility-Specific Response Plan
 - 1.1 Emergency Response Action Plan
 - 1.2 Facility Information
 - 1.3 Emergency Response Information
 - 1.3.1 Notification
 - 1.3.2 Response Equipment List
 - 1.3.3 Response Equipment Testing/Deployment
 - 1.3.4 Personnel
 - 1.3.5 Evacuation Plans
 - 1.3.6 Qualified Individual's Duties
 - 1.4 Hazard Evaluation
 - 1.4.1 Hazard Identification
 - 1.4.2 Vulnerability Analysis
 - 1.4.3 Analysis of the Potential for an Oil Spill
 - 1.4.4 Facility Reportable Oil Spill History
 - 1.5 Discharge Scenarios
 - 1.5.1 Small and Medium Discharges
 - 1.5.2 Worst Case Discharge
 - 1.6 Discharge Detection Systems
 - 1.6.1 Discharge Detection By Personnel
 - 1.6.2 Automated Discharge Detection
 - 1.7 Plan Implementation
 - 1.7.1 Response Resources for Small, Medium, and Worst Case Spills
 - 1.7.2 Disposal Plans
 - 1.7.3 Containment and Drainage Planning
 - 1.8 Self-Inspection, Drills/Exercises, and Response Training
 - 1.8.1 Facility Self-Inspection
 - 1.8.1.1 Tank Inspection
 - 1.8.1.2 Response Equipment Inspection
 - 1.8.1.3 Secondary Containment Inspection
 - 1.8.2 Facility Drills/Exercises
 - 1.8.2.1 Qualified Individual Notification Drill Logs
 - 1.8.2.2 Spill Management Team Tabletop Exercise Logs
 - 1.8.3 Response Training
 - 1.8.3.1 Personnel Response Training Logs
 - 1.8.3.2 Discharge Prevention Meeting Logs
 - 1.9 Diagrams
 - 1.10 Security
 - 2.0 Response Plan Cover Sheet
 - 3.0 Acronyms
 - 4.0 References

1.0 Model Facility-Specific Response Plan

(A) Owners or operators of facilities regulated under this part which pose a threat of substantial harm to the environment by discharging oil into or on navigable waters or adjoining shorelines are required to prepare and submit facility-specific response plans to EPA in accordance with the provisions in this appendix. This appendix further describes the required elements in § 112.20(h).

(B) Response plans must be sent to the appropriate EPA Regional office. Figure F-1 of this Appendix lists each EPA Regional office and the address where owners or operators must submit their response plans. Those facilities deemed by the Regional Administrator (RA) to pose a threat of significant and substantial harm to the environment will have their plans reviewed and approved by EPA. In certain cases, information required in the model response plan is similar to information currently maintained in the facility's Spill Prevention, Control, and Countermeasures (SPCC) Plan as required by 40 CFR 112.3. In these cases, owners or operators may reproduce the information and include a photocopy in the response plan.

(C) A complex may develop a single response plan with a set of core elements for all regulating agencies and separate sections for the non-transportation-related and transportation-related components, as described in § 112.20(h). Owners or operators of large facilities that handle, store, or transport oil at more than one geographically distinct location (e.g., oil storage areas at opposite ends of a single, continuous parcel of property) shall, as appropriate, develop separate sections of the response plan for each storage area.

EC01MR92.015

1.1 Emergency Response Action Plan

Several sections of the response plan shall be co-located for easy access by response personnel during an actual emergency or oil spill. This collection of sections shall be called the Emergency Response Action Plan. The Agency intends that the Action Plan contain only as much information as is necessary to combat the spill and be arranged so response actions are not delayed. The Action Plan may be arranged in a number of ways. For example, the sections of the Emergency Response Action Plan may be photocopies or condensed versions of the forms included in the associated sections of the response plan. Each Emergency Response Action Plan section may be tabbed for quick reference. The Action Plan shall be maintained in the front of the same binder that contains the complete response plan or it shall be contained in a separate binder. In the latter case, both binders shall be kept together so that the entire plan can be accessed by the qualified individual and appropriate spill response personnel. The Emergency Response Action Plan shall be made up of the following sections:

1. Qualified Individual Information (Section 1.2) partial
2. Emergency Notification Phone List (Section 1.3.1) partial
3. Spill Response Notification Form (Section 1.3.1) partial
4. Response Equipment List and Location (Section 1.3.2) complete
5. Response Equipment Testing and Deployment (Section 1.3.3) complete
6. Facility Response Team (Section 1.3.4) partial
7. Evacuation Plan (Section 1.3.5) condensed
8. Immediate Actions (Section 1.7.1) complete
9. Facility Diagram (Section 1.9) complete

1.2 Facility Information

The facility information form is designed to provide an overview of the site and a description of past activities at the facility. Much of the information required by this section may be obtained from the facility's existing SPCC Plan.

Pt. 112, App. F

1.2.1 *Facility name and location:* Enter facility name and street address. Enter the address of corporate headquarters only if corporate headquarters are physically located at the facility. Include city, county, state, zip code, and phone number.

1.2.2 *Latitude and Longitude:* Enter the latitude and longitude of the facility. Include degrees, minutes, and seconds of the main entrance of the facility.

1.2.3 *Wellhead Protection Area:* Indicate if the facility is located in or drains into a wellhead protection area as defined by the Safe Drinking Water Act of 1986 (SDWA).¹ The response plan requirements in the Wellhead Protection Program are outlined by the State or Territory in which the facility resides.

1.2.4 *Owner/operator:* Write the name of the company or person operating the facility and the name of the person or company that owns the facility, if the two are different. List the address of the owner, if the two are different.

1.2.5 *Qualified Individual:* Write the name of the qualified individual for the entire facility. If more than one person is listed, each individual indicated in this section shall have full authority to implement the facility response plan. For each individual, list: name, position, home and work addresses (street addresses, not P.O. boxes), emergency phone number, and specific response training experience.

1.2.6 *Date of Oil Storage Start-up:* Enter the year which the present facility first started storing oil.

1.2.7 *Current Operation:* Briefly describe the facility's operations and include the Standard Industry Classification (SIC) code.

1.2.8 *Dates and Type of Substantial Expansion:* Include information on expansions that have occurred at the facility. Examples of such expansions include, but are not limited to: Throughput expansion, addition of a product line, change of a product line, and installation of additional oil storage capacity. The data provided shall include all facility historical information and detail the expansion of the facility. An example of substantial expansion is any material alteration of the facility which causes the owner or operator of the facility to re-evaluate and increase the response equipment necessary to adequately respond to a worst case discharge from the facility.

Date of Last Update: _____

FACILITY INFORMATION FORM

Facility Name: _____
 Location (Street Address): _____
 City: _____ State: _____ Zip: _____
 County: _____ Phone Number: () _____
 Latitude: _____ Degrees _____ Minutes _____ Seconds
 Longitude: _____ Degrees _____ Minutes _____ Seconds
 Wellhead Protection Area: _____
 Owner: _____

¹ A wellhead protection area is defined as the surface and subsurface area surrounding a water well or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfield. For further information regarding State and territory protection programs, facility owners or operators may contact the SDWA Hotline at 1-800-426-4791.

Owner Location (Street Address): _____
 (if different from Facility Address)
 City: _____ State: _____ Zip: _____
 County: _____ Phone Number: () _____
 Operator (if not Owner): _____
 Qualified Individual(s): (attach additional sheets if more than one)
 Name: _____
 Position: _____
 Work Address: _____
 Home Address: _____
 Emergency Phone Number: () _____
 Date of Oil Storage Start-up: _____
 Current Operations: _____

Date(s) and Type(s) of Substantial Expansion(s): _____
 (Attach additional sheets if necessary)

1.3 Emergency Response Information

(A) The information provided in this section shall describe what will be needed in an actual emergency involving the discharge of oil or a combination of hazardous substances and oil discharge. The Emergency Response Information section of the plan must include the following components:

(1) The information provided in the Emergency Notification Phone List in section 1.3.1 identifies and prioritizes the names and phone numbers of the organizations and personnel that need to be notified immediately in the event of an emergency. This section shall include all the appropriate phone numbers for the facility. These numbers must be verified each time the plan is updated. The contact list must be accessible to all facility employees to ensure that, in case of a discharge, any employee on site could immediately notify the appropriate parties.

(2) The Spill Response Notification Form in section 1.3.1 creates a checklist of information that shall be provided to the National Response Center (NRC) and other response personnel. All information on this checklist must be known at the time of notification, or be in the process of being collected. This notification form is based on a similar form used by the NRC. Note: Do not delay spill notification to collect the information on the list.

(3) Section 1.3.2 provides a description of the facility's list of emergency response equipment and location of the response equipment. When appropriate, the amount of oil that emergency response equipment can handle and any limitations (e.g., launching sites) must be described.

(4) Section 1.3.3 provides information regarding response equipment tests and deployment drills. Response equipment deployment exercises shall be conducted to ensure that response equipment is operational and the personnel who would operate the equipment in a spill response are capable of deploying and operating it. Only a representative sample of each type of response equipment needs to be deployed and operated, as long as the remainder is properly maintained. If appropriate, testing of response equipment may be conducted while it is being deployed. Facilities without facility-owned response equipment must ensure that the oil spill removal organization that is identified in the response plan to provide this response equipment certifies that the deployment exercises

have been met. Refer to the National Preparedness for Response Exercise Program (PREP) Guidelines (see Appendix E to this part, section 10, for availability), which satisfy Oil Pollution Act (OPA) response exercise requirements.

(5) Section 1.3.4 lists the facility response personnel, including those employed by the facility and those under contract to the facility for response activities, the amount of time needed for personnel to respond, their responsibility in the case of an emergency, and their level of response training. Three different forms are included in this section. The Emergency Response Personnel List shall be composed of all personnel employed by the facility whose duties involve responding to emergencies, including oil spills, even when they are not physically present at the site. An example of this type of person would be the Building Engineer-in-Charge or Plant Fire Chief. The second form is a list of the Emergency Response Contractors (both primary and secondary) retained by the facility. Any changes in contractor status must be reflected in updates to the response plan. Evidence of contracts with response contractors shall be included in this section so that the availability of resources can be verified. The last form is the Facility Response Team List, which shall be composed of both emergency response personnel (referenced by job title/position) and emergency response contractors, included in one of the two lists described above, that will respond immediately upon discovery of an oil spill or other emergency (i.e., the first people to respond). These are to be persons normally on the facility premises or primary response contractors. Examples of these personnel would be the Facility Hazardous Materials (HAZMAT) Spill Team 1, Facility Fire Engine Company 1, Production Supervisor, or Transfer Supervisor. Company personnel must be able to respond immediately and adequately if contractor support is not available.

(6) Section 1.3.5 lists factors that must, as appropriate, be considered when preparing an evacuation plan.

(7) Section 1.3.6 references the responsibilities of the qualified individual for the facility in the event of an emergency.

(B) The information provided in the emergency response section will aid in the assessment of the facility's ability to respond to a worst case discharge and will identify additional assistance that may be needed. In addition, the facility owner or operator may want to produce a wallet-size card containing a checklist of the immediate response and notification steps to be taken in the event of an oil discharge.

1.3.1 Notification

Date of Last Update: _____

EMERGENCY NOTIFICATION PHONE LIST WHOM TO NOTIFY

Reporter's Name: _____
 Date: _____
 Facility Name: _____
 Owner Name: _____
 Facility Identification Number: _____
 Date and Time of Each NRC Notification: _____

| Organization | Phone No. |
|------------------------------------|----------------|
| 1. National Response Center (NRC): | 1-800-424-8802 |

| Organization | Phone No. |
|--|-----------|
| 2. Qualified Individual: | _____ |
| Evening Phone: | _____ |
| 3. Company Response Team: | _____ |
| Evening Phone: | _____ |
| 4. Federal On-Scene Coordinator (OSC) and/or Regional Response Center (RRC): | _____ |
| Evening Phone(s): | _____ |
| Pager Number(s): | _____ |
| 5. Local Response Team (Fire Dept./Cooperatives): | _____ |
| 6. Fire Marshall: | _____ |
| Evening Phone: | _____ |
| 7. State Emergency Response Commission (SERC): | _____ |
| Evening Phone: | _____ |
| 8. State Police: | _____ |
| 9. Local Emergency Planning Committee (LEPC): | _____ |
| 10. Local Water Supply System: | _____ |
| Evening Phone: | _____ |
| 11. Weather Report: | _____ |
| 12. Local Television/Radio Station for Evacuation Notification: | _____ |
| 13. Hospitals: | _____ |

SPILL RESPONSE NOTIFICATION FORM

Reporter's Last Name: _____
 First: _____
 M.I.: _____
 Position: _____
 Phone Numbers: _____
 Day () - _____
 Evening () - _____
 Company: _____
 Organization Type: _____
 Address: _____

 City: _____
 State: _____
 Zip: _____

Pt. 112, App. F

Were Materials Discharged? _____ (Y/N) Confidential?
 _____ (Y/N)
 Meeting Federal Obligations to Report? _____ (Y/N)
 Date Called: _____
 Calling for Responsible Party? _____ (Y/N) Time
 Called: _____

Nearest City: _____ State: _____ County: _____
 Zip: _____
 Distance from City: _____ Units of Measure: _____
 Direction from City: _____
 Section: _____ Township: _____ Range: _____
 Borough: _____
 Container Type: _____ Tank Oil Storage Capacity: _____
 Units of Measure: _____
 Facility Oil Storage Capacity: _____ Units of Measure: _____
 Facility Latitude: _____ Degrees _____ Minutes
 _____ Seconds
 Facility Longitude: _____ Degrees _____ Minutes
 _____ Seconds

Incident Description

Source and/or Cause of Incident: _____

 Date of Incident: _____
 Time of Incident: _____ AM/PM
 Incident Address/Location: _____

Material

| CHRIS Code | Discharged quantity | Unit of measure | Material Discharged in water | Quantity | Unit of measure |
|------------|---------------------|-----------------|------------------------------|----------|-----------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Response Action

Actions Taken to Correct, Control or Mitigate Incident:

Caller Notifications

EPA? _____ (Y/N) USCG? _____ (Y/N) State? _____
 (Y/N)
 Other? _____ (Y/N) Describe: _____

1.3.2 Response Equipment List

Date of Last Update: _____

FACILITY RESPONSE EQUIPMENT LIST

- Skimmers/Pumps—Operational Status: _____
 Type, Model, and Year: _____
 Type Model Year
 Number: _____
 Capacity: _____ gal./min.
 Daily Effective Recovery Rate: _____
 Storage Location(s): _____
 Date Fuel Last Changed: _____
- Boom—Operational Status: _____
 Type, Model, and Year: _____
 Type Model Year
 Number: _____
 Size (length): _____ ft.
 Containment Area: _____ sq. ft.
 Storage Location: _____
- Chemicals Stored (Dispersants listed on EPA's NCP Product Schedule)

Impact
 Number of Injuries: _____ Number of Deaths: _____
 Were there Evacuations? _____ (Y/N) Number Evacuated: _____
 Was there any Damage? _____ (Y/N)
 Damage in Dollars (approximate): _____
 Medium Affected: _____
 Description: _____
 More Information about Medium: _____

Additional Information

Any information about the incident not recorded elsewhere in the report:

| Type | Amount | Date purchased | Treatment capacity | Storage location |
|------|--------|----------------|--------------------|------------------|
| | | | | |
| | | | | |
| | | | | |

Pt. 112, App. F

| Type | Amount | Date purchased | Treatment capacity | Storage location |
|------|--------|----------------|--------------------|------------------|
| | | | | |
| | | | | |
| | | | | |

Were appropriate procedures used to receive approval for use of dispersants in accordance with the NCP (40 CFR 300.910) and the Area Contingency Plan (ACP), where applicable? _____ (Y/N).

Name and State of On-Scene Coordinator (OSC) authorizing use: _____
 Date Authorized: _____
 4. Dispersant Dispensing Equipment—Operational Status: _____

| Type and year | Capacity | Storage location | Response time (minutes) |
|---------------|----------|------------------|-------------------------|
| | | | |
| | | | |
| | | | |
| | | | |

5. Sorbents—Operational Status: _____
 Type and Year Purchased: _____
 Amount: _____
 Absorption Capacity (gal.): _____
 Storage Location(s): _____

6. Hand Tools—Operational Status: _____

| Type and year | Quantity | Storage location |
|---------------|----------|------------------|
| | | |
| | | |
| | | |
| | | |

7. Communication Equipment (include operating frequency and channel and/or cellular phone numbers)—Operational Status: _____

| Type and year | Quantity | Storage location/number |
|---------------|----------|-------------------------|
| | | |
| | | |
| | | |

8. Fire Fighting and Personnel Protective Equipment—Operational Status: _____

| Type and year | Quantity | Storage location |
|---------------|----------|------------------|
| | | |
| | | |
| | | |

| Type and year | Quantity | Storage location |
|---------------|----------|------------------|
| | | |
| | | |
| | | |

9. Other (e.g., Heavy Equipment, Boats and Motors)—Operational Status: _____

| Type and year | Quantity | Storage location |
|---------------|----------|------------------|
| | | |
| | | |
| | | |
| | | |

1.3.3 Response Equipment Testing/Deployment

Date of Last Update: _____

Response Equipment Testing and Deployment Drill Log

Last Inspection or Response Equipment Test Date: _____

Inspection Frequency: _____

Last Deployment Drill Date: _____

Deployment Frequency: _____

Oil Spill Removal Organization Certification (if applicable): _____

1.3.4 Personnel

Date of Last Update: _____

EMERGENCY RESPONSE PERSONNEL

Company Personnel

| Name | Phone ¹ | Response time | Responsibility during response action | Response training type/date |
|------|--------------------|---------------|---------------------------------------|-----------------------------|
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |
| 11. | | | | |
| 12. | | | | |

¹Phone number to be used when person is not on-site.

EMERGENCY RESPONSE CONTRACTORS

Date of Last Update: _____

| Contractor | Phone | Response time | Contract responsibility ¹ |
|------------|-------|---------------|--------------------------------------|
| 1. | | | |
| | | | |
| | | | |
| 2. | | | |
| | | | |
| | | | |

FACILITY RESPONSE TEAM—Continued

Date of Last Update: _____

| Team member | Response time (minutes) | Phone or pager number (day/evening) |
|-------------|-------------------------|-------------------------------------|
| | | / |
| | | / |
| | | / |
| | | |

Note: If the facility uses contracted help in an emergency response situation, the owner or operator must provide the contractors' names and review the contractors' capacities to provide adequate personnel and response equipment.

1.3.5 Evacuation Plans

1.3.5.1 Based on the analysis of the facility, as discussed elsewhere in the plan, a facility-wide evacuation plan shall be developed. In addition, plans to evacuate parts of the facility that are at a high risk of exposure in the event of a spill or other release must be developed. Evacuation routes must be shown on a diagram of the facility (see section 1.9 of this appendix). When developing evacuation plans, consideration must be given to the following factors, as appropriate:

- (1) Location of stored materials;
- (2) Hazard imposed by spilled material;
- (3) Spill flow direction;
- (4) Prevailing wind direction and speed;
- (5) Water currents, tides, or wave conditions (if applicable);
- (6) Arrival route of emergency response personnel and response equipment;
- (7) Evacuation routes;
- (8) Alternative routes of evacuation;
- (9) Transportation of injured personnel to nearest emergency medical facility;
- (10) Location of alarm/notification systems;
- (11) The need for a centralized check-in area for evacuation validation (roll call);
- (12) Selection of a mitigation command center; and
- (13) Location of shelter at the facility as an alternative to evacuation.

1.3.5.2 One resource that may be helpful to owners or operators in preparing this section of the response plan is *The Handbook of Chemical Hazard Analysis Procedures* by the Federal Emergency Management Agency (FEMA), Department of Transportation (DOT), and EPA. *The Handbook of Chemical Hazard Analysis Procedures* is available from: FEMA, Publication Office, 500 C. Street, S.W., Washington, DC 20472, (202) 646-3484.

1.3.5.3 As specified in § 112.20(h)(1)(vi), the facility owner or operator must reference existing community evacuation plans, as appropriate.

1.3.6 Qualified Individual's Duties

The duties of the designated qualified individual are specified in § 112.20(h)(3)(ix). The qualified individual's duties must be described and be consistent with the minimum requirements in § 112.20(h)(3)(ix). In addition, the qualified individual must be identified with the Facility Information in section 1.2 of the response plan.

1.4 Hazard Evaluation

This section requires the facility owner or operator to examine the facility's operations closely and to predict where discharges could occur. Hazard evaluation is a widely used industry practice that allows facility owners or operators to develop a complete understanding of potential hazards and the response actions necessary to address these hazards. *The Handbook of Chemical Hazard Analysis Procedures*, prepared by the EPA, DOT, and the FEMA and the *Hazardous Materials Emergency Planning Guide (NRT-1)*, prepared by the National Response Team are good references for conducting a hazard analysis. Hazard identification and evaluation will assist facility owners or operators in planning for potential discharges, thereby reducing the severity of discharge impacts that may occur in the future. The evaluation also may help the operator identify and correct potential sources of discharges. In addition, special hazards to workers and emer-

gency response personnel's health and safety shall be evaluated, as well as the facility's oil spill history.

1.4.1 Hazard Identification

The Tank and Surface Impoundment (SI) forms, or their equivalent, that are part of this section must be completed according to the directions below. ("Surface Impoundment" means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well or a seepage facility.) Similar worksheets, or their equivalent, must be developed for any other type of storage containers.

(1) List each tank at the facility with a separate and distinct identifier. Begin aboveground tank identifiers with an "A" and belowground tank identifiers with a "B", or submit multiple sheets with the aboveground tanks and belowground tanks on separate sheets.

(2) Use gallons for the maximum capacity of a tank, and use square feet for the area.

(3) Using the appropriate identifiers and the following instructions, fill in the appropriate forms:

(a) Tank or SI number—Using the aforementioned identifiers (A or B) or multiple reporting sheets, identify each tank or SI at the facility that stores oil or hazardous materials.

(b) Substance Stored—For each tank or SI identified, record the material that is stored therein. If the tank or SI is used to store more than one material, list all of the stored materials.

(c) Quantity Stored—For each material stored in each tank or SI, report the average volume of material stored on any given day.

(d) Tank Type or Surface Area/Year—For each tank, report the type of tank (e.g., floating top), and the year the tank was originally installed. If the tank has been refabricated, the year that the latest refabrication was completed must be recorded in parentheses next to the year installed. For each SI, record the surface area of the impoundment and the year it went into service.

(e) Maximum Capacity—Record the operational maximum capacity for each tank and SI. If the maximum capacity varies with the season, record the upper and lower limits.

(f) Failure/Cause—Record the cause and date of any tank or SI failure which has resulted in a loss of tank or SI contents.

(4) Using the numbers from the tank and SI forms, label a schematic drawing of the facility. This drawing shall be identical to any schematic drawings included in the SPCC Plan.

(5) Using knowledge of the facility and its operations, describe the following in writing:

(a) The loading and unloading of transportation vehicles that risk the discharge of oil or release of hazardous substances during transport processes. These operations may include loading and unloading of trucks, railroad cars, or vessels. Estimate the volume of material involved in transfer operations, if the exact volume cannot be determined.

(b) Day-to-day operations that may present a risk of discharging oil or releasing a hazardous substance. These activities include scheduled venting, piping repair or replacement, valve maintenance, transfer of tank contents

tors can use a comparable formula that is considered acceptable by the RA. If a comparable formula is used, documentation of the reliability and analytical soundness of the formula must be attached to the response plan cover sheet. This analysis must be prepared for each facility and, as appropriate, must discuss the vulnerability of:

- (1) Water intakes (drinking, cooling, or other);
- (2) Schools;
- (3) Medical facilities;
- (4) Residential areas;
- (5) Businesses;
- (6) Wetlands or other sensitive environments;²
- (7) Fish and wildlife;
- (8) Lakes and streams;
- (9) Endangered flora and fauna;
- (10) Recreational areas;
- (11) Transportation routes (air, land, and water);
- (12) Utilities; and
- (13) Other areas of economic importance (e.g., beaches, marinas) including terrestrially sensitive environments, aquatic environments, and unique habitats.

1.4.3 Analysis of the Potential for an Oil Spill

Each owner or operator shall analyze the probability of a spill occurring at the facility. This analysis shall incorporate factors such as oil spill history, horizontal range of a potential spill, and vulnerability to natural disaster, and shall, as appropriate, incorporate other factors such as tank age. This analysis will provide information for developing discharge scenarios for a worst case discharge and small and medium discharges and aid in the development of techniques to reduce the size and frequency of spills. The owner or operator may need to research the age of the tanks and the oil spill history at the facility.

1.4.4 Facility Reportable Oil Spill History

Briefly describe the facility's reportable oil spill³ history for the entire life of the facility to the extent that such information is reasonably identifiable, including:

- (1) Date of discharge(s);
- (2) List of discharge causes;
- (3) Material(s) discharged;
- (4) Amount discharged in gallons;
- (5) Amount of discharge that reached navigable waters, if applicable;
- (6) Effectiveness and capacity of secondary containment;
- (7) Clean-up actions taken;
- (8) Steps taken to reduce possibility of recurrence;
- (9) Total oil storage capacity of the tank(s) or impoundment(s) from which the material discharged;
- (10) Enforcement actions;
- (11) Effectiveness of monitoring equipment; and

² Refer to the DOC/NOAA "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (See appendix E to this part, section 10, for availability).

³ As described in 40 CFR part 110, reportable oil spills are those that: (a) violate applicable water quality standards, or (b) cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

(12) Description(s) of how each oil spill was detected. The information solicited in this section may be similar to requirements in 40 CFR 112.4(a). Any duplicate information required by § 112.4(a) may be photocopied and inserted.

1.5 Discharge Scenarios

In this section, the owner or operator is required to provide a description of the facility's worst case discharge, as well as a small and medium spill, as appropriate. A multi-level planning approach has been chosen because the response actions to a spill (i.e., necessary response equipment, products, and personnel) are dependent on the magnitude of the spill. Planning for lesser discharges is necessary because the nature of the response may be qualitatively different depending on the quantity of the discharge. The facility owner or operator shall discuss the potential direction of the spill pathway.

1.5.1 Small and Medium Discharges

1.5.1.1 To address multi-level planning requirements, the owner or operator must consider types of facility-specific spill scenarios that may contribute to a small or medium spill. The scenarios shall account for all the operations that take place at the facility, including but not limited to:

- (1) Loading and unloading of surface transportation;
- (2) Facility maintenance;
- (3) Facility piping;
- (4) Pumping stations and sumps;
- (5) Oil storage tanks;
- (6) Vehicle refueling; and
- (7) Age and condition of facility and components.

1.5.1.2 The scenarios shall also consider factors that affect the response efforts required by the facility. These include but are not limited to:

- (1) Size of the spill;
- (2) Proximity to downgradient wells, waterways, and drinking water intakes;
- (3) Proximity to fish and wildlife and sensitive environments;
- (4) Likelihood that the discharge will travel offsite (i.e., topography, drainage);
- (5) Location of the material spilled (i.e., on a concrete pad or directly on the soil);
- (6) Material discharged;
- (7) Weather or aquatic conditions (i.e., river flow);
- (8) Available remediation equipment;
- (9) Probability of a chain reaction of failures; and
- (10) Direction of spill pathway.

1.5.2 Worst Case Discharge

1.5.2.1 In this section, the owner or operator must identify the worst case discharge volume at the facility. Worksheets for production and non-production facility owners or operators to use when calculating worst case discharge are presented in Appendix D to this part. When planning for the worst case discharge response, all of the aforementioned factors listed in the small and medium discharge section of the response plan shall be addressed.

1.5.2.2 For onshore storage facilities and production facilities, permanently manifolded oil storage tanks are defined as tanks that are designed, installed, and/or operated in such a manner that the multiple tanks function as one storage unit (i.e., multiple tank volumes are equal-

Pt. 112, App. F

ized). In this section of the response plan, owners or operators must provide evidence that oil storage tanks with common piping or piping systems are not operated as one unit. If such evidence is provided and is acceptable to the RA, the worst case discharge volume shall be based on the combined oil storage capacity of all manifold tanks or the oil storage capacity of the largest single oil storage tank within the secondary containment area, whichever is greater. For permanently manifolded oil storage tanks that function as one storage unit, the worst case discharge shall be based on the combined oil storage capacity of all manifolded tanks or the oil storage capacity of the largest single tank within a secondary containment area, whichever is greater. For purposes of the worst case discharge calculation, permanently manifolded oil storage tanks that are separated by internal divisions for each tank are considered to be single tanks and individual manifolded tank volumes are not combined.

1.6 Discharge Detection Systems

In this section, the facility owner or operator shall provide a detailed description of the procedures and equipment used to detect discharges. A section on spill detection by personnel and a discussion of automated spill detection, if applicable, shall be included for both regular operations and after hours operations. In addition, the facility owner or operator shall discuss how the reliability of any automated system will be checked and how frequently the system will be inspected.

1.6.1 Discharge Detection by Personnel

In this section, facility owners or operators shall describe the procedures and personnel that will detect any spill or uncontrolled discharge of oil or release of a hazardous substance. A thorough discussion of facility inspections must be included. In addition, a description of initial response actions shall be addressed. This section shall reference section 1.3.1 of the response plan for emergency response information.

1.6.2 Automated Discharge Detection

In this section, facility owners or operators must describe any automated spill detection equipment that the facility has in place. This section shall include a discussion of overfill alarms, secondary containment sensors, etc. A discussion of the plans to verify an automated alarm and the actions to be taken once verified must also be included.

1.7 Plan Implementation

In this section, facility owners or operators must explain in detail how to implement the facility's emergency response plan by describing response actions to be carried out under the plan to ensure the safety of the facility and to mitigate or prevent discharges described in section 1.5 of the response plan. This section shall include the identification of response resources for small, medium, and worst case spills; disposal plans; and containment and drainage planning. A list of those personnel who would be involved in the cleanup shall be identified. Procedures that the facility will use, where appropriate or necessary, to update their plan after an oil spill event and the time frame to update the plan must be described.

1.7.1 Response Resources for Small, Medium, and Worst Case Spills

1.7.1.1 Once the spill scenarios have been identified in section 1.5 of the response plan, the facility owner or operator shall identify and describe implementation of the response actions. The facility owner or operator shall demonstrate accessibility to the proper response personnel and equipment to effectively respond to all of the identified spill scenarios. The determination and demonstration of adequate response capability are presented in Appendix E to this part. In addition, steps to expedite the cleanup of oil spills must be discussed. At a minimum, the following items must be addressed:

- (1) Emergency plans for spill response;
- (2) Additional response training;
- (3) Additional contracted help;
- (4) Access to additional response equipment/experts; and
- (5) Ability to implement the plan including response training and practice drills.

1.7.1.2A recommended form detailing immediate actions follows.

Oil Spill Response—Immediate Actions

| | |
|-------------------------------|--|
| 1. Stop the product flow | Act quickly to secure pumps, close valves, etc. |
| 2. Warn personnel | Enforce safety and security measures. |
| 3. Shut off ignition sources. | Motors, electrical circuits, open flames, etc. |
| 4. Initiate containment | Around the tank and/or in the water with oil boom. |
| 5. Notify NRC | 1-800-424-8802 |
| 6. Notify OSC | |
| 7. Notify, as appropriate | |

Source: FOSS, Oil Spill Response—Emergency Procedures, Revised December 3, 1992.

1.7.2 Disposal Plans

1.7.2.1 Facility owners or operators must describe how and where the facility intends to recover, reuse, decontaminate, or dispose of materials after a discharge has taken place. The appropriate permits required to transport or dispose of recovered materials according to local, State, and Federal requirements must be addressed. Materials that must be accounted for in the disposal plan, as appropriate, include:

- (1) Recovered product;
- (2) Contaminated soil;
- (3) Contaminated equipment and materials, including drums, tank parts, valves, and shovels;
- (4) Personnel protective equipment;
- (5) Decontamination solutions;
- (6) Adsorbents; and
- (7) Spent chemicals.

1.7.2.2 These plans must be prepared in accordance with Federal (e.g., the Resource Conservation and Recovery Act [RCRA]), State, and local regulations, where applicable. A copy of the disposal plans from the facility's SPCC Plan may be inserted with this section, including any diagrams in those plans.

| Material | Disposal facility | Location | RCRA permit/manifest |
|----------|-------------------|----------|----------------------|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |

1.7.3 Containment and Drainage Planning

A proper plan to contain and control a spill through drainage may limit the threat of harm to human health and the environment. This section shall describe how to contain and control a spill through drainage, including:

- (1) The available volume of containment (use the information presented in section 1.4.1 of the response plan);
- (2) The route of drainage from oil storage and transfer areas;
- (3) The construction materials used in drainage troughs;
- (4) The type and number of valves and separators used in the drainage system;
- (5) Sump pump capacities;
- (6) The containment capacity of weirs and booms that might be used and their location (see section 1.3.2 of this appendix); and
- (7) Other cleanup materials.

In addition, facility owners or operators must meet the inspection and monitoring requirements for drainage contained in 40 CFR 112.7(e). A copy of the containment and drainage plans that are required in 40 CFR 112.7(e) may be inserted in this section, including any diagrams in those plans.

Note: The general permit for stormwater drainage may contain additional requirements.

1.8 Self-Inspection, Drills/Exercises, and Response Training

The owner or operator must develop programs for facility response training and for drills/exercises according to the requirements of 40 CFR 112.21. Logs must be kept for facility drills/exercises, personnel response training, and spill prevention meetings. Much of the recordkeeping information required by this section is also contained in the SPCC Plan required by 40 CFR 112.3. These logs may be included in the facility response plan or kept as an annex to the facility response plan.

1.8.1 Facility Self-Inspection

Pursuant to 40 CFR 112.7(e)(8), each facility shall include the written procedures and records of inspections in the SPCC Plan. The inspection shall include the tanks, secondary containment, and response equipment at the facility. Records of the inspections of tanks and secondary containment required by 40 CFR 112.7(e) shall be cross-referenced in the response plan. The inspection of response equipment is a new requirement in this plan. Facility self-inspection requires two steps: (1) a checklist of things to inspect; and (2) a method of recording the actual inspection and its findings. The date of each inspection shall be noted. These records are required to be maintained for 5 years.

1.8.1.1 Tank Inspection

The tank inspection checklist presented below has been included as guidance during inspections and monitoring. Similar requirements exist in 40 CFR 112.7(e). Duplicate information from the SPCC Plan may be photocopied and inserted in this section. The inspection checklist consists of the following items:

TANK INSPECTION CHECKLIST

- 1. Check tanks for leaks, specifically looking for:
 - A. drip marks;
 - B. discoloration of tanks;
 - C. puddles containing spilled or leaked material;
 - D. corrosion;
 - E. cracks; and
 - F. localized dead vegetation.
- 2. Check foundation for:
 - A. cracks;
 - B. discoloration;
 - C. puddles containing spilled or leaked material;
 - D. settling;
 - E. gaps between tank and foundation; and
 - F. damage caused by vegetation roots.
- 3. Check piping for:
 - A. droplets of stored material;
 - B. discoloration;
 - C. corrosion;
 - D. bowing of pipe between supports;
 - E. evidence of stored material seepage from valves or seals; and
 - F. localized dead vegetation.

TANK/SURFACE IMPOUNDMENT INSPECTION LOG

| Inspector | Tank or SI# | Date | Comments |
|-----------|-------------|------|----------|
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1.9 Diagrams

The facility-specific response plan shall include the following diagrams. Additional diagrams that would aid in the development of response plan sections may also be included.

- (1) The Site Plan Diagram shall, as appropriate, include and identify:
 - (A) the entire facility to scale;
 - (B) above and below ground bulk oil storage tanks;
 - (C) the contents and capacities of bulk oil storage tanks;
 - (D) the contents and capacity of drum oil storage areas;
 - (E) the contents and capacities of surface impoundments;
 - (F) process buildings;
 - (G) transfer areas;
 - (H) secondary containment systems (location and capacity);
 - (I) structures where hazardous materials are stored or handled, including materials stored and capacity of storage;
 - (J) location of communication and emergency response equipment;
 - (K) location of electrical equipment which contains oil; and
 - (L) for complexes only, the interface(s) (i.e., valve or component) between the portion of the facility regulated by EPA and the portion(s) regulated by other Agencies. In most cases, this interface is defined as the last valve inside secondary containment before piping leaves the secondary containment area to connect to the transportation-related portion of the facility (i.e., the structure used or intended to be used to transfer oil to or from a vessel or pipeline). In the absence of secondary containment, this interface is the valve manifold adjacent to the tank nearest the transfer structure as described above. The interface may be defined differently at a specific facility if agreed to by the RA and the appropriate Federal official.
- (2) The Site Drainage Plan Diagram shall, as appropriate, include:
 - (A) major sanitary and storm sewers, manholes, and drains;
 - (B) weirs and shut-off valves;
 - (C) surface water receiving streams;
 - (D) fire fighting water sources;
 - (E) other utilities;
 - (F) response personnel ingress and egress;
 - (G) response equipment transportation routes; and
 - (H) direction of spill flow from discharge points.
- (3) The Site Evacuation Plan Diagram shall, as appropriate, include:
 - (A) site plan diagram with evacuation route(s); and
 - (B) location of evacuation regrouping areas.

1.10 Security

According to 40 CFR 112.7(e)(9), facilities are required to maintain a certain level of security, as appropriate. In this section, a description of the facility security shall be provided and include, as appropriate:

- (1) emergency cut-off locations (automatic or manual valves);
- (2) enclosures (e.g., fencing, etc.);
- (3) guards and their duties, day and night;
- (4) lighting;

- (5) valve and pump locks; and
- (6) pipeline connection caps.

The SPCC Plan contains similar information. Duplicate information may be photocopied and inserted in this section.

2.0 Response Plan Cover Sheet

A three-page form has been developed to be completed and submitted to the RA by owners or operators who are required to prepare and submit a facility-specific response plan. The cover sheet (Attachment F-1) must accompany the response plan to provide the Agency with basic information concerning the facility. This section will describe the Response Plan Cover Sheet and provide instructions for its completion.

2.1 General Information

Owner/Operator of Facility: Enter the name of the owner of the facility (if the owner is the operator). Enter the operator of the facility if otherwise. If the owner/operator of the facility is a corporation, enter the name of the facility's principal corporate executive. Enter as much of the name as will fit in each section.

- (1) *Facility Name:* Enter the proper name of the facility.
- (2) *Facility Address:* Enter the street address, city, State, and zip code.
- (3) *Facility Phone Number:* Enter the phone number of the facility.
- (4) *Latitude and Longitude:* Enter the facility latitude and longitude in degrees, minutes, and seconds.
- (5) *Dun and Bradstreet Number:* Enter the facility's Dun and Bradstreet number if available (this information may be obtained from public library resources).
- (6) *Standard Industrial Classification (SIC) Code:* Enter the facility's SIC code as determined by the Office of Management and Budget (this information may be obtained from public library resources).
- (7) *Largest Oil Storage Tank Capacity:* Enter the capacity in GALLONS of the largest aboveground oil storage tank at the facility.
- (8) *Maximum Oil Storage Capacity:* Enter the total maximum capacity in GALLONS of all aboveground oil storage tanks at the facility.
- (9) *Number of Oil Storage Tanks:* Enter the number of all aboveground oil storage tanks at the facility.
- (10) *Worst Case Discharge Amount:* Using information from the worksheets in Appendix D, enter the amount of the worst case discharge in GALLONS.
- (11) *Facility Distance to Navigable Waters:* Mark the appropriate line for the nearest distance between an opportunity for discharge (i.e., oil storage tank, piping, or flowline) and a navigable water.

2.2 Applicability of Substantial Harm Criteria

Using the flowchart provided in Attachment C-1 to Appendix C to this part, mark the appropriate answer to each question. Explanations of referenced terms can be found in Appendix C to this part. If a comparable formula to the ones described in Attachment C-III to Appendix C to this part is used to calculate the planning distance, documentation of the reliability and analytical soundness of the formula must be attached to the response plan cover sheet.

Pt. 112, App. F

2.3 Certification

Complete this block after all other questions have been answered.

3.0 Acronyms

ACP: Area Contingency Plan
ASTM: American Society of Testing Materials
bbls: Barrels
bpd: Barrels per Day
bph: Barrels per Hour
CHRIS: Chemical Hazards Response Information System
CWA: Clean Water Act
DOI: Department of Interior
DOC: Department of Commerce
DOT: Department of Transportation
EPA: Environmental Protection Agency
FEMA: Federal Emergency Management Agency
FR: Federal Register
gal: Gallons
gpm: Gallons per Minute
HAZMAT: Hazardous Materials
LEPC: Local Emergency Planning Committee
MMS: Minerals Management Service (part of DOI)
NCP: National Oil and Hazardous Substances Pollution Contingency Plan
NOAA: National Oceanic and Atmospheric Administration (part of DOC)
NRC: National Response Center
NRT: National Response Team
OPA: Oil Pollution Act of 1990
OSC: On-Scene Coordinator
PREP: National Preparedness for Response Exercise Program
RA: Regional Administrator
RCRA: Resource Conservation and Recovery Act
RRC: Regional Response Centers
RRT: Regional Response Team
RSPA: Research and Special Programs Administration
SARA: Superfund Amendments and Reauthorization Act
SERC: State Emergency Response Commission
SDWA: Safe Drinking Water Act of 1986
SI: Surface Impoundment
SIC: Standard Industrial Classification
SPCC: Spill Prevention, Control, and Countermeasures
USCG: United States Coast Guard

4.0 References

CONCAWE. 1982. Methodologies for Hazard Analysis and Risk Assessment in the Petroleum Refining and Storage Industry. Prepared by CONCAWE's Risk Assessment Ad-hoc Group.

U.S. Department of Housing and Urban Development. 1987. Siting of HUD-Assisted Projects Near Hazardous Facilities: Acceptable Separation Distances from Explosive and Flammable Hazards. Prepared by the Office of Environment and Energy, Environmental Planning Division, Department of Housing and Urban Development. Washington, DC.

U.S. DOT, FEMA and U.S. EPA. Handbook of Chemical Hazard Analysis Procedures.

U.S. DOT, FEMA and U.S. EPA. Technical Guidance for Hazards Analysis: Emergency Planning for Extremely Hazardous Substances.

The National Response Team. 1987. Hazardous Materials Emergency Planning Guide. Washington, DC.

The National Response Team. 1990. Oil Spill Contingency Planning, National Status: A Report to the President. Washington, DC. U.S. Government Printing Office.

Offshore Inspection and Enforcement Division. 1988. Minerals Management Service, Offshore Inspection Program: National Potential Incident of Noncompliance (PINC) List. Reston, VA.

ATTACHMENTS TO APPENDIX F

ATTACHMENT F-1—RESPONSE PLAN COVER SHEET

This cover sheet will provide EPA with basic information concerning the facility. It must accompany a submitted facility response plan. Explanations and detailed instructions can be found in Appendix F. Please type or write legibly in blue or black ink. Public reporting burden for the collection of this information is estimated to vary from 1 hour to 270 hours per response in the first year, with an average of 5 hours per response. This estimate includes time for reviewing instructions, searching existing data sources, gathering the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate of this information, including suggestions for reducing this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., SW., Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington D.C. 20503.

GENERAL INFORMATION

Owner/Operator of Facility: _____
Facility Name: _____
Facility Address (street address or route): _____
City, State, and U.S. Zip Code: _____
Facility Phone No.: _____
Latitude (Degrees: North): _____
degrees, minutes, seconds _____
Dun & Bradstreet Number:¹ _____
Largest Aboveground Oil Storage Tank Capacity (Gallons): _____
Number of Aboveground Oil Storage Tanks: _____
Longitude (Degrees: West): _____
degrees, minutes, seconds _____
Standard Industrial Classification (SIC) Code:¹ _____
Maximum Oil Storage Capacity (Gallons): _____
Worst Case Oil Discharge Amount (Gallons): _____

¹ These numbers may be obtained from public library resources.

Facility Distance to Navigable Water. Mark the appropriate line. _____
0-1/4 mile _____ 1/4-1/2 mile _____ 1/2-1 mile _____ >1 mile _____

APPLICABILITY OF SUBSTANTIAL HARM CRITERIA

Does the facility transfer oil over-water² to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

Yes _____
No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and, within any storage area, does the facility lack secondary containment² that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation?

Yes _____
No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance² (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?³

²Explanations of the above-referenced terms can be found in Appendix C to this part. If a comparable formula to the ones contained in Attachment C-III is used to establish the appropriate distance to fish and wildlife and sensitive environments or public drinking water intakes, documentation of the reliability and analytical soundness of the formula must be attached to this form.

³For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments"

Yes _____
No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance² (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake?² _____

Yes _____
No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill² in an amount greater than or equal to 10,000 gallons within the last 5 years?

Yes _____
No _____

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining information, I believe that the submitted information is true, accurate, and complete.

Signature: _____

Name (Please type or print): _____

Title: _____

Date: _____

[59 FR 34122, July 1, 1994; 59 FR 49006, Sept. 26, 1994]

(see Appendix E to this part, section 10, for availability and the applicable ACP.

PART 280—TECHNICAL STANDARDS AND CORRECTIVE ACTION REQUIREMENTS FOR OWNERS AND OPERATORS OF UNDERGROUND STORAGE TANKS (UST)

Subpart A—Program Scope and Interim Prohibition

- Sec.
280.10 Applicability.
280.11 Interim prohibition for deferred UST systems.
280.12 Definitions.

Subpart B—UST Systems: Design, Construction, Installation and Notification

- 280.20 Performance standards for new UST systems.
280.21 Upgrading of existing UST systems.
280.22 Notification requirements.

Subpart C—General Operating Requirements

- 280.30 Spill and overflow control.
280.31 Operation and maintenance of corrosion protection.
280.32 Compatibility.
280.33 Repairs allowed.
280.34 Reporting and recordkeeping.

Subpart D—Release Detection

- 280.40 General requirements for all UST systems.
280.41 Requirements for petroleum UST systems.
280.42 Requirements for hazardous substance UST systems.
280.43 Methods of release detection for tanks.
280.44 Methods of release detection for piping.
280.45 Release detection recordkeeping.

Subpart E—Release Reporting, Investigation, and Confirmation

- 280.50 Reporting of suspected releases.
280.51 Investigation due to off-site impacts.
280.52 Release investigation and confirmation steps.
280.53 Reporting and cleanup of spills and overfills.

Subpart F—Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances

- 280.60 General.
280.61 Initial response.
280.62 Initial abatement measures and site check.
280.63 Initial site characterization.
280.64 Free product removal.
280.65 Investigations for soil and ground-water cleanup.
280.66 Corrective action plan.
280.67 Public participation.

Subpart G—Out-of-Service UST Systems and Closure

- 280.70 Temporary closure.

- 280.71 Permanent closure and changes-in-service.
280.72 Assessing the site at closure or change-in-service.
280.73 Applicability to previously closed UST systems.
280.74 Closure records.

Subpart H—Financial Responsibility

- 280.90 Applicability.
280.91 Compliance dates.
280.92 Definition of terms.
280.93 Amount and scope of required financial responsibility.
280.94 Allowable mechanisms and combinations of mechanisms.
280.95 Financial test of self-insurance.
280.96 Guarantee.
280.97 Insurance and risk retention group coverage.
280.98 Surety bond.
280.99 Letter of credit.
280.100 Use of state-required mechanism.
280.101 State fund or other state assurance.
280.102 Trust fund.
280.103 Standby trust fund.
280.104 Local government bond rating test.
280.105 Local government financial test.
280.106 Local government guarantee.
280.107 Local government fund.
280.108 Substitution of financial assurance mechanisms by owner or operator.
280.109 Cancellation or nonrenewal by a provider of financial assurance.
280.110 Reporting by owner or operator.
280.111 Recordkeeping.
280.112 Drawing on financial assurance mechanisms.
280.113 Release from the requirements.
280.114 Bankruptcy or other incapacity of owner or operator or provider of financial assurance.
280.115 Replenishment of guarantees, letters of credit, or surety bonds.
280.116 Suspension of enforcement. [Reserved]

Subpart I—Lender Liability

- 280.200 Definitions.
280.210 Participation in management.
280.220 Ownership of an underground storage tank or underground storage tank system or facility or property on which an underground storage tank or underground storage tank system is located.
280.230 Operating an underground storage tank or underground storage tank system.

APPENDICES TO PART 280

- APPENDIX I TO PART 280—NOTIFICATION FOR UNDERGROUND STORAGE TANKS (FORM)
APPENDIX II TO PART 280—LIST OF AGENCIES DESIGNATED TO RECEIVE NOTIFICATIONS
APPENDIX III TO PART 280—STATEMENT FOR SHIPPING TICKETS AND INVOICES

AUTHORITY: 42 U.S.C. 6912, 6991, 6991a, 6991b, 6991c, 6991d, 6991e, 6991f, 6991g, 6991h.

SOURCE: 53 FR 37194, Sept. 23, 1988, unless otherwise noted.

§ 280.10

Subpart A—Program Scope and Interim Prohibition

§ 280.10 Applicability.

(a) The requirements of this part apply to all owners and operators of an UST system as defined in § 280.12 except as otherwise provided in paragraphs (b), (c), and (d) of this section. Any UST system listed in paragraph (c) of this section must meet the requirements of § 280.11.

(b) The following UST systems are excluded from the requirements of this part:

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

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

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

(4) Any UST system whose capacity is 110 gallons or less.

(5) Any UST system that contains a *de minimis* concentration of regulated substances.

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

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

(1) Wastewater treatment tank systems;

(2) Any UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954 (42 U.S.C. 2011 and following);

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

(4) Airport hydrant fuel distribution systems; and

(5) UST systems with field-constructed tanks.

(d) *Deferrals*. Subpart D does not apply to any UST system that stores fuel solely for use by emergency power generators.

§ 280.11 Interim prohibition for deferred UST systems.

(a) No person may install an UST system listed in § 280.10(c) for the purpose of storing regulated substances unless the UST system (whether of single- or double-wall construction):

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

(2) Is cathodically protected against corrosion, constructed of noncorrodible material, steel clad

with a noncorrodible material, or designed in a manner to prevent the release or threatened release of any stored substance; and

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

(b) Notwithstanding paragraph (a) of this section, an UST system without corrosion protection may be installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life. Owners and operators must maintain records that demonstrate compliance with the requirements of this paragraph for the remaining life of the tank.

NOTE: The National Association of Corrosion Engineers Standard RP-02-85, "Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," may be used as guidance for complying with paragraph (b) of this section.

§ 280.12 Definitions.

Aboveground release means any release to the surface of the land or to surface water. This includes, but is not limited to, releases from the above-ground portion of an UST system and aboveground releases associated with overfills and transfer operations as the regulated substance moves to or from an UST system.

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

Belowground release means any release to the subsurface of the land and to ground water. This includes, but is not limited to, releases from the belowground portions of an underground storage tank system and belowground releases associated with overfills and transfer operations as the regulated substance moves to or from an underground storage tank.

Beneath the surface of the ground means beneath the ground surface or otherwise covered with earthen materials.

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

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

lation measurements of buried metal piping and tank systems.

CERCLA means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended.

Compatible means the ability of two or more substances to maintain their respective physical and chemical properties upon contact with one another for the design life of the tank system under conditions likely to be encountered in the UST.

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

Consumptive use with respect to heating oil means consumed on the premises.

Corrosion expert means a person who, by reason of thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person must be accredited or certified as being qualified by the National Association of Corrosion Engineers or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control of buried or submerged metal piping systems and metal tanks.

Dielectric material means a material that does not conduct direct electrical current. Dielectric coatings are used to electrically isolate UST systems from the surrounding soils. Dielectric bushings are used to electrically isolate portions of the UST system (e.g., tank from piping).

Electrical equipment means underground equipment that contains dielectric fluid that is necessary for the operation of equipment such as transformers and buried electrical cable.

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

Existing tank system means a tank system used to contain an accumulation of regulated substances or for which installation has commenced on or before December 22, 1988. Installation is considered to have commenced if:

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

(b)(1) Either a continuous on-site physical construction or installation program has begun; or,

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

Farm tank is a tank located on a tract of land devoted to the production of crops or raising animals, including fish, and associated residences and improvements. A farm tank must be located on the farm property. "Farm" includes fish hatcheries, rangeland and nurseries with growing operations.

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

Free product refers to a regulated substance that is present as a non-aqueous phase liquid (e.g., liquid not dissolved in water.)

Gathering lines means any pipeline, equipment, facility, or building used in the transportation of oil or gas during oil or gas production or gathering operations.

Hazardous substance UST system means an underground storage tank system that contains a hazardous substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (but not including any substance regulated as a hazardous waste under subtitle C) or any mixture of such substances and petroleum, and which is not a petroleum UST system.

Heating oil means petroleum that is No. 1, No. 2, No. 4—light, No. 4—heavy, No. 5—light, No. 5—heavy, and No. 6 technical grades of fuel oil; other residual fuel oils (including Navy Special Fuel Oil and Bunker C); and other fuels when used as substitutes for one of these fuel oils. Heating oil is typically used in the operation of heating equipment, boilers, or furnaces.

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

Implementing agency means EPA, or, in the case of a state with a program approved under section 9004 (or pursuant to a memorandum of agreement with EPA), the designated state or local agency responsible for carrying out an approved UST program.

Liquid trap means sumps, well cellars, and other traps used in association with oil and gas production, gathering, and extraction operations

§ 280.12

(including gas production plants), for the purpose of collecting oil, water, and other liquids. These liquid traps may temporarily collect liquids for subsequent disposition or reinjection into a production or pipeline stream, or may collect and separate liquids from a gas stream.

Maintenance means the normal operational upkeep to prevent an underground storage tank system from releasing product.

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

New tank system means a tank system that will be used to contain an accumulation of regulated substances and for which installation has commenced after December 22, 1988. (See also "Existing Tank System.")

Noncommercial purposes with respect to motor fuel means not for resale.

On the premises where stored with respect to heating oil means UST systems located on the same property where the stored heating oil is used.

Operational life refers to the period beginning when installation of the tank system has commenced until the time the tank system is properly closed under Subpart G.

Operator means any person in control of, or having responsibility for, the daily operation of the UST system.

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

Owner means:

(a) In the case of an UST system in use on November 8, 1984, or brought into use after that date, any person who owns an UST system used for storage, use, or dispensing of regulated substances; and

(b) In the case of any UST system in use before November 8, 1984, but no longer in use on that date, any person who owned such UST immediately before the discontinuation of its use.

Person means an individual, trust, firm, joint stock company, Federal agency, corporation, state, municipality, commission, political subdivision of a state, or any interstate body. "Person" also includes a consortium, a joint venture, a commercial entity, and the United States Government.

Petroleum UST system means an underground storage tank system that contains petroleum or a mixture of petroleum with *de minimis* quantities of other regulated substances. Such systems include those containing motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

Pipe or Piping means a hollow cylinder or tubular conduit that is constructed of non-carthen materials.

Pipeline facilities (including gathering lines) are new and existing pipe rights-of-way and any associated equipment, facilities, or buildings.

Regulated substance means:

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

(b) Petroleum, including crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

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

Release means any spilling, leaking, emitting, discharging, escaping, leaching or disposing from an UST into ground water, surface water or subsurface soils.

Release detection means determining whether a release of a regulated substance has occurred from the UST system into the environment or into the interstitial space between the UST system and its secondary barrier or secondary containment around it.

Repair means to restore a tank or UST system component that has caused a release of product from the UST system.

Residential tank is a tank located on property used primarily for dwelling purposes.

SARA means the Superfund Amendments and Reauthorization Act of 1986.

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

Storm-water or wastewater collection system means piping, pumps, conduits, and any other equipment necessary to collect and transport the flow of surface water run-off resulting from precipitation, or domestic, commercial, or industrial wastewater to and from retention areas or any areas where treatment is designated to occur. The collection of storm water and wastewater does not include treatment except where incidental to conveyance.

§ 280.20

Surface impoundment is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials) that is not an injection well.

Tank is a stationary device designed to contain an accumulation of regulated substances and constructed of non-earthen materials (e.g., concrete, steel, plastic) that provide structural support.

Underground area means an underground room, such as a basement, cellar, shaft or vault, providing enough space for physical inspection of the exterior of the tank situated on or above the surface of the floor.

Underground release means any belowground release.

Underground storage tank or *UST* means any one or combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is 10 percent or more beneath the surface of the ground. This term does not include any:

(a) Farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for non-commercial purposes;

(b) Tank used for storing heating oil for consumptive use on the premises where stored;

(c) Septic tank;

(d) Pipeline facility (including gathering lines) regulated under:

(1) The Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. App. 1671, *et seq.*), or

(2) The Hazardous Liquid Pipeline Safety Act of 1979 (49 U.S.C. App. 2001, *et seq.*), or

(3) Which is an intrastate pipeline facility regulated under state laws comparable to the provisions of the law referred to in paragraph (d)(1) or (d)(2) of this definition;

(e) Surface impoundment, pit, pond, or lagoon;

(f) Storm-water or wastewater collection system;

(g) Flow-through process tank;

(h) Liquid trap or associated gathering lines directly related to oil or gas production and gathering operations; or

(i) Storage tank situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

The term "underground storage tank" or "UST" does not include any pipes connected to any tank which is described in paragraphs (a) through (i) of this definition.

Upgrade means the addition or retrofit of some systems such as cathodic protection, lining, or spill and overflow controls to improve the ability of an underground storage tank system to prevent the release of product.

UST system or *Tank system* means an underground storage tank, connected underground piping, underground ancillary equipment, and containment system, if any.

Wastewater treatment tank means a tank that is designed to receive and treat an influent wastewater through physical, chemical, or biological methods.

Subpart B—UST Systems: Design, Construction, Installation and Notification

§ 280.20 Performance standards for new UST systems.

In order to prevent releases due to structural failure, corrosion, or spills and overfills for as long as the UST system is used to store regulated substances, all owners and operators of new UST systems must meet the following requirements.

(a) *Tanks*. Each tank must be properly designed and constructed, and any portion underground that routinely contains product must be protected from corrosion, in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified below:

(1) The tank is constructed of fiberglass-reinforced plastic; or

NOTE: The following industry codes may be used to comply with paragraph (a)(1) of this section: Underwriters Laboratories Standard 1316, "Standard for Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products"; Underwriter's Laboratories of Canada CAN4-S615-M83, "Standard for Reinforced Plastic Underground Tanks for Petroleum Products"; or American Society of Testing and Materials Standard D4021-86, "Standard Specification for Glass-Fiber-Reinforced Polyester Underground Petroleum Storage Tanks."

(2) The tank is constructed of steel and cathodically protected in the following manner:

(i) The tank is coated with a suitable dielectric material;

(ii) Field-installed cathodic protection systems are designed by a corrosion expert;

(iii) Impressed current systems are designed to allow determination of current operating status as required in § 280.31(c); and

(iv) Cathodic protection systems are operated and maintained in accordance with § 280.31 or according to guidelines established by the implementing agency; or

NOTE: The following codes and standards may be used to comply with paragraph (a)(2) of this section:

(A) Steel Tank Institute "Specification for STI-P3 System of External Corrosion Protection of Underground Steel Storage Tanks";

§ 280.20

(B) Underwriters Laboratories Standard 1746, "Corrosion Protection Systems for Underground Storage Tanks";

(C) Underwriters Laboratories of Canada CAN4-S603-M85, "Standard for Steel Underground Tanks for Flammable and Combustible Liquids," and CAN4-G03.1-M85, "Standard for Galvanic Corrosion Protection Systems for Underground Tanks for Flammable and Combustible Liquids," and CAN4-S631-M84, "Isolating Bushings for Steel Underground Tanks Protected with Coatings and Galvanic Systems"; or

(D) National Association of Corrosion Engineers Standard RP-02-85, "Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," and Underwriters Laboratories Standard 58, "Standard for Steel Underground Tanks for Flammable and Combustible Liquids."

(3) The tank is constructed of a steel-fiberglass-reinforced-plastic composite; or

NOTE: The following industry codes may be used to comply with paragraph (a)(3) of this section: Underwriters Laboratories Standard 1746, "Corrosion Protection Systems for Underground Storage Tanks," or the Association for Composite Tanks ACT-100, "Specification for the Fabrication of FRP Clad Underground Storage Tanks."

(4) The tank is constructed of metal without additional corrosion protection measures provided that:

(i) The tank is installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life; and

(ii) Owners and operators maintain records that demonstrate compliance with the requirements of paragraphs (a)(4)(i) for the remaining life of the tank; or

(5) The tank construction and corrosion protection are determined by the implementing agency to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than paragraphs (a) (1) through (4) of this section.

(b) *Piping.* The piping that routinely contains regulated substances and is in contact with the ground must be properly designed, constructed, and protected from corrosion in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified below:

(1) The piping is constructed of fiberglass-reinforced plastic; or

NOTE: The following codes and standards may be used to comply with paragraph (b)(1) of this section:

(A) Underwriters Laboratories Subject 971, "UL Listed Non-Metal Pipe";

(B) Underwriters Laboratories Standard 567, "Pipe Connectors for Flammable and Combustible and LP Gas";

(C) Underwriters Laboratories of Canada Guide ULC-107, "Glass Fiber Reinforced Plastic Pipe and Fittings for Flammable Liquids"; and

(D) Underwriters Laboratories of Canada Standard CAN 4-S633-M81, "Flexible Underground Hose Connectors."

(2) The piping is constructed of steel and cathodically protected in the following manner:

(i) The piping is coated with a suitable dielectric material;

(ii) Field-installed cathodic protection systems are designed by a corrosion expert;

(iii) Impressed current systems are designed to allow determination of current operating status as required in § 280.31(c); and

(iv) Cathodic protection systems are operated and maintained in accordance with § 280.31 or guidelines established by the implementing agency; or

NOTE: The following codes and standards may be used to comply with paragraph (b)(2) of this section:

(A) National Fire Protection Association Standard 30, "Flammable and Combustible Liquids Code";

(B) American Petroleum Institute Publication 1615, "Installation of Underground Petroleum Storage Systems";

(C) American Petroleum Institute Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems"; and

(D) National Association of Corrosion Engineers Standard RP-01-69, "Control of External Corrosion on Submerged Metallic Piping Systems."

(3) The piping is constructed of metal without additional corrosion protection measures provided that:

(i) The piping is installed at a site that is determined by a corrosion expert to not be corrosive enough to cause it to have a release due to corrosion during its operating life; and

(ii) Owners and operators maintain records that demonstrate compliance with the requirements of paragraph (b)(3)(i) of this section for the remaining life of the piping; or

NOTE: National Fire Protection Association Standard 30, "Flammable and Combustible Liquids Code"; and National Association of Corrosion Engineers Standard RP-01-69, "Control of External Corrosion on Submerged Metallic Piping Systems," may be used to comply with paragraph (b)(3) of this section.

(4) The piping construction and corrosion protection are determined by the implementing agency to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than the requirements in paragraphs (b) (1) through (3) of this section.

(c) *Spill and overflow prevention equipment.* (1) Except as provided in paragraph (c)(2) of this section, to prevent spilling and overflowing associated with product transfer to the UST system, owners

§ 280.21

and operators must use the following spill and overfill prevention equipment:

(i) Spill prevention equipment that will prevent release of product to the environment when the transfer hose is detached from the fill pipe (for example, a spill catchment basin); and

(ii) Overfill prevention equipment that will:

(A) Automatically shut off flow into the tank when the tank is no more than 95 percent full; or

(B) Alert the transfer operator when the tank is no more than 90 percent full by restricting the flow into the tank or triggering a high-level alarm; or

(C) Restrict flow 30 minutes prior to overfilling, alert the operator with a high level alarm one minute before overfilling, or automatically shut off flow into the tank so that none of the fittings located on top of the tank are exposed to product due to overfilling.

(2) Owners and operators are not required to use the spill and overfill prevention equipment specified in paragraph (c)(1) of this section if:

(i) Alternative equipment is used that is determined by the implementing agency to be no less protective of human health and the environment than the equipment specified in paragraph (c)(1) (i) or (ii) of this section; or

(ii) The UST system is filled by transfers of no more than 25 gallons at one time.

(d) *Installation.* All tanks and piping must be properly installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and in accordance with the manufacturer's instructions.

NOTE: Tank and piping system installation practices and procedures described in the following codes may be used to comply with the requirements of paragraph (d) of this section:

(i) American Petroleum Institute Publication 1615, "Installation of Underground Petroleum Storage System"; or

(ii) Petroleum Equipment Institute Publication RP100, "Recommended Practices for Installation of Underground Liquid Storage Systems"; or

(iii) American National Standards Institute Standard B31.3, "Petroleum Refinery Piping," and American National Standards Institute Standard B31.4 "Liquid Petroleum Transportation Piping System."

(c) *Certification of installation.* All owners and operators must ensure that one or more of the following methods of certification, testing, or inspection is used to demonstrate compliance with paragraph (d) of this section by providing a certification of compliance on the UST notification form in accordance with § 280.22.

(1) The installer has been certified by the tank and piping manufacturers; or

(2) The installer has been certified or licensed by the implementing agency; or

(3) The installation has been inspected and certified by a registered professional engineer with

education and experience in UST system installation; or

(4) The installation has been inspected and approved by the implementing agency; or

(5) All work listed in the manufacturer's installation checklists has been completed; or

(6) The owner and operator have complied with another method for ensuring compliance with paragraph (d) of this section that is determined by the implementing agency to be no less protective of human health and the environment.

[53 FR 37194, Sept. 23, 1988, as amended at 56 FR 38344, Aug. 13, 1991]

§ 280.21 Upgrading of existing UST systems.

(a) *Alternatives allowed.* Not later than December 22, 1998, all existing UST systems must comply with one of the following requirements:

(1) New UST system performance standards under § 280.20;

(2) The upgrading requirements in paragraphs (b) through (d) of this section; or

(3) Closure requirements under subpart G of this part, including applicable requirements for corrective action under subpart F.

(b) *Tank upgrading requirements.* Steel tanks must be upgraded to meet one of the following requirements in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory:

(1) *Interior lining.* A tank may be upgraded by internal lining if:

(i) The lining is installed in accordance with the requirements of § 280.33, and

(ii) Within 10 years after lining, and every 5 years thereafter, the lined tank is internally inspected and found to be structurally sound with the lining still performing in accordance with original design specifications.

(2) *Cathodic protection.* A tank may be upgraded by cathodic protection if the cathodic protection system meets the requirements of § 280.20(a)(2) (ii), (iii), and (iv) and the integrity of the tank is ensured using one of the following methods:

(i) The tank is internally inspected and assessed to ensure that the tank is structurally sound and free of corrosion holes prior to installing the cathodic protection system; or

(ii) The tank has been installed for less than 10 years and is monitored monthly for releases in accordance with § 280.43 (d) through (h); or

(iii) The tank has been installed for less than 10 years and is assessed for corrosion holes by conducting two (2) tightness tests that meet the requirements of § 280.43(c). The first tightness test must be conducted prior to installing the cathodic protection system. The second tightness test must

§ 280.22

be conducted between three (3) and six (6) months following the first operation of the cathodic protection system; or

(iv) The tank is assessed for corrosion holes by a method that is determined by the implementing agency to prevent releases in a manner that is no less protective of human health and the environment than paragraphs (b)(2) (i) through (iii) of this section.

(3) *Internal lining combined with cathodic protection.* A tank may be upgraded by both internal lining and cathodic protection if:

(i) The lining is installed in accordance with the requirements of § 280.33; and

(ii) The cathodic protection system meets the requirements of § 280.20(a)(2) (ii), (iii), and (iv).

NOTE: The following codes and standards may be used to comply with this section:

(A) American Petroleum Institute Publication 1631, "Recommended Practice for the Interior Lining of Existing Steel Underground Storage Tanks";

(B) National Leak Prevention Association Standard 631, "Spill Prevention, Minimum 10 Year Life Extension of Existing Steel Underground Tanks by Lining Without the Addition of Cathodic Protection";

(C) National Association of Corrosion Engineers Standard RP-02-85, "Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems"; and

(D) American Petroleum Institute Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems."

(c) *Piping upgrading requirements.* Metal piping that routinely contains regulated substances and is in contact with the ground must be cathodically protected in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and must meet the requirements of § 280.20(b)(2) (ii), (iii), and (iv).

NOTE: The codes and standards listed in the note following § 280.20(b)(2) may be used to comply with this requirement.

(d) *Spill and overflow prevention equipment.* To prevent spilling and overflowing associated with product transfer to the UST system, all existing UST systems must comply with new UST system spill and overflow prevention equipment requirements specified in § 280.20(c).

§ 280.22 Notification requirements.

(a) Any owner who brings an underground storage tank system into use after May 8, 1986, must within 30 days of bringing such tank into use, submit, in the form prescribed in appendix I of this part, a notice of existence of such tank system to the state or local agency or department designated in appendix II of this part to receive such notice.

NOTE: Owners and operators of UST systems that were in the ground on or after May 8, 1986, unless taken out of operation on or before January 1, 1974, were required to notify the designated state or local agency in accordance with the Hazardous and Solid Waste Amendments of 1984, Pub. L. 98-616, on a form published by EPA on November 8, 1985 (50 FR 46602) unless notice was given pursuant to section 103(c) of CERCLA. Owners and operators who have not complied with the notification requirements may use portions I through VI of the notification form contained in appendix I of this part.

(b) In states where state law, regulations, or procedures require owners to use forms that differ from those set forth in appendix I of this part to fulfill the requirements of this section, the state forms may be submitted in lieu of the forms set forth in Appendix I of this part. If a state requires that its form be used in lieu of the form presented in this regulation, such form must meet the requirements of section 9002.

(c) Owners required to submit notices under paragraph (a) of this section must provide notices to the appropriate agencies or departments identified in appendix II of this part for each tank they own. Owners may provide notice for several tanks using one notification form, but owners who own tanks located at more than one place of operation must file a separate notification form for each separate place of operation.

(d) Notices required to be submitted under paragraph (a) of this section must provide all of the information in sections I through VI of the prescribed form (or appropriate state form) for each tank for which notice must be given. Notices for tanks installed after December 22, 1988 must also provide all of the information in section VII of the prescribed form (or appropriate state form) for each tank for which notice must be given.

(e) All owners and operators of new UST systems must certify in the notification form compliance with the following requirements:

(1) Installation of tanks and piping under § 280.20(c);

(2) Cathodic protection of steel tanks and piping under § 280.20 (a) and (b);

(3) Financial responsibility under subpart H of this part; and

(4) Release detection under §§ 280.41 and 280.42.

(f) All owners and operators of new UST systems must ensure that the installer certifies in the notification form that the methods used to install the tanks and piping complies with the requirements in § 280.20(d).

(g) Beginning October 24, 1988, any person who sells a tank intended to be used as an underground storage tank must notify the purchaser of such tank of the owner's notification obligations under paragraph (a) of this section. The form pro-

§ 280.33

vided in appendix III of this part may be used to comply with this requirement.

Subpart C—General Operating Requirements

§ 280.30 Spill and overfill control.

(a) Owners and operators must ensure that releases due to spilling or overfilling do not occur. The owner and operator must ensure that the volume available in the tank is greater than the volume of product to be transferred to the tank before the transfer is made and that the transfer operation is monitored constantly to prevent overfilling and spilling.

NOTE: The transfer procedures described in National Fire Protection Association Publication 385 may be used to comply with paragraph (a) of this section. Further guidance on spill and overfill prevention appears in American Petroleum Institute Publication 1621, "Recommended Practice for Bulk Liquid Stock Control at Retail Outlets," and National Fire Protection Association Standard 30, "Flammable and Combustible Liquids Code."

(b) The owner and operator must report, investigate, and clean up any spills and overfills in accordance with § 280.53.

§ 280.31 Operation and maintenance of corrosion protection.

All owners and operators of steel UST systems with corrosion protection must comply with the following requirements to ensure that releases due to corrosion are prevented for as long as the UST system is used to store regulated substances:

(a) All corrosion protection systems must be operated and maintained to continuously provide corrosion protection to the metal components of that portion of the tank and piping that routinely contain regulated substances and are in contact with the ground.

(b) All UST systems equipped with cathodic protection systems must be inspected for proper operation by a qualified cathodic protection tester in accordance with the following requirements:

(1) *Frequency.* All cathodic protection systems must be tested within 6 months of installation and at least every 3 years thereafter or according to another reasonable time frame established by the implementing agency; and

(2) *Inspection criteria.* The criteria that are used to determine that cathodic protection is adequate as required by this section must be in accordance with a code of practice developed by a nationally recognized association.

NOTE: National Association of Corrosion Engineers Standard RP-02-85, "Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid

Storage Systems," may be used to comply with paragraph (b)(2) of this section.

(c) UST systems with impressed current cathodic protection systems must also be inspected every 60 days to ensure the equipment is running properly.

(d) For UST systems using cathodic protection, records of the operation of the cathodic protection must be maintained (in accordance with § 280.34) to demonstrate compliance with the performance standards in this section. These records must provide the following:

(1) The results of the last three inspections required in paragraph (c) of this section; and

(2) The results of testing from the last two inspections required in paragraph (b) of this section.

§ 280.32 Compatibility.

Owners and operators must use an UST system made of or lined with materials that are compatible with the substance stored in the UST system.

NOTE: Owners and operators storing alcohol blends may use the following codes to comply with the requirements of this section:

(a) American Petroleum Institute Publication 1626, "Storing and Handling Ethanol and Gasoline-Ethanol Blends at Distribution Terminals and Service Stations"; and

(b) American Petroleum Institute Publication 1627, "Storage and Handling of Gasoline-Methanol/Cosolvent Blends at Distribution Terminals and Service Stations."

§ 280.33 Repairs allowed.

Owners and operators of UST systems must ensure that repairs will prevent releases due to structural failure or corrosion as long as the UST system is used to store regulated substances. The repairs must meet the following requirements:

(a) Repairs to UST systems must be properly conducted in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory.

NOTE: The following codes and standards may be used to comply with paragraph (a) of this section: National Fire Protection Association Standard 30, "Flammable and Combustible Liquids Code"; American Petroleum Institute Publication 2200, "Repairing Crude Oil, Liquefied Petroleum Gas, and Product Pipelines"; American Petroleum Institute Publication 1631, "Recommended Practice for the Interior Lining of Existing Steel Underground Storage Tanks"; and National Leak Prevention Association Standard 631, "Spill Prevention, Minimum 10 Year Life Extension of Existing Steel Underground Tanks by Lining Without the Addition of Cathodic Protection."

(b) Repairs to fiberglass-reinforced plastic tanks may be made by the manufacturer's authorized representatives or in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory.

§ 280.34

(c) Metal pipe sections and fittings that have released product as a result of corrosion or other damage must be replaced. Fiberglass pipes and fittings may be repaired in accordance with the manufacturer's specifications.

(d) Repaired tanks and piping must be tightness tested in accordance with § 280.43(c) and § 280.44(b) within 30 days following the date of the completion of the repair except as provided in paragraphs (d) (1) through (3), of this section:

(1) The repaired tank is internally inspected in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory; or

(2) The repaired portion of the UST system is monitored monthly for releases in accordance with a method specified in § 280.43 (d) through (h); or

(3) Another test method is used that is determined by the implementing agency to be no less protective of human health and the environment than those listed above.

(e) Within 6 months following the repair of any cathodically protected UST system, the cathodic protection system must be tested in accordance with § 280.31 (b) and (c) to ensure that it is operating properly.

(f) UST system owners and operators must maintain records of each repair for the remaining operating life of the UST system that demonstrate compliance with the requirements of this section.

§ 280.34 Reporting and recordkeeping.

Owners and operators of UST systems must cooperate fully with inspections, monitoring and testing conducted by the implementing agency, as well as requests for document submission, testing, and monitoring by the owner or operator pursuant to section 9005 of Subtitle I of the Resource Conservation and Recovery Act, as amended.

(a) *Reporting.* Owners and operators must submit the following information to the implementing agency:

(1) Notification for all UST systems (§ 280.22), which includes certification of installation for new UST systems (§ 280.20(c)),

(2) Reports of all releases including suspected releases (§ 280.50), spills and overfills (§ 280.53), and confirmed releases (§ 280.61);

(3) Corrective actions planned or taken including initial abatement measures (§ 280.62), initial site characterization (§ 280.63), free product removal (§ 280.64), investigation of soil and ground-water cleanup (§ 280.65), and corrective action plan (§ 280.66); and

(4) A notification before permanent closure or change-in-service (§ 280.71).

(b) *Recordkeeping.* Owners and operators must maintain the following information:

(1) A corrosion expert's analysis of site corrosion potential if corrosion protection equipment is not used (§ 280.20(a)(4); § 280.20(b)(3)).

(2) Documentation of operation of corrosion protection equipment (§ 280.31);

(3) Documentation of UST system repairs (§ 280.33(f));

(4) Recent compliance with release detection requirements (§ 280.45); and

(5) Results of the site investigation conducted at permanent closure (§ 280.74).

(c) *Availability and Maintenance of Records.* Owners and operators must keep the records required either:

(1) At the UST site and immediately available for inspection by the implementing agency; or

(2) At a readily available alternative site and be provided for inspection to the implementing agency upon request.

(3) In the case of permanent closure records required under § 280.74, owners and operators are also provided with the additional alternative of mailing closure records to the implementing agency if they cannot be kept at the site or an alternative site as indicated above.

Subpart D—Release Detection

§ 280.40 General requirements for all UST systems.

(a) Owners and operators of new and existing UST systems must provide a method, or combination of methods, of release detection that:

(1) Can detect a release from any portion of the tank and the connected underground piping that routinely contains product;

(2) Is installed, calibrated, operated, and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for operability or running condition; and

(3) Meets the performance requirements in § 280.43 or 280.44, with any performance claims and their manner of determination described in writing by the equipment manufacturer or installer. In addition, methods used after the date shown in the following table corresponding with the specified method except for methods permanently installed prior to that date, must be capable of detecting the leak rate or quantity specified for that method in the corresponding section of the rule (also shown in the table) with a probability of detection (Pd) of 0.95 and a probability of false alarm (Pfa) of 0.05.

| Method | Section | Date after which Pd/Pfa must be demonstrated |
|----------------------|-----------|--|
| Manual Tank Gauging. | 280.43(b) | December 22, 1990. |

§ 280.42

| Method | Section | Date after which Pd/Pfa must be demonstrated |
|--------------------------------|-----------|--|
| Tank Tightness Testing. | 280.43(c) | December 22, 1990. |
| Automatic Tank Gauging. | 280.43(d) | December 22, 1990. |
| Automatic Line Leak Detectors. | 280.44(a) | September 22, 1991. |
| Line Tightness Testing. | 280.44(b) | December 22, 1990. |

(b) When a release detection method operated in accordance with the performance standards in § 280.43 and § 280.44 indicates a release may have occurred, owners and operators must notify the implementing agency in accordance with subpart E.

(c) Owners and operators of all UST systems must comply with the release detection requirements of this subpart by December 22 of the year listed in the following table:

SCHEDULE FOR PHASE-IN OF RELEASE DETECTION

| Year system was installed | Year when release detection is required (by December 22 of the year indicated) | | | | |
|------------------------------|--|------|------|------|------|
| | 1989 | 1990 | 1991 | 1992 | 1993 |
| Before 1965 or date unknown. | RD | P | | | |
| 1965-69 | | P/RD | | | |
| 1970-74 | | P | RD | | |
| 1975-79 | | P | | RD | |
| 1980-88 | | P | | | RD |

New tanks (after December 22) immediately upon installation.

P=Must begin release detection for all pressurized piping as defined in § 280.41(b)(1).
RD=Must begin release detection for tanks and suction piping in accordance with § 280.41(a), § 280.41(b)(2), and § 280.42.

(d) Any existing UST system that cannot apply a method of release detection that complies with the requirements of this subpart must complete the closure procedures in subpart G by the date on which release detection is required for that UST system under paragraph (c) of this section.

[53 FR 37194, Sept. 23, 1988, as amended at 55 FR 17753, Apr. 27, 1990; 55 FR 23738, June 12, 1990; 56 FR 26, Jan. 2, 1991]

§ 280.41 Requirements for petroleum UST systems.

Owners and operators of petroleum UST systems must provide release detection for tanks and piping as follows:

(a) *Tanks.* Tanks must be monitored at least every 30 days for releases using one of the methods listed in § 280.43 (d) through (h) except that:

(1) UST systems that meet the performance standards in § 280.20 or § 280.21, and the monthly

inventory control requirements in § 280.43 (a) or (b), may use tank tightness testing (conducted in accordance with § 280.43(c)) at least every 5 years until December 22, 1998, or until 10 years after the tank is installed or upgraded under § 280.21(b), whichever is later;

(2) UST systems that do not meet the performance standards in § 280.20 or § 280.21 may use monthly inventory controls (conducted in accordance with § 280.43(a) or (b)) and annual tank tightness testing (conducted in accordance with § 280.43(c)) until December 22, 1998 when the tank must be upgraded under § 280.21 or permanently closed under § 280.71; and

(3) Tanks with capacity of 550 gallons or less may use weekly tank gauging (conducted in accordance with § 280.43(b)).

(b) *Piping.* Underground piping that routinely contains regulated substances must be monitored for releases in a manner that meets one of the following requirements:

(1) *Pressurized piping.* Underground piping that conveys regulated substances under pressure must:

(i) Be equipped with an automatic line leak detector conducted in accordance with § 280.44(a); and

(ii) Have an annual line tightness test conducted in accordance with § 280.44(b) or have monthly monitoring conducted in accordance with § 280.44(c).

(2) *Suction piping.* Underground piping that conveys regulated substances under suction must either have a line tightness test conducted at least every 3 years and in accordance with § 280.44(b), or use a monthly monitoring method conduct in accordance with § 280.44(c). No release detection is required for suction piping that is designed and constructed to meet the following standards:

(i) The below-grade piping operates at less than atmospheric pressure;

(ii) The below-grade piping is sloped so that the contents of the pipe will drain back into the storage tank if the suction is released;

(iii) Only one check valve is included in each suction line;

(iv) The check valve is located directly below and as close as practical to the suction pump; and

(v) A method is provided that allows compliance with paragraphs (b)(2) (ii)-(iv) of this section to be readily determined.

§ 280.42 Requirements for hazardous substance UST systems.

Owners and operators of hazardous substance UST systems must provide release detection that meets the following requirements:

(a) Release detection at existing UST systems must meet the requirements for petroleum UST systems in § 280.41. By December 22, 1998, all

§ 280.43

existing hazardous substance UST systems must meet the release detection requirements for new systems in paragraph (b) of this section.

(b) Release detection at new hazardous substance UST systems must meet the following requirements:

- (1) Secondary containment systems must be designed, constructed and installed to:
 - (i) Contain regulated substances released from the tank system until they are detected and removed;
 - (ii) Prevent the release of regulated substances to the environment at any time during the operational life of the UST system; and
 - (iii) Be checked for evidence of a release at least every 30 days.

NOTE.—The provisions of 40 CFR 265.193, Containment and Detection of Releases, may be used to comply with these requirements.

(2) Double-walled tanks must be designed, constructed, and installed to:

- (i) Contain a release from any portion of the inner tank within the outer wall; and
 - (ii) Detect the failure of the inner wall.
- (3) External liners (including vaults) must be designed, constructed, and installed to:
- (i) Contain 100 percent of the capacity of the largest tank within its boundary;
 - (ii) Prevent the interference of precipitation or ground-water intrusion with the ability to contain or detect a release of regulated substances; and
 - (iii) Surround the tank completely (i.e., it is capable of preventing lateral as well as vertical migration of regulated substances).

(4) Underground piping must be equipped with secondary containment that satisfies the requirements of paragraph (b)(1) of this section (e.g., trench liners, jacketing of double-walled pipe). In addition, underground piping that conveys regulated substances under pressure must be equipped with an automatic line leak detector in accordance with § 280.44(a).

(5) Other methods of release detection may be used if owners and operators:

- (i) Demonstrate to the implementing agency that an alternate method can detect a release of the stored substance as effectively as any of the methods allowed in §§ 280.43(b) through (h) can detect a release of petroleum;
- (ii) Provide information to the implementing agency on effective corrective action technologies, health risks, and chemical and physical properties of the stored substance, and the characteristics of the UST site; and,
- (iii) Obtain approval from the implementing agency to use the alternate release detection method before the installation and operation of the new UST system.

§ 280.43 Methods of release detection for tanks.

Each method of release detection for tanks used to meet the requirements of § 280.41 must be conducted in accordance with the following:

(a) *Inventory control.* Product inventory control (or another test of equivalent performance) must be conducted monthly to detect a release of at least 1.0 percent of flow-through plus 130 gallons on a monthly basis in the following manner:

- (1) Inventory volume measurements for regulated substance inputs, withdrawals, and the amount still remaining in the tank are recorded each operating day;
- (2) The equipment used is capable of measuring the level of product over the full range of the tank's height to the nearest one-eighth of an inch;
- (3) The regulated substance inputs are reconciled with delivery receipts by measurement of the tank inventory volume before and after delivery;
- (4) Deliveries are made through a drop tube that extends to within one foot of the tank bottom;
- (5) Product dispensing is metered and recorded within the local standards for meter calibration or an accuracy of 6 cubic inches for every 5 gallons of product withdrawn; and
- (6) The measurement of any water level in the bottom of the tank is made to the nearest one-eighth of an inch at least once a month.

NOTE: Practices described in the American Petroleum Institute Publication 1621, "Recommended Practice for Bulk Liquid Stock Control at Retail Outlets," may be used, where applicable, as guidance in meeting the requirements of this paragraph.

(b) *Manual tank gauging.* Manual tank gauging must meet the following requirements:

- (1) Tank liquid level measurements are taken at the beginning and ending of a period of at least 36 hours during which no liquid is added to or removed from the tank;
- (2) Level measurements are based on an average of two consecutive stick readings at both the beginning and ending of the period;
- (3) The equipment used is capable of measuring the level of product over the full range of the tank's height to the nearest one-eighth of an inch;
- (4) A leak is suspected and subject to the requirements of subpart E if the variation between beginning and ending measurements exceeds the weekly or monthly standards in the following table:

| Nominal tank capacity | Weekly standard (one test) | Monthly standard (average of four tests) |
|-----------------------|----------------------------|--|
| 550 gallons or less. | 10 gallons | 5 gallons. |
| 551–1,000 gallons. | 13 gallons | 7 gallons. |

§ 280.43

| Nominal tank capacity | Weekly standard (one test) | Monthly standard (average of four tests) |
|-----------------------|----------------------------|--|
| 1,001–2,000 gallons. | 26 gallons | 13 gallons. |

(5) Only tanks of 550 gallons or less nominal capacity may use this as the sole method of release detection. Tanks of 551 to 2,000 gallons may use the method in place of manual inventory control in § 280.43(a). Tanks of greater than 2,000 gallons nominal capacity may not use this method to meet the requirements of this subpart.

(c) *Tank tightness testing.* Tank tightness testing (or another test of equivalent performance) must be capable of detecting a 0.1 gallon per hour leak rate from any portion of the tank that routinely contains product while accounting for the effects of thermal expansion or contraction of the product, vapor pockets, tank deformation, evaporation or condensation, and the location of the water table.

(d) *Automatic tank gauging.* Equipment for automatic tank gauging that tests for the loss of product and conducts inventory control must meet the following requirements:

(1) The automatic product level monitor test can detect a 0.2 gallon per hour leak rate from any portion of the tank that routinely contains product; and

(2) Inventory control (or another test of equivalent performance) is conducted in accordance with the requirements of § 280.43(a).

(e) *Vapor monitoring.* Testing or monitoring for vapors within the soil gas of the excavation zone must meet the following requirements:

(1) The materials used as backfill are sufficiently porous (e.g., gravel, sand, crushed rock) to readily allow diffusion of vapors from releases into the excavation area;

(2) The stored regulated substance, or a tracer compound placed in the tank system, is sufficiently volatile (e.g., gasoline) to result in a vapor level that is detectable by the monitoring devices located in the excavation zone in the event of a release from the tank;

(3) The measurement of vapors by the monitoring device is not rendered inoperative by the ground water, rainfall, or soil moisture or other known interferences so that a release could go undetected for more than 30 days;

(4) The level of background contamination in the excavation zone will not interfere with the method used to detect releases from the tank;

(5) The vapor monitors are designed and operated to detect any significant increase in concentration above background of the regulated substance stored in the tank system, a component or components of that substance, or a tracer compound placed in the tank system;

(6) In the UST excavation zone, the site is assessed to ensure compliance with the requirements in paragraphs (c) (1) through (4) of this section and to establish the number and positioning of monitoring wells that will detect releases within the excavation zone from any portion of the tank that routinely contains product; and

(7) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

(f) *Ground-water monitoring.* Testing or monitoring for liquids on the ground water must meet the following requirements:

(1) The regulated substance stored is immiscible in water and has a specific gravity of less than one;

(2) Ground water is never more than 20 feet from the ground surface and the hydraulic conductivity of the soil(s) between the UST system and the monitoring wells or devices is not less than 0.01 cm/sec (e.g., the soil should consist of gravels, coarse to medium sands, coarse silts or other permeable materials);

(3) The slotted portion of the monitoring well casing must be designed to prevent migration of natural soils or filter pack into the well and to allow entry of regulated substance on the water table into the well under both high and low ground-water conditions;

(4) Monitoring wells shall be sealed from the ground surface to the top of the filter pack;

(5) Monitoring wells or devices intercept the excavation zone or are as close to it as is technically feasible;

(6) The continuous monitoring devices or manual methods used can detect the presence of at least one-eighth of an inch of free product on top of the ground water in the monitoring wells;

(7) Within and immediately below the UST system excavation zone, the site is assessed to ensure compliance with the requirements in paragraphs (f) (1) through (5) of this section and to establish the number and positioning of monitoring wells or devices that will detect releases from any portion of the tank that routinely contains product; and

(8) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

(g) *Interstitial monitoring.* Interstitial monitoring between the UST system and a secondary barrier immediately around or beneath it may be used, but only if the system is designed, constructed and installed to detect a leak from any portion of the tank that routinely contains product and also meets one of the following requirements:

(1) For double-walled UST systems, the sampling or testing method can detect a release through the inner wall in any portion of the tank that routinely contains product;

NOTE: The provisions outlined in the Steel Tank Institute's "Standard for Dual Wall Underground Storage

§ 280.44

Tanks" may be used as guidance for aspects of the design and construction of underground steel double-walled tanks.

(2) For UST systems with a secondary barrier within the excavation zone, the sampling or testing method used can detect a release between the UST system and the secondary barrier;

(i) The secondary barrier around or beneath the UST system consists of artificially constructed material that is sufficiently thick and impermeable (at least 10^{-6} cm/sec for the regulated substance stored) to direct a release to the monitoring point and permit its detection;

(ii) The barrier is compatible with the regulated substance stored so that a release from the UST system will not cause a deterioration of the barrier allowing a release to pass through undetected;

(iii) For cathodically protected tanks, the secondary barrier must be installed so that it does not interfere with the proper operation of the cathodic protection system;

(iv) The ground water, soil moisture, or rainfall will not render the testing or sampling method used inoperative so that a release could go undetected for more than 30 days;

(v) The site is assessed to ensure that the secondary barrier is always above the ground water and not in a 25-year flood plain, unless the barrier and monitoring designs are for use under such conditions; and,

(vi) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

(3) For tanks with an internally fitted liner, an automated device can detect a release between the inner wall of the tank and the liner, and the liner is compatible with the substance stored.

(h) *Other methods.* Any other type of release detection method, or combination of methods, can be used if:

(1) It can detect a 0.2 gallon per hour leak rate or a release of 150 gallons within a month with a probability of detection of 0.95 and a probability of false alarm of 0.05; or

(2) The implementing agency may approve another method if the owner and operator can demonstrate that the method can detect a release as effectively as any of the methods allowed in paragraphs (c) through (h) of this section. In comparing methods, the implementing agency shall consider the size of release that the method can detect and the frequency and reliability with which it can be detected. If the method is approved, the owner and operator must comply with any conditions imposed by the implementing agency on its use to ensure the protection of human health and the environment.

§ 280.44 Methods of release detection for piping.

Each method of release detection for piping used to meet the requirements of § 280.41 must be conducted in accordance with the following:

(a) *Automatic line leak detectors.* Methods which alert the operator to the presence of a leak by restricting or shutting off the flow of regulated substances through piping or triggering an audible or visual alarm may be used only if they detect leaks of 3 gallons per hour at 10 pounds per square inch line pressure within 1 hour. An annual test of the operation of the leak detector must be conducted in accordance with the manufacturer's requirements.

(b) *Line tightness testing.* A periodic test of piping may be conducted only if it can detect a 0.1 gallon per hour leak rate at one and one-half times the operating pressure.

(c) *Applicable tank methods.* Any of the methods in § 280.43 (e) through (h) may be used if they are designed to detect a release from any portion of the underground piping that routinely contains regulated substances.

§ 280.45 Release detection record-keeping.

All UST system owners and operators must maintain records in accordance with § 280.34 demonstrating compliance with all applicable requirements of this subpart. These records must include the following:

(a) All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, must be maintained for 5 years, or for another reasonable period of time determined by the implementing agency, from the date of installation;

(b) The results of any sampling, testing, or monitoring must be maintained for at least 1 year, or for another reasonable period of time determined by the implementing agency, except that the results of tank tightness testing conducted in accordance with § 280.43(c) must be retained until the next test is conducted; and

(c) Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site must be maintained for at least one year after the servicing work is completed, or for another reasonable time period determined by the implementing agency. Any schedules of required calibration and maintenance provided by the release detection equipment manufacturer must be retained for 5 years from the date of installation.

Subpart E—Release Reporting, Investigation, and Confirmation

§ 280.50 Reporting of suspected releases.

Owners and operators of UST systems must report to the implementing agency within 24 hours, or another reasonable time period specified by the implementing agency, and follow the procedures in § 280.52 for any of the following conditions:

(a) The discovery by owners and operators or others of released regulated substances at the UST site or in the surrounding area (such as the presence of free product or vapors in soils, basements, sewer and utility lines, and nearby surface water).

(b) Unusual operating conditions observed by owners and operators (such as the erratic behavior of product dispensing equipment, the sudden loss of product from the UST system, or an unexplained presence of water in the tank), unless system equipment is found to be defective but not leaking, and is immediately repaired or replaced; and,

(c) Monitoring results from a release detection method required under § 280.41 and § 280.42 that indicate a release may have occurred unless:

(1) The monitoring device is found to be defective, and is immediately repaired, recalibrated or replaced, and additional monitoring does not confirm the initial result; or

(2) In the case of inventory control, a second month of data does not confirm the initial result.

§ 280.51 Investigation due to off-site impacts.

When required by the implementing agency, owners and operators of UST systems must follow the procedures in § 280.52 to determine if the UST system is the source of off-site impacts. These impacts include the discovery of regulated substances (such as the presence of free product or vapors in soils, basements, sewer and utility lines, and nearby surface and drinking waters) that has been observed by the implementing agency or brought to its attention by another party.

§ 280.52 Release investigation and confirmation steps.

Unless corrective action is initiated in accordance with subpart F, owners and operators must immediately investigate and confirm all suspected releases of regulated substances requiring reporting under § 280.50 within 7 days, or another reasonable time period specified by the implementing agency, using either the following steps or another procedure approved by the implementing agency:

(a) *System test.* Owners and operators must conduct tests (according to the requirements for tightness testing in § 280.43(c) and § 280.44(b)) that

determine whether a leak exists in that portion of the tank that routinely contains product, or the attached delivery piping, or both.

(1) Owners and operators must repair, replace or upgrade the UST system, and begin corrective action in accordance with subpart F if the test results for the system, tank, or delivery piping indicate that a leak exists.

(2) Further investigation is not required if the test results for the system, tank, and delivery piping do not indicate that a leak exists and if environmental contamination is not the basis for suspecting a release.

(3) Owners and operators must conduct a site check as described in paragraph (b) of this section if the test results for the system, tank, and delivery piping do not indicate that a leak exists but environmental contamination is the basis for suspecting a release.

(b) *Site check.* Owners and operators must measure for the presence of a release where contamination is most likely to be present at the UST site. In selecting sample types, sample locations, and measurement methods, owners and operators must consider the nature of the stored substance, the type of initial alarm or cause for suspicion, the type of backfill, the depth of ground water, and other factors appropriate for identifying the presence and source of the release.

(1) If the test results for the excavation zone or the UST site indicate that a release has occurred, owners and operators must begin corrective action in accordance with subpart F;

(2) If the test results for the excavation zone or the UST site do not indicate that a release has occurred, further investigation is not required.

§ 280.53 Reporting and cleanup of spills and overfills.

(a) Owners and operators of UST systems must contain and immediately clean up a spill or overfill and report to the implementing agency within 24 hours, or another reasonable time period specified by the implementing agency, and begin corrective action in accordance with subpart F in the following cases:

(1) Spill or overfill of petroleum that results in a release to the environment that exceeds 25 gallons or another reasonable amount specified by the implementing agency, or that causes a sheen on nearby surface water; and

(2) Spill or overfill of a hazardous substance that results in a release to the environment that equals or exceeds its reportable quantity under CERCLA (40 CFR part 302).

(b) Owners and operators of UST systems must contain and immediately clean up a spill or overfill of petroleum that is less than 25 gallons or another reasonable amount specified by the imple-

§ 280.60

menting agency, and a spill or overflow of a hazardous substance that is less than the reportable quantity. If cleanup cannot be accomplished within 24 hours, or another reasonable time period established by the implementing agency, owners and operators must immediately notify the implementing agency.

NOTE: Pursuant to §§ 302.6 and 355.40, a release of a hazardous substance equal to or in excess of its reportable quantity must also be reported immediately (rather than within 24 hours) to the National Response Center under sections 102 and 103 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and to appropriate state and local authorities under Title III of the Superfund Amendments and Reauthorization Act of 1986.

Subpart F—Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances

§ 280.60 General.

Owners and operators of petroleum or hazardous substance UST systems must, in response to a confirmed release from the UST system, comply with the requirements of this subpart except for USTs excluded under § 280.10(b) and UST systems subject to RCRA Subtitle C corrective action requirements under section 3004(u) of the Resource Conservation and Recovery Act, as amended.

§ 280.61 Initial response.

Upon confirmation of a release in accordance with § 280.52 or after a release from the UST system is identified in any other manner, owners and operators must perform the following initial response actions within 24 hours of a release or within another reasonable period of time determined by the implementing agency:

- (a) Report the release to the implementing agency (e.g., by telephone or electronic mail);
- (b) Take immediate action to prevent any further release of the regulated substance into the environment; and
- (c) Identify and mitigate fire, explosion, and vapor hazards.

§ 280.62 Initial abatement measures and site check.

(a) Unless directed to do otherwise by the implementing agency, owners and operators must perform the following abatement measures:

- (1) Remove as much of the regulated substance from the UST system as is necessary to prevent further release to the environment;
- (2) Visually inspect any aboveground releases or exposed belowground releases and prevent fur-

ther migration of the released substance into surrounding soils and ground water;

(3) Continue to monitor and mitigate any additional fire and safety hazards posed by vapors or free product that have migrated from the UST excavation zone and entered into subsurface structures (such as sewers or basements);

(4) Remedy hazards posed by contaminated soils that are excavated or exposed as a result of release confirmation, site investigation, abatement, or corrective action activities. If these remedies include treatment or disposal of soils, the owner and operator must comply with applicable State and local requirements;

(5) Measure for the presence of a release where contamination is most likely to be present at the UST site, unless the presence and source of the release have been confirmed in accordance with the site check required by § 280.52(b) or the closure site assessment of § 280.72(a). In selecting sample types, sample locations, and measurement methods, the owner and operator must consider the nature of the stored substance, the type of backfill, depth to ground water and other factors as appropriate for identifying the presence and source of the release; and

(6) Investigate to determine the possible presence of free product, and begin free product removal as soon as practicable and in accordance with § 280.64.

(b) Within 20 days after release confirmation, or within another reasonable period of time determined by the implementing agency, owners and operators must submit a report to the implementing agency summarizing the initial abatement steps taken under paragraph (a) of this section and any resulting information or data.

§ 280.63 Initial site characterization.

(a) Unless directed to do otherwise by the implementing agency, owners and operators must assemble information about the site and the nature of the release, including information gained while confirming the release or completing the initial abatement measures in §§ 280.60 and 280.61. This information must include, but is not necessarily limited to the following:

- (1) Data on the nature and estimated quantity of release;
- (2) Data from available sources and/or site investigations concerning the following factors: surrounding populations, water quality, use and approximate locations of wells potentially affected by the release, subsurface soil conditions, locations of subsurface sewers, climatological conditions, and land use;
- (3) Results of the site check required under § 280.62(a)(5); and

§ 280.66

(4) Results of the free product investigations required under § 280.62(a)(6), to be used by owners and operators to determine whether free product must be recovered under § 280.64.

(b) Within 45 days of release confirmation or another reasonable period of time determined by the implementing agency, owners and operators must submit the information collected in compliance with paragraph (a) of this section to the implementing agency in a manner that demonstrates its applicability and technical adequacy, or in a format and according to the schedule required by the implementing agency.

§ 280.64 Free product removal.

At sites where investigations under § 280.62(a)(6) indicate the presence of free product, owners and operators must remove free product to the maximum extent practicable as determined by the implementing agency while continuing, as necessary, any actions initiated under §§ 280.61 through 280.63, or preparing for actions required under §§ 280.65 through 280.66. In meeting the requirements of this section, owners and operators must:

(a) Conduct free product removal in a manner that minimizes the spread of contamination into previously uncontaminated zones by using recovery and disposal techniques appropriate to the hydrogeologic conditions at the site, and that properly treats, discharges or disposes of recovery by-products in compliance with applicable local, State and Federal regulations;

(b) Use abatement of free product migration as a minimum objective for the design of the free product removal system;

(c) Handle any flammable products in a safe and competent manner to prevent fires or explosions; and

(d) Unless directed to do otherwise by the implementing agency, prepare and submit to the implementing agency, within 45 days after confirming a release, a free product removal report that provides at least the following information:

(1) The name of the person(s) responsible for implementing the free product removal measures;

(2) The estimated quantity, type, and thickness of free product observed or measured in wells, boreholes, and excavations;

(3) The type of free product recovery system used;

(4) Whether any discharge will take place on-site or off-site during the recovery operation and where this discharge will be located;

(5) The type of treatment applied to, and the effluent quality expected from, any discharge;

(6) The steps that have been or are being taken to obtain necessary permits for any discharge; and

(7) The disposition of the recovered free product.

§ 280.65 Investigations for soil and ground-water cleanup.

(a) In order to determine the full extent and location of soils contaminated by the release and the presence and concentrations of dissolved product contamination in the ground water, owners and operators must conduct investigations of the release, the release site, and the surrounding area possibly affected by the release if any of the following conditions exist:

(1) There is evidence that ground-water wells have been affected by the release (e.g., as found during release confirmation or previous corrective action measures);

(2) Free product is found to need recovery in compliance with § 280.64;

(3) There is evidence that contaminated soils may be in contact with ground water (e.g., as found during conduct of the initial response measures or investigations required under §§ 280.60 through 280.64); and

(4) The implementing agency requests an investigation, based on the potential effects of contaminated soil or ground water on nearby surface water and ground-water resources.

(b) Owners and operators must submit the information collected under paragraph (a) of this section as soon as practicable or in accordance with a schedule established by the implementing agency.

§ 280.66 Corrective action plan.

(a) At any point after reviewing the information submitted in compliance with §§ 280.61 through 280.63, the implementing agency may require owners and operators to submit additional information or to develop and submit a corrective action plan for responding to contaminated soils and ground water. If a plan is required, owners and operators must submit the plan according to a schedule and format established by the implementing agency. Alternatively, owners and operators may, after fulfilling the requirements of §§ 280.61 through 280.63, choose to submit a corrective action plan for responding to contaminated soil and ground water. In either case, owners and operators are responsible for submitting a plan that provides for adequate protection of human health and the environment as determined by the implementing agency, and must modify their plan as necessary to meet this standard.

(b) The implementing agency will approve the corrective action plan only after ensuring that implementation of the plan will adequately protect human health, safety, and the environment. In making this determination, the implementing agen-

§ 280.67

cy should consider the following factors as appropriate:

(1) The physical and chemical characteristics of the regulated substance, including its toxicity, persistence, and potential for migration;

(2) The hydrogeologic characteristics of the facility and the surrounding area;

(3) The proximity, quality, and current and future uses of nearby surface water and ground water;

(4) The potential effects of residual contamination on nearby surface water and ground water;

(5) An exposure assessment; and

(6) Any information assembled in compliance with this subpart.

(c) Upon approval of the corrective action plan or as directed by the implementing agency, owners and operators must implement the plan, including modifications to the plan made by the implementing agency. They must monitor, evaluate, and report the results of implementing the plan in accordance with a schedule and in a format established by the implementing agency.

(d) Owners and operators may, in the interest of minimizing environmental contamination and promoting more effective cleanup, begin cleanup of soil and ground water before the corrective action plan is approved provided that they:

(1) Notify the implementing agency of their intention to begin cleanup;

(2) Comply with any conditions imposed by the implementing agency, including halting cleanup or mitigating adverse consequences from cleanup activities; and

(3) Incorporate these self-initiated cleanup measures in the corrective action plan that is submitted to the implementing agency for approval.

§ 280.67 Public participation.

(a) For each confirmed release that requires a corrective action plan, the implementing agency must provide notice to the public by means designed to reach those members of the public directly affected by the release and the planned corrective action. This notice may include, but is not limited to, public notice in local newspapers, block advertisements, public service announcements, publication in a state register, letters to individual households, or personal contacts by field staff.

(b) The implementing agency must ensure that site release information and decisions concerning the corrective action plan are made available to the public for inspection upon request.

(c) Before approving a corrective action plan, the implementing agency may hold a public meeting to consider comments on the proposed corrective action plan if there is sufficient public interest, or for any other reason.

(d) The implementing agency must give public notice that complies with paragraph (a) of this section if implementation of an approved corrective action plan does not achieve the established cleanup levels in the plan and termination of that plan is under consideration by the implementing agency.

Subpart G—Out-of-Service UST Systems and Closure

§ 280.70 Temporary closure.

(a) When an UST system is temporarily closed, owners and operators must continue operation and maintenance of corrosion protection in accordance with § 280.31, and any release detection in accordance with subpart D. Subparts E and F must be complied with if a release is suspected or confirmed. However, release detection is not required as long as the UST system is empty. The UST system is empty when all materials have been removed using commonly employed practices so that no more than 2.5 centimeters (one inch) of residue, or 0.3 percent by weight of the total capacity of the UST system, remain in the system.

(b) When an UST system is temporarily closed for 3 months or more, owners and operators must also comply with the following requirements:

(1) Leave vent lines open and functioning; and

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

(c) When an UST system is temporarily closed for more than 12 months, owners and operators must permanently close the UST system if it does not meet either performance standards in § 280.20 for new UST systems or the upgrading requirements in § 280.21, *except that* the spill and overfill equipment requirements do not have to be met. Owners and operators must permanently close the substandard UST systems at the end of this 12-month period in accordance with §§ 280.71–280.74, *unless* the implementing agency provides an extension of the 12-month temporary closure period. Owners and operators must complete a site assessment in accordance with § 280.72 before such an extension can be applied for.

§ 280.71 Permanent closure and changes-in-service.

(a) At least 30 days before beginning either permanent closure or a change-in-service under paragraphs (b) and (c) of this section, or within another reasonable time period determined by the implementing agency, owners and operators must notify the implementing agency of their intent to permanently close or make the change-in-service, *unless* such action is in response to corrective action. The required assessment of the excavation zone under § 280.72 must be performed after noti-

§ 280.90

fyng the implementing agency but before completion of the permanent closure or a change-in-service.

(b) To permanently close a tank, owners and operators must empty and clean it by removing all liquids and accumulated sludges. All tanks taken out of service permanently must also be either removed from the ground or filled with an inert solid material.

(c) Continued use of an UST system to store a non-regulated substance is considered a change-in-service. Before a change-in-service, owners and operators must empty and clean the tank by removing all liquid and accumulated sludge and conduct a site assessment in accordance with § 280.72.

NOTE: The following cleaning and closure procedures may be used to comply with this section:

(A) American Petroleum Institute Recommended Practice 1604, "Removal and Disposal of Used Underground Petroleum Storage Tanks";

(B) American Petroleum Institute Publication 2015, "Cleaning Petroleum Storage Tanks";

(C) American Petroleum Institute Recommended Practice 1631, "Interior Lining of Underground Storage Tanks," may be used as guidance for compliance with this section; and

(D) The National Institute for Occupational Safety and Health "Criteria for a Recommended Standard * * * Working in Confined Space" may be used as guidance for conducting safe closure procedures at some hazardous substance tanks.

§ 280.72 Assessing the site at closure or change-in-service.

(a) Before permanent closure or a change-in-service is completed, owners and operators must measure for the presence of a release where contamination is most likely to be present at the UST site. In selecting sample types, sample locations, and measurement methods, owners and operators must consider the method of closure, the nature of the stored substance, the type of backfill, the depth to ground water, and other factors appropriate for identifying the presence of a release. The requirements of this section are satisfied if one of the external release detection methods allowed in § 280.43 (e) and (f) is operating in accordance with the requirements in § 280.43 at the time of closure, and indicates no release has occurred.

(b) If contaminated soils, contaminated ground water, or free product as a liquid or vapor is discovered under paragraph (a) of this section, or by any other manner, owners and operators must begin corrective action in accordance with subpart F.

§ 280.73 Applicability to previously closed UST systems.

When directed by the implementing agency, the owner and operator of an UST system permanently closed before December 22, 1988 must assess the excavation zone and close the UST system in accordance with this subpart if releases from the UST may, in the judgment of the implementing agency, pose a current or potential threat to human health and the environment.

§ 280.74 Closure records.

Owners and operators must maintain records in accordance with § 280.34 that are capable of demonstrating compliance with closure requirements under this subpart. The results of the excavation zone assessment required in § 280.72 must be maintained for at least 3 years after completion of permanent closure or change-in-service in one of the following ways:

(a) By the owners and operators who took the UST system out of service;

(b) By the current owners and operators of the UST system site; or

(c) By mailing these records to the implementing agency if they cannot be maintained at the closed facility.

Subpart H—Financial Responsibility

SOURCE: 53 FR 43370, Oct. 26, 1988, unless otherwise noted.

§ 280.90 Applicability.

(a) This subpart applies to owners and operators of all petroleum underground storage tank (UST) systems except as otherwise provided in this section.

(b) Owners and operators of petroleum UST systems are subject to these requirements if they are in operation on or after the date for compliance established in § 280.91.

(c) State and Federal government entities whose debts and liabilities are the debts and liabilities of a state or the United States are exempt from the requirements of this subpart.

(d) The requirements of this subpart do not apply to owners and operators of any UST system described in § 280.10 (b) or (c).

(e) If the owner and operator of a petroleum underground storage tank are separate persons, only one person is required to demonstrate financial responsibility; however, both parties are liable in event of noncompliance. Regardless of which party complies, the date set for compliance at a

§ 280.91

particular facility is determined by the characteristics of the owner as set forth in § 280.91.

§ 280.91 Compliance dates.

Owners of petroleum underground storage tanks are required to comply with the requirements of this subpart by the following dates:

(a) All petroleum marketing firms owning 1,000 or more USTs and all other UST owners that report a tangible net worth of \$20 million or more to the U.S. Securities and Exchange Commission (SEC), Dun and Bradstreet, the Energy Information Administration, or the Rural Electrification Administration; January 24, 1989, except that compliance with § 280.94(b) is required by: July 24, 1989.

(b) All petroleum marketing firms owning 100–999 USTs; October 26, 1989.

(c) All petroleum marketing firms owning 13–99 USTs at more than one facility; April 26, 1991.

(d) All petroleum UST owners not described in paragraphs (a), (b), or (c) of this section, excluding local government entities; December 31, 1993.

(e) All local government entities (including Indian tribes) not included in paragraph (f) of this section; February 18, 1994.

(f) Indian tribes that own USTs on Indian lands which meet the applicable technical requirements of this part; December 31, 1998.

[53 FR 43370, Oct. 26, 1988, as amended at 54 FR 5452, Feb. 3, 1989; 55 FR 18567, May 2, 1990; 55 FR 46025, Oct. 31, 1990; 56 FR 66373, Dec. 23, 1991; 59 FR 9607, Feb. 28, 1994]

§ 280.92 Definition of terms.

When used in this subpart, the following terms shall have the meanings given below:

Accidental release means any sudden or non-sudden release of petroleum from an underground storage tank that results in a need for corrective action and/or compensation for bodily injury or property damage neither expected nor intended by the tank owner or operator.

Bodily injury shall have the meaning given to this term by applicable state law; however, this term shall not include those liabilities which, consistent with standard insurance industry practices, are excluded from coverage in liability insurance policies for bodily injury.

Chief Financial Officer, in the case of local government owners and operators, means the individual with the overall authority and responsibility for the collection, disbursement, and use of funds by the local government.

Controlling interest means direct ownership of at least 50 percent of the voting stock of another entity.

Director of the Implementing Agency means the EPA Regional Administrator, or, in the case of a

state with a program approved under section 9004, the Director of the designated state or local agency responsible for carrying out an approved UST program.

Financial reporting year means the latest consecutive twelve-month period for which any of the following reports used to support a financial test is prepared:

- (1) a 10-K report submitted to the SEC;
- (2) an annual report of tangible net worth submitted to Dun and Bradstreet; or
- (3) annual reports submitted to the Energy Information Administration or the Rural Electrification Administration.

“Financial reporting year” may thus comprise a fiscal or a calendar year period.

Legal defense cost is any expense that an owner or operator or provider of financial assurance incurs in defending against claims or actions brought,

- (1) By EPA or a state to require corrective action or to recover the costs of corrective action;
- (2) By or on behalf of a third party for bodily injury or property damage caused by an accidental release; or
- (3) By any person to enforce the terms of a financial assurance mechanism.

Local government shall have the meaning given this term by applicable state law and includes Indian tribes. The term is generally intended to include: (1) Counties, municipalities, townships, separately chartered and operated special districts (including local government public transit systems and redevelopment authorities), and independent school districts authorized as governmental bodies by state charter or constitution; and (2) Special districts and independent school districts established by counties, municipalities, townships, and other general purpose governments to provide essential services.

Occurrence means an accident, including continuous or repeated exposure to conditions, which results in a release from an underground storage tank.

NOTE: This definition is intended to assist in the understanding of these regulations and is not intended either to limit the meaning of “occurrence” in a way that conflicts with standard insurance usage or to prevent the use of other standard insurance terms in place of “occurrence.”

Owner or operator, when the owner or operator are separate parties, refers to the party that is obtaining or has obtained financial assurances.

Petroleum marketing facilities include all facilities at which petroleum is produced or refined and all facilities from which petroleum is sold or transferred to other petroleum marketers or to the public.

Petroleum marketing firms are all firms owning petroleum marketing facilities. Firms owning other

types of facilities with USTs as well as petroleum marketing facilities are considered to be petroleum marketing firms.

Property damage shall have the meaning given this term by applicable state law. This term shall not include those liabilities which, consistent with standard insurance industry practices, are excluded from coverage in liability insurance policies for property damage. However, such exclusions for property damage shall not include corrective action associated with releases from tanks which are covered by the policy.

Provider of financial assurance means an entity that provides financial assurance to an owner or operator of an underground storage tank through one of the mechanisms listed in §§ 280.95–280.103, including a guarantor, insurer, risk retention group, surety, issuer of a letter of credit, issuer of a state-required mechanism, or a state.

Substantial business relationship means the extent of a business relationship necessary under applicable state law to make a guarantee contract issued incident to that relationship valid and enforceable. A guarantee contract is issued “incident to that relationship” if it arises from and depends on existing economic transactions between the guarantor and the owner or operator.

Substantial governmental relationship means the extent of a governmental relationship necessary under applicable state law to make an added guarantee contract issued incident to that relationship valid and enforceable. A guarantee contract is issued “incident to that relationship” if it arises from a clear commonality of interest in the event of an UST release such as coterminous boundaries, overlapping constituencies, common ground-water aquifer, or other relationship other than monetary compensation that provides a motivation for the guarantor to provide a guarantee.

Tangible net worth means the tangible assets that remain after deducting liabilities; such assets do not include intangibles such as goodwill and rights to patents or royalties. For purposes of this definition, “assets” means all existing and all probable future economic benefits obtained or controlled by a particular entity as a result of past transactions.

Termination under § 280.97(b)(1) and § 280.97(b)(2) means only those changes that could result in a gap in coverage as where the insured has not obtained substitute coverage or has obtained substitute coverage with a different retroactive date than the retroactive date of the original policy.

[53 FR 43370, Oct. 26, 1988, as amended at 54 FR 47081, Nov. 9, 1989; 58 FR 9050, Feb. 18, 1993]

§ 280.93 Amount and scope of required financial responsibility.

(a) Owners or operators of petroleum underground storage tanks must demonstrate financial responsibility for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of petroleum underground storage tanks in at least the following per-occurrence amounts:

(1) For owners or operators of petroleum underground storage tanks that are located at petroleum marketing facilities, or that handle an average of more than 10,000 gallons of petroleum per month based on annual throughput for the previous calendar year; \$1 million.

(2) For all other owners or operators of petroleum underground storage tanks; \$500,000.

(b) Owners or operators of petroleum underground storage tanks must demonstrate financial responsibility for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of petroleum underground storage tanks in at least the following annual aggregate amounts:

(1) For owners or operators of 1 to 100 petroleum underground storage tanks, \$1 million; and

(2) For owners or operators of 101 or more petroleum underground storage tanks, \$2 million.

(c) For the purposes of paragraphs (b) and (f) of this section, only, “a petroleum underground storage tank” means a single containment unit and does not mean combinations of single containment units.

(d) Except as provided in paragraph (e) of this section, if the owner or operator uses separate mechanisms or separate combinations of mechanisms to demonstrate financial responsibility for:

(1) Taking corrective action;

(2) Compensating third parties for bodily injury and property damage caused by sudden accidental releases; or

(3) Compensating third parties for bodily injury and property damage caused by nonsudden accidental releases, the amount of assurance provided by each mechanism or combination of mechanisms must be in the full amount specified in paragraphs (a) and (b) of this section.

(e) If an owner or operator uses separate mechanisms or separate combinations of mechanisms to demonstrate financial responsibility for different petroleum underground storage tanks, the annual aggregate required shall be based on the number of tanks covered by each such separate mechanism or combination of mechanisms.

(f) Owners or operators shall review the amount of aggregate assurance provided whenever additional petroleum underground storage tanks are ac-

§ 280.94

quired or installed. If the number of petroleum underground storage tanks for which assurance must be provided exceeds 100, the owner or operator shall demonstrate financial responsibility in the amount of at least \$2 million of annual aggregate assurance by the anniversary of the date on which the mechanism demonstrating financial responsibility became effective. If assurance is being demonstrated by a combination of mechanisms, the owner or operator shall demonstrate financial responsibility in the amount of at least \$2 million of annual aggregate assurance by the first-occurring effective date anniversary of any one of the mechanisms combined (other than a financial test or guarantee) to provide assurance.

(g) The amounts of assurance required under this section exclude legal defense costs.

(h) The required per-occurrence and annual aggregate coverage amounts do not in any way limit the liability of the owner or operator.

§ 280.94 Allowable mechanisms and combinations of mechanisms.

(a) Subject to the limitations of paragraphs (b) and (c) of this section,

(1) An owner or operator, including a local government owner or operator, may use any one or combination of the mechanisms listed in §§ 280.95 through 280.103 to demonstrate financial responsibility under this subpart for one or more underground storage tanks, and

(2) A local government owner or operator may use any one or combination of the mechanisms listed in §§ 280.104 through 280.107 to demonstrate financial responsibility under this subpart for one or more underground storage tanks.

(b) An owner or operator may use a guarantee under § 280.96 or surety bond under § 280.98 to establish financial responsibility only if the Attorney(s) General of the state(s) in which the underground storage tanks are located has (have) submitted a written statement to the implementing agency that a guarantee or surety bond executed as described in this section is a legally valid and enforceable obligation in that state.

(c) An owner or operator may use self-insurance in combination with a guarantee only if, for the purpose of meeting the requirements of the financial test under this rule, the financial statements of the owner or operator are not consolidated with the financial statements of the guarantor.

[53 FR 43370, Oct. 26, 1988, as amended at 58 FR 9051, Feb. 18, 1993]

§ 280.95 Financial test of self-insurance.

(a) An owner or operator, and/or guarantor, may satisfy the requirements of § 280.93 by passing a financial test as specified in this section. To pass

the financial test of self-insurance, the owner or operator, and/or guarantor must meet the criteria of paragraph (b) or (c) of this section based on year-end financial statements for the latest completed fiscal year.

(b)(1) The owner or operator, and/or guarantor, must have a tangible net worth of at least ten times:

(i) The total of the applicable aggregate amount required by § 280.93, based on the number of underground storage tanks for which a financial test is used to demonstrate financial responsibility to EPA under this section or to a state implementing agency under a state program approved by EPA under 40 CFR part 281;

(ii) The sum of the corrective action cost estimates, the current closure and post-closure care cost estimates, and amount of liability coverage for which a financial test is used to demonstrate financial responsibility to EPA under 40 CFR 264.101, 264.143, 264.145, 265.143, 165.145, 264.147, and 265.147 or to a state implementing agency under a state program authorized by EPA under 40 CFR part 271; and

(iii) The sum of current plugging and abandonment cost estimates for which a financial test is used to demonstrate financial responsibility to EPA under 40 CFR 144.63 or to a state implementing agency under a state program authorized by EPA under 40 CFR part 145.

(2) The owner or operator, and/or guarantor, must have a tangible net worth of at least \$10 million.

(3) The owner or operator, and/or guarantor, must have a letter signed by the chief financial officer worded as specified in paragraph (d) of this section.

(4) The owner or operator, and/or guarantor, must either:

(i) File financial statements annually with the U.S. Securities and Exchange Commission, the Energy Information Administration, or the Rural Electrification Administration; or

(ii) Report annually the firm's tangible net worth to Dun and Bradstreet, and Dun and Bradstreet must have assigned the firm a financial strength rating of 4A or 5A.

(5) The firm's year-end financial statements, if independently audited, cannot include an adverse auditor's opinion, a disclaimer of opinion, or a "going concern" qualification.

(c)(1) The owner or operator, and/or guarantor must meet the financial test requirements of 40 CFR 264.147(f)(1), substituting the appropriate amounts specified in § 280.93 (b)(1) and (b)(2) for the "amount of liability coverage" each time specified in that section.

(2) The fiscal year-end financial statements of the owner or operator, and/or guarantor, must be

§ 280.95

examined by an independent certified public accountant and be accompanied by the accountant's report of the examination.

(3) The firm's year-end financial statements cannot include an adverse auditor's opinion, a disclaimer of opinion, or a "going concern" qualification.

(4) The owner or operator, and/or guarantor, must have a letter signed by the chief financial officer, worded as specified in paragraph (d) of this section.

(5) If the financial statements of the owner or operator, and/or guarantor, are not submitted annually to the U.S. Securities and Exchange Commission, the Energy Information Administration or the Rural Electrification Administration, the owner or operator, and/or guarantor, must obtain a special report by an independent certified public accountant stating that:

(i) He has compared the data that the letter form the chief financial officer specifies as having been derived from the latest year-end financial statements of the owner or operator, and/or guarantor, with the amounts in such financial statements; and

(ii) In connection with that comparison, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(d) To demonstrate that it meets the financial test under paragraph (b) or (c) of this section, the chief financial officer of the owner or operator, or guarantor, must sign, within 120 days of the close of each financial reporting year, as defined by the twelve-month period for which financial statements used to support the financial test are prepared, a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

LETTER FROM CHIEF FINANCIAL OFFICER

I am the chief financial officer of [insert: name and address of the owner or operator, or guarantor]. This letter is in support of the use of [insert: "the financial test of self-insurance," and/or "guarantee"] to demonstrate financial responsibility for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage"] caused by [insert: "sudden accidental releases" and/or "nonsudden accidental releases"] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating (an) underground storage tank(s).

Underground storage tanks at the following facilities are assured by this financial test or a financial test under an authorized State program by this [insert: "owner or operator," and/or "guarantor"]: [List for each facility: the name and address of the facility where tanks assured by this financial test are located, and whether tanks are assured by this financial test or a financial test under a State program approved under 40 CFR part 281. If separate mechanisms or combinations of mechanisms are being used to assure any of the tanks at this facility, list

each tank assured by this financial test or a financial test under a State program authorized under 40 CFR part 281 by the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22 or the corresponding State requirements.]

A [insert: "financial test," and/or "guarantee"] is also used by this [insert: "owner or operator," or "guarantor"] to demonstrate evidence of financial responsibility in the following amounts under other EPA regulations or state programs authorized by EPA under 40 CFR parts 271 and 145:

| <i>EPA Regulations</i> | <i>Amount</i> |
|---|---------------|
| Closure (§§ 264.143 and 265.143) | \$ _____ |
| Post-Closure Care (§§ 264.145 and 265.145) | \$ _____ |
| Liability Coverage (§§ 264.147 and 265.147) | \$ _____ |
| Corrective Action (§§ 264.101(b)) | \$ _____ |
| Plugging and Abandonment (§ 144.63) ... | \$ _____ |
| Closure | \$ _____ |
| Post-Closure Care | \$ _____ |
| Liability Coverage | \$ _____ |
| Corrective Action | \$ _____ |
| Plugging and Abandonment | \$ _____ |
| Total | \$ _____ |

This [insert: "owner or operator," or "guarantor"] has not received an adverse opinion, a disclaimer of opinion, or a "going concern" qualification from an independent auditor on his financial statements for the latest completed fiscal year.

[Fill in the information for Alternative I if the criteria of paragraph (b) of § 280.95 are being used to demonstrate compliance with the financial test requirements. Fill in the information for Alternative II if the criteria of paragraph (c) of § 280.95 are being used to demonstrate compliance with the financial test requirements.]

Alternative I

1. Amount of annual UST aggregate coverage being assured by a financial test, and/or guarantee
2. Amount of corrective action, closure and post-closure care costs, liability coverage, and plugging and abandonment costs covered by a financial test, and/or guarantee
3. Sum of lines 1 and 2
4. Total tangible assets
5. Total liabilities [if any of the amount reported on line 3 is included in total liabilities, you may deduct that amount from this line and add that amount to line 6]
6. Tangible net worth [subtract line 5 from line 4]
7. Is line 6 at least \$10 million?
8. Is line 6 at least 10 times line 3?

§ 280.96

Alternative I—Continued

- 9. Have financial statements for the latest fiscal year been filed with the Securities and Exchange Commission? _____
- 10. Have financial statements for the latest fiscal year been filed with the Energy Information Administration? _____
- 11. Have financial statements for the latest fiscal year been filed with the Rural Electrification Administration? _____
- 12. Has financial information been provided to Dun and Bradstreet, and has Dun and Bradstreet provided a financial strength rating of 4A or 5A? [Answer "Yes" only if both criteria have been met.] _____

Alternative II

- 1. Amount of annual UST aggregate coverage being assured by a test, and/or guarantee \$ _____
- 2. Amount of corrective action, closure and post-closure care costs, liability coverage, and plugging and abandonment costs covered by a financial test, and/or guarantee \$ _____
- 3. Sum of lines 1 and 2 \$ _____
- 4. Total tangible assets \$ _____
- 5. Total liabilities [if any of the amount reported on line 3 is included in total liabilities, you may deduct that amount from this line and add that amount to line 6] \$ _____
- 6. Tangible net worth [subtract line 5 from line 4] \$ _____
- 7. Total assets in the U.S. [required only if less than 90 percent of assets are located in the U.S.] \$ _____
- 8. Is line 6 at least \$10 million? Yes No \$ _____
- 9. Is line 6 at least 6 times line 3? _____
- 10. Are at least 90 percent of assets located in the U.S.? [If "No," complete line 11.] _____
- 11. Is line 7 at least 6 times line 3? [Fill in either lines 12–15 or lines 16–18:] _____
- 12. Current assets \$ _____
- 13. Current liabilities _____
- 14. Net working capital [subtract line 13 from line 12] _____
- 15. Is line 14 at least 6 times line 3? Yes No _____
- 16. Current bond rating of most recent bond issue _____
- 17. Name of rating service _____
- 18. Date of maturity of bond _____

Alternative I—Continued

- 19. Have financial statements for the latest fiscal year been filed with the SEC, the Energy Information Administration, or the Rural Electrification Administration? _____

[If "No," please attach a report from an independent certified public accountant certifying that there are no material differences between the data as reported in lines 4–18 above and the financial statements for the latest fiscal year.]

[For both Alternative I and Alternative II complete the certification with this statement.]

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR part 280.95(d) as such regulations were constituted on the date shown immediately below.

[Signature]
[Name]
[Title]
[Date]

(c) If an owner or operator using the test to provide financial assurance finds that he or she no longer meets the requirements of the financial test based on the year-end financial statements, the owner or operator must obtain alternative coverage within 150 days of the end of the year for which financial statements have been prepared.

(f) The Director of the implementing agency may require reports of financial condition at any time from the owner or operator, and/or guarantor. If the Director finds, on the basis of such reports or other information, that the owner or operator, and/or guarantor, no longer meets the financial test requirements of § 280.95(b) or (c) and (d), the owner or operator must obtain alternate coverage within 30 days after notification of such a finding.

(g) If the owner or operator fails to obtain alternate assurance within 150 days of finding that he or she no longer meets the requirements of the financial test based on the year-end financial statements, or within 30 days of notification by the Director of the implementing agency that he or she no longer meets the requirements of the financial test, the owner or operator must notify the Director of such failure within 10 days.

§ 280.96 Guarantee.

(a) An owner or operator may satisfy the requirements of § 280.93 by obtaining a guarantee that conforms to the requirements of this section. The guarantor must be:

- (1) A firm that (i) possesses a controlling interest in the owner or operator; (ii) possesses a controlling interest in a firm described under paragraph (a)(1)(i) of this section; or, (iii) is controlled through stock ownership by a common parent firm

§ 280.96

that possesses a controlling interest in the owner or operator; or,

(2) A firm engaged in a substantial business relationship with the owner or operator and issuing the guarantee as an act incident to that business relationship.

(b) Within 120 days of the close of each financial reporting year the guarantor must demonstrate that it meets the financial test criteria of § 280.95 based on year-end financial statements for the latest completed financial reporting year by completing the letter from the chief financial officer described in § 280.95(d) and must deliver the letter to the owner or operator. If the guarantor fails to meet the requirements of the financial test at the end of any financial reporting year, within 120 days of the end of that financial reporting year the guarantor shall send by certified mail, before cancellation or nonrenewal of the guarantee, notice to the owner or operator. If the Director of the implementing agency notifies the guarantor that he no longer meets the requirements of the financial test of § 280.95 (b) or (c) and (d), the guarantor must notify the owner or operator within 10 days of receiving such notification from the Director. In both cases, the guarantee will terminate no less than 120 days after the date the owner or operator receives the notification, as evidenced by the return receipt. The owner or operator must obtain alternative coverage as specified in § 280.110(c).

(c) The guarantee must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

GUARANTEE

Guarantee made this [date] by [name of guaranteeing entity], a business entity organized under the laws of the state of [name of state], herein referred to as guarantor, to [the state implementing agency] and to any and all third parties, and obligees, on behalf of [owner or operator] of [business address].

Recitals.

(1) Guarantor meets or exceeds the financial test criteria of 40 CFR 280.95 (b) or (c) and (d) and agrees to comply with the requirements for guarantors as specified in 40 CFR 280.96(b).

(2) [Owner or operator] owns or operates the following underground storage tank(s) covered by this guarantee: [List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22 or the corresponding state requirement, and the name and address of the facility.] This guarantee satisfies 40 CFR part 280, subpart H requirements for assuring funding for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental

leases" or "nonsudden accidental releases" or "accidental releases"; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the above-identified underground storage tank(s) in the amount of [insert dollar amount] per occurrence and [insert dollar amount] annual aggregate.

(3) [Insert appropriate phrase: "On behalf of our subsidiary" (if guarantor is corporate parent of the owner or operator); "On behalf of our affiliate" (if guarantor is a related firm of the owner or operator); "incident to our business relationship with" (if guarantor is providing the guarantee as an incident to a substantial business relationship with owner or operator)] [owner or operator], guarantor guarantees to [implementing agency] and to any and all third parties that:

In the event that [owner or operator] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the [Director of the implementing agency] has determined or suspects that a release has occurred at an underground storage tank covered by this guarantee, the guarantor, upon instructions from the [Director], shall fund a standby trust fund in accordance with the provisions of 40 CFR 280.108, in an amount not to exceed the coverage limits specified above.

In the event that the [Director] determines that [owner or operator] has failed to perform corrective action for releases arising out of the operation of the above-identified tank(s) in accordance with 40 CFR part 280, subpart F, the guarantor upon written instructions from the [Director] shall fund a standby trust in accordance with the provisions of 40 CFR 280.108, in an amount not to exceed the coverage limits specified above.

If [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor, upon written instructions from the [Director], shall fund a standby trust in accordance with the provisions of 40 CFR 280.108 to satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage specified above.

(4) Guarantor agrees that if, at the end of any fiscal year before cancellation of this guarantee, the guarantor fails to meet the financial test criteria of 40 CFR 280.95 (b) or (c) and (d), guarantor shall send within 120 days of such failure, by certified mail, notice to [owner or operator]. The guarantee will terminate 120 days from the date of receipt of the notice by [owner or operator], as evidenced by the return receipt.

(5) Guarantor agrees to notify [owner or operator] by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code naming guarantor as debtor, within 10 days after commencement of the proceeding.

(6) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [owner or operator] pursuant to 40 CFR part 280.

(7) Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable financial responsibility requirements of 40 CFR part 280, subpart H for the above-identified

§ 280.97

tank(s), except that guarantor may cancel this guarantee by sending notice by certified mail to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator], as evidenced by the return receipt.

(8) The guarantor's obligation does not apply to any of the following:

- (a) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;
(b) Bodily injury to an employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator];
(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;
(d) Property damage to any property owned, rented, loaded to, in the care, custody, or control of, or occupied by [insert owner or operator] that is not the direct result of a release from a petroleum underground storage tank;
(e) Bodily damage or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

(9) Guarantor expressly waives notice of acceptance of this guarantee by [the implementing agency], by any or all third parties, or by [owner or operator].

I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR 280.96(c) as such regulations were constituted on the effective date shown immediately below.

Effective date: _____
[Name of guarantor]
[Authorized signature for guarantor]
[Name of person signing]
[Title of person signing]
Signature of witness or notary: _____

(d) An owner or operator who uses a guarantee to satisfy the requirements of § 280.93 must establish a standby trust fund when the guarantee is obtained. Under the terms of the guarantee, all amounts paid by the guarantor under the guarantee will be deposited directly into the standby trust fund in accordance with instructions from the Director of the implementing agency under § 280.108. This standby trust fund must meet the requirements specified in § 280.103.

§ 280.97 Insurance and risk retention group coverage.

(a) An owner or operator may satisfy the requirements of § 290.93 by obtaining liability insurance that conforms to the requirements of this section from a qualified insurer or risk retention group. Such insurance may be in the form of a separate insurance policy or an endorsement to an existing insurance policy.

(b) Each insurance policy must be amended by an endorsement worded as specified in paragraph (b)(1) of this section, or evidenced by a certificate of insurance worded as specified in paragraph

(b)(2) of this section, except that instructions in brackets must be replaced with the relevant information and the brackets deleted:

(1) Endorsement

Name: [name of each covered location]
Address: [address of each covered location]
Policy Number:
Period of Coverage: [current policy period]
Name of [Insurer or Risk Retention Group]:
Address of [Insurer or Risk Retention Group]:
Name of Insured:
Address of Insured:

ENDORSEMENT:

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering the following underground storage tanks:

[List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility.]

for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"; in accordance with and subject to the limits of liability, exclusions, conditions, and other terms of the policy; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the underground storage tank(s) identified above.

The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's or Group's liability; if the amount of coverage is different for different types of coverage or for different underground storage tanks or locations, indicate the amount of coverage for each type of coverage and/or for each underground storage tank or location], exclusive of legal defense costs, which are subject to a separate limit under the policy. This coverage is provided under [policy number]. The effective date of said policy is [date].

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions inconsistent with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e);

§ 280.97

a. Bankruptcy or insolvency of the insured shall not relieve the ["Insurer" or "Group"] of its obligations under the policy to which this endorsement is attached.

b. The ["Insurer" or "Group"] is liable for the payment of amounts within any deductible applicable to the policy to the provider of corrective action or a damaged third-party, with a right of reimbursement by the insured for any such payment made by the ["Insurer" or "Group"]. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated under another mechanism or combination of mechanisms as specified in 40 CFR 280.95-280.102.

c. Whenever requested by [a Director of an implementing agency], the ["Insurer" or "Group"] agrees to furnish to [the Director] a signed duplicate original of the policy and all endorsements.

d. Cancellation or any other termination of the insurance by the ["Insurer" or "Group"], except for non-payment of premium or misrepresentation by the insured, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the insured. Cancellation for non-payment of premium or misrepresentation by the insured will be effective only upon written notice and only after expiration of a minimum of 10 days after a copy of such written notice is received by the insured.

[Insert for claims-made policies:

e. The insurance covers claims otherwise covered by the policy that are reported to the ["Insurer" or "Group"] within six months of the effective date of cancellation or non-renewal of the policy except where the new or renewed policy has the same retroactive date or a retroactive date earlier than that of the prior policy, and which arise out of any covered occurrence that commenced after the policy retroactive date, if applicable, and prior to such policy renewal or termination date. Claims reported during such extended reporting period are subject to the terms, conditions, limits, including limits of liability, and exclusions of the policy.]

I hereby certify that the wording of this instrument is identical to the wording in 40 CFR 280.97(b)(1) and that the ["Insurer" or "Group"] is ["licensed to transact the business of insurance or eligible to provide insurance as an excess or surplus lines insurer in one or more states"]. [Signature of authorized representative of Insurer or Risk Retention Group]

[Name of person signing]

[Title of person signing], Authorized Representative of [name of Insurer or Risk Retention Group]

[Address of Representative]

(2) Certificate of Insurance

Name: [name of each covered location]

Address: [address of each covered location]

Policy Number: _____

Endorsement (if applicable): _____

Period of Coverage: [current policy period]

Name of [Insurer or Risk Retention Group]: _____

Address of [Insurer or Risk Retention Group]: _____

Name of Insured: _____

Address of Insured: _____

Certification:

1. [Name of Insurer or Risk Retention Group], [the "Insurer" or "Group"], as identified above, hereby certifies that it has issued liability insurance covering the following underground storage tank(s):

[List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility.]

for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"; in accordance with and subject to the limits of liability, exclusions, conditions, and other terms of the policy; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the underground storage tank(s) identified above.

The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's or Group's liability; if the amount of coverage is different for different types of coverage or for different underground storage tanks or locations, indicate the amount of coverage for each type of coverage and/or for each underground storage tank or location], exclusive of legal defense costs, which are subject to a separate limit under the policy. This coverage is provided under [policy number]. The effective date of said policy is [date].

2. The ["Insurer" or "Group"] further certifies the following with respect to the insurance described in Paragraph 1:

a. Bankruptcy or insolvency of the insured shall not relieve the ["Insurer" or "Group"] of its obligations under the policy to which this certificate applies.

b. The ["Insurer" or "Group"] is liable for the payment of amounts within any deductible applicable to the policy to the provider of corrective action or a damaged third-party, with a right of reimbursement by the insured for any such payment made by the ["Insurer" or "Group"]. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated under another mechanism or combination of mechanisms as specified in 40 CFR 280.95-280.102.

c. Whenever requested by [a Director of an implementing agency], the ["Insurer" or "Group"] agrees to furnish to [the Director] a signed duplicate original of the policy and all endorsements.

d. Cancellation or any other termination of the insurance by the ["Insurer" or "Group"], except for non-payment of premium or misrepresentation by the insured, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the insured. Cancellation for non-payment

§ 280.98

of premium or misrepresentation by the insured will be effective only upon written notice and only after expiration of a minimum of 10 days after a copy of such written notice is received by the insured.

[Insert for claims-made policies:

e. The insurance covers claims otherwise covered by the policy that are reported to the ["Insurer" or "Group"] within six months of the effective date of cancellation or non-renewal of the policy except where the new or renewed policy has the same retroactive date or a retroactive date earlier than that of the prior policy, and which arise out of any covered occurrence that commenced after the policy retroactive date, if applicable, and prior to such policy renewal or termination date. Claims reported during such extended reporting period are subject to the terms, conditions, limits, including limits of liability, and exclusions of the policy.]

I hereby certify that the wording of this instrument is identical to the wording in 40 CFR 280.97(b)(2) and that the ["Insurer" or "Group"] is ["licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states"].

[Signature of authorized representative of Insurer]
[Type name]
[Title], Authorized Representative of [name of Insurer or Risk Retention Group]
[Address of Representative]

(c) Each insurance policy must be issued by an insurer or a risk retention group that, at a minimum, is licensed to transact the business of insurance or eligible to provide insurance as an excess or surplus lines insurer in one or more states.

[53 FR 43370, Oct. 26, 1988, as amended at 54 FR 47081, Nov. 9, 1989]

§ 280.98 Surety bond.

(a) An owner or operator may satisfy the requirements of § 280.93 by obtaining a surety bond that conforms to the requirements of this section. The surety company issuing the bond must be among those listed as acceptable sureties on federal bonds in the latest Circular 570 of the U.S. Department of the Treasury.

(b) The surety bond must be worded as follows, except that instructions in brackets must be replaced with the relevant information and the brackets deleted:

PERFORMANCE BOND

Date bond executed: _____
Period of coverage: _____
Principal: [legal name and business address of owner or operator]

Type of organization: [insert "individual," "joint venture," "partnership," or "corporation"]

State of incorporation (if applicable): _____

Surety(ies): [name(s) and business address(es)]

Scope of Coverage: [List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility. List the coverage guaranteed by the bond: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases" "arising from operating the underground storage tank"].

Penal sums of bond: _____
Per occurrence \$ _____
Annual aggregate \$ _____
Surety's bond number: _____

Know All Persons by These Presents, that we, the Principal and Surety(ies), hereto are firmly bound to [the implementing agency], in the above penal sums for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sums jointly and severally only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sums only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sums.

Whereas said Principal is required under Subtitle I of the Resource Conservation and Recovery Act (RCRA), as amended, to provide financial assurance for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the underground storage tanks identified above, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, therefore, the conditions of the obligation are such that if the Principal shall faithfully ["take corrective action, in accordance with 40 CFR part 280, subpart F and the Director of the state implementing agency's instructions for," and/or "compensate injured third parties for bodily injury and property damage caused by" either "sudden" or "nonsudden" or "sudden and nonsudden"] accidental releases arising from operating the tank(s) identified above, or if the Principal shall provide alternate financial assurance, as specified in 40 CFR part 280, subpart H, within 120 days after the date the notice of cancellation is received by the Principal from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

Such obligation does not apply to any of the following:

(a) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

§ 280.99

(b) Bodily injury to an employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by [the Director of the implementing agency] that the Principal has failed to ["take corrective action, in accordance with 40 CFR part 280, subpart F and the Director's instructions," and/or "compensate injured third parties"] as guaranteed by this bond, the Surety(ies) shall either perform ["corrective action in accordance with 40 CFR part 280 and the Director's instructions," and/or "third-party liability compensation"] or place funds in an amount up to the annual aggregate penal sum into the standby trust fund as directed by [the Regional Administrator or the Director] under 40 CFR 280.108.

Upon notification by [the Director] that the Principal has failed to provide alternate financial assurance within 60 days after the date the notice of cancellation is received by the Principal from the Surety(ies) and that [the Director] has determined or suspects that a release has occurred, the Surety(ies) shall place funds in an amount not exceeding the annual aggregate penal sum into the standby trust fund as directed by [the Director] under 40 CFR 280.108.

The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules, and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the annual aggregate to the penal sum shown on the face of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal, as evidenced by the return receipt.

The Principal may terminate this bond by sending written notice to the Surety(ies).

In Witness Whereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in 40 CFR 280.98(b) as such regulations were constituted on the date this bond was executed.

Principal

[Signature(s)]
[Names(s)]
[Title(s)]
[Corporate seal]

Corporate Surety(ies)

[Name and address]
[State of Incorporation: _____]
[Liability limit: \$ _____]
[Signature(s)]
[Names(s) and title(s)]
[Corporate seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium: \$ _____

(c) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. In all cases, the surety's liability is limited to the per-occurrence and annual aggregate penal sums.

(d) The owner or operator who uses a surety bond to satisfy the requirements of § 280.93 must establish a standby trust fund when the surety bond is acquired. Under the terms of the bond, all amounts paid by the surety under the bond will be deposited directly into the standby trust fund in accordance with instructions from the Director under § 280.108. This standby trust fund must meet the requirements specified in § 280.103.

§ 280.99 Letter of credit.

(a) An owner or operator may satisfy the requirements of § 280.93 by obtaining an irrevocable standby letter of credit that conforms to the requirements of this section. The issuing institution must be an entity that has the authority to issue letters of credit in each state where used and whose letter-of-credit operations are regulated and examined by a federal or state agency.

(b) The letter of credit must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

IRREVOCABLE STANDBY LETTER OF CREDIT

[Name and address of issuing institution]
[Name and address of Director(s) of state implementing agency(ies)]

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No. _____ in your favor, at the request and for the account of [owner or operator name] of [address] up to the aggregate amount of [in words] U.S. dollars (\$[insert dollar amount]), available upon presentation [insert, if more than one Director of a state implementing agency is a beneficiary, "by any one of you"] of

(1) your sight draft, bearing reference to this letter of credit, No. _____, and

§ 280.100

(2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of Subtitle I of the Resource Conservation and Recovery Act of 1976, as amended."

This letter of credit may be drawn on to cover [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"] arising from operating the underground storage tank(s) identified below in the amount of [in words] \$[insert dollar amount] per occurrence and [in words] \$[insert dollar amount] annual aggregate:

[List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility.]

The letter of credit may not be drawn on to cover any of the following:

(a) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

This letter of credit is effective as of [date] and shall expire on [date], but such expiration date shall be automatically extended for a period of [at least the length of the original term] on [expiration date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify [owner or operator] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event that [owner or operator] is so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by [owner or operator], as shown on the signed return receipt.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [owner or operator] in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in 40 CFR 280.99(b) as

such regulations were constituted on the date shown immediately below.

[Signature(s) and title(s) of official(s) of issuing institution]

[Date]

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code"].

(c) An owner or operator who uses a letter of credit to satisfy the requirements of § 280.93 must also establish a standby trust fund when the letter of credit is acquired. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Director of the implementing agency will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Director under § 280.108. This standby trust fund must meet the requirements specified in § 280.103.

(d) The letter of credit must be irrevocable with a term specified by the issuing institution. The letter of credit must provide that credit be automatically renewed for the same term as the original term, unless, at least 120 days before the current expiration date, the issuing institution notifies the owner or operator by certified mail of its decision not to renew the letter of credit. Under the terms of the letter of credit, the 120 days will begin on the date when the owner or operator receives the notice, as evidenced by the return receipt.

[53 FR 37194, Sept. 23, 1988, as amended at 59 FR 29960, June 10, 1994]

§ 280.100 Use of state-required mechanism.

(a) For underground storage tanks located in a state that does not have an approved program, and where the state requires owners or operators of underground storage tanks to demonstrate financial responsibility for taking corrective action and/or for compensating third parties for bodily injury and property damage, an owner or operator may use a state-required financial mechanism to meet the requirements of § 280.93 if the Regional Administrator determines that the state mechanism is at least equivalent to the financial mechanisms specified in this subpart.

(b) The Regional Administrator will evaluate the equivalency of a state-required mechanism principally in terms of: certainty of the availability of funds for taking corrective action and/or for compensating third parties; the amount of funds that will be made available; and the types of costs covered. The Regional Administrator may also consider other factors as is necessary.

(c) The state, an owner or operator, or any other interested party may submit to the Regional Ad-

§ 280.102

ministrator a written petition requesting that one or more of the state-required mechanisms be considered acceptable for meeting the requirements of § 280.93. The submission must include copies of the appropriate state statutory and regulatory requirements and must show the amount of funds for corrective action and/or for compensating third parties assured by the mechanism(s). The Regional Administrator may require the petitioner to submit additional information as is deemed necessary to make this determination.

(d) Any petition under this section may be submitted on behalf of all of the state's underground storage tank owners and operators.

(e) The Regional Administrator will notify the petitioner of his determination regarding the mechanism's acceptability in lieu of financial mechanisms specified in this subpart. Pending this determination, the owners and operators using such mechanisms will be deemed to be in compliance with the requirements of § 280.93 for underground storage tanks located in the state for the amounts and types of costs covered by such mechanisms.

[53 FR 43370, Oct. 26, 1988; 53 FR 51274, Dec. 21, 1988]

§ 280.101 State fund or other state assurance.

(a) An owner or operator may satisfy the requirements of § 280.93 for underground storage tanks located in a state, where EPA is administering the requirements of this subpart, which assures that monies will be available from a state fund or state assurance program to cover costs up to the limits specified in § 280.93 or otherwise assures that such costs will be paid if the Regional Administrator determines that the state's assurance is at least equivalent to the financial mechanisms specified in this subpart.

(b) The Regional Administrator will evaluate the equivalency of a state fund or other state assurance principally in terms of: Certainty of the availability of funds for taking corrective action and/or for compensating third parties; the amount of funds that will be made available; and the types of costs covered. The Regional Administrator may also consider other factors as is necessary.

(c) The state must submit to the Regional Administrator a description of the state fund or other state assurance to be supplied as financial assurance, along with a list of the classes of underground storage tanks to which the funds may be applied. The Regional Administrator may require the state to submit additional information as is deemed necessary to make a determination regarding the acceptability of the state fund or other state assurance. Pending the determination by the Regional Administrator, the owner or operator of a covered class of USTs will be deemed to be in

compliance with the requirements of § 280.93 for the amounts and types of costs covered by the state fund or other state assurance.

(d) The Regional Administrator will notify the state of his determination regarding the acceptability of the state's fund or other assurance in lieu of financial mechanisms specified in this subpart. Within 60 days after the Regional Administrator notifies a state that a state fund or other state assurance is acceptable, the state must provide to each owner or operator for which it is assuming financial responsibility a letter or certificate describing the nature of the state's assumption of responsibility. The letter or certificate from the state must include, or have attached to it, the following information: the facility's name and address and the amount of funds for corrective action and/or for compensating third parties that is assured by the state. The owner or operator must maintain this letter or certificate on file as proof of financial responsibility in accordance with § 280.107(b)(5).

§ 280.102 Trust fund.

(a) An owner or operator may satisfy the requirements of § 280.93 by establishing a trust fund that conforms to the requirements of this section. The trustee must be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal agency or an agency of the state in which the fund is established.

(b) The wording of the trust agreement must be identical to the wording specified in § 280.103(b)(1), and must be accompanied by a formal certification of acknowledgement as specified in § 280.103(b)(2).

(c) The trust fund, when established, must be funded for the full required amount of coverage, or funded for part of the required amount of coverage and used in combination with other mechanism(s) that provide the remaining required coverage.

(d) If the value of the trust fund is greater than the required amount of coverage, the owner or operator may submit a written request to the Director of the implementing agency for release of the excess.

(e) If other financial assurance as specified in this subpart is substituted for all or part of the trust fund, the owner or operator may submit a written request to the Director of the implementing agency for release of the excess.

(f) Within 60 days after receiving a request from the owner or operator for release of funds as specified in paragraph (d) or (e) of this section, the Director of the implementing agency will instruct the trustee to release to the owner or operator such funds as the Director specifies in writing.

§ 280.103

§ 280.103 Standby trust fund.

(a) An owner or operator using any one of the mechanisms authorized by §§ 280.96, 280.98, or 280.99 must establish a standby trust fund when the mechanism is acquired. The trustee of the standby trust fund must be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal agency or an agency of the state in which the fund is established.

(b)(1) The standby trust agreement, or trust agreement, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

TRUST AGREEMENT

Trust agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator], a [name of state] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert "Incorporated in the state of _____" or "a national bank"], the "Trustee."

Whereas, the United States Environmental Protection Agency, "EPA," an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator of an underground storage tank shall provide assurance that funds will be available when needed for corrective action and third-party compensation for bodily injury and property damage caused by sudden and nonsudden accidental releases arising from the operation of the underground storage tank. The attached Schedule A lists the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located that are covered by the standpoint trust agreement.

[Whereas, the Grantor has elected to establish [insert either "a guarantee," "surety bond," or "letter of credit"] to provide all or part of such financial assurance for the underground storage tanks identified herein and is required to establish a standby trust fund able to accept payments from the instrument (This paragraph is only applicable to the standby trust agreement.);

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee;

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions

As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of the Financial Assurance Mechanism

This Agreement pertains to the [identify the financial assurance mechanism, either a guarantee, surety bond, or letter of credit, from which the standby trust fund is established to receive payments (This paragraph is only applicable to the standby trust agreement.)].

Section 3. Establishment of Fund

The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of [implementing agency]. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. [The Fund is established initially as a standby to receive payments and shall not consist of any property.] Payments made by the provider of financial assurance pursuant to [the Director of the implementing agency's] instruction are transferred to the Trustee and are referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor as provider of financial assurance, any payments necessary to discharge any liability of the Grantor established by [the state implementing agency]

Section 4. Payment for ["Corrective Action" and/or Third-Party Liability Claims"]

The Trustee shall make payments from the Fund as [the Director of the implementing agency] shall direct, in writing, to provide for the payment of the costs of [insert: "taking corrective action" and/or compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"] arising from operating the tanks covered by the financial assurance mechanism identified in this Agreement.

The Fund may not be drawn upon to cover any of the following:

(a) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert owner or operator] arising from, and in the course of employment by [insert owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

The Trustee shall reimburse the Grantor, or other persons as specified by [the Director], from the Fund for corrective action expenditures and/or third-party liability claims in such amounts as [the Director] shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as [the Director] specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund

Payments made to the Trustee for the Fund shall consist of cash and securities acceptable to the Trustee.

Section 6. Trustee Management

The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiaries and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the tanks, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2(a), shall not be acquired or held, unless they are securities or other obligations of the federal or a state government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the federal or state government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment

The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee

Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such

securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the federal or state government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses

All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Advice of Counsel

The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any questions arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 11. Trustee Compensation

The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 12. Successor Trustee

The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in writing sent to the Grantor and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

§ 280.104

Section 13. Instructions to the Trustee

All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Schedule B or such other designees as the Grantor may designate by amendment to Schedule B. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by [the Director of the implementing agency] to the Trustee shall be in writing, signed by [the Director], and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or [the director] hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or [the Director], except as provided for herein.

Section 14. Amendment of Agreement

This Agreement may be amended by an instrument in writing executed by the Grantor and the Trustee, or by the Trustee and [the Director of the implementing agency] if the Grantor ceases to exist.

Section 15. Irrevocability and Termination

Subject to the right of the parties to amend this Agreement as provided in Section 14, this Trust shall be irrevocable and shall continue until terminated at the written direction of the Grantor and the Trustee, or by the Trustee and [the Director of the implementing agency], if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 16. Immunity and Indemnification

The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or [the Director of the implementing agency] issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 17. Choice of Law

This Agreement shall be administered, construed, and enforced according to the laws of the state of [insert name of state], or the Comptroller of the Currency in the case of National Association banks.

Section 18. Interpretation

As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals (if applicable) to be

hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in 40 CFR 280.103(b)(1) as such regulations were constituted on the date written above.

[Signature of Grantor]
[Name of the Grantor]
[Title]

Attest:

[Signature of Trustee]
[Name of the Trustee]
[Title]
[Seal]
[Signature of Witness]
[Name of the Witness]
[Title]
[Seal]

(2) The standby trust agreement, or trust agreement must be accompanied by a formal certification of acknowledgement similar to the following. State requirements may differ on the proper content of this acknowledgment.

State of _____
County of _____

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that she/he signed her/his name thereto by like order.

[Signature of Notary Public]
[Name of Notary Public]

(c) The Director of the implementing agency will instruct the trustee to refund the balance of the standby trust fund to the provider of financial assurance if the Director determines that no additional corrective action costs or third-party liability claims will occur as a result of a release covered by the financial assurance mechanism for which the standby trust fund was established.

(d) An owner or operator may establish one trust fund as the depository mechanism for all funds assured in compliance with this rule.

[53 FR 43370, Oct. 26, 1988; 53 FR 51274, Dec. 21, 1988]

§ 280.104 Local government bond rating test.

(a) A general purpose local government owner or operator and/or local government serving as a guarantor may satisfy the requirements of § 280.93 by having a currently outstanding issue or issues of general obligation bonds of \$1 million or more, excluding refunded obligations, with a Moody's rating of Aaa, Aa, A, or Baa, or a Standard & Poor's rating of AAA, AA, A, or BBB. Where a

§ 280.104

local government has multiple outstanding issues, or where a local government's bonds are rated by both Moody's and Standard and Poor's, the lowest rating must be used to determine eligibility. Bonds that are backed by credit enhancement other than municipal bond insurance may not be considered in determining the amount of applicable bonds outstanding.

(b) A local government owner or operator or local government serving as a guarantor that is not a general-purpose local government and does not have the legal authority to issue general obligation bonds may satisfy the requirements of § 280.93 by having a currently outstanding issue or issues of revenue bonds of \$1 million or more, excluding refunded issues and by also having a Moody's rating of Aaa, A, A, or Baa, or a Standard & Poor's rating of AAA, AA, A, or BBB as the lowest rating for any rated revenue bond issued by the local government. Where bonds are rated by both Moody's and Standard & Poor's, the lower rating for each bond must be used to determine eligibility. Bonds that are backed by credit enhancement may not be considered in determining the amount of applicable bonds outstanding.

(c) The local government owner or operator and/or guarantor must maintain a copy of its bond rating published within the last 12 months by Moody's or Standard & Poor's.

(d) To demonstrate that it meets the local government bond rating test, the chief financial officer of a general purpose local government owner or operator and/or guarantor must sign a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

LETTER FROM CHIEF FINANCIAL OFFICER

I am the chief financial officer of [insert: name and address of local government owner or operator, or guarantor]. This letter is in support of the use of the bond rating test to demonstrate financial responsibility for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage"] caused by [insert: "sudden accidental releases" and/or "nonsudden accidental releases"] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating (an) underground storage tank(s).

Underground storage tanks at the following facilities are assured by this bond rating test: [List for each facility: the name and address of the facility where tanks are assured by the bond rating test].

The details of the issue date, maturity, outstanding amount, bond rating, and bond rating agency of all outstanding bond issues that are being used by [name of local government owner or operator, or guarantor] to demonstrate financial responsibility are as follows: [complete table]

| Issue date | Maturity date | Outstanding amount | Bond rating | Rating agency |
|------------|---------------|--------------------|-------------|--------------------------------|
| | | | | [Moody's or Standard & Poor's] |

The total outstanding obligation of [insert amount], excluding refunded bond issues, exceeds the minimum amount of \$1 million. All outstanding general obligation bonds issued by this government that have been rated by Moody's or Standard & Poor's are rated as at least investment grade (Moody's Baa or Standard & Poor's BBB) based on the most recent ratings published within the last 12 months. Neither rating service has provided notification within the last 12 months of downgrading of bond ratings below investment grade or of withdrawal of bond rating other than for repayment of outstanding bond issues.

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR Part 280.104(d) as such regulations were constituted on the date shown immediately below.

[Date] _____
 [Signature] _____
 [Name] _____
 [Title] _____

(e) To demonstrate that it meets the local government bond rating test, the chief financial officer of local government owner or operator and/or guarantor other than a general purpose government must sign a letter worded exactly as follows, ex-

cept that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

LETTER FROM CHIEF FINANCIAL OFFICER

I am the chief financial officer of [insert: name and address of local government owner or operator, or guarantor]. This letter is in support of the use of the bond rating test to demonstrate financial responsibility for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage"] caused by [insert: "sudden accidental releases" and/or "nonsudden accidental releases"] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating (an) underground storage tank(s). This local government is not organized to provide general governmental services and does not have the legal authority under state law or constitutional provisions to issue general obligation debt.

Underground storage tanks at the following facilities are assured by this bond rating test: [List for each facility: the name and address of the facility where tanks are assured by the bond rating test].

The details of the issue date, maturity, outstanding amount, bond rating, and bond rating agency of all outstanding revenue bond issues that are being used by

§ 280.105

[name of local government owner or operator, or guarantor] to demonstrate financial responsibility are as follows:
[complete table]

| Issue date | Maturity date | Outstanding amount | Bond rating | Rating agency |
|------------|---------------|--------------------|-------------|--------------------------------|
| | | | | [Moody's or Standard & Poor's] |

The total outstanding obligation of [insert amount], excluding refunded bond issues, exceeds the minimum amount of \$1 million. All outstanding revenue bonds issued by this government that have been rated by Moody's or Standard & Poor's are rated as at least investment grade (Moody's Baa or Standard & Poor's BBB) based on the most recent ratings published within the last 12 months. The revenue bonds listed are not backed by third-party credit enhancement or are insured by a municipal bond insurance company. Neither rating service has provided notification within the last 12 months of downgrading of bond ratings below investment grade or of withdrawal of bond rating other than for repayment of outstanding bond issues.

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR part 280.104(e) as such regulations were constituted on the date shown immediately below.

[Date] _____
[Signature] _____
[Name] _____
[Title] _____

(f) The Director of the implementing agency may require reports of financial condition at any time from the local government owner or operator, and/or local government guarantor. If the Director finds, on the basis of such reports or other information, that the local government owner or operator, and/or guarantor, no longer meets the local government bond rating test requirements of § 280.104, the local government owner or operator must obtain alternative coverage within 30 days after notification of such a finding.

(g) If a local government owner or operator using the bond rating test to provide financial assurance finds that it no longer meets the bond rating test requirements, the local government owner or operator must obtain alternative coverage within 150 days of the change in status.

[58 FR 9053, Feb. 18, 1993]

§ 280.105 Local government financial test.

(a) A local government owner or operator may satisfy the requirements of § 280.93 by passing the financial test specified in this section. To be eligible to use the financial test, the local government owner or operator must have the ability and authority to assess and levy taxes or to freely establish fees and charges. To pass the local government financial test, the owner or operator must

meet the criteria of paragraphs (b)(2) and (b)(3) of this section based on year-end financial statements for the latest completed fiscal year.

(b)(1) The local government owner or operator must have the following information available, as shown in the year-end financial statements for the latest completed fiscal year:

(i) *Total revenues*: Consists of the sum of general fund operating and non-operating revenues including net local taxes, licenses and permits, fines and forfeitures, revenues from use of money and property, charges for services, investment earnings, sales (property, publications, etc.), intergovernmental revenues (restricted and unrestricted), and total revenues from all other governmental funds including enterprise, debt service, capital projects, and special revenues, but excluding revenues to funds held in a trust or agency capacity. For purposes of this test, the calculation of total revenues shall exclude all transfers between funds under the direct control of the local government using the financial test (interfund transfers), liquidation of investments, and issuance of debt.

(ii) *Total expenditures*: Consists of the sum of general fund operating and non-operating expenditures including public safety, public utilities, transportation, public works, environmental protection, cultural and recreational, community development, revenue sharing, employee benefits and compensation, office management, planning and zoning, capital projects, interest payments on debt, payments for retirement of debt principal, and total expenditures from all other governmental funds including enterprise, debt service, capital projects, and special revenues. For purposes of this test, the calculation of total expenditures shall exclude all transfers between funds under the direct control of the local government using the financial test (interfund transfers).

(iii) *Local revenues*: Consists of total revenues (as defined in paragraph (b)(1)(i) of this section) minus the sum of all transfers from other governmental entities, including all monies received from Federal, state, or local government sources.

(iv) *Debt service*: Consists of the sum of all interest and principal payments on all long-term credit obligations and all interest-bearing short-term credit obligations. Includes interest and principal payments on general obligation bonds, revenue bonds, notes, mortgages, judgments, and inter-

§ 280.105

cost bearing warrants. Excludes payments on non-interest-bearing short-term obligations, interfund obligations, amounts owed in a trust or agency capacity, and advances and contingent loans from other governments.

(v) *Total funds*: Consists of the sum of cash and investment securities from all funds, including general, enterprise, debt service, capital projects, and special revenue funds, but excluding employee retirement funds, at the end of the local government's financial reporting year. Includes Federal securities, Federal agency securities, state and local government securities, and other securities such as bonds, notes and mortgages. For purposes of this test, the calculation of total funds shall exclude agency funds, private trust funds, accounts receivable, value of real property, and other non-security assets.

(vi) *Population* consists of the number of people in the area served by the local government.

(2) The local government's year-end financial statements, if independently audited, cannot include an adverse auditor's opinion or a disclaimer of opinion. The local government cannot have outstanding issues of general obligation or revenue bonds that are rated as less than investment grade.

(3) The local government owner or operator must have a letter signed by the chief financial officer worded as specified in paragraph (c) of this section.

(c) To demonstrate that it meets the financial test under paragraph (b) of this section, the chief financial officer of the local government owner or operator, must sign, within 120 days of the close of each financial reporting year, as defined by the twelve-month period for which financial statements used to support the financial test are prepared, a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

LETTER FROM CHIEF FINANCIAL OFFICER

I am the chief financial officer of [insert: name and address of the owner or operator]. This letter is in support of the use of the local government financial test to demonstrate financial responsibility for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage"] caused by [insert: "sudden accidental releases" and/or "nonsudden accidental releases"] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating [an] underground storage tank[s].

Underground storage tanks at the following facilities are assured by this financial test [List for each facility: the name and address of the facility where tanks assured by this financial test are located. If separate mechanisms or combinations of mechanisms are being used to assure any of the tanks at this facility, list each tank assured by this financial test by the tank identification number pro-

vided in the notification submitted pursuant to 40 CFR Part 280.22 or the corresponding state requirements.]

This owner or operator has not received an adverse opinion, or a disclaimer of opinion from an independent auditor on its financial statements for the latest completed fiscal year. Any outstanding issues of general obligation or revenue bonds, if rated, have a Moody's rating of Aaa, Aa, A, or Baa or a Standard and Poor's rating of AAA, AA, A, or BBB; if rated by both firms, the bonds have a Moody's rating of Aaa, Aa, A, or Baa and a Standard and Poor's rating of AAA, AA, A, or BBB.

WORKSHEET FOR MUNICIPAL FINANCIAL TEST

Part I: Basic Information

1. Total Revenues

- a. Revenues (dollars) _____
Value of revenues excludes liquidation of investments and issuance of debt. Value includes all general fund operating and non-operating revenues, as well as all revenues from all other governmental funds including enterprise, debt service, capital projects, and special revenues, but excluding revenues to funds held in a trust or agency capacity.
- b. Subtract interfund transfers (dollars) _____
- c. Total Revenues (dollars) _____

2. Total Expenditures

- a. Expenditures (dollars) _____
Value consists of the sum of general fund operating and non-operating expenditures including interest payments on debt, payments for retirement of debt principal, and total expenditures from all other governmental funds including enterprise, debt service, capital projects, and special revenues.
- b. Subtract interfund transfers (dollars) _____
- c. Total Expenditures (dollars) _____

3. Local Revenues

- a. Total Revenues (from 1c) (dollars) _____
- b. Subtract total intergovernmental transfers (dollars) _____
- c. Local Revenues (dollars) _____

4. Debt Service

- a. Interest and fiscal charges (dollars) _____
- b. Add debt retirement (dollars) _____
- c. Total Debt Service (dollars) _____

5. Total Funds (Dollars) _____

(Sum of amounts held as cash and investment securities from all funds, excluding amounts held for employee retirement funds, agency funds, and trust funds)

6. Population (Persons) _____

Part II: Application of Test

7. Total Revenues to Population

- a. Total Revenues (from 1c) _____
- b. Population (from 6) _____
- c. Divide 7a by 7b _____
- d. Subtract 417 _____
- e. Divide by 5,212 _____
- f. Multiply by 4.095 _____

§ 280.106

8. Total Expenses to Population

- a. Total Expenses (from 2c) _____
- b. Population (from 6) _____
- c. Divide 8a by 8b _____
- d. Subtract 524 _____
- e. Divide by 5,401 _____
- f. Multiply by 4.095 _____

9. Local Revenues to Total Revenues

- a. Local Revenues (from 3c) _____
- b. Total Revenues (from 1c) _____
- c. Divide 9a by 9b _____
- d. Subtract .695 _____
- e. Divide by .205 _____
- f. Multiply by 2.840 _____

10. Debt Service to Population

- a. Debt Service (from 4d) _____
- b. Population (from 6) _____
- c. Divide 10a by 10b _____
- d. Subtract 51 _____
- e. Divide by 1,038 _____
- f. Multiply by 1.866 _____

11. Debt Service to Total Revenues

- a. Debt Service (from 4d) _____
- b. Total Revenues (from 1c) _____
- c. Divide 11a by 11b _____
- d. Subtract .068 _____
- e. Divide by .259 _____
- f. Multiply by 3.533 _____

12. Total Revenues to Total Expenses

- a. Total Revenues (from 1c) _____
- b. Total Expenses (from 2c) _____
- c. Divide 12a by 12b _____
- d. Subtract .910 _____
- e. Divide by .899 _____
- f. Multiply by 3.458 _____

13. Funds Balance to Total Revenues

- a. Total Funds (from 5) _____
- b. Total Revenues (from 1c) _____
- c. Divide 13a by 13b _____
- d. Subtract .891 _____
- e. Divide by 9.156 _____
- f. Multiply by 3.270 _____

14. Funds Balance to Total Expenses

- a. Total Funds (from 5) _____
- b. Total Expenses (from 2c) _____
- c. Divide 14a by 14b _____
- d. Subtract .866 _____
- e. Divide by 6.409 _____
- f. Multiply by 3.270 _____

15. Total Funds to Population _____

- a. Total Funds (from 5) _____
- b. Population (from 6) _____
- c. Divide 15a by 15b _____
- d. Subtract 270 _____
- e. Divide by 4,548 _____
- f. Multiply by 1.866 _____

16. Add 7f + 8f + 9f + 10f + 11f + 12f + 13f + 14f + 15f + 4.937 _____

I hereby certify that the financial index shown on line 16 of the worksheet is greater than zero and that the wording of this letter is identical to the wording specified in 40 CFR part 280.105(c) as such regulations were constituted on the date shown immediately below.

[Date]
[Signature]
[Name]
[Title]

(d) If a local government owner or operator using the test to provide financial assurance finds that it no longer meets the requirements of the financial test based on the year-end financial statements, the owner or operator must obtain alternative coverage within 150 days of the end of the year for which financial statements have been prepared.

(e) The Director of the implementing agency may require reports of financial condition at any time from the local government owner or operator. If the Director finds, on the basis of such reports or other information, that the local government owner or operator no longer meets the financial test requirements of § 280.105 (b) and (c), the owner or operator must obtain alternate coverage within 30 days after notification of such a finding.

(f) If the local government owner or operator fails to obtain alternate assurance within 150 days of finding that it no longer meets the requirements of the financial test based on the year-end financial statements or within 30 days of notification by the Director of the implementing agency that it no longer meets the requirements of the financial test, the owner or operator must notify the Director of such failure within 10 days.

[58 FR 9054, Feb. 18, 1993]

§ 280.106 Local government guarantee.

(a) A local government owner or operator may satisfy the requirements of § 280.93 by obtaining a guarantee that conforms to the requirements of this section. The guarantor must be either the state in which the local government owner or operator is located or a local government having a "substantial governmental relationship" with the owner and operator and issuing the guarantee as an act incident to that relationship. A local government acting as the guarantor must:

(1) demonstrate that it meets the bond rating test requirement of § 280.104 and deliver a copy of the chief financial officer's letter as contained in § 280.104(c) to the local government owner or operator; or

(2) demonstrate that it meets the worksheet test requirements of § 280.105 and deliver a copy of the chief financial officer's letter as contained in

§ 280.105(c) to the local government owner or operator; or

(3) demonstrate that it meets the local government fund requirements of § 280.107(a), § 280.107(b), or § 280.107(c) and deliver a copy of the chief financial officer's letter as contained in § 280.107 to the local government owner or operator.

(b) If the local government guarantor is unable to demonstrate financial assurance under any of §§ 280.104, 280.105, 280.107(a), 280.107(b), or 280.107(c), at the end of the financial reporting year, the guarantor shall send by certified mail, before cancellation or non-renewal of the guarantee, notice to the owner or operator. The guarantee will terminate no less than 120 days after the date the owner or operator receives the notification, as evidenced by the return receipt. The owner or operator must obtain alternative coverage as specified in § 280.114(c).

(c) The guarantee agreement must be worded as specified in paragraph (d) or (c) of this section, depending on which of the following alternative guarantee arrangements is selected:

(1) If, in the default or incapacity of the owner or operator, the guarantor guarantees to fund a standby trust as directed by the Director of the implementing agency, the guarantee shall be worded as specified in paragraph (d) of this section.

(2) If, in the default or incapacity of the owner or operator, the guarantor guarantees to make payments as directed by the Director of the implementing agency for taking corrective action or compensating third parties for bodily injury and property damage, the guarantee shall be worded as specified in paragraph (c) of this section.

(d) If the guarantor is a state, the local government guarantee with standby trust must be worded exactly as follows, except that instructions in brackets are to be replaced with relevant information and the brackets deleted:

Local Government Guarantee With Standby Trust Made by a State

Guarantee made this [date] by [name of state], herein referred to as guarantor, to [the state implementing agency] and to any and all third parties, and obliges, on behalf of [local government owner or operator].

Recitals

(1) Guarantor is a state.

(2) [Local government owner or operator] owns or operates the following underground storage tank(s) covered by this guarantee: [List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR part 280 or the corresponding state requirement, and the name and address of the facility.]

This guarantee satisfies 40 CFR part 280, subpart H requirements for assuring funding for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"]; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the above-identified underground storage tank(s) in the amount of [insert dollar amount] per occurrence and [insert dollar amount] annual aggregate.

(3) Guarantor guarantees to [implementing agency] and to any and all third parties that:

In the event that [local government owner or operator] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the [Director of the implementing agency] has determined or suspects that a release has occurred at an underground storage tank covered by this guarantee, the guarantor, upon instructions from the [Director] shall fund a standby trust fund in accordance with the provisions of 40 CFR part 280.112, in an amount not to exceed the coverage limits specified above.

In the event that the [Director] determines that [local government owner or operator] has failed to perform corrective action for releases arising out of the operation of the above-identified tank(s) in accordance with 40 CFR part 280, subpart F, the guarantor upon written instructions from the [Director] shall fund a standby trust fund in accordance with the provisions of 40 CFR part 280.112, in an amount not to exceed the coverage limits specified above.

If [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor, upon written instructions from the [Director], shall fund a standby trust in accordance with the provisions of 40 CFR part 280.112 to satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage specified above.

(4) Guarantor agrees to notify [owner or operator] by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code naming guarantor as debtor, within 10 days after commencement of the proceeding.

(5) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [owner or operator] pursuant to 40 CFR part 280.

(6) Guarantor agrees to remain bound under this guarantee for so long as [local government owner or operator] must comply with the applicable financial responsibility requirements of 40 CFR part 280, subpart H for the above identified tank(s), except that guarantor may cancel this guarantee by sending notice by certified mail to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator], as evidenced by the return receipt.

(7) The guarantor's obligation does not apply to any of the following:

(a) Any obligation of [local government owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

§ 280.106

(b) Bodily injury to an employee of [insert: local government owner or operator] arising from, and in the course of, employment by [insert: local government owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaded to, in the care, custody, or control of, or occupied by [insert: local government owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily damage or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR part 280.93.

(8) Guarantor expressly waives notice of acceptance of this guarantee by [the implementing agency], by any or all third parties, or by [local government owner or operator].

I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR part 280.106(d) as such regulations were constituted on the effective date shown immediately below.

Effective date: _____
[Name of guarantor]
[Authorized signature for guarantor]
[Name of person signing]
[Title of person signing]
Signature of witness or notary:

If the guarantor is a local government, the local government guarantee with standby trust must be worded exactly as follows, except that instructions in brackets are to be replaced with relevant information and the brackets deleted:

LOCAL GOVERNMENT GUARANTEE WITH STANDBY TRUST MADE BY A LOCAL GOVERNMENT

Guarantee made this [date] by [name of guaranteeing entity], a local government organized under the laws of [name of state], herein referred to as guarantor, to [the state implementing agency] and to any and all third parties, and obliges, on behalf of [local government owner or operator].

Recitals

(1) Guarantor meets or exceeds [select one: the local government bond rating test requirements of 40 CFR part 280.104, the local government financial test requirements of 40 CFR part 280.105, or the local government fund under 40 CFR part 280.107(a), 280.107(b), or 280.107(c)].

(2) [Local government owner or operator] owns or operates the following underground storage tank(s) covered by this guarantee: [List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR part 280 or the corresponding state requirement, and the name and address of the facility.] This guarantee satisfies 40 CFR part 280, subpart H re-

quirements for assuring funding for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"]; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the above-identified underground storage tank(s) in the amount of [insert dollar amount] per occurrence and [insert: dollar amount] annual aggregate.

(3) Incident to our substantial governmental relationship with [local government owner or operator], guarantor guarantees to [implementing agency] and to any and all third parties that:

In the event that [local government owner or operator] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the [Director of the implementing agency] has determined or suspects that a release has occurred at an underground storage tank covered by this guarantee, the guarantor, upon instructions from the [Director] shall fund a standby trust fund in accordance with the provisions of 40 CFR part 280.112, in an amount not to exceed the coverage limits specified above.

In the event that the [Director] determines that [local government owner or operator] has failed to perform corrective action for releases arising out of the operation of the above-identified tank(s) in accordance with 40 CFR part 280, subpart F, the guarantor upon written instructions from the [Director] shall fund a standby trust fund in accordance with the provisions of 40 CFR part 280.112, in an amount not to exceed the coverage limits specified above.

If [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor, upon written instructions from the [Director], shall fund a standby trust in accordance with the provisions of 40 CFR part 280.112 to satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage specified above.

(4) Guarantor agrees that, if at the end of any fiscal year before cancellation of this guarantee, the guarantor fails to meet or exceed the requirements of the financial responsibility mechanism specified in paragraph (1), guarantor shall send within 120 days of such failure, by certified mail, notice to [local government owner or operator], as evidenced by the return receipt.

(5) Guarantor agrees to notify [owner or operator] by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code naming guarantor as debtor, within 10 days after commencement of the proceeding.

(6) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [owner or operator] pursuant to 40 CFR part 280.

(7) Guarantor agrees to remain bound under this guarantee for so long as [local government owner or operator] must comply with the applicable financial responsibility requirements of 40 CFR part 280, subpart H for the above identified tank(s), except that guarantor may cancel this guarantee by sending notice by certified mail to [owner

§ 280.106

or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator], as evidenced by the return receipt.

(8) The guarantor's obligation does not apply to any of the following:

(a) Any obligation of [local government owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert: local government owner or operator] arising from, and in the course of, employment by [insert: local government owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert: local government owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily damage or property damage for which [insert: owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR part 280.93.

(9) Guarantor expressly waives notice of acceptance of this guarantee by [the implementing agency], by any or all third parties, or by [local government owner or operator].

I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR part 280.106(d) as such regulations were constituted on the effective date shown immediately below.

Effective date: _____
[Name of guarantor]
[Authorized signature for guarantor]
[Name of person signing]
[Title of person signing]
Signature of witness or notary: _____

(e) If the guarantor is a state, the local government guarantee without standby trust must be worded exactly as follows, except that instructions in brackets are to be replaced with relevant information and the brackets deleted:

Local Government Guarantee Without Standby Trust
Made by a State

Guarantee made this [date] by [name of state], herein referred to as guarantor, to [the state implementing agency] and to any and all third parties, and obliges, on behalf of [local government owner or operator].

Recitals

(1) Guarantor is a state.

(2) [Local government owner or operator] owns or operates the following underground storage tank(s) covered by this guarantee: [List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR part 280 or the corresponding state requirement, and the name and address of the facility.]

This guarantee satisfies 40 CFR part 280, subpart H requirements for assuring funding for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"]; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the above-identified underground storage tank(s) in the amount of [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate.

(3) Guarantor guarantees to [implementing agency] and to any and all third parties and obliges that:

In the event that [local government owner or operator] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the [Director of the implementing agency] has determined or suspects that a release has occurred at an underground storage tank covered by this guarantee, the guarantor, upon written instructions from the [Director] shall make funds available to pay for corrective actions and compensate third parties for bodily injury and property damage in an amount not to exceed the coverage limits specified above.

In the event that the [Director] determines that [local government owner or operator] has failed to perform corrective action for releases arising out of the operation of the above-identified tank(s) in accordance with 40 CFR part 280, subpart F, the guarantor upon written instructions from the [Director] shall make funds available to pay for corrective actions in an amount not to exceed the coverage limits specified above.

If [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor, upon written instructions from the [Director], shall make funds available to compensate third parties for bodily injury and property damage in an amount not to exceed the coverage limits specified above.

(4) Guarantor agrees to notify [owner or operator] by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code naming guarantor as debtor, within 10 days after commencement of the proceeding.

(5) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [owner or operator] pursuant to 40 CFR part 280.

(6) Guarantor agrees to remain bound under this guarantee for so long as [local government owner or operator] must comply with the applicable financial responsibility requirements of 40 CFR part 280, subpart H for the above identified tank(s), except that guarantor may cancel this guarantee by sending notice by certified mail to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator], as evidenced by the return receipt. If notified of a probable release, the guarantor agrees to remain bound to the terms of this guarantee for all charges arising from the release, up to the coverage limits specified above, notwithstanding the cancellation of the guarantee with respect to future releases.

§ 280.106

(7) The guarantor's obligation does not apply to any of the following:

(a) Any obligation of [local government owner or operator] under a workers' compensation disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert local government owner or operator] arising from, and in the course of, employment by [insert: local government owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaded to, in the care, custody, or control of, or occupied by [insert: local government owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily damage or property damage for which [insert: owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR part 280.93.

(8) Guarantor expressly waives notice of acceptance of this guarantee by [the implementing agency], by any or all third parties, or by [local government owner or operator].

I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR part 280.106(e) as such regulations were constituted on the effective date shown immediately below.

Effective date: _____
[Name of guarantor]
[Authorized signature for guarantor]
[Name of person signing]
[Title of person signing]
Signature of witness or notary:

If the guarantor is a local government, the local government guarantee without standby trust must be worded exactly as follows, except that instructions in brackets are to be replaced with relevant information and the brackets deleted:

LOCAL GOVERNMENT GUARANTEE WITHOUT STANDBY TRUST MADE BY A LOCAL GOVERNMENT

Guarantee made this [date] by [name of guaranteeing entity], a local government organized under the laws of [name of state], herein referred to as guarantor, to [the state implementing agency] and to any and all third parties, and obliges, on behalf of [local government owner or operator].

Recitals

(1) Guarantor meets or exceeds [select one: the local government bond rating test requirements of 40 CFR part 280.104, the local government financial test requirements of 40 CFR part 280.105, the local government fund under 40 CFR part 280.107(a), 280.107(b), or 280.107(c).

(2) [Local government owner or operator] owns or operates the following underground storage tank(s) covered by this guarantee: [List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification

number provided in the notification submitted pursuant to 40 CFR part 280 or the corresponding state requirement, and the name and address of the facility.] This guarantee satisfies 40 CFR part 280, subpart H requirements for assuring funding for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the above-identified underground storage tank(s) in the amount of [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate.

(3) Incident to our substantial governmental relationship with [local government owner or operator], guarantor guarantees to [implementing agency] and to any and all third parties and obliges that:

In the event that [local government owner or operator] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the [Director of the implementing agency] has determined or suspects that a release has occurred at an underground storage tank covered by this guarantee, the guarantor, upon written instructions from the [Director] shall make funds available to pay for corrective actions and compensate third parties for bodily injury and property damage in an amount not to exceed the coverage limits specified above.

In the event that the [Director] determines that [local government owner or operator] has failed to perform corrective action for releases arising out of the operation of the above-identified tank(s) in accordance with 40 CFR part 280, subpart F, the guarantor upon written instructions from the [Director] shall make funds available to pay for corrective actions in an amount not to exceed the coverage limits specified above.

If [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor, upon written instructions from the [Director], shall make funds available to compensate third parties for bodily injury and property damage in an amount not to exceed the coverage limits specified above.

(4) Guarantor agrees that if at the end of any fiscal year before cancellation of this guarantee, the guarantor fails to meet or exceed the requirements of the financial responsibility mechanism specified in paragraph (1), guarantor shall send within 120 days of such failure, by certified mail, notice to [local government owner or operator], as evidenced by the return receipt.

(5) Guarantor agrees to notify [owner or operator] by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code naming guarantor as debtor, within 10 days after commencement of the proceeding.

(6) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [owner or operator] pursuant to 40 CFR part 280.

(7) Guarantor agrees to remain bound under this guarantee for so long as [local government owner or operator] must comply with the applicable financial responsibility

§ 280.107

requirements of 40 CFR part 280, subpart H for the above identified tank(s), except that guarantor may cancel this guarantee by sending notice by certified mail to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator], as evidenced by the return receipt. If notified of a probable release, the guarantor agrees to remain bound to the terms of this guarantee for all charges arising from the release, up to the coverage limits specified above, notwithstanding the cancellation of the guarantee with respect to future releases.

(8) The guarantor's obligation does not apply to any of the following:

(a) Any obligation of [local government owner or operator] under a workers' compensation disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert: local government owner or operator] arising from, and in the course of, employment by [insert: local government owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaded to, in the care, custody, or control of, or occupied by [insert: local government owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily damage or property damage for which [insert: owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR part 280.93.

(9) Guarantor expressly waives notice of acceptance of this guarantee by [the implementing agency], by any or all third parties, or by [local government owner or operator].

I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR part 280.106(e) as such regulations were constituted on the effective date shown immediately below.

Effective date: _____

[Name of guarantor]

[Authorized signature for guarantor]

[Name of person signing]

[Title of person signing]

Signature of witness or notary:

[58 FR 9056, Feb. 18, 1993]

§ 280.107 Local government fund.

A local government owner or operator may satisfy the requirements of § 280.93 by establishing a dedicated fund account that conforms to the requirements of this section. Except as specified in paragraph (b), a dedicated fund may not be commingled with other funds or otherwise used in normal operations. A dedicated fund will be considered eligible if it meets one of the following requirements:

(a) The fund is dedicated by state constitutional provision, or local government statute, charter, ordinance, or order to pay for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental

releases arising from the operation of petroleum underground storage tanks and is funded for the full amount of coverage required under § 280.93, or funded for part of the required amount of coverage and used in combination with other mechanism(s) that provide the remaining coverage; or

(b) The fund is dedicated by state constitutional provision, or local government statute, charter, ordinance, or order as a contingency fund for general emergencies, including taking corrective action and compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of petroleum underground storage tanks, and is funded for five times the full amount of coverage required under § 280.93, or funded for part of the required amount of coverage and used in combination with other mechanism(s) that provide the remaining coverage. If the fund is funded for less than five times the amount of coverage required under § 280.93, the amount of financial responsibility demonstrated by the fund may not exceed one-fifth the amount in the fund; or

(c) The fund is dedicated by state constitutional provision, or local government statute, charter, ordinance or order to pay for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of petroleum underground storage tanks. A payment is made to the fund once every year for seven years until the fund is fully-funded. This seven year period is hereafter referred to as the "pay-in-period." The amount of each payment must be determined by this formula:

TF · CF

Y

Where TF is the total required financial assurance for the owner or operator, CF is the current amount in the fund, and Y is the number of years remaining in the pay-in-period, and;

(1) The local government owner or operator has available bonding authority, approved through voter referendum (if such approval is necessary prior to the issuance of bonds), for an amount equal to the difference between the required amount of coverage and the amount held in the dedicated fund. This bonding authority shall be available for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of petroleum underground storage tanks, or

(2) The local government owner or operator has a letter signed by the appropriate state attorney general stating that the use of the bonding author-

§ 280.108

ity will not increase the local government's debt beyond the legal debt ceilings established by the relevant state laws. The letter must also state that prior voter approval is not necessary before use of the bonding authority.

(d) To demonstrate that it meets the requirements of the local government fund, the chief financial officer of the local government owner or operator and/or guarantor must sign a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

LETTER FROM CHIEF FINANCIAL OFFICER

I am the chief financial officer of [insert: name and address of local government owner or operator, or guarantor]. This letter is in support of the use of the local government fund mechanism to demonstrate financial responsibility for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage"] caused by [insert: "sudden accidental releases" and/or "nonsudden accidental releases"] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating (an) underground storage tank(s).

Underground storage tanks at the following facilities are assured by this local government fund mechanism: [List for each facility: the name and address of the facility where tanks are assured by the local government fund].

[Insert: "The local government fund is funded for the full amount of coverage required under § 280.93, or funded for part of the required amount of coverage and used in combination with other mechanism(s) that provide the remaining coverage." or "The local government fund is funded for ten times the full amount of coverage required under § 280.93, or funded for part of the required amount of coverage and used in combination with other mechanisms(s) that provide the remaining coverage," or "A payment is made to the fund once every year for seven years until the fund is fully-funded and [name of local government owner or operator] has available bonding authority, approved through voter referendum, of an amount equal to the difference between the required amount of coverage and the amount held in the dedicated fund" or "A payment is made to the fund once every year for seven years until the fund is fully-funded and I have attached a letter signed by the State Attorney General stating that (1) the use of the bonding authority will not increase the local government's debt beyond the legal debt ceilings established by the relevant state laws and (2) that prior voter approval is not necessary before use of the bonding authority"].

The details of the local government fund are as follows:

Amount in Fund (market value of fund at close of last fiscal year): _____

[If fund balance is incrementally funded as specified in § 280.107(c), insert:

Amount added to fund in the most recently completed fiscal year: _____

Number of years remaining in the pay-in period: _____]

A copy of the state constitutional provision, or local government statute, charter, ordinance or order dedicating the fund is attached.

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 280.107(d) as such regulations were constituted on the date shown immediately below.

[Date]
[Signature]
[Name]
[Title]

[58 FR 9059, Feb. 18, 1993]

§ 280.108 Substitution of financial assurance mechanisms by owner or operator.

(a) An owner or operator may substitute any alternate financial assurance mechanisms as specified in this subpart, provided that at all times he maintains an effective financial assurance mechanism or combination of mechanisms that satisfies the requirements of § 280.93.

(b) After obtaining alternate financial assurance as specified in this subpart, an owner or operator may cancel a financial assurance mechanism by providing notice to the provider of financial assurance.

[53 FR 43370, Oct. 26, 1988. Redesignated at 58 FR 9051, Feb. 18, 1993]

§ 280.109 Cancellation or nonrenewal by a provider of financial assurance.

(a) Except as otherwise provided, a provider of financial assurance may cancel or fail to renew an assurance mechanism by sending a notice of termination by certified mail to the owner or operator.

(1) Termination of a local government guarantee, a guarantee, a surety bond, or a letter of credit may not occur until 120 days after the date on which the owner or operator receives the notice of termination, as evidenced by the return receipt.

(2) Termination of insurance or risk retention coverage, except for non-payment or misrepresentation by the insured, or state-funded assurance may not occur until 60 days after the date on which the owner or operator receives the notice of termination, as evidenced by the return receipt. Termination for non-payment of premium or misrepresentation by the insured may not occur until a minimum of 10 days after the date on which the owner or operator receives the notice of termination, as evidenced by the return receipt.

(b) If a provider of financial responsibility cancels or fails to renew for reasons other than incapacity of the provider as specified in § 280.114, the owner or operator must obtain alternate coverage as specified in this section within 60 days after receipt of the notice of termination. If the owner or operator fails to obtain alternate coverage within 60 days after receipt of the notice of termination, the owner or operator must notify the

§ 280.111

Director of the implementing agency of such failure and submit:

- (1) The name and address of the provider of financial assurance;
- (2) The effective date of termination; and
- (3) The evidence of the financial assistance mechanism subject to the termination maintained in accordance with § 280.107(b).

[58 FR 9051, Feb. 18, 1993]

§ 280.110 Reporting by owner or operator.

(a) An owner or operator must submit the appropriate forms listed in § 280.111(b) documenting current evidence of financial responsibility to the Director of the implementing agency:

(1) Within 30 days after the owner or operator identifies a release from an underground storage tank required to be reported under § 280.53 or § 280.61;

(2) If the owner or operator fails to obtain alternate coverage as required by this subpart, within 30 days after the owner or operator receives notice of:

(i) Commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming a provider of financial assurance as a debtor,

(ii) Suspension or revocation of the authority of a provider of financial assurance to issue a financial assurance mechanism,

(iii) Failure of a guarantor to meet the requirements of the financial test,

(iv) Other incapacity of a provider of financial assurance; or

(3) As required by § 280.95(g) and § 280.109(b).

(b) An owner or operator must certify compliance with the financial responsibility requirements of this part as specified in the new tank notification form when notifying the appropriate state or local agency of the installation of a new underground storage tank under § 280.22.

(c) The Director of the Implementing Agency may require an owner or operator to submit evidence of financial assurance as described in § 280.111(b) or other information relevant to compliance with this subpart at any time.

[58 FR 9051, Feb. 18, 1993]

§ 280.111 Recordkeeping.

(a) Owners or operators must maintain evidence of all financial assurance mechanisms used to demonstrate financial responsibility under this subpart for an underground storage tank until released from the requirements of this subpart under § 208.113. An owner or operator must maintain such evidence at the underground storage tank site or the owner's or operator's place of work.

Records maintained off-site must be made available upon request of the implementing agency.

(b) An owner or operator must maintain the following types of evidence of financial responsibility:

(1) An owner or operator using an assurance mechanism specified in §§ 280.95 through 280.100 or § 280.102 or §§ 280.104 through 280.107 must maintain a copy of the instrument worded as specified.

(2) An owner or operator using a financial test or guarantee, or a local government financial test or a local government guarantee supported by the local government financial test must maintain a copy of the chief financial officer's letter based on year-end financial statements for the most recent completed financial reporting year. Such evidence must be on file no later than 120 days after the close of the financial reporting year.

(3) An owner or operator using a guarantee, surety bond, or letter of credit must maintain a copy of the signed standby trust fund agreement and copies of any amendments to the agreement.

(4) A local government owner or operator using a local government guarantee under § 280.106(d) must maintain a copy of the signed standby trust fund agreement and copies of any amendments to the agreement.

(5) A local government owner or operator using the local government bond rating test under § 280.104 must maintain a copy of its bond rating published within the last twelve months by Moody's or Standard & Poor's.

(6) A local government owner or operator using the local government guarantee under § 280.106, where the guarantor's demonstration of financial responsibility relies on the bond rating test under § 280.104 must maintain a copy of the guarantor's bond rating published within the last twelve months by Moody's or Standard & Poor's.

(7) An owner or operator using an insurance policy or risk retention group coverage must maintain a copy of the signed insurance policy or risk retention group coverage policy, with the endorsement or certificate of insurance and any amendments to the agreements.

(8) An owner or operator covered by a state fund or other state assurance must maintain on file a copy of any evidence of coverage supplied by or required by the state under § 280.101(d).

(9) An owner or operator using a local government fund under § 280.107 must maintain the following documents:

(i) A copy of the state constitutional provision or local government statute, charter, ordinance, or order dedicating the fund, and

(ii) Year-end financial statements for the most recent completed financial reporting year showing the amount in the fund. If the fund is established

§ 280.112

under § 280.107(a)(3) using incremental funding backed by bonding authority, the financial statements must show the previous year's balance, the amount of funding during the year, and the closing balance in the fund.

(iii) If the fund is established under § 280.107(a)(3) using incremental funding backed by bonding authority, the owner or operator must also maintain documentation of the required bonding authority, including either the results of a voter referendum (under § 280.107(a)(3)(i)), or attestation by the State Attorney General as specified under § 280.107(a)(3)(ii).

(10) A local government owner or operator using the local government guarantee supported by the local government fund must maintain a copy of the guarantor's year-end financial statements for the most recent completed financial reporting year showing the amount of the fund.

(11)(i) An owner or operator using an assurance mechanism specified in §§ 280.95 through 280.107 must maintain an updated copy of a certification of financial responsibility worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Financial Responsibility

[Owner or operator] hereby certifies that it is in compliance with the requirements of subpart H of 40 CFR part 280.

The financial assurance mechanism(s) used to demonstrate financial responsibility under subpart H of 40 CFR part 280 is (are) as follows:

[For each mechanism, list the type of mechanism, name of issuer, mechanism number (if applicable), amount of coverage, effective period of coverage and whether the mechanism covers "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases."]

[Signature of owner or operator]

[Name of owner or operator]

[Title]

[Date]

[Signature of witness or notary]

[Name of witness or notary]

[Date]

(ii) The owner or operator must update this certification whenever the financial assurance mechanism(s) used to demonstrate financial responsibility change(s).

[58 FR 9051, Feb. 18, 1993]

§ 280.112 Drawing on financial assurance mechanisms.

(a) Except as specified in paragraph (d) of this section, the Director of the implementing agency shall require the guarantor, surety, or institution issuing a letter of credit to place the amount of funds stipulated by the Director, up to the limit of funds provided by the financial assurance mechanism, into the standby trust if:

(1)(i) The owner or operator fails to establish alternate financial assurance within 60 days after receiving notice of cancellation of the guarantee, surety bond, letter of credit, or, as applicable, other financial assurance mechanism; and

(ii) The Director determines or suspects that a release from an underground storage tank covered by the mechanism has occurred and so notifies the owner or operator or the owner or operator has notified the Director pursuant to subparts E or F of a release from an underground storage tank covered by the mechanism; or

(2) The conditions of paragraph (b)(1) or (b)(2)(i) or (ii) of this section are satisfied.

(b) The Director of the implementing agency may draw on a standby trust fund when:

(1) The Director makes a final determination that a release has occurred and immediate or long-term corrective action for the release is needed, and the owner or operator, after appropriate notice and opportunity to comply, has not conducted corrective action as required under 40 CFR part 280, subpart F; or

(2) The Director has received either:

(i) Certification from the owner or operator and the third-party liability claimant(s) and from attorneys representing the owner or operator and the third-party liability claimant(s) that a third-party liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as principals and as legal representatives of [insert: owner or operator] and [insert: name and address of third-party claimant], hereby certify that the claim of bodily injury [and/or] property damage caused by an accidental release arising from operating [owner's or operator's] underground storage tank should be paid in the amount of \$[_____].

[Signatures]

Owner or Operator

Attorney for Owner or Operator

(Notary)

Date

[Signatures]

Claimant(s)

Attorney(s) for Claimant(s)

§ 280.115

(Notary)
Date

or (ii) A valid final court order establishing a judgment against the owner or operator for bodily injury or property damage caused by an accidental release from an underground storage tank covered by financial assurance under this subpart and the Director determines that the owner or operator has not satisfied the judgment.

(c) If the Director of the implementing agency determines that the amount of corrective action costs and third-party liability claims eligible for payment under paragraph (b) of this section may exceed the balance of the standby trust fund and the obligation of the provider of financial assurance, the first priority for payment shall be corrective action costs necessary to protect human health and the environment. The Director shall pay third-party liability claims in the order in which the Director receives certifications under paragraph (b)(2)(i) of this section, and valid court orders under paragraph (b)(2)(ii) of this section.

(d) A governmental entity acting as guarantor under § 280.106(c), the local government guarantee without standby trust, shall make payments as directed by the Director under the circumstances described in § 280.112 (a), (b), and (c).

[58 FR 9052, Feb. 18, 1993]

§ 280.113 Release from the requirements.

An owner or operator is no longer required to maintain financial responsibility under this subpart for an underground storage tank after the tank has been properly closed or, if corrective action is required, after corrective action has been completed and the tank has been properly closed as required by 40 CFR part 280, subpart G.

[53 FR 43370, Oct. 26, 1988. Redesignated at 58 FR 9051, Feb. 18, 1993]

§ 280.114 Bankruptcy or other incapacity of owner or operator or provider of financial assurance.

(a) Within 10 days after commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming an owner or operator as debtor, the owner or operator must notify the Director of the implementing agency by certified mail of such commencement and submit the appropriate forms listed in § 280.111(b) documenting current financial responsibility.

(b) Within 10 days after commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming a guarantor providing financial assurance as debtor, such guarantor must notify the owner or operator by certified mail of such commencement as required under the terms of the guarantee specified in § 280.96.

(c) Within 10 days after commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming a local government owner or operator as debtor, the local government owner or operator must notify the Director of the implementing agency by certified mail of such commencement and submit the appropriate forms listed in § 280.111(b) documenting current financial responsibility.

(d) Within 10 days after commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming a guarantor providing a local government financial assurance as debtor, such guarantor must notify the local government owner or operator by certified mail of such commencement as required under the terms of the guarantee specified in § 280.106.

(e) An owner or operator who obtains financial assurance by a mechanism other than the financial test of self-insurance will be deemed to be without the required financial assurance in the event of a bankruptcy or incapacity of its provider of financial assurance, or a suspension or revocation of the authority of the provider of financial assurance to issue a guarantee, insurance policy, risk retention group coverage policy, surety bond, letter of credit, or state-required mechanism. The owner or operator must obtain alternate financial assurance as specified in this subpart within 30 days after receiving notice of such an event. If the owner or operator does not obtain alternate coverage within 30 days after such notification, he must notify the Director of the implementing agency.

(f) Within 30 days after receipt of notification that a state fund or other state assurance has become incapable of paying for assured corrective action or third-party compensation costs, the owner or operator must obtain alternate financial assurance.

[58 FR 9053, Feb. 18, 1993]

§ 280.115 Replenishment of guarantees, letters of credit, or surety bonds.

(a) If at any time after a standby trust is funded upon the instruction of the Director of the implementing agency with funds drawn from a guarantee, local government guarantee with standby trust, letter of credit, or surety bond, and the amount in the standby trust is reduced below the full amount of coverage required, the owner or operator shall by the anniversary date of the financial mechanism from which the funds were drawn:

(1) Replenish the value of financial assurance to equal the full amount of coverage required, or

(2) Acquire another financial assurance mechanism for the amount by which funds in the standby trust have been reduced.

(b) For purposes of this section, the full amount of coverage required is the amount of coverage to

§ 280.200

be provided by § 280.93 of this subpart. If a combination of mechanisms was used to provide the assurance funds which were drawn upon, replenishment shall occur by the earliest anniversary date among the mechanisms.

[58 FR 9053, Feb. 18, 1993]

§ 280.116 Suspension of enforcement. [Reserved]

Subpart I—Lender Liability

SOURCE: 60 FR 46711, Sept. 7, 1995, unless otherwise noted.

§ 280.200 Definitions.

(a) *UST technical standards*, as used in this subpart, refers to the UST preventative and operating requirements under 40 CFR part 280, subparts B, C, D, G, and § 280.50 of subpart E.

(b) *Petroleum production, refining, and marketing*.

(1) *Petroleum production* means the production of crude oil or other forms of petroleum (as defined in § 280.12) as well as the production of petroleum products from purchased materials.

(2) *Petroleum refining* means the cracking, distillation, separation, conversion, upgrading, and finishing of refined petroleum or petroleum products.

(3) *Petroleum marketing* means the distribution, transfer, or sale of petroleum or petroleum products for wholesale or retail purposes.

(c) *Indicia of ownership* means evidence of a secured interest, evidence of an interest in a security interest, or evidence of an interest in real or personal property securing a loan or other obligation, including any legal or equitable title or deed to real or personal property acquired through or incident to foreclosure. Evidence of such interests include, but are not limited to, mortgages, deeds of trust, liens, surety bonds and guarantees of obligations, title held pursuant to a lease financing transaction in which the lessor does not select initially the leased property (hereinafter "lease financing transaction"), and legal or equitable title obtained pursuant to foreclosure. Evidence of such interests also includes assignments, pledges, or other rights to or other forms of encumbrance against property that are held primarily to protect a security interest. A person is not required to hold title or a security interest in order to maintain indicia of ownership.

(d) *A holder* is a person who, upon the effective date of this regulation or in the future, maintains indicia of ownership (as defined in § 280.200(c)) primarily to protect a security interest (as defined in § 280.200(f)(1)) in a petroleum UST or UST system or facility or property on which a petro-

leum UST or UST system is located. A holder includes the initial holder (such as a loan originator); any subsequent holder (such as a successor-in-interest or subsequent purchaser of the security interest on the secondary market); a guarantor of an obligation, surety, or any other person who holds ownership indicia primarily to protect a security interest; or a receiver or other person who acts on behalf or for the benefit of a holder.

(e) *A borrower, debtor, or obligor* is a person whose UST or UST system or facility or property on which the UST or UST system is located is encumbered by a security interest. These terms may be used interchangeably.

(f) *Primarily to protect a security interest* means that the holder's indicia of ownership are held primarily for the purpose of securing payment or performance of an obligation.

(1) *Security interest* means an interest in a petroleum UST or UST system or in the facility or property on which a petroleum UST or UST system is located, created or established for the purpose of securing a loan or other obligation. Security interests include but are not limited to mortgages, deeds of trusts, liens, and title pursuant to lease financing transactions. Security interests may also arise from transactions such as sale and leasebacks, conditional sales, installment sales, trust receipt transactions, certain assignments, factoring agreements, accounts receivable financing arrangements, and consignments, if the transaction creates or establishes an interest in an UST or UST system or in the facility or property on which the UST or UST system is located, for the purpose of securing a loan or other obligation.

(2) *Primarily to protect a security interest*, as used in this subpart, does not include indicia of ownership held primarily for investment purposes, nor ownership indicia held primarily for purposes other than as protection for a security interest. A holder may have other, secondary reasons for maintaining indicia of ownership, but the primary reason why any ownership indicia are held must be as protection for a security interest.

(g) *Operation* means, for purposes of this subpart, the use, storage, filling, or dispensing of petroleum contained in an UST or UST system.

§ 280.210 Participation in management.

The term "participating in the management of an UST or UST system" means that, subsequent to the effective date of this subpart, December 6, 1995, the holder is engaging in decisionmaking control of, or activities related to, operation of the UST or UST system, as defined herein.

(a) Actions that are participation in management.

§ 280.210

(1) Participation in the management of an UST or UST system means, for purposes of this subpart, actual participation by the holder in the management or control of decisionmaking related to the operation of an UST or UST system. Participation in management does not include the mere capacity or ability to influence or the unexercised right to control UST or UST system operations. A holder is participating in the management of the UST or UST system only if the holder either:

(i) Exercises decisionmaking control over the operational (as opposed to financial or administrative) aspects of the UST or UST system, such that the holder has undertaken responsibility for all or substantially all of the management of the UST or UST system; or

(ii) Exercises control at a level comparable to that of a manager of the borrower's enterprise, such that the holder has assumed or manifested responsibility for the overall management of the enterprise encompassing the day-to-day decisionmaking of the enterprise with respect to all, or substantially all, of the operational (as opposed to financial or administrative) aspects of the enterprise.

(2) Operational aspects of the enterprise relate to the use, storage, filling, or dispensing of petroleum contained in an UST or UST system, and include functions such as that of a facility or plant manager, operations manager, chief operating officer, or chief executive officer. Financial or administrative aspects include functions such as that of a credit manager, accounts payable/receivable manager, personnel manager, controller, chief financial officer, or similar functions. Operational aspects of the enterprise do not include the financial or administrative aspects of the enterprise, or actions associated with environmental compliance, or actions undertaken voluntarily to protect the environment in accordance with applicable requirements in 40 CFR part 280 or applicable state requirements in those states that have been delegated authority by EPA to administer the UST program pursuant to 42 USC 6991c and 40 CFR part 281.

(b) Actions that are not participation in management pre-foreclosure.

(1) Actions at the inception of the loan or other transaction. No act or omission prior to the time that indicia of ownership are held primarily to protect a security interest constitutes evidence of participation in management within the meaning of this subpart. A prospective holder who undertakes or requires an environmental investigation (which could include a site assessment, inspection, and/or audit) of the UST or UST system or facility or property on which the UST or UST system is located (in which indicia of ownership are to be held), or requires a prospective borrower to clean up contamination from the UST or UST system or to comply or come into compliance (whether prior

or subsequent to the time that indicia of ownership are held primarily to protect a security interest) with any applicable law or regulation, is not by such action considered to be participating in the management of the UST or UST system or facility or property on which the UST or UST system is located.

(2) Loan policing and work out. Actions that are consistent with holding ownership indicia primarily to protect a security interest do not constitute participation in management for purposes of this subpart. The authority for the holder to take such actions may, but need not, be contained in contractual or other documents specifying requirements for financial, environmental, and other warranties, covenants, conditions, representations or promises from the borrower. Loan policing and work out activities cover and include all such activities up to foreclosure, exclusive of any activities that constitute participation in management.

(i) Policing the security interest or loan.

(A) A holder who engages in policing activities prior to foreclosure will remain within the exemption provided that the holder does not together with other actions participate in the management of the UST or UST system as provided in § 280.210(a). Such policing actions include, but are not limited to, requiring the borrower to clean up contamination from the UST or UST system during the term of the security interest; requiring the borrower to comply or come into compliance with applicable federal, state, and local environmental and other laws, rules, and regulations during the term of the security interest; securing or exercising authority to monitor or inspect the UST or UST system or facility or property on which the UST or UST system is located (including on-site inspections) in which indicia of ownership are maintained, or the borrower's business or financial condition during the term of the security interest; or taking other actions to adequately police the loan or security interest (such as requiring a borrower to comply with any warranties, covenants, conditions, representations, or promises from the borrower).

(B) Policing activities also include undertaking by the holder of UST environmental compliance actions and voluntary environmental actions taken in compliance with 40 CFR part 280, provided that the holder does not otherwise participate in the management or daily operation of the UST or UST system as provided in § 280.210(a) and § 280.230. Such allowable actions include, but are not limited to, release detection and release reporting, release response and corrective action, temporary or permanent closure of an UST or UST system, UST upgrading or replacement, and maintenance of corrosion protection. A holder who undertakes these actions must do so in compliance

§ 280.210

with the applicable requirements in 40 CFR part 280 or applicable state requirements in those states that have been delegated authority by EPA to administer the UST program pursuant to 42 U.S.C. 6991c and 40 CFR part 281. A holder may directly oversee these environmental compliance actions and voluntary environmental actions, and directly hire contractors to perform the work, and is not by such action considered to be participating in the management of the UST or UST system.

(ii) Loan work out. A holder who engages in work out activities prior to foreclosure will remain within the exemption provided that the holder does not together with other actions participate in the management of the UST or UST system as provided in § 280.210(a). For purposes of this rule, “work out” refers to those actions by which a holder, at any time prior to foreclosure, seeks to prevent, cure, or mitigate a default by the borrower or obligor; or to preserve, or prevent the diminution of, the value of the security. Work out activities include, but are not limited to, restructuring or renegotiating the terms of the security interest; requiring payment of additional rent or interest; exercising forbearance; requiring or exercising rights pursuant to an assignment of accounts or other amounts owing to an obligor; requiring or exercising rights pursuant to an escrow agreement pertaining to amounts owing to an obligor; providing specific or general financial or other advice, suggestions, counseling, or guidance; and exercising any right or remedy the holder is entitled to by law or under any warranties, covenants, conditions, representations, or promises from the borrower.

(c) Foreclosure on an UST or UST system or facility or property on which an UST or UST system is located, and participation in management activities post-foreclosure.

(1) Foreclosure. (i) Indicia of ownership that are held primarily to protect a security interest include legal or equitable title or deed to real or personal property acquired through or incident to foreclosure. For purposes of this subpart, the term “foreclosure” means that legal, marketable or equitable title or deed has been issued, approved, and recorded, and that the holder has obtained access to the UST, UST system, UST facility, and property on which the UST or UST system is located, provided that the holder acted diligently to acquire marketable title or deed and to gain access to the UST, UST system, UST facility, and property on which the UST or UST system is located. The indicia of ownership held after foreclosure continue to be maintained primarily as protection for a security interest provided that the holder undertakes to sell, re-lease an UST or UST system or facility or property on which the UST or UST system is located, held pursuant to a lease financ-

ing transaction (whether by a new lease financing transaction or substitution of the lessee), or otherwise divest itself of the UST or UST system or facility or property on which the UST or UST system is located, in a reasonably expeditious manner, using whatever commercially reasonable means are relevant or appropriate with respect to the UST or UST system or facility or property on which the UST or UST system is located, taking all facts and circumstances into consideration, and provided that the holder does not participate in management (as defined in § 280.210(a)) prior to or after foreclosure.

(ii) For purposes of establishing that a holder is seeking to sell, re-lease pursuant to a lease financing transaction (whether by a new lease financing transaction or substitution of the lessee), or divest in a reasonably expeditious manner an UST or UST system or facility or property on which the UST or UST system is located, the holder may use whatever commercially reasonable means as are relevant or appropriate with respect to the UST or UST system or facility or property on which the UST or UST system is located, or may employ the means specified in § 280.210(c)(2). A holder that outbids, rejects, or fails to act upon a written *bona fide*, firm offer of fair consideration for the UST or UST system or facility or property on which the UST or UST system is located, as provided in § 280.210(c)(2), is not considered to hold indicia of ownership primarily to protect a security interest.

(2) Holding foreclosed property for disposition and liquidation. A holder, who does not participate in management prior to or after foreclosure, may sell, re-lease, pursuant to a lease financing transaction (whether by a new lease financing transaction or substitution of the lessee), an UST or UST system or facility or property on which the UST or UST system is located, liquidate, wind up operations, and take measures, prior to sale or other disposition, to preserve, protect, or prepare the secured UST or UST system or facility or property on which the UST or UST system is located. A holder may also arrange for an existing or new operator to continue or initiate operation of the UST or UST system. The holder may conduct these activities without voiding the security interest exemption, subject to the requirements of this subpart.

(i) A holder establishes that the ownership indicia maintained after foreclosure continue to be held primarily to protect a security interest by, within 12 months following foreclosure, listing the UST or UST system or the facility or property on which the UST or UST system is located, with a broker, dealer, or agent who deals with the type of property in question, or by advertising the UST or UST system or facility or property on which

§ 280.210

the UST or UST system is located, as being for sale or disposition on at least a monthly basis in either a real estate publication or a trade or other publication suitable for the UST or UST system or facility or property on which the UST or UST system is located, or a newspaper of general circulation (defined as one with a circulation over 10,000, or one suitable under any applicable federal, state, or local rules of court for publication required by court order or rules of civil procedure) covering the location of the UST or UST system or facility or property on which the UST or UST system is located. For purposes of this provision, the 12-month period begins to run from December 6, 1995 or from the date that the marketable title or deed has been issued, approved and recorded, and the holder has obtained access to the UST, UST system, UST facility and property on which the UST or UST system is located, whichever is later, provided that the holder acted diligently to acquire marketable title or deed and to obtain access to the UST, UST system, UST facility and property on which the UST or UST system is located. If the holder fails to act diligently to acquire marketable title or deed or to gain access to the UST or UST system, the 12-month period begins to run from December 6, 1995 or from the date on which the holder first acquires either title to or possession of the secured UST or UST system, or facility or property on which the UST or UST system is located, whichever is later.

(ii) A holder that outbids, rejects, or fails to act upon an offer of fair consideration for the UST or UST system or the facility or property on which the UST or UST system is located, establishes by such outbidding, rejection, or failure to act, that the ownership indicia in the secured UST or UST system or facility or property on which the UST or UST system is located are not held primarily to protect the security interest, unless the holder is required, in order to avoid liability under federal or state law, to make a higher bid, to obtain a higher offer, or to seek or obtain an offer in a different manner.

(A) Fair consideration, in the case of a holder maintaining indicia of ownership primarily to protect a senior security interest in the UST or UST system or facility or property on which the UST or UST system is located, is the value of the security interest as defined in this section. The value of the security interest includes all debt and costs incurred by the security interest holder, and is calculated as an amount equal to or in excess of the sum of the outstanding principal (or comparable amount in the case of a lease that constitutes a security interest) owed to the holder immediately preceding the acquisition of full title (or possession in the case of a lease financing transaction) pursuant to foreclosure, plus any unpaid interest,

rent, or penalties (whether arising before or after foreclosure). The value of the security interest also includes all reasonable and necessary costs, fees, or other charges incurred by the holder incident to work out, foreclosure, retention, preserving, protecting, and preparing, prior to sale, the UST or UST system or facility or property on which the UST or UST system is located, re-lease, pursuant to a lease financing transaction (whether by a new lease financing transaction or substitution of the lessee), of an UST or UST system or facility or property on which the UST or UST system is located, or other disposition. The value of the security interest also includes environmental investigation costs (which could include a site assessment, inspection, and/or audit of the UST or UST system or facility or property on which the UST or UST system is located), and corrective action costs incurred under §§ 280.51 through 280.67 or any other costs incurred as a result of reasonable efforts to comply with any other applicable federal, state or local law or regulation; less any amounts received by the holder in connection with any partial disposition of the property and any amounts paid by the borrower (if not already applied to the borrower's obligations) subsequent to the acquisition of full title (or possession in the case of a lease financing transaction) pursuant to foreclosure. In the case of a holder maintaining indicia of ownership primarily to protect a junior security interest, fair consideration is the value of all outstanding higher priority security interests plus the value of the security interest held by the junior holder, each calculated as set forth in this paragraph.

(B) Outbids, rejects, or fails to act upon an offer of fair consideration means that the holder outbids, rejects, or fails to act upon within 90 days of receipt, a written, *bona fide*, firm offer of fair consideration for the UST or UST system or facility or property on which the UST or UST system is located received at any time after six months following foreclosure, as defined in § 280.210(c). A "written, *bona fide*, firm offer" means a legally enforceable, commercially reasonable, cash offer solely for the foreclosed UST or UST system or facility or property on which the UST or UST system is located, including all material terms of the transaction, from a ready, willing, and able purchaser who demonstrates to the holder's satisfaction the ability to perform. For purposes of this provision, the six-month period begins to run from December 6, 1995 or from the date that marketable title or deed has been issued, approved and recorded to the holder, and the holder has obtained access to the UST, UST system, UST facility and property on which the UST or UST system is located, whichever is later, provided that the holder was acting diligently to acquire marketable title or

§ 280.220

deed and to obtain access to the UST or UST system, UST facility and property on which the UST or UST system is located. If the holder fails to act diligently to acquire marketable title or deed or to gain access to the UST or UST system, the six-month period begins to run from December 6, 1995 or from the date on which the holder first acquires either title to or possession of the secured UST or UST system, or facility or property on which the UST or UST system is located, whichever is later.

(3) Actions that are not participation in management post-foreclosure. A holder is not considered to be participating in the management of an UST or UST system or facility or property on which the UST or UST system is located when undertaking actions under 40 CFR part 280, provided that the holder does not otherwise participate in the management or daily operation of the UST or UST system as provided in § 280.210(a) and § 280.230. Such allowable actions include, but are not limited to, release detection and release reporting, release response and corrective action, temporary or permanent closure of an UST or UST system, UST upgrading or replacement, and maintenance of corrosion protection. A holder who undertakes these actions must do so in compliance with the applicable requirements in 40 CFR part 280 or applicable state requirements in those states that have been delegated authority by EPA to administer the UST program pursuant to 42 U.S.C. 6991c and 40 CFR part 281. A holder may directly oversee these environmental compliance actions and voluntary environmental actions, and directly hire contractors to perform the work, and is not by such action considered to be participating in the management of the UST or UST system.

§ 280.220 Ownership of an underground storage tank or underground storage tank system or facility or property on which an underground storage tank or underground storage tank system is located.

Ownership of an UST or UST system or facility or property on which an UST or UST system is located. A holder is not an "owner" of a petroleum UST or UST system or facility or property on which a petroleum UST or UST system is located for purposes of compliance with the UST technical standards as defined in § 280.200(a), the UST corrective action requirements under §§ 280.51 through 280.67, and the UST financial responsibility requirements under §§ 280.90 through 280.111, provided the person:

(a) Does not participate in the management of the UST or UST system as defined in § 280.210; and

(b) Does not engage in petroleum production, refining, and marketing as defined in § 280.200(b).

§ 280.230 Operating an underground storage tank or underground storage tank system.

(a) Operating an UST or UST system prior to foreclosure. A holder, prior to foreclosure, as defined in § 280.210(c), is not an "operator" of a petroleum UST or UST system for purposes of compliance with the UST technical standards as defined in § 280.200(a), the UST corrective action requirements under §§ 280.51 through 280.67, and the UST financial responsibility requirements under §§ 280.90 through 280.111, provided that, after December 6, 1995, the holder is not in control of or does not have responsibility for the daily operation of the UST or UST system.

(b) Operating an UST or UST system after foreclosure. The following provisions apply to a holder who, through foreclosure, as defined in § 280.210(c), acquires a petroleum UST or UST system or facility or property on which a petroleum UST or UST system is located.

(1) A holder is not an "operator" of a petroleum UST or UST system for purposes of compliance with 40 CFR part 280 if there is an operator, other than the holder, who is in control of or has responsibility for the daily operation of the UST or UST system, and who can be held responsible for compliance with applicable requirements of 40 CFR part 280 or applicable state requirements in those states that have been delegated authority by EPA to administer the UST program pursuant to 42 U.S.C. 6991c and 40 CFR part 281.

(2) If another operator does not exist, as provided for under paragraph (b)(1) of this section, a holder is not an "operator" of the UST or UST system, for purposes of compliance with the UST technical standards as defined in § 280.200(a), the UST corrective action requirements under §§ 280.51 through 280.67, and the UST financial responsibility requirements under §§ 280.90 through 280.111, provided that the holder:

(i) Empties all of its known USTs and UST systems within 60 calendar days after foreclosure or within 60 calendar days after December 6, 1995, whichever is later, or another reasonable time period specified by the implementing agency, so that no more than 2.5 centimeters (one inch) of residue, or 0.3 percent by weight of the total capacity of the UST system, remains in the system; leaves vent lines open and functioning; and caps and secures all other lines, pumps, manways, and ancillary equipment; and

(ii) Empties those USTs and UST systems that are discovered after foreclosure within 60 calendar days after discovery or within 60 calendar days after December 6, 1995, whichever is later, or an-

Pt. 280, App. II

other reasonable time period specified by the implementing agency, so that no more than 2.5 centimeters (one inch) of residue, or 0.3 percent by weight of the total capacity of the UST system, remains in the system; leaves vent lines open and functioning; and caps and secures all other lines, pumps, manways, and ancillary equipment.

(3) If another operator does not exist, as provided for under paragraph (b)(1) of this section, in addition to satisfying the conditions under paragraph (b)(2) of this section, the holder must either:

(i) Permanently close the UST or UST system in accordance with §§ 280.71 through 280.74, except § 280.72(b); or

(ii) Temporarily close the UST or UST system in accordance with the following applicable provisions of § 280.70:

(A) Continue operation and maintenance of corrosion protection in accordance with § 280.31;

(B) Report suspected releases to the implementing agency; and

(C) Conduct a site assessment in accordance with § 280.72(a) if the UST system is temporarily closed for more than 12 months and the UST system does not meet either the performance standards in § 280.20 for new UST systems or the upgrading requirements in § 280.21, except that the spill and overfill equipment requirements do not have to be met. The holder must report any suspected releases to the implementing agency. For purposes of this provision, the 12-month period begins to run from December 6, 1995 or from the date on which the UST system is emptied and secured under paragraph (b)(2) of this section, whichever is later.

(4) The UST system can remain in temporary closure until a subsequent purchaser has acquired marketable title to the UST or UST system or facility or property on which the UST or UST system is located. Once a subsequent purchaser acquires marketable title to the UST or UST system or facility or property on which the UST or UST system is located, the purchaser must decide whether to operate or close the UST or UST system in accordance with applicable requirements in 40 CFR part 280 or applicable state requirements in those states that have been delegated authority by EPA to administer the UST program pursuant to 42 U.S.C. 6991c and 40 CFR part 281.

APPENDIX I TO PART 280—NOTIFICATION FOR UNDERGROUND STORAGE TANKS (FORM)

E:GRAPHICS EC01AU92.047
E:GRAPHICS EC01AU92.048
E:GRAPHICS EC01AU92.049

APPENDIX II TO PART 280—LIST OF AGENCIES DESIGNATED TO RECEIVE NOTIFICATIONS

- Alabama (EPA Form), Alabama Department of Environmental Management, Ground Water Section/Water Division, 1751 Congressman W.L. Dickinson Drive, Montgomery, Alabama 36130, 205/271-7823
- Alaska (EPA Form), Department of Environmental Conservation, Box 0, Juneau, Alaska 99811-1800, 970/465-2653
- American Samoa (EPA Form), Executive Secretary, Environmental Quality Commission, Office of the Governor, American Samoan Government, Pago Pago, American Samoa 96799; Attention: UST Notification
- Arizona (EPA Form), Attention: UST Coordinator, Arizona Department of Environmental Quality, Environmental Health Services, 2005 N. Central, Phoenix, Arizona 85004
- Arkansas (EPA Form), Arkansas Department of Pollution Control and Ecology, P.O. Box 9583, Little Rock, Arkansas 72219, 501/562-7444
- California (State Form), Executive Director, State Water Resources Control Board, P.O. Box 100, Sacramento, California 95801, 916/445-1533
- Colorado (EPA Form), Section Chief, Colorado Department of Health, Waste Management Division, Underground Tank Program, 4210 East 11th Avenue, Denver, Colorado 80220, 303/320-8333
- Connecticut (State Form), Hazardous Materials Management Unit, Department of Environmental Protection, State Office Building, 165 Capitol Avenue, Hartford, Connecticut 06106
- Delaware (State Form), Division of Air and Waste Management, Department of Natural Resources and Environmental Control, P.O. Box 1401, 89 Kings Highway, Dover, Delaware 19903, 302/726-5409
- District of Columbia (EPA Form), Attention: UST Notification Form, Department of Consumer and Regulatory Affairs, Pesticides and Hazardous Waste Management Branch, Room 114, 5010 Overlook Avenue SW., Washington, DC 20032
- Florida (State Form), Florida Department of Environmental Regulation, Solid Waste Section, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Florida 32399, 904/487-4398
- Georgia (EPA Form), Georgia Department of Natural Resources, Environmental Protection Division, Underground Storage Tank Program, 3420 Norman Berry Drive, 7th Floor, Hapeville, Georgia 30354, 404/656-7404
- Guam (State Form), Administrator, Guam Environmental Protection Agency, P.O. Box 2999, Agana, Guam 96910, Overseas Operator (Commercial call 646-8863)
- Hawaii (EPA Form), Administrator, Hazardous Waste Program, 645 Halekauwila Street, Honolulu, Hawaii 96813, 808/548-2270
- Idaho (EPA Form), Underground Storage Tank Coordinator, Water Quality Bureau, Division of Environmental Quality, Idaho Department of Health and Welfare, 450 W. State Street, Boise, Idaho 83720, 208/334-4251
- Illinois (EPA Form), Underground Storage Tank Coordinator, Division of Fire Prevention, Office of State Fire Marshal, 3150 Executive Park Drive, Springfield, Illinois 62703-4599
- Indiana (EPA Form), Underground Storage Tank Program, Office of Environmental Response, Indiana De-

Pt. 280, App. II

- partment of Environmental Management, 105 South Meridian Street, Indianapolis, Indiana 46225
- Iowa (State Form), UST Coordinator, Iowa Department of Natural Resources, Henry A. Wallace Building, 900 East Grand, Des Moines, Iowa 50219, 512/281-8135
- Kansas (EPA Form), Kansas Department of Health and Environment, Forbes Field, Building 740, Topeka, Kansas 66620, 913/296-1594
- Kentucky (State Form), Department of Environmental Protection, Hazardous Waste Branch, Fort Boone Plaza, Building #2, 18 Reilly Road, Frankfort, Kentucky 40601, 501/564-6716
- Louisiana (State Form), Secretary, Louisiana Department of Environmental Quality, P.O. Box 44066, Baton Rouge, Louisiana 70804, 501/342-1265
- Maine (State Form), Attention: Underground Tanks Program, Bureau of Oil and Hazardous Material Control, Department of Environmental Protection, State House—Station 17, Augusta, Maine 04333
- Maryland (EPA Form), Science and Health Advisory Group, Office of Environmental Programs, 201 West Preston Street, Baltimore, Maryland 21201
- Massachusetts (EPA Form), UST Registry, Department of Public Safety, 1010 Commonwealth Avenue, Boston, Massachusetts 02215, 617/566-4500
- Michigan (EPA Form), Michigan Department of State Police, Fire Marshal Division, General Office Building, 7150 Harris Drive, Lansing, Michigan 48913
- Minnesota (State Form), Underground Storage Tank Program, Division of Solid and Hazardous Wastes, Minnesota Pollution Control Agency, 520 West Lafayette Road, St. Paul, Minnesota 55155
- Mississippi (State Form), Department of Natural Resources, Bureau of Pollution Control, Underground Storage Tank Section, P.O. Box 10385, Jackson, Mississippi 39209, 601/961-5171
- Missouri (EPA Form), UST Coordinator, Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, Missouri 65102, 314/751-7428
- Montana (EPA Form), Solid and Hazardous Waste Bureau, Department of Health and Environmental Science, Cogswell Bldg., Room B-201, Helena, Montana 59620
- Nebraska (EPA Form), Nebraska State Fire Marshal, P.O. Box 94677, Lincoln, Nebraska 68509-4677, 402/471-9465
- Nevada (EPA Form), Attention: UST Coordinator, Division of Environmental Protection, Department of Conservation and Natural Resources, Capitol Complex 201 S. Fall Street, Carson City, Nevada 89710, 800/992-0900, Ext. 4670, 702/885-4670
- New Hampshire (EPA Form), NH Dept. of Environmental Services, Water Supply and Pollution Control Division, Hazen Drive, P.O. Box 95, Concord, New Hampshire 03301, Attention: UST Registration
- New Jersey (State Form), Underground Storage Tank Coordinator, Department of Environmental Protection, Division of Water Resources (CN-029), Trenton, New Jersey 08625, 609/292-0424
- New Mexico (EPA Form), New Mexico Environmental Improvement Division, Groundwater/Hazardous Waste Bureau, P.O. Box 968, Santa Fe, New Mexico 37504, 505/827-2933
- New York (EPA Form), Bulk Storage Section, Division of Water, Department of Environmental Conservation, 50 Wolf Road, Room 326, Albany, New York 12233-0001, 518/457-4351
- North Carolina (EPA Form), Division of Environmental Management, Ground-Water Operations Branch, Department of Natural Resources and Community Development, P.O. Box 27687, Raleigh, North Carolina 27611, 919/733-3221
- North Dakota (State Form), Division of Hazardous Management and Special Studies, North Dakota Department of Health, Box 5520, Bismarck, North Dakota 58502-5520
- Northern Mariana Islands (EPA Form), Chief, Division of Environmental Quality, P.O. Box 1304, Commonwealth of Northern Mariana Islands, Saipan, CM 96950, Cable Address: Gov. NMI Saipan, Overseas Operator: 6984
- Ohio (State Form), State Fire Marshal's Office, Department of Commerce, 8895 E. Main Street, Reynoldsburg, Ohio 43068, State Hotline: 800/282-1927
- Oklahoma (EPA Form), Underground Storage Tank Program, Oklahoma Corporation Comm., Jim Thorpe Building, Oklahoma City, Oklahoma 73105
- Oregon (State Form), Underground Storage Tank Program, Hazardous and Solid Waste Division, Department of Environmental Quality, 811 S.W. Sixth Avenue, Portland, Oregon 98204, 503/229-5788
- Pennsylvania (EPA Form), PA Department of Environmental Resources, Bureau of Water Quality Management, Ground Water Unit, 9th Floor Fulton Building, P.O. Box 2063, Harrisburg, Pennsylvania 17120
- Puerto Rico (EPA Form), Director, Water Quality Control Area, Environmental Quality Board, Commonwealth of Puerto Rico, Santurce, Puerto Rico, 809/725-0717
- Rhode Island (EPA Form), UST Registration, Department of Environmental Management, 83 Park Street, Providence, Rhode Island 02903, 401/277-2234
- South Carolina (State Form), Ground-Water Protection Division, South Carolina Department of Health and Environmental Control, 2600 Bull Street, Columbia, South Carolina 29201, 803/758-5213
- South Dakota (EPA Form), Office of Water Quality, Department of Water and Natural Resources, Joe Foss Building, Pierre, South Dakota 57501,
- Tennessee (EPA Form), Tennessee Department of Health and Environment, Division of Superfund Underground Storage Tank Section, 150 Ninth Avenue, North, Nashville, Tennessee 37219-5404, 615/741-0690
- Texas (EPA Form), Underground Storage Tank Program, Texas Water Commission, P.O. Box 13087, Austin, Texas 78711
- Utah (EPA Form), Division of Environmental Health, P.O. Box 45500, Salt Lake City, Utah 84145-0500
- Vermont (State Form), Underground Storage Tank Program, Vermont AEC/Waste Management Division, State Office Building, Montpelier, Vermont 05602, 802/828-3395
- Virginia (EPA Form), Virginia Water Control Board, P.O. Box 11143, Richmond, Virginia 23230-1143, 804/257-6685
- Virgin Islands (EPA Form), 205(J) Coordinator, Division of Natural Resources Management, 14 F Building 111, Watergut Homes, Christianstead, St. Croix, Virgin Islands 00820
- Washington (State Form), Underground Storage Tank Notification, Solid and Hazardous Waste Program, Department of Ecology, M/S PV-11, Olympia, Washington 98504-8711, 206/459-6316
- West Virginia (EPA Form), Attention: UST Notification, Solid and Hazardous Waste, Ground Water Branch,

Pt. 280, App. III

West Virginia Department of Natural Resources, 1201
Greenbriar Street, Charleston, West Virginia 25311
Wisconsin (State Form), Bureau of Petroleum Inspection,
P.O. Box 7969, Madison, Wisconsin 53707, 608/266-
7605
Wyoming (EPA Form), Water Quality Division, Depart-
ment of Environmental Quality, Herschler Building, 4th
Floor West, 122 West 25th Street, Cheyenne, Wyoming
82002, 307/777-7781.

APPENDIX III TO PART 280—STATEMENT FOR
SHIPPING TICKETS AND INVOICES

NOTE.—A Federal law (the Resource Conservation and
Recovery Act (RCRA), as amended (Pub. L. 98-616)) re-
quires owners of certain underground storage tanks to no-
tify designated State or local agencies by May 8, 1986,
of the existence of their tanks. Notifications for tanks
brought into use after May 8, 1986, must be made within
30 days. Consult EPA's regulations, issued on November
8, 1985 (40 CFR part 280) to determine if you are af-
fected by this law.

CHAPTER 62-761
PETROLEUM STORAGE SYSTEMS

| | PAGE |
|---|------|
| 62-761.100 INTENT. | 1 |
| 62-761.200 DEFINITIONS..... | 1 |
| 62-761.210 REFERENCE STANDARDS..... | 12 |
| 62-761.300 APPLICABILITY. | 17 |
| 62-761.400 REGISTRATION AND FINANCIAL RESPONSIBILITY..... | 19 |
| 62-761.410 REGISTRATION FEES. (REPEALED)..... | 21 |
| 62-761.450 NOTIFICATION AND REPORTING..... | 22 |
| 62-761.460 REPORTING. (REPEALED)..... | 24 |
| 62-761.480 FINANCIAL RESPONSIBILITY. (REPEALED)..... | 24 |
| 62-761.500 PERFORMANCE STANDARDS FOR CATEGORY-C STORAGE TANK SYSTEMS. | 25 |
| 62-761.510 PERFORMANCE STANDARDS FOR CATEGORY-A AND CATEGORY-B STORAGE TANK SYSTEMS..... | 34 |
| 62-761.520 PERFORMANCE STANDARDS FOR OTHER EXISTING PETROLEUM AND PETROLEUM PRODUCT STORAGE TANK SYSTEMS (NON-VEHICULAR FUELS). (REPEALED)..... | 41 |
| 62-761.550 PERFORMANCE STANDARDS FOR NEW HAZARDOUS SUBSTANCE STORAGE TANK SYSTEMS. (REPEALED)..... | 41 |
| 62-761.560 PERFORMANCE STANDARDS FOR EXISTING HAZARDOUS SUBSTANCE STORAGE TANK SYSTEMS. (REPEALED)..... | 41 |
| 62-761.600 RELEASE DETECTION STANDARDS. | 41 |
| 62-761.610 RELEASE DETECTION METHODS..... | 44 |

62-761.620 RELEASE DETECTION STANDARDS FOR OTHER EXISTING
REGULATED SUBSTANCE STORAGE TANKS. (REPEALED) 49

62-761.630 RELEASE DETECTION STANDARDS FOR INTEGRAL PIPING.
(REPEALED)..... 49

62-761.640 PERFORMANCE STANDARDS FOR RELEASE DETECTION
METHODS..... 49

62-761.680 TIGHTNESS TESTING. (REPEALED) 59

62-761.700 REPAIRS, OPERATION, AND MAINTENANCE OF STORAGE
TANK SYSTEMS. 59

62-761.710 RECORDKEEPING..... 64

62-761.720 INVENTORY REQUIREMENTS. (REPEALED)..... 65

62-761.730 OPERATING REQUIREMENTS FOR CATHODIC PROTECTION
. (REPEALED)..... 65

62-761.740 CERTIFIED CONTRACTORS. (REPEALED)..... 65

62-761.800 OUT-OF-SERVICE AND CLOSURE REQUIREMENTS..... 65

62-761.820 INCIDENT AND DISCHARGE RESPONSE. 69

62-761.840 LOCALLY ADMINISTERED PROGRAMS. (REPEALED) 70

62-761.850 ALTERNATIVE REQUIREMENTS AND EQUIPMENT APPROVALS. 70

62-761.860 APPROVAL OF STORAGE TANK SYSTEMS AND RELEASE
DETECTION EQUIPMENT. (REPEALED)..... 72

62-761.890 MINERAL ACID STORAGE TANK REQUIREMENTS. 72

62-761.900 STORAGE TANK FORMS..... 78

Effective 7-13-98

62-761.100 Intent.

(1) Except for aboveground mineral acid storage tank systems, the purpose of this chapter is to provide standards for the registration, construction, installation, operation, maintenance, repair, closure, and disposal of storage tank systems that store regulated substances, and to minimize the occurrence and environmental risks of releases and discharges. This chapter provides standards for underground storage tank systems having individual storage tank capacities greater than 110 gallons, and aboveground storage tank systems having individual storage tank capacities greater than 550 gallons.

(2) For mineral acid storage tank systems, the purpose of this chapter is to minimize the occurrence and environmental risks of discharges from aboveground storage tanks having capacities greater than 110 gallons that contain hydrobromic, hydrochloric, hydrofluoric, phosphoric or sulfuric acid. Mineral acid storage tank systems are only subject to Rule 62-761.890, F.A.C.

(3) The purpose of this chapter is to establish a registration program for compression vessels and aboveground hazardous substance storage tank systems with individual capacities greater than 110 gallons. These systems are only subject to Rule 62-761.400(1)-(2), F.A.C.

(4) This chapter implements the requirements of Chapter 376, Florida Statutes. Final agency action related to the functions that may be carried out by a locally administered program (County) under contract with the Department pursuant to Section 376.3073, F.S., shall be taken by the Department.
Specific Authority 376.303, FS.
Law Implemented 376.303, FS.
History -- New 12-10-90, Formerly 17-761.100, Amended 9-30-96, 7-13-98.

62-761.200 Definitions.

The following words, phrases or terms used in this chapter, unless the context indicates otherwise, shall have the following meaning:

(1) "Airport or seaport hydrant piping" means the pressurized integral piping system, including hydrant pits, associated with petroleum storage tank systems serving airports, seaports, or military bases.

(2) "Ammonia" includes organic amines and inorganic compounds that are liquids at standard temperature and pressure that, when discharged, release free ammonia (NH₃), or ammonium ion (NH₄⁺).

(3) "AST" means an aboveground storage tank.

(4) "AST Category-A system" means a system that was installed on or before March 12, 1991.

(5) "AST Category-B system" means a system that was installed after March 12, 1991, and before July 13, 1998.

(6) "AST Category-C system" means a system that was installed on or after July 13, 1998. ASTs that are removed and relocated after July 13, 1998 are considered Category-C systems.

(7) "Bulk product facility" means a waterfront location with at least one aboveground tank with a capacity greater than 30,000 gallons that is used for the storage of pollutants.

(8) "Bulk product piping" means on-site integral piping with an internal diameter greater than three inches that:

(a) Originates at the first stationary or landward valve from a vessel loading or unloading area, and that delivers regulated substances up to and including the first valve within the dike field area of a bulk product facility; or

(b) Is utilized for transporting regulated substances.

(9) "Cathodic protection" means a method of preventing corrosion of a metal surface by making that surface the cathode of an electrochemical cell through the use of devices such as galvanic anodes or impressed current.

(10) "Cathodic Protection Tester" means a person who can demonstrate an understanding of the principles and measurements of all common types of cathodic protection systems as applied to buried or submerged metal piping and tank systems. At a minimum, such persons shall have education and experience in soil resistivity, stray current, structure-to-soil potential, and component electrical isolation measurements of buried metal piping and tank systems.

(11) "Certified Contractor" means a Pollutant Storage System Contractor certified by the Department of Business and Professional Regulation in accordance with Chapter 489, F.S. Except for the exemptions specified in Chapter 489, F.S., Certified Contractors are not required for activities that do not involve excavating or disturbing the backfill around UST systems. Certified Contractors are the only contractors authorized to perform the following activities for underground pollutant storage tank systems:

(a) Installation of:

1. USTs or integral piping, excluding drop tubes;

2. Overfill protection and spill containment;

3. Secondary containment;

4. Internal release detection devices;

5. Cathodic protection systems; and

6. Dispenser liners when the integral piping is connected or disconnected

during the installation of secondary containment.

(b) Removal of tanks or integral piping; and

(c) Internal lining of tanks.

(12) "Chlorine" includes organic and inorganic compounds that are liquids at standard temperature and pressure that, when discharged, may release free chlorine (Cl₂) or chlorides (Cl⁻).

(13) "Compatible" means the ability of two or more substances to maintain their respective physical and chemical properties upon contact with one another for the design life of the storage tank system under conditions likely to be encountered in the storage tank system.

(14) "Compression vessel" means any stationary aboveground container, tank, or on-site integral piping system, or combination thereof, that has a capacity of greater than 110 gallons and that is primarily used to store pollutants or hazardous substances above atmospheric pressure or at a reduced temperature in order to lower the vapor pressure of the contents. Manifold compression vessels that function as a single vessel shall be considered as one vessel.

(15) "Contamination" or "contaminated" means the presence of regulated substances in surface water, groundwater, soil, sediment, or upon the land, in quantities that result in exceedances of applicable cleanup target levels in Chapter 62-770, F.A.C., where petroleum or petroleum products are present, or water quality standards in Chapters 62-3, 62-302, 62-520, or 62-550, F.A.C.

(16) "Corrosion Professional" means a person who, by reason of knowledge of the physical sciences and the principles of engineering and mathematics acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal components of a storage tank system. Corrosion Professionals shall be accredited or certified by NACE International, or be a professional engineer registered in the State of Florida.

(17) "County" means a locally administered program under contract with the Department to perform compliance verification activities at facilities with storage tank systems.

(18) "Cut and cover tank" means a tank that is constructed with steel or reinforced concrete that is surrounded by soil above the natural surface of the ground.

(19) "Dike field area" means the area around the tank or tanks that extends from the circumference of the base of an AST to the top of the berm, dike, or retaining wall surrounding the tank.

(20) "Discharge" includes, but is not limited to, any spilling, leaking, seeping, pouring, misapplying, emitting, emptying, or dumping of any regulated substance which occurs and which affects lands and the surface and ground waters of the state.

(21) "Discovery" means:

(a) Either actual knowledge, or knowledge of facts that could reasonably lead to actual knowledge of the existence of an incident, discharge, or an unmaintained storage tank system; or

(b) Discovery as specified in the Petroleum Contamination Site Cleanup Criteria Rule 62-770.200(7), F.A.C.

(22) "Dispenser" means a dispensing system that is used to transfer vehicular fuel from a fixed point to a vehicle.

(23) "Dispenser liner" means a liner installed as secondary containment beneath a dispenser to prevent discharges of regulated substances.

(24) "Dispensing system" means equipment that is used to transfer regulated substances from integral piping through a rigid or flexible hose or pipe to another point of use outside of the storage tank system.

(25) "Double-bottomed" means an AST that has secondary containment in the form of an outer tank bottom having a closed interstitial space between the primary tank bottom and the secondary outer tank bottom.

(26) "Double-walled" means a storage tank that has an outer tank wall, or integral piping that has an outer wall that provides secondary containment of the primary tank or piping.

(27) "Empty" means all regulated substances have been removed so that no more than one inch in depth or 0.3 percent by weight of total system capacity of regulated substances remains in the storage tank system.

(28) "Existing contamination" means:

(a) The presence of free product or sheen on the groundwater;

(b) The presence of vapor levels in monitoring wells measured in accordance with DEP's "Guidelines for Vapor Monitoring" or by a Flame Ionization Detector or an equivalent instrument in excess of:

1. 500 parts per million total petroleum hydrocarbons for storage tank systems containing gasoline or equivalent petroleum products; or

2. 50 parts per million total petroleum hydrocarbons for storage tank systems containing kerosene, diesel or other equivalent petroleum products;

(c) Results of analytical tests on a groundwater sample that:

1. Exceed the cleanup target levels for petroleum products' chemicals of concern specified in Table V of Chapter 62-770, F.A.C.; or

2. Indicate the presence of a hazardous substance that is not described in (c)1. above; or

3. Indicate the presence of a regulated substance that is not described in (c)1. above; or

(d) After July 13, 1998, results of analytical tests on a soil sample that:

1. Exceed the lower of direct exposure I and leachability Table V cleanup target levels for petroleum products' chemicals of concern listed in Table IV of Chapter 62-770, F.A.C.; or

2. Indicate the presence of a hazardous substance that is not described in (d)1. above; or

3. Indicate the presence of a regulated substance that is not described in (d)1. above.

(29) "Facility" means a nonresidential location containing, or that contained, any stationary tank or tanks containing, or that contained regulated substances, and that have, or had, individual capacities greater than:

- (a) 110 gallons for UST systems; and
- (b) 550 gallons for AST systems.

(30) "Field-erected storage tank" means an AST that is constructed by assembling it on-site at the facility.

(31) "Flow-through process tank" is a tank that forms an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of materials during the operation of the process. Flow-through process tanks include tanks associated with vapor recovery units and oil-water separators. Flow-through process tanks do not include storage tanks used for the storage of regulated substances before their introduction into the production process or for the storage of finished products or by-products from the production process.

(32) "Free product" means a regulated substance in excess of 0.01 foot in thickness, measured at its thickest point, floating on water, surface water or groundwater.

(33) "Hazardous substances" means those substances defined as hazardous substances in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, Pub. L. No. 96-510, 94 stat. 2767, as amended by the Superfund Amendments and Reauthorization Act of 1986.

(34) "Heating oil" means any petroleum based fuel used in the operation of heating equipment, boilers, or furnaces.

(35) "High viscosity" means a pollutant with a viscosity of 30 centistokes (cSt) and higher at 40 degrees Centigrade, such as American Society for Testing and Materials (ASTM) grades 5 and 6 residual oils, intermediate fuel oils, or Bunker C fuel.

(36) "Hydraulic lift tank" means a tank that holds hydraulic fluid for a closed-loop mechanical system used to operate lifts, elevators, and other similar devices.

(37) "Hydrostatic test" means a test for a storage tank or storage tank system component that is performed in accordance with this chapter using equilibrium and the pressure of liquids to test the integrity of the tank or system component.

(38) "Impervious" means:

(a) A synthetic material or another material approved in accordance with Rule 62-761.850(2), F.A.C., that is compatible with the stored regulated substance, and has a permeability rate to the regulated substance stored of 1×10^{-7} cm/sec or less; or

(b) For concrete structures, a material that:

1. Meets the design and construction standards of ACI 350R-89 and ACI 224R-89; or

2. Is applied to the concrete in accordance with NACE International Standard RP0892-92.

(39) "In contact with the soil" means integral piping connected to ASTs or USTs, or any portion of a tank, that:

- (a) Physically touches the soil; or
- (b) Is not in direct contact with the soil, and is separated from the soil only by a casing, wrapping, or other material that is not impervious.
- (c) Those portions of integral piping that are elevated and that are not in direct contact with the soil are excluded from this definition.

(40) "Incident" is a condition or situation indicating that a discharge may have occurred from a storage tank system.

(41) "Industrial occupancy building" is an enclosed structure that contains an AST system that is used in association with an industrial or manufacturing process, or for electric power generating utilities, provided that the building was constructed and is used primarily for industrial, manufacturing, or electric power generating purposes, and not solely for the purpose of storing regulated substances. An industrial occupancy building is a structure that has an impervious floor without valves, drains, or other openings that would permit pollutants to be discharged. Industrial occupancy buildings constructed after July 13, 1998, must:

- (a) Be constructed in accordance with NFPA 30, Section 2-5, Installation of Tanks Inside of Buildings, and Section 5-3, Facility Design;
- (b) Have at least Type II construction in accordance with NFPA 220, Chapter 3;
- (c) Be ventilated in accordance with NFPA 68 and 69; and
- (d) Be verified as meeting the above construction requirements by either a registered architect or a professional engineer registered in the State of Florida.

(42) "In-service" means a storage tank system that is being actively maintained and operated in accordance with this chapter. Non-compliance with any specific rule within this chapter does not exclude the system from being considered "in-service." Subject to the above, a storage tank system is also considered to be in-service if it:

- (a) Contains regulated substances or has regulated substances regularly added to or withdrawn from the system;
- (b) Is emptied solely for the purpose of cleaning, routine maintenance, or a change in product, for a time period not exceeding 45 days; or
- (c) Contains non-regulated substances and is still maintained in an in-service status at the request of the owner or operator.

(43) "Integral piping" means on-site piping, originating or terminating at the regulated storage tank or tanks, that conveys regulated substances. Vapor recovery lines, pipeline facilities, and vent lines are not considered integral piping. Integral piping is not considered on-site if the piping crosses state boundaries, or two or more county boundaries. Integral piping includes all valves, elbows, joints, flanges, pumps, and flexible connectors, up to the:

- (a) Union of the piping with the dispensing system;

-
- (b) Fill cap or fill valve;
 - (c) Forwarding pump used for transferring regulated substances to a flow-through process tank or an industrial production or manufacturing point of use; or
 - (d) First flange or connection within the loading rack containment area.
- (44) "Internal lining" means a material that is applied internally on AST bottoms or USTs to protect the tank from internal corrosion.
- (45) "Interstitial monitoring" is a release detection method that is used to determine the presence of regulated substances or water between the primary and secondary containment. Interstitial monitoring can be performed within:
- (a) A closed interstitial space between two steel or impervious barriers that are sealed, not open to the atmosphere, and designed to be tested for a breach of integrity of the interstitial space; or
 - (b) An open interstitial space between two steel or impervious barriers that are open to the atmosphere, and not designed to be tested for a breach of integrity of the interstitial space.
- (46) "Liner" means an impervious material that meets the performance standards of Rule 62-761.500(1)(e), F.A.C., that is used externally as a method of secondary containment.
- (47) "Liquid trap" means sumps, well cellars, and other traps used in association with oil and gas production, gathering and extraction operations (including gas production plants) to collect oil, water, and other liquids. Liquid traps may temporarily collect liquids for subsequent disposition or reinjection into a production or pipeline stream, or may collect and separate liquids from a gas stream.
- (48) "Maintenance" means the normal operational upkeep to prevent a storage tank system from releasing regulated substances.
- (49) "Mobile tank" is:
- (a) An AST that is moved to a different location at least once every 180 days, and
 1. Has a current valid vehicle registration with the Florida Department of Highway Safety and Motor Vehicles and has current test and inspection markings in accordance with 49 C.F.R. 180.415; or
 2. Is designed and constructed to be moved to other service locations, and its relocation within a facility or from site to site is inherent in its use; or
 3. Is used for on-site construction activities, provided that the construction activities do not exceed 12 months, or the life of the construction project as long as construction is continuous, and the tanks are removed from the site when the construction is complete; and
 - (b) Not considered mobile if it is connected to stationary underground or aboveground integral piping, unless associated with the production of an agricultural commodity, provided that the tank is moved to a different location at least once every 180 days.
-

(50) "Nationally Recognized Laboratory" means an organization that can perform quantitative and qualitative tests on storage tank system equipment, evaluate the test data and equipment performance, and make determinations of the equipment's capability of meeting the technical standards of this Chapter. A Nationally Recognized Laboratory shall have at least five years of professional storage tank system equipment testing experience. Nationally Recognized Laboratories include organizations such as Underwriter's Laboratories, Carnegie Mellon Research Institute, Midwest Research Institute, Ken Wilcox Associates, Factory Mutual, and American Board of Engineering and Technology (ABET) Accredited Universities.

(51) "On-site" means on the same or geographically contiguous property as the facility regulated under this chapter, that is under the same ownership or control, and which may be divided by a public or private right-of-way or an easement. Piping connecting ASTs with pipeline facilities are considered on-site up to the point where it crosses through the dike wall surrounding the AST.

(52) "Operational life" refers to the period from the start of installation of the storage tank system to the completion of the closure of the storage tank system in accordance with Rule 62-761.800(3), F.A.C.

(53) "Operator" means any person operating a facility, whether by lease, contract, or other form of agreement.

(54) "Out-of-service" means a storage tank system that:

- (a) Is designated as an out-of-service system by owner or operator notification to the Department on Form 62-761.900(2), F.A.C.;
- (b) Is empty as defined in Rule 62-761.200(27), F.A.C.; and
- (c) Does not have regulated substances transferred into or withdrawn from the tank as specified in Rule 62-761.800(2), F.A.C., for a maximum time of:
 1. Two years of being taken out-of-service for USTs; or
 2. Five years of being taken out-of-service for ASTs; or
 3. Ten years of being taken out-of-service for storage tank systems with secondary containment.

(55) "Overfill" is a release or discharge that occurs when a tank is filled beyond its capacity.

(56) "Owner" means any person as defined in Section 376.301(23), F.S., owning a facility.

(57) "Pesticides" means all preparations, products, and substances included in the Department of Agriculture and Consumer Services' Rule 5E-2.002, F.A.C.

(58) "Petroleum" includes:

- (a) Oil, including crude petroleum oil and other hydrocarbons, regardless of gravity, which are produced at the well in liquid form by ordinary methods and which are not the result of condensation of gas after it leaves the reservoir; and
- (b) All natural gas, including casinghead gas, and all other hydrocarbons not defined as oil in paragraph (a).

-
- (59) "Petroleum product" means any liquid fuel commodity made from petroleum.
- (a) Forms of fuel considered to be petroleum products include all fuels known or sold as:
1. Diesel fuel;
 2. Kerosene;
 3. Gasoline; and
 4. Fuels containing mixtures of gasoline and other products.
- (b) Forms of fuel excluded from this definition are:
1. Liquefied petroleum gas;
 2. American Society for Testing and Materials (ASTM) grades no. 5 and no. 6 residual oils;
 3. Bunker C residual oils;
 4. Intermediate fuel oils used for marine bunkering with a viscosity of 30 and higher;
 5. Asphalt oils; and
 6. Petrochemical feedstocks.
- (60) "Pipe" or "piping" means any hollow cylindrical or tubular conveyance through which regulated substances flow.
- (61) "Pipeline facilities" are pipe systems, rights-of-way and any associated equipment, gathering lines, buildings, or break-out tanks necessary for the long range transportation of regulated substances.
- (62) "Piping sump" or "Submersible turbine pump sump" means a liner installed as secondary containment or a monitoring port at the top of a tank or at the lowest point in the integral piping to detect releases.
- (63) "Pollutants" includes any "product" as defined in Section 377.19(11), F.S., pesticides, ammonia, chlorine, and derivatives thereof, excluding liquefied petroleum gas.
- (64) "Pressure test" means a test to determine the integrity of integral piping performed in accordance with Rule 62-761.640(3)(e)1., F.A.C.
- (65) "Pressurized piping" means piping through which regulated substances flow due to a pump that is not located at the dispensing system.
- (66) "Product" as defined in Section 377.19(11), F.S., means any commodity made from oil or gas and includes refined crude oil, crude tops, topped crude, processed crude petroleum, residue from crude petroleum, cracking stock, uncracked fuel oil, fuel oil, treated crude oil, residuum, gas oil, casinghead gasoline, natural gas gasoline, naphtha, distillate, condensate, gasoline, used oil, kerosene, benzene, wash oil, blended gasoline, lubricating oil, blends or mixtures of oil with one or more liquid products or byproducts derived from oil or gas, and blends or mixtures of two or more liquid products or byproducts derived from oil or gas, whether hereinabove enumerated or not.
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(67) "Registered Precision Tank Tester" means a contractor that performs tightness tests on USTs, and small diameter piping connected to USTs, that is registered by the Department of Business and Professional Regulation pursuant to Chapter 489, F.S.

(68) "Regulated substance" means a liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), that is:

(a) A pollutant or a hazardous substance, or any mixture of the two, when stored in a UST; or

(b) A pollutant, when stored in an AST.

(69) "Release" means:

(a) A discharge; or

(b) A loss of regulated substances from a storage tank system into the system's secondary containment.

(70) "Release detection" means a method of:

(a) Determining whether a discharge of regulated substances has occurred; or

(b) Detecting the presence of regulated substances within a storage tank system's secondary containment.

(71) "Release detection response level" is the point of measurement, calculation, observation, or level that is established for each individual release detection device or method at which an investigation must be initiated to determine if an incident, release, or discharge has occurred.

(72) "Repair" means to restore or replace any defective or damaged parts of a storage tank system. Replacement of a non-defective part is not a repair.

(73) "Residential storage tank system" means a storage tank system that is located on property used primarily for dwelling purposes, and the storage and use of regulated substances in the tank is for residential purposes.

(74) "Secondary containment" means a release detection and prevention system that meets the performance standards of Rule 62-761.500(1)(e), F.A.C., and includes dispenser liners, piping sumps, double-walled tanks and piping systems, or single-walled tanks or piping systems that are contained within a liner or an impervious containment area. A Release Prevention Barrier, as specified in API Standard 650, Appendix I, is considered secondary containment for field-erected aboveground storage tank bottoms.

(75) "Sheen" means a regulated substance less than or equal to 0.01 foot in thickness, measured at its thickest point, or visibly observed, floating on surface water, groundwater, or within secondary containment.

(76) "Shop-fabricated storage tank" means an AST that is constructed at the tank manufacturer's plant and transported to the facility for installation.

(77) "Significant loss or gain" means the sum of losses and gains of a regulated substance over a 30 day or monthly period that exceeds:

(a) For tanks with capacities between 111 and 2,000 gallons with an individual flow-through less than 5,000 gallons during the previous 30 days:

1. One percent of the tank capacity; or
2. One percent of the total weekly output; or
3. Fifty gallons, whichever is greatest; or

(b) For tanks with capacities greater than 2000 gallons, or tanks with an individual flow-through exceeding 5,000 gallons during the previous 30 days:

1. One percent of the tank capacity; or
2. One percent of the amount of product dispensed during the previous 30 days, plus 130 gallons, whichever is greatest; or

(c) For ASTs with capacities of 30,000 gallons or greater:

1. One percent of the tank capacity; or
2. One half of one percent of the amount of product dispensed during the previous 30 days, whichever is greater.

(78) "Small diameter piping" means integral piping with an internal diameter of three inches or less that is utilized for transporting regulated substances.

(79) "Storage tank system" means a tank used to contain regulated substances, its integral piping, and all its components, including dispensing systems, spill containment devices, overfill protection devices, secondary containment systems, and any associated release detection equipment.

(80) "Suction piping" means piping through which regulated substances flow due to a pump located at the dispensing system.

(81) "Tank" means an enclosed stationary container or structure that is designed or used to store regulated substances, and the volume of which, including the volume of underground piping, is:

(a) For USTs, ten percent or more buried beneath the surface of the ground; and

(b) For ASTs, less than ten percent beneath the surface of the ground. For purposes of this chapter, cut and cover tanks are considered aboveground storage tanks.

(82) "Temporary out-of-service" is a designation of a service status for a field-erected storage tank system that is emptied solely for the purpose of cleaning, routine maintenance, or change of product for a time period exceeding thirty days, but less than six months.

(83) "Tightness test" means a test for an underground storage tank or its small diameter piping that is performed in accordance with Rule 62-761.640(3)(c)4. and (d)2., F.A.C., by a precision tank tester registered with the Department of Business and Professional Regulation under Chapter 489, F.S. At ASTs with small diameter piping in contact with the soil, a tightness test may be performed by persons who are not precision tank testers.

(84) "UST" means an underground storage tank.

(85) "UST Category-A system" means a system containing pollutants that was installed on or before June 30, 1992, or a system containing hazardous substances that was installed before January 1, 1991.

(86) "UST Category-B system" means a system containing pollutants that was installed after June 30, 1992, or a system containing hazardous substances that was installed on or after January 1, 1991, and before July 13, 1998.

(87) "UST Category-C system" means a system that was installed on or after July 13, 1998. USTs that are removed and relocated on or after July 13, 1998 are considered Category-C systems.

(88) "Unmaintained" means:

(a) A storage tank system that was not closed in accordance with Department rules; or

(b) An out-of-service storage tank system that is not returned to in-service status within:

1. Two years of its being out-of-service for USTs; or

2. Five years of its being out-of-service for ASTs; or

3. Ten years of its being out-of-service for storage tank systems with secondary containment.

(89) "Upgrade" means the addition or retrofit of cathodic protection, internal lining, spill prevention, overfill protection, or secondary containment, to a storage tank system, or the installation of single wall corrosion resistant storage tanks, to improve the ability of the storage tank system to prevent discharges of regulated substances.

(90) "Vehicular fuel" means a petroleum product used to fuel motor vehicles, including aircraft, watercraft, and vehicles used on and off roads and rails.
Specific Authority 376.303, FS.

Law Implemented 376.303, FS.-- New 12-10-90, Amended 5-4-92; 3-7-94, Formerly 17-761.200, Amended 9-30-96, 7-13-98.

62-761.210 Reference Standards.

(1) Referenced standards are available for inspection at the County Offices, and the Department of Environmental Protection's District and Tallahassee Offices, and may be obtained from the following sources:

(a) ACI International (American Concrete Institute), Post Office Box 9094, Farmington Hills, Michigan 48333-9094, (248) 848-3700;

(b) American Petroleum Institute (API), 1220 L Street, N.W. Washington, D.C. 20005, (202) 682-8000;

(c) ASME International (The American Society of Mechanical Engineers), 22 Law Drive, Box 2300, Fairfield, New Jersey 07007-2300, (800) 843-2763;

(d) American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Conshohocken, Pennsylvania 19103, (610) 832-9500;

Effective 7-13-98

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- (e) Florida Department of Environmental Protection (DEP), Storage Tank Regulation Section, 2600 Blair Stone Road, MS 4525, Tallahassee, Florida 32399-2400, (904) 488-3935;
- (f) NACE International (National Association of Corrosion Engineers), Post Office Box 218340, Houston, Texas 77218-8340, (281) 492-0535;
- (g) National Fire Protection Association (NFPA), 1 Battery March Park, Post Office Box 9101, Quincy, Massachusetts 02269-9101, (800) 344-3555;
- (h) National Leak Prevention Association (NLPA), Route 2 Box 106A, Falmouth, Kentucky 41040, (702) 832-2260;
- (i) Petroleum Equipment Institute (PEI), Post Office Box 2380, Tulsa, Oklahoma 74101-2380, (918) 494-9696;
- (j) Society for Protective Coatings (SSPC) 40 24th Street, 6th Floor, Pittsburgh, Pennsylvania 15222-4643, (412) 281-2331;
- (k) Steel Tank Institute (STI), 570 Oakwood Road, Lake Zurich, Illinois 60047, (847) 438-8265;
- (l) Underwriters Laboratories (UL), 333 Pfingsten Road, Northbrook, Illinois 60062-2096, (847) 272-8800; and
- (m) Government Printing Office, Superintendent of Documents, Attention: New Orders, Post Office Box 371954, Pittsburgh, Pennsylvania 15250-7954, (202) 512-1800.

(2) Titles of documents. References to documents listed in (a) through (m) below are made throughout this chapter. Each document or part thereof is adopted and incorporated as a standard only to the extent that it is specifically referenced in this chapter.

- (a) ACI International:
1. ACI 224R-89, "Control of Cracking in Concrete Structures," May, 1990;
- and
2. ACI 350R-89, "Environmental Engineering Concrete Structures," June, 1990.
- (b) American Petroleum Institute Standards:
1. API Specification 12B, "Specification for Bolted Tanks for Storage of Production Liquids," February, 1995;
 2. API Specification 12D, "Specification for Field Welded Tanks for Storage of Production Liquids," November, 1994;
 3. API Specification 12F, "Specification for Shop Welded Tanks for Storage of Production Liquids," November, 1994, with Addenda 1, February, 1997;
 4. API Specification 12P, "Specification for Fiberglass Reinforced Plastic Tanks," January, 1995;
 5. API Standard 570, "Piping Inspection Code: Inspection, Repair, Alteration, and Rerating of In-Service Piping Systems," June, 1993;
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Effective 7-13-98

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6. API Standard 620, "Design and Construction of Large Welded Low-pressure Storage Tanks", February, 1996, with Addenda 1, December, 1996, with Additional Pages for Addendum 1, February, 1997;
 7. API Standard 650, "Welded Steel Tanks for Oil Storage," July, 1993, with Addendum 1, December, 1994, Addendum 2, December, 1995, and Addendum 3, December, 1996;
 8. API Recommended Practice 651, "Cathodic Protection of Aboveground Petroleum Storage Tanks," April, 1991;
 9. API Recommended Practice 652, "Lining of Aboveground Petroleum Storage Tank Bottoms," April, 1991;
 10. API Standard 653, "Tank Inspection, Repair, Alteration and Reconstruction," December, 1995, with Addendum 1, December, 1996;
 11. API Recommended Practice 1110, "Recommended Practice for the Pressure Testing of Liquid Petroleum Pipelines," December, 1991;
 12. API Recommended Practice 1604, "Closure of Underground Petroleum Storage Tanks", March, 1996;
 13. API Recommended Practice 1615, "Installation of Underground Petroleum Storage Systems," March, 1996;
 14. API Recommended Practice 1621, "Bulk Liquid Stock Control at Retail Outlets," May, 1993;
 15. API Recommended Practice 1631, "Interior Lining of Underground Storage Tanks," April, 1992;
 16. API Recommended Practice 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems," May, 1996;
 17. API Recommended Practice 1637, "Using the API Color-Symbol System to Mark Equipment and Vehicles for Product Identification at Service Stations and Distribution Terminals," September, 1995; and
 18. API Recommended Practice 2350, "Overfill Protection for Petroleum Storage Tanks," January, 1996.
- (c) ASME International:
 1. B31.4-1992, "Liquid Transportation Systems for Hydrocarbons, Liquid Petroleum Gas, Anhydrous Ammonia, and Alcohols" January, 1993 with 1994 Addenda; and
 2. B96.1-1993, "Welded Aluminum-Alloy Storage Tanks," June, 1993.
 - (d) American Society for Testing and Materials:
 1. Specification D4021-92, "Standard Specification for Glass Fiber Reinforced Polyester Underground Petroleum Storage Tanks," October, 1992; and
 2. Designation: ES 40-94, "Emergency Standard Practice for Alternative Procedures for the Assessment of Buried Steel Tanks Prior to the Addition of Cathodic Protection," January, 1995.
 - (e) Florida Department of Environmental Protection:
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Effective 7-13-98

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1. "Storage Tank System Closure Assessment Requirements" April, 1998;
 2. "Guidelines for Vapor Monitoring," April, 1998; and
 3. "Guidelines for Site-Suitability Determinations for External Monitoring," February, 1998.
- (f) NACE International:
1. NACE Standard RP-0169-96, "Control of External Corrosion on Underground or Submerged Metallic Piping Systems," September, 1996;
 2. NACE Standard RP-0285-95, "Corrosion Control of Underground Storage Tank Systems by Cathodic Protection," February, 1995;
 3. NACE Standard RP-0892-92, "Linings over Concrete for Immersion Service," December, 1992; and
 4. NACE Standard RP-0193-93, "External Cathodic Protection of On-Grade Metallic Storage Tank Bottoms," October, 1993.
- (g) National Fire Protection Association:
1. NFPA 30, "Flammable and Combustible Liquids Code," August, 1996;
 2. NFPA 30A, "Automotive and Marine Service Station Code," August, 1996;
 3. NFPA 329, "Handling Underground Releases of Flammable and Combustible Liquids," Chapters 3, 4, and 5, August, 1992;
 4. NFPA 68, "Guide for Venting of Deflagrations," February, 1994;
 5. NFPA 69, "Standard on Explosion Prevention Systems," February, 1997;
- and
6. NFPA 220, "Standard on Types of Building Construction," Chapter 3, August, 1995.
- (h) National Leak Prevention Association: NLPA Standard 631, "Entry, Cleaning, Interior Inspection, Repair and Lining of Underground Storage Tanks," Chapter B, 1991.
- (i) Petroleum Equipment Institute:
1. PEI/RP100-97 "Recommended Practices for Installation of Underground Liquid Storage Systems," 1997; and
 2. PEI/RP200-96, "Recommended Practices for Installation of Aboveground Storage Systems for Motor Vehicle Fueling," 1996.
- (j) Society for Protective Coatings:
1. SSPC-TU 2/NACE 6G197, SSPC Publication No. 97-04, "Design, Installation, and Maintenance of Coating Systems for Concrete Used in Secondary Containment," February, 1997; and
 2. SSPC-PA 1, "Paint Application Specification No. 1," August, 1991.
- (k) Steel Tank Institute:
1. STI-P₃® "Specification and Manual for External Corrosion Protection of Underground Steel Storage Tanks #STI-P₃®," April, 1996;
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2. STI R892-89, "Recommended Practice for Corrosion Protection of Underground Piping Networks Associated with Liquid Storage and Dispensing Systems," 1989;
 3. STI ACT-100® #F894, "Specification for External Corrosion Protection of FRP Composite Steel Underground Storage Tanks," April, 1996;
 4. STI F911-93, "Standard for Diked Aboveground Storage Tanks," November, 1993; and
 5. STI F921, "Standard for Aboveground Tanks with Integral Secondary Containment," April, 1996.
 - (l) Underwriters Laboratories Standards:
 1. UL 58, "Steel Underground Tanks for Flammable and Combustible Liquids," December, 1996;
 2. UL 142, "Steel Aboveground Tanks for Flammable and Combustible Liquids," April, 1993;
 3. UL 567, "Pipe Connectors for Petroleum Products and LP Gas," June, 1996;
 4. UL 971, "Nonmetallic Underground Piping for Flammable Liquids," October, 1995;
 5. UL 1316, "Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures," January, 1994;
 6. UL 1746, "External Corrosion Protection Systems for Steel Underground Storage Tanks," July, 1993, with Revisions, November, 1997; and
 7. UL 2085 "Protected Aboveground Tanks for Flammable and Combustible Liquids," December, 1997.
 - (m) Government Printing Office, Code of Federal Regulations:
 1. Title 33, Part 154, July 1997;
 2. Title 33, Part 156.170, July 1997;
 3. Title 40, Part 112, July 1997;
 4. Title 40, Part 280, Subpart H, July 1997;
 5. Title 40, Part 302, July 1997; and
 6. Title 49, Part 180.415, October, 1996.
 - (3) Applicability of Reference Standards: Unless otherwise specified in this rule, Category-A and Category-B facilities are subject to the Reference Standards listed in the Department's storage tank rules that were in effect at the time of facility construction or operation. Category-C facilities shall comply with Rule 62-761.210(2), F.A.C., on or after July 13, 1998.
Specific Authority 376.303, FS.
Law Implemented 376.303, FS.
History -- New 12-10-90, Formerly 17-761.210, Amended 7-13-98.
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Effective 7-13-98

62-761.300 Applicability.

(1) General Requirements:

(a) Underground storage tank systems: The requirements of this chapter, unless specified otherwise, apply to owners and operators of facilities, or owners and operators of UST systems with individual storage tank capacities greater than 110 gallons, that contain or contained:

1. Vehicular fuel, subject to Chapter 17-61, F.A.C., after May 21, 1984;
2. Pollutants or hazardous substances after December 10, 1990; or
3. Regulated substances in unmaintained storage tank systems.

(b) Aboveground storage tank systems: The requirements of this chapter, unless specified otherwise, apply to owners and operators of facilities, or owners and operators of aboveground stationary storage tank systems with individual storage tank capacities greater than 550 gallons, that contain or contained:

1. Vehicular fuel, subject to Chapter 17-61, F.A.C., after May 21, 1984;
2. Pollutants after March 12, 1991; or
3. Pollutants in unmaintained storage tank systems.

(c) Aboveground compression vessels and hazardous substance storage tank systems: Owners and operators of compression vessels and hazardous substance storage tanks with capacities of greater than 110 gallons containing hazardous substances are only required to comply with Rule 62-761.400(1)-(2), F.A.C.

(d) Aboveground mineral acid storage tank systems: Owners and operators of facilities, or owners and operators of aboveground mineral acid storage tank systems with capacities of greater than 110 gallons containing mineral acids are only required to comply with Rule 62-761.890, F.A.C.

(e) This rule is applicable to non-residential facilities. Under 40 C.F.R. 280, residential tanks greater than 1100 gallons containing motor fuels are subject to federal UST rules (advisory information only-not required by this chapter).

(2) Exemptions:

(a) General: The following aboveground and underground systems are exempt from the requirements of this chapter:

1. Any storage tank system storing any hazardous waste listed or identified under Subtitle C of the Resource Conservation and Recovery Act, or a mixture of such hazardous waste and other regulated substances;
2. Any storage tank system regulated under the Toxic Substances Control Act (15 U.S.C. 2065);
3. Any pesticide waste degradation system regulated under Chapter 62-660, F.A.C.;
4. Storage tank systems used solely for temporary storage of mixtures of pesticides and diluent for reapplication as pesticides;

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5. Any storage tank system with a storage capacity of less than 30,000 gallons used for the sole purpose of storing heating oil for consumptive use on the premises where stored;
 6. Any tank that contains asphalt or asphalt products not containing other regulated substances;
 7. Any storage tank system storing regulated substances that are solid or gaseous at standard temperature and pressure;
 8. Any storage tank containing LP gas;
 9. Any storage tank system that contains small quantities (de minimus, as per 40 C.F.R. Section 280.10(b)(5)) of regulated substances;
 10. Any wastewater treatment tank system that is part of a wastewater treatment facility regulated under Section 402 or 307(b) of the Clean Water Act;
 11. Any septic tank system;
 12. Any stormwater or wastewater collection system;
 13. Any surface impoundment, pit, pond, or lagoon;
 14. Any agricultural storage tank system of 550 gallons capacity or less;
 15. Any residential storage tank system;
 16. Any emergency spill or emergency overflow containment storage tank system that is emptied as soon as possible after use, and that routinely remains empty;
 17. Any flow-through process tank system. For industrial and manufacturing facilities, integral piping is considered to terminate at the forwarding pump or valve used to transfer regulated substances to process, production, or manufacturing points of use or systems within the facility;
 18. Any storage tank system, liquid trap, or associated gathering lines directly related to oil or gas production and gathering operations regulated by Chapter 377, F.S.;
 19. Equipment or machinery that contains regulated substances for operational purposes, such as hydraulic lift or fluid tank systems and electrical equipment tank systems;
 20. Any pipeline facilities;
 21. Any storage tank system containing radionuclides or that is part of an emergency generator system for nuclear power generation at facilities regulated by the Nuclear Regulatory Commission under 10 C.F.R. Part 50 Appendix A;
 22. Vapor recovery holding tanks and associated vapor recovery piping systems; or
 23. Any rail or tanker truck loading or unloading operations (loading racks) specified in Chapter 5 of NFPA 30.
- (b) Aboveground storage tank systems: The following AST systems are exempt from the requirements of this Chapter:
1. Drip irrigation systems that:
 - a. Are not in contact with the soil;
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- b. Are constructed of corrosion resistant materials;
 - c. Are compatible with the products stored;
 - d. Contain less than 80% concentration of fertilizer materials by volume; and
 - e. Are applied on site;
2. Systems used exclusively for the storage of aqueous solutions of sodium hypochlorite;
- 3. Any mobile tank;
 - 4. Any system located entirely within an industrial occupancy building;
 - 5. Any storage tank system located entirely within an enclosed building or vault with an adequate roof and walls to prevent rainwater from reaching the system, and with an impervious floor containing no valves, drains, or other openings that would permit pollutants to be discharged from the system that were constructed before July 13, 1998; or
 - 6. Any mobile double-wall tank, regardless of how long it is located at a facility, that is connected with a power module system that is used for the emergency or supplemental generation of electrical power by an electric utility as defined in Chapter 366, Florida Statutes. This exemption is limited to tanks that are designed and constructed to be moved to other service locations, and the relocation within a facility or from site to site is inherent in its use.
- Specific Authority 376.303 FS.
Law Implemented 376.303 FS.
History--New 12-10-90, Formerly 17-761.300, Amended 9-30-96, 7-13-98.

62-761.400 Registration and Financial Responsibility.

- (1) General registration requirements.
 - (a) The owner or operator of any facility, or the owner or operator of a storage tank system, aboveground hazardous substance tank, or compression vessel, shall register the storage tank system, aboveground hazardous substance tank, or compression vessel with the Department on Form 62-761.900(2).
 - (b) A completed registration form shall be submitted to the Department no later than 30 days after regulated or hazardous substances are put into any new storage tank system, above ground hazardous substance tank, or compression vessel.
- (2) Registration fees.
 - (a) General requirements.
 - 1. Registration fees are due from the tank or facility owner or operator, as indicated in this section, for all registered storage tank systems and compression vessels, except for:
 - a. Storage tank systems that have been properly closed in accordance with Rule 62-761.800(3), F.A.C.; and
 - b. ASTs at federally-owned or operated facilities.

Effective 7-13-98

2. A registration fee of \$50.00 per tank or vessel shall be submitted for each initial registration of a storage tank system or compression vessel. The fee shall be paid within 30 days after receipt of an invoice by the Department.

3. A renewal fee of \$25.00 per tank shall be paid to the Department for each storage tank system not meeting the closure requirements in Rule 62-761.800(3), F.A.C by July 1 each year.

4. A replacement fee of \$25.00 per tank shall be paid to the Department for each tank that is replaced for the purpose of facility upgrading, within 30 days after receipt of an invoice by the Department.

5. A late fee of \$20.00 per tank shall be paid to the Department for any renewal that is received after July 31.

6. Each facility shall receive a registration placard upon payment of all applicable fees. The placard shall be displayed in plain view in the office, kiosk, or at another suitable location at the facility where the tank is located.

(b) Specific requirements.

1. Bulk product facilities. Owners or operators shall submit:

a. An annual renewal fee of \$25.00 for each tank with a capacity of 250,000 gallons or less by July 1 of each year; and

b. An annual renewal fee of one dollar per every 10,000 gallons of storage capacity, for each tank with a storage capacity greater than 250,000 gallons, by July 1 of each year, not to exceed \$1,000.00 per tank.

c. In no circumstance will the owner or operator of any facility pay an annual fee greater than \$5,000.00 for all pollutant storage tanks located at the facility.

2. Compression vessels and aboveground hazardous substance storage tanks.

a. Owners and operators shall submit a renewal fee of \$25.00 per tank or vessel to the Department by July 1 each year.

b. In no circumstance will the owner or operator of any facility pay an annual fee greater than \$2500.00 for all registered compression vessels and aboveground hazardous substance storage tanks located at a facility.

(3) Financial responsibility.

(a) General requirements.

1. The owner or operator of a facility, or individual tanks, if of different ownership, shall demonstrate financial responsibility to the Department. If the owner and operator of a tank are separate persons, only one person is required to demonstrate financial responsibility. However, both persons are liable in event of noncompliance. Financial responsibility is only required for tanks containing petroleum or petroleum products. Financial responsibility is the ability to pay for corrective action and third-party liability resulting from a discharge at the facility.

2. The demonstration of financial responsibility shall be made by the owner or operator in accordance with C.F.R. Title 40, Part 280, Subpart H. Owners or

operators shall substitute "aboveground" or "aboveground and underground" for "underground," where applicable, for any documents required in C.F.R. Title 40, Part 280, Subpart H, that are submitted to the Department to demonstrate financial responsibility.

3. Financial responsibility requirements for petroleum storage systems containing petroleum products may be supplemented by participation in the Florida Petroleum Liability Restoration and Insurance Program to the extent provided by Section 376.3072, F.S.

4. Notwithstanding the owner's or operator's financial responsibility status, the owner or operator may, in accordance with Chapter 376 or 403, F.S., be liable for any discharge at the facility.

(b) Underground storage tank systems. The minimum requirements for financial responsibility for USTs containing petroleum or petroleum products shall be the same as provided by C.F.R. Title 40, Part 280, Subpart H.

(c) Aboveground storage tank systems. The minimum requirements for financial responsibility for ASTs containing petroleum or petroleum products became effective on January 1, 1995, and are the same as provided by C.F.R. Title 40, Part 280, Subpart H, except for the following:

1. For a storage tank system with a capacity greater than 550 gallons and less than or equal to 10,000 gallons, the demonstration of financial responsibility for corrective action and third-party liability shall be a minimum of \$500,000.00 per incident and \$1 million annual aggregate.

2. For a storage tank system with a capacity greater than 10,000 gallons and less than or equal to 30,000 gallons, the demonstration of financial responsibility for corrective action and third-party liability shall be a minimum of \$1 million per incident and \$1 million annual aggregate.

3. For a storage tank system with a capacity greater than 30,000 gallons and less than or equal to 250,000 gallons the demonstration of financial responsibility for corrective action and third-party liability shall be a minimum of \$1 million per incident and \$2 million annual aggregate.

4. For a storage tank system with a capacity greater than 250,000 gallons, the demonstration of financial responsibility for corrective action and third-party liability shall be a minimum of \$3 million per incident and \$6 million annual aggregate.

Specific Authority 376.303, 376.322(3), FS.

Law Implemented 376.303, 376.309, 376.323, 376.3077, FS.

New -- 12-10-90, Formerly 17-761.400, Amended 9-30-96, 7-13-98.

62-761.410 Registration Fees. (Repealed)

Specific Authority 376.303, FS.

Law Implemented 376.303, FS.

Effective 7-13-98

History -- New 12-10-90, Formerly 17-761.40, Repealed 9-30-96.

62-761.450 Notification and Reporting.

(1) Notification requirements.

(a) Verbal or written notice shall be provided to the County:

1. At least 30 days before installation or upgrading to meet the requirements of Rule 62-761.500, F.A.C., unless the County agrees to a shorter time period;

2. At least 10 days before an internal inspection of a UST, an API 653 internal inspection, a change in service status, closure, or closure assessment, any of which is performed to meet the requirements of this Chapter;

3. At least 48 hours before:

a. Initiating activities specified in subparagraphs 1. or 2. above, to confirm the date and time of the scheduled activities;

b. The establishment of temporary out-of-service status for field-erected ASTs; and

c. Performing any tightness test required under this Chapter; and

4. Before the close of the County's next business day for an emergency change to an out-of-service status made as required by Rule 62-761.820, F.A.C. Verbal or written notification of the activities specified in subparagraphs 1. or 2. above performed as a direct result of the emergency change in service shall be made to the County before initiating the activities.

(b) Within 30 days after completion, the owner or operator shall notify the Department of the following items on Storage Tank Registration Form 62-761.900(2):

1. Any change in ownership of a facility or of a storage tank system. Notice of change of ownership shall be provided to the Department by the new owner. The notice shall include a copy of the bill of sale or a letter of acceptance by the new owner;

2. Closure or upgrading of a storage tank system;

3. Any change or correction in the information reported in the registration form, including changes in the type of regulated substances stored. A change within the same blend of regulated substances should not be reported (e.g., regular unleaded to premium unleaded gasoline); and

4. The establishment of, or changes to, the method of demonstrating financial responsibility required by Rule 62-761.400(3), F.A.C.

(c) Underground storage tank systems. Within 30 days after installation, replacement, or removal of a storage tank system, the Certified Contractor shall submit a completed Underground Storage Tank System Installation and Removal Form 62-761.900(5) to the County.

(2) Incident notification requirements.

(a) Notification of the discovery of the following incidents shall be made to the County on Incident Notification Form 62-761.900(6) within 24 hours or before the close of the County's next business day:

1. A failed SIR evaluation, or inconclusive SIR evaluations as specified in Rule 62-761.640(3)(c)3., F.A.C., or a failed or inconclusive tightness, pressure, or breach of integrity test;

2. Internal inspection results, including perforations, corrosion holes, weld failures, or other similar defects, that indicate that a release could have occurred;

3. Unusual operating conditions, such as the erratic behavior of product dispensing equipment, the sudden loss of product from a storage tank system, or any unexplained presence of water in a tank or unexplained presence of water with or without sheen in a piping sump, unless system equipment is found to be defective but not leaking;

4. The presence of odors of a regulated substance from surface water or groundwater, soil, basements, sewers and utility lines at a facility or in the surrounding area from which it could be reasonably concluded that a release or discharge may have occurred;

5. The loss of a regulated substance from a storage tank system exceeding 100 gallons on impervious surfaces, other than secondary containment, such as driveways, airport runways, or other similar asphalt or concrete surfaces, provided that the loss does not come in contact with pervious surfaces;

6. The loss of a regulated substance exceeding 500 gallons inside a dike field area with secondary containment;

7. A positive response of release detection devices or methods described in Rule 62-761.640, F.A.C., or approved under Rule 62-761.850(2), F.A.C. A positive response shall be the indication of a release of regulated substances, an exceedance of the Release Detection Response Level, or a breach of integrity of a storage tank system; and

8. The presence of free product in a piping sump.

(b) Incident Notification Form 62-761.900(6) need not be submitted if:

1. Within 24 hours of discovery of an incident, or before the close of the County's next business day, the investigation of the incident confirms that a discharge did not occur; or

2. An Incident Notification Form was previously submitted for that incident.

(3) Discharge reporting requirements.

(a) Upon discovery of an unreported discharge, the owner or operator shall report the following to the County on Discharge Report Form 62-761.900(1) within 24 hours or before the close of the County's next business day:

1. Results, or receipt of results, of analytical or field tests of surface water or groundwater indicating the presence of contamination by:

a. A hazardous substance from a UST system;

- b. A regulated substance, other than petroleum products; or
- c. Petroleum products' chemicals of concern specified in Table V or VII, as applicable, in Chapter 62-770, F.A.C.;
- 2. Free product or sheen of a regulated substance, or a regulated substance that is visibly observed in soil, on surface water, in groundwater samples, on basement floors, in subsurface utility conduits or vaults, or in sewer lines at the facility or in the surrounding areas;
- 3. A spill or overfill event of a regulated substance to soil or another pervious surface, equal to or exceeding 25 gallons, unless the regulated substance has a more stringent reporting requirement specified in C.F.R. Title 40, Part 302;
- 4. Results of analytical or field tests of soil indicating the presence of contamination by:
 - a. A hazardous substance from a UST system;
 - b. A regulated substance, other than petroleum products;
 - c. Petroleum products' chemicals of concern that exceed the lower of direct exposure I and leachability Table V cleanup target levels specified in Table IV in Chapter 62-770, F.A.C., unless due to a spill or overfill event in a quantity less than that described in subparagraph 3. above; or
- 5. Soils stained by regulated substances that are observed during a closure assessment performed in accordance with Rule 62-761.800(4), F.A.C.
 - (b) Copies of analytical or field test results that confirm a discharge shall be submitted to the County with Discharge Report Form 62-761.900(1).
 - (c) A request for a retraction of a submitted Discharge Report Form may be submitted to the County or the Department if evidence is presented that a discharge did not occur at the facility.
 - (d) A Discharge Report Form 62-761.900(1) does not need to be submitted for previously reported discharges.

Specific Authority 376.303, FS.

Law Implemented 376.303, FS.

History -- New 12-10-90, Formerly 17-761.450, Amended 9-30-96, 7-13-98.

62-761.460 Reporting. (Repealed)

Specific Authority 376.303, FS.

Law Implemented 376.303, FS.

History -- New 12-10-90, Formerly 17-761.450, Repealed 9-30-96.

62-761.480 Financial Responsibility. (Repealed)

Specific Authority 376.303, 376.309, FS.

Law Implemented 376.303, 376.309, FS.

Effective 7-13-98

History -- New 12-10-90, Formerly 17-761.480, Repealed 9-30-96.

62-761.500 Performance Standards for Category-C Storage Tank Systems.

(1) General performance standards. AST and UST Category-C systems shall be constructed and installed in accordance with the requirements of this section. AST and UST Category-C systems shall be made of, or internally lined with, materials that are compatible with the regulated substance stored in the system. The following requirements are applicable to both UST and AST systems:

(a) Siting. Persons are advised that, pursuant to Rule 62-521.400(1)(l)-(n) and (2), F.A.C., no storage tank shall be installed within 500 feet of any existing community water supply system or any existing non-transient non-community water supply system. No Category-C system (AST or UST) shall be installed within 100 feet of any other existing potable water supply well. These prohibitions shall not apply to the replacement of an existing storage tank system within the same excavation or dike field area, or the addition of new storage systems meeting the standards for Category-C systems at an existing facility.

(b) Exterior coatings. Exterior portions of aboveground tanks and aboveground integral piping, excluding double-walled systems, shall be coated or otherwise protected from external corrosion. The coating shall be designed and applied to resist corrosion, deterioration, and degradation of the exterior wall. SSPC-PA 1, Paint Application Specification No. 1 may be used to protect storage tank systems from external corrosion.

(c) Spill containment. USTs and shop-fabricated ASTs shall be installed with a spill containment system at each tank fill connection. The spill containment system shall be a fixed component that is designed to prevent a discharge of regulated substances when the transfer hose or pipe is detached from the tank fill pipe. The spill containment system shall meet the requirements of Rule 62-761.500(1)(e), F.A.C.

(d) Dispensing systems.

1. The dispensing system used for transferring fuels from storage tanks shall be installed and maintained in accordance with the provisions of NFPA 30 and Chapters 2, 4 and 9 of NFPA 30A.

2. Dispensers shall be designed, constructed, and maintained to provide access for examination and removal of collected product and accumulated water from dispenser liners.

(e) Secondary containment.

1. The materials used for secondary containment shall be:

a. Impervious to the regulated substance and able to withstand deterioration from external environmental conditions;

b. Non-corrosive or of corrosion-protected materials;

c. Capable of containing regulated substances for at least 30 days; and

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- d. Of sufficient thickness and strength to withstand hydrostatic forces at maximum capacity to prevent a discharge during its operating life.
2. Liners, unless previously approved by the Department, shall be approved by the Department in accordance with Rule 62-761.850(2), F.A.C. Liners shall not be constructed or consist of naturally occurring in-situ soils.
3. Secondary containment constructed of concrete shall be:
- a. Designed and constructed in accordance with ACI 350R-89 and ACI 224R-89; or
- b. Lined on the visible interior surfaces of the dike field area in accordance with NACE International Standard RP 0892-92, or SSPC Publication 97-04, Design, Installation, and Maintenance of Coating Systems for Concrete Used in Secondary Containment; or
- c. Designed, evaluated, and certified by a professional engineer registered in the State of Florida that the concrete secondary containment system meets the General Construction Requirements specified in Rule 62-761.500(1)(e)1., F.A.C.
4. For cathodically protected tanks and integral piping, secondary containment systems shall not interfere with the operation of the cathodic protection system.
5. Storage tank system equipment with closed interstitial spaces, such as double-walled USTs, double-bottomed ASTs, and double-walled integral piping in contact with the soil that is connected to ASTs or USTs, shall be designed, constructed and installed to allow for the detection of a breach of integrity in the inner or outer wall by the monitoring of the interstitial space in accordance with Rule 62-761.640(3)(a), F.A.C. A breach of integrity test shall be performed before the storage tank system is put into service.
6. Secondary containment systems shall be designed and installed to direct any release to a monitoring point or points.
7. Airport and seaport hydrant pits. Underground hydrant pits shall be installed with a spill catchment basin, secondary containment, or other spill prevention equipment to prevent the discharge of pollutants during fueling of aircraft, vessels, or at any other time the hydrant system is in use. Any such equipment shall be sealed to and around the hydrant piping with an impervious, compatible material.
8. Field-fabricated dispenser liners and piping sumps installed before July 13, 1998 do not have to be approved in accordance with Rule 62-761.850, F.A.C.
- (f) Cathodic protection.
1. Test stations. Cathodic protection systems shall be designed, constructed, and installed with at least one test station or method of monitoring to allow for a determination of current operating status. Cathodic protection test stations shall provide direct access to the soil electrolyte in close proximity to each cathodically protected structure for placement of reference electrodes, and monitoring wires that connect directly to cathodically protected structures. Facilities where direct access to
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soil in close proximity to cathodically protected structures is present, and where electrical connections to cathodically protected structures can be conveniently accomplished, need not have separate dedicated cathodic protection test stations.

2. The cathodic protection system shall be operated and maintained in accordance with Rule 62-761.700(1)(b), F.A.C.

3. Any field-installed cathodic protection system shall be designed by a Corrosion Professional.

(g) Relocation of USTs. Tanks that have been removed and that are to be reinstalled at a different location shall:

1. Be recertified that all original warranties are confirmed by the original manufacturer or the manufacturer's successor, and be reinstalled in accordance with the standards in Rule 62-761.500, F.A.C., that were in effect on July 13, 1998; or

2. Be recertified by a professional engineer registered in the State of Florida that the UST meets all applicable standards of Rule 62-761.500, F.A.C. in effect on July 13, 1998; and

3. Proof of recertification shall be provided to the Department and County prior to the completion of installation. The provisions of Rule 62-761.850(2), F.A.C., do not apply to the requirements of this subparagraph.

(h) Relocation of ASTs. Tanks that have been removed and that are to be reinstalled at a different location shall:

1. For field-erected tanks, comply with API Standard 653; or

2. For shop-fabricated tanks, be reinstalled in accordance with manufacturer's specifications, if applicable, and with the standards in Rule 62-761.500, F.A.C., that were in effect on July 13, 1998.

(i) Reuse of storage tanks. Unless it is recertified for use by a professional engineer registered in the State of Florida, or is recertified by the manufacturer, and is brought into service in accordance with Rule 62-761.500, F.A.C.:

1. A UST can not be used or reused as an AST for the storage of regulated substances; and

2. An AST can not be used or reused as a UST for the storage of regulated substances.

(2) Underground storage tank systems.

(a) Installation.

1. All components of a storage tank system shall be installed in accordance with the manufacturer's instructions.

2. All storage tank systems shall be installed according to the applicable provisions of NFPA 30 and 30A, PEI/RP100-97, and API RP 1615.

3. A Certified Contractor shall perform the installation of storage tank systems containing pollutants, including tanks, integral piping (excluding drop tubes), overfill protection and spill containment equipment, internal release detection equipment, cathodic protection systems, secondary containment systems, and

dispensing systems, if the installation of the storage tank system component disturbs the backfill, or where the integral piping is connected or disconnected during installation.

4. A tightness test shall be performed on the tank and integral piping before any storage tank system is placed into service unless the system's equipment approval specifies otherwise.

(b) Tank construction standards.

1. Fiberglass reinforced plastic tanks shall be constructed in accordance with UL 1316 and ASTM Standard D4021-86, or certified by a nationally recognized laboratory that these standards are met.

2. Cathodically protected steel tanks shall be:

a. Constructed in accordance with UL 58 and UL 1746, or as applicable;

b. Constructed in accordance with STI #STI-P₃[®] Specification and Manual for External Corrosion Protection of Underground Steel Storage Tanks; or

c. Certified by a Nationally Recognized Laboratory that these standards are met, and constructed and designed by a corrosion professional in accordance with NACE International Standard RP0285-95 for any field-installed cathodic protection system.

3. Steel tanks coated with a fiberglass reinforced plastic composite shall be constructed in accordance with UL-58 and either UL 1746, STI ACT 100[®] (F894), or certified by a nationally recognized laboratory that one of these standards is met.

4. Storage tanks constructed of any other material, design, or corrosion protection shall be approved by the Department in accordance with Rule 62-761.850(2), F.A.C.

5. Any new tank manufactured with previously used or remanufactured components shall be certified before being installed as meeting the applicable standards by Underwriters Laboratory, by a comparable certified product testing laboratory, or by a professional engineer registered in the State of Florida.

6. Tanks shall be constructed or installed to provide for interstitial monitoring.

(c) Secondary containment. All tanks installed or constructed at a facility after July 13, 1998 shall have secondary containment.

(d) Overfill protection.

1. At a minimum, fillbox covers shall be marked in accordance with API RP 1637, or with an equivalent method approved by the Department in accordance with Rule 62-761.850(2), F.A.C.

2. USTs shall be equipped with a system that either:

a. Automatically shuts off flow to the tank when the tank is no more than 95% full;

b. Restricts flow to the tank when the tank is no more than 90% full;

c. Alerts the transfer operator when the tank is no more than 90% full by triggering a high level alarm;

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- d. Alerts the transfer operator with a high level alarm set at 400 gallons below tank top, but no less than one minute before overfilling; or
 - e. Automatically shuts off flow into the tank so that none of the fittings located on top of the tank are exposed to product due to overfilling.
- (e) Dispenser liners.
 - 1. Storage tank systems installed or replaced after July 13, 1998 shall be installed with liners meeting the performance standards of Rule 62-761.500(1)(e), F.A.C., beneath the union of the piping and the dispenser.
 - 2. Hydrostatic tests shall be performed for all dispenser liners before placing the system into service. The duration of the tests shall be at least:
 - a. Twenty-four hours for field-fabricated dispenser liners; or
 - b. Three hours for factory-made dispenser liners.
 - 3. Dispenser liners shall be installed to allow for interstitial monitoring in accordance with Rule 62-761.640(3)(a), F.A.C.
 - (f) Piping sumps.
 - 1. Piping sumps installed after July 13, 1998 shall meet the performance standards of Rule 62-761.500(1)(e), F.A.C. The sumps shall be designed, constructed, and installed to minimize water entering the sump.
 - 2. Hydrostatic tests shall be performed for all piping sumps before placing the system into service. The duration of the tests shall be at least:
 - a. Twenty-four hours for field-fabricated piping sumps; or
 - b. Three hours for factory-made piping sumps.
 - 3. Piping sumps shall be installed to allow for interstitial monitoring in accordance with Rule 62-761.640(3)(a), F.A.C.
 - (3) Aboveground storage tank systems.
 - (a) Installation.
 - 1. All components of a storage tank system shall be installed in accordance with the manufacturer's instructions.
 - 2. Storage tank systems shall be installed according to the applicable provisions of NFPA 30, NFPA 30A and PEI/RP200-96.
 - (b) Tank construction standards.
 - 1. Shop-fabricated tanks shall be constructed in accordance with one of the following:
 - a. UL 142;
 - b. API Standard 620;
 - c. API Specification 12B;
 - d. API Specification 12F;
 - e. API Specification 12P;
 - f. STI F911-93;
 - g. STI F921®;
 - h. ASME B96.1; or

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- i. UL 2085.
 2. Field-erected tanks shall be constructed in accordance with one of the following:
 - a. ASME B96.1;
 - b. API Standard 620;
 - c. API Standard 650;
 - d. API Specification 12B; or
 - e. API Specification 12D.
 3. Field-erected tanks shall have an inspection and testing frequency established in accordance with API Standard 653 and maintained for the life of the tank.
 4. Steel tanks in contact with soil shall have a cathodic protection system meeting the following requirements:
 - a. The cathodic protection system shall be designed, constructed, and installed in accordance with API RP 651 and NACE International Standard RP-0193-93;
 - b. A field-installed cathodic protection system shall be designed by a Corrosion Professional;
 - c. The cathodic protection system shall be designed and installed with at least one test station in accordance with Rule 62-761.500(2)(b)2.b., F.A.C., or a method of monitoring to allow for a determination of current operating status; and
 - d. The cathodic protection system shall be operated and maintained in accordance with Rule 62-761.700(1)(b), F.A.C.
 5. Tanks constructed of any other material, design, or corrosion protection shall be approved by the Department in accordance with Rule 62-761.850(2), F.A.C.
 - (c) Secondary containment.
 1. All tanks installed or constructed at a facility after July 13, 1998 shall have secondary containment beneath the tank and within the dike field area, except for the following:
 - a. Tanks containing high viscosity regulated substances are exempt from the requirements for secondary containment. However, used or waste oil tanks, regardless of viscosity, shall have secondary containment beneath the tank and within the dike field area.
 - b. Double-walled shop-fabricated tanks approved in accordance with Rule 62-761.850(2), F.A.C., do not have to be installed in a dike field area.
 - c. Shop-fabricated tanks containing petroleum contact water pursuant to Chapter 62-740, F.A.C., that are subject to this chapter, elevated above and not in contact with the soil, and that have an impervious surface directly beneath the area of the tank.
 - d. Field-erected tanks used for the temporary storage of petroleum contact water pursuant to Chapter 62-740, F.A.C., that are subject to this chapter, and that have passed an internal inspection for structural integrity in accordance with API Standard 653.
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Effective 7-13-98

e. AST Category-C field-erected tanks constructed within a dike field area with AST Category-A field-erected tanks shall have secondary containment beneath the tank, but shall not be required to have secondary containment within the dike field area until December 31, 1999.

2. Release prevention barriers such as double-bottoms, liners, or other undertank secondary containment systems for field-erected tanks shall be designed and constructed in accordance with API Standard 650.

3. Dike field areas with secondary containment shall:

a. Conform to the requirements of NFPA 30, Chapter 2-3;

b. Contain a minimum of 110% of the maximum capacity of the tank or of the largest single-walled tank within the dike field area. Capacity calculations shall include the volume occupied above the area of the "footprint" of the tank bottom or the largest tank within the dike field area;

c. If not roofed or otherwise protected from the accumulation of rainfall, be constructed with a manually controlled pump or siphon, or a gravity drain pipe which has a manually controlled valve to remove accumulated liquids. Gravity drain pipes shall be designed and constructed to prevent a discharge in the event of fire;

d. Have all integral piping and other penetrations that pass through the secondary containment of dike field areas sealed around the outside of the penetration with an impervious compatible material to prevent the discharge of pollutants; and

e. If constructed of steel, be tested in accordance with UL 142.

(d) Overfill protection.

1. No transfer of regulated substances shall be made unless the volume available in the tank is greater than the volume of regulated substances to be transferred. The transfer shall be repeatedly monitored to prevent overfilling.

2. Overfill protection shall be performed in accordance with API RP 2350.

3. At a minimum, fillbox covers shall be marked in accordance with API RP 1637, or an equivalent method approved by the Department in accordance with Rule 62-761.850(2), F.A.C.

4. All tanks shall be equipped with at least one of the following:

a. A gauge or other measuring device that accurately shows the level of pollutant in the tank and that is visible to the person who is monitoring the filling;

b. A high level warning alarm;

c. A high level liquid flow cutoff controller;

d. An impervious dike field area; or

e. Another device approved in accordance with Rule 62-761.850(2), F.A.C.

5. Calibrated stick measurements of the level of pollutants in the tank shall only be used for tanks with a capacity of 15,000 gallons or less that are not loaded with high-volume pressurized nozzles. Such tanks shall not be loaded beyond 95% capacity.

(e) Dispenser liners.

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1. Dispensers connected to AST systems that are installed or replaced after July 13, 1998 shall be installed with liners meeting the performance standards of Rule 62-761.500(1)(e), F.A.C., beneath the union of the piping and the dispenser. Dispensers mounted directly upon a tank are exempt from this requirement.
 2. Hydrostatic tests shall be performed for all dispenser liners before placing the system into service. The duration of the tests shall be at least:
 - a. Twenty-four hours for field-fabricated dispenser liners; or
 - b. Three hours for factory-made dispenser liners.
 3. Dispenser liners shall be installed to allow for interstitial monitoring in accordance with Rule 62-761.640(3)(a), F.A.C.
 - (f) Piping sumps.
 1. Piping sumps installed after July 13, 1998 shall meet the performance standards of Rule 62-761.500(1)(e), F.A.C. The sumps shall be designed, constructed, and installed to minimize water entering the sump.
 2. Hydrostatic tests shall be performed for all piping sumps before placing the system into service. The duration of the tests shall be at least:
 - a. Twenty-four hours for field-fabricated piping sumps; or
 - b. Three hours for factory-made piping sumps.
 3. Piping sumps shall be installed to allow for interstitial monitoring in accordance with Rule 62-761.640(3)(a), F.A.C.
 - (4) Integral piping for aboveground and underground storage tank systems.
 - (a) Installation.
 1. All integral piping shall be installed in accordance with the manufacturer's instructions, if applicable.
 2. All integral piping shall be installed according to the applicable provisions of NFPA 30, NFPA 30A, and ASME B31.4.
 3. A tightness test shall be performed on underground small diameter piping associated with ASTs before any new underground piping system is placed into service. A pressure test shall be performed for underground bulk product piping before the piping system is placed into service. Tightness tests for underground small diameter piping connected to USTs are subject to Rule 62-761.500(2)(a)4., F.A.C.
 4. All piping that is not in contact with the soil, installed after July 13, 1998, shall meet the construction standards in Rule 62-761.500(4)(a)-(d), F.A.C.
 - (b) Integral piping construction standards.
 1. Fiberglass reinforced plastic piping or other non-metallic piping installed at a facility shall be listed with UL 971, UL 567, certified by a Nationally Recognized Laboratory that these standards are met, or approved in accordance with Rule 62-761.500(4)(b)3, F.A.C.
 2. Coated steel piping shall be constructed in accordance with ASME B31.4. Integral piping in contact with the soil shall be cathodically protected in accordance with API RP 1632, NACE International RP-0169-96, and STI R892-96.

3. Integral piping constructed of other materials, design, or corrosion protection shall be approved by the Department in accordance with Rule 62-761.850(2), F.A.C.

(c) Small diameter piping.

1. Pressurized small diameter piping systems connected to dispensers shall be installed with shear valves or emergency shutoff valves in accordance with NFPA 30A, Section 4-3.6, if applicable. These valves shall be designed to close automatically if a dispenser is dislodged from the integral piping. The valves shall be rigidly anchored independently of the dispenser. For underground small diameter piping, the valves shall be checked at the time of installation by a certified contractor to confirm that the automatic closing function of the valve operates properly and that the valve is properly anchored.

2. Gravity-fed small diameter integral piping systems must be installed with an isolation valve at the point of connection to the storage tank to prevent the discharge of regulated substances in the case of piping failure. The valve shall meet the standards of NFPA 30A, Section 2-1.7.

3. Swing-joints shall not be installed.

(d) Bulk product piping. Bulk product piping shall be constructed and installed in accordance with NFPA 30, and ASME B31.4.

(e) Secondary containment.

1. Small diameter integral piping that is in contact with the soil or that transports regulated substances over surface waters of the state shall have secondary containment.

2. Bulk product piping that is in contact with the soil shall have secondary containment.

3. Remote fill piping that is in contact with the soil shall have secondary containment.

4. The following integral piping systems are exempt from the requirements for secondary containment:

a. Integral piping that is in contact with the soil, and that is connected to storage tanks containing high viscosity regulated substances; and

b. Vertical fill pipes equipped with a drop tube.

Specific Authority 376.303 FS.

Law Implemented 376.303 FS.

History--New 12-10-90, Amended 5-4-92, Formerly 17-761.500, Amended 9-30-96, 7-13-98.

62-761.510 Performance Standards for Category-A and Category-B Storage Tank Systems.

(1) General. This section provides deadlines for Category-A and Category-B storage tank systems to meet the standards for Category-C storage tank systems in accordance with Rule 62-761.500, F.A.C.

(a) Installation:

1. Installation shall be completed by the deadlines specified in Table UST and Table AST. However, if installation or upgrade activities are initiated before the deadlines, work can continue after the deadlines, provided that all work is completed within 90 days of:

a. Contract execution; or

b. Receipt of construction approval or permits.

2. Installation is considered to have begun if:

a. All federal, state, and local approvals or permits have been obtained or applied for to begin physical construction for installation of the system; or

b. Contractual obligations have been made for installation of the system which cannot be canceled or modified without substantial economic loss, provided that such obligations are pursued diligently in good faith to achieve the requirements of this rule.

(b) By December 31, 1998:

1. All pressurized small diameter piping systems connected to dispensers shall have shear valves or emergency shutoff valves installed in accordance with Rule 62-761.500(4)(c), F.A.C.

2. Cathodic protection test stations shall be installed in accordance with Rule 62-761.500(1)(f)1. and (2)(b)2. F.A.C., for cathodically protected UST or AST systems without test stations.

3. Fillboxes shall be color coded in accordance with Rule 62-761.500(2)(d)1., F.A.C.

4. ASTs that have been reinstalled as USTs, and USTs that have been reinstalled as ASTs, shall meet the requirements of Rule 62-761.500, F.A.C.

(c) After July 13, 1998, a closure assessment shall be performed in accordance with Rule 62-761.800(4), F.A.C., before the installation of dispenser liners, piping sumps, or secondary containment of tanks and integral piping.

(d) Valves meeting the requirements of Section 2-1.7 of NFPA 30A, shall be installed by January 13, 1999 on any storage tank system located at an elevation that produces a gravity head on the dispenser or on small diameter piping.

(e) Small diameter piping transporting regulated substances over surface waters of the state shall have secondary containment by December 31, 2004.

(2) Underground storage tank systems.

(a) UST Category-A single-walled tanks or underground single-walled piping shall be considered to be protected from corrosion if the tank or piping was constructed

with corrosion resistant materials, initially installed with cathodic protection, or had cathodic protection or internal lining installed before June 30, 1992.

(b) UST Category-B systems.

1. All tanks containing pollutants, installed or constructed at a facility after June 30, 1992, shall have secondary containment.

2. All tanks containing hazardous substances, installed or constructed at a facility after January 1, 1991, shall have secondary containment.

(c) Small diameter integral piping in contact with the soil that is connected to UST systems shall have secondary containment if installed after December 10, 1990.

(d) By December 31 of the appropriate year shown in Table UST below, all storage tank systems shall meet the performance standards of Rule 62-761.500, F.A.C., or be permanently closed in accordance with Rule 62-761.800(3), F.A.C.

TABLE UST

| Year Tank or Integral Piping Installed | 1989 | 1992 | 1995 | 1998 | 2004 | 2009 |
|--|------|------|------|------|------|------|
| +Before 1970 | O | B | | ACFL | D | E |
| +1970 - 1975 | | SBL | | ACF | D | E |
| +1976 - 1980 | | B | SL | ACF | D | E |
| +1981 - 09/01/84 | | B | | ACFL | D | E |
| +09/02/84 – 06/30/92 | | B | | ACFL | D | E |
| +Other* | | B | | ACFL | D | E |

Key to Table UST

* = All systems with a capacity between 110 gallons and 550 gallons, all marine fueling facilities as defined in Section 376.031, F.S., and those systems of greater than 550 gallon capacity that use less than 1,000 gallons per month or 10,000 gallons per year.

A =

(1) Small diameter piping that was protected from corrosion by June 30, 1992, shall have:

(a) For pressurized piping, line leak detectors with automatic shutoff, or flow restriction in accordance with Rule 62-761.640(3)(d), F.A.C.; or

(b) For suction integral piping:

1. Secondary containment in accordance with Rule 62-761.500(1)(e), F.A.C.;

2. A single check valve installed in accordance with Rule 62-761.610(4)(a)3.,

F.A.C.;

3. An annual line tightness test in accordance with Rule 62-761.610(4)(a)1.,

F.A.C.; or

4. External monthly monitoring or release detection in accordance with Rule 62-761.610(4)(a)1.b., F.A.C.

(2) Bulk product piping in contact with soil shall be upgraded with secondary containment unless the piping is:

(a) Constructed of corrosion resistant materials or upgraded with cathodic protection; and

Effective 7-13-98

(b) Tested on an annual basis in accordance with API RP 1110, ASME B31.4, or an equivalent method approved by the Department in accordance with Rule 62-761.850, F.A.C.

B = Vehicular fuel petroleum storage tank systems shall be upgraded with spill containment.

C = Secondary containment in accordance with Rule 62-761.500(1)(e), F.A.C., shall be required for the following:

- (1) Concrete storage tanks;
- (2) Hazardous substance storage tank systems; and
- (3) For pollutant storage tank systems, the storage tank or small diameter piping not protected from corrosion by June 30, 1992.

D = (1) Secondary containment shall be installed for small diameter piping extending over surface waters.

(2) Secondary containment for remote fill-pipes associated with Category-A and Category-B systems.

E = Pollutant storage tanks and small diameter piping protected from corrosion on or before June 30, 1992, and all manifolded piping, shall be upgraded with secondary containment.

F =

(1) Storage tank systems, excluding vehicular fuel petroleum storage tank systems, shall be upgraded with spill containment, dispenser liners (as applicable), and overfill protection.

(2) Unless contained within secondary containment, swing-joints and flex-connectors that are not protected from corrosion shall be protected from corrosion. Facilities that have pressurized small diameter piping and that have not met the foregoing standard on or before July 13, 1998 shall protect the submersible turbine pump from corrosion or provide corrosion protection for the submersible turbine pump if the pump is not installed within secondary containment. Corrosion protection is not required for the submersible turbine pump riser.

L =

(1) Category-A USTs and their integral piping systems that contain vehicular fuel, and that are not protected from corrosion, shall have secondary containment, or be upgraded with secondary containment in accordance with Rule 62-761.500, F.A.C.

(2) Dispenser liners and overfill protection equipment shall be installed at UST Category-A systems containing vehicular fuel.

O = UST Category-A vehicular fuel storage tank systems subject to Chapter 17-61, F.A.C.,(1984), shall be retrofitted for corrosion protection.

S = Secondary containment for storage tanks and integral piping not protected from corrosion.

(3) Aboveground storage tank systems.

(a) All storage tank systems with tanks having capacities greater than 550 gallons that contain vehicular fuel and that were subject to Chapter 17-61, F.A.C., shall have met the requirements of such chapter by January 1, 1990.

(b) AST Category-B tanks, with the exception of tanks exempt under Rule 62-761.500(3)(c)1., F.A.C., installed or constructed at a facility after March 12, 1991, shall have secondary containment for the tank.

(c) Integral piping that is in contact with the soil and that is connected to AST systems shall have secondary containment if installed after March 12, 1991. For integral piping that is exempt under Rule 62-761.500(4)(e)4., F.A.C., it is not required to install secondary containment.

(d) By January 1 of the appropriate year shown in Table AST below, unless specified otherwise, all AST Category-A and Category-B storage tank systems shall meet the following requirements or be permanently closed in accordance with Rule 62-761.800(3), F.A.C.

TABLE AST

| Year Tank or Integral Piping Installed | 1993 | 2000 | 2005 | 2010 |
|--|------|------|------|------|
| +Before July 13, 1998 | P | TVX | W | U |

Key to Table AST

P = With the exception of high viscosity bulk product piping, bulk product piping in contact with soil and not in secondary containment shall be tested in accordance with API RP 1110, ASME B31.4, or an equivalent method approved by the Department in accordance with Rule 62-761.850, F.A.C. Such testing shall be performed annually thereafter.

T =

(1) With the exception of siting and material construction standards, Category-A and Category-B systems shall meet the performance standards of Rule 62-761.500, F.A.C. In addition:

(a) Storage tank system construction standards that include cathodic protection remain applicable; and

(b) Storage tanks where the entire bottom of the tank is in contact with concrete do not have to seal the concrete beneath the tank until such time that the tank bottom is

Effective 7-13-98

replaced. However, concrete secondary containment systems designed in accordance with Rule 62-761.500(1)(e)3., F.A.C., do not have to be sealed.

(2) Category-A bulk product piping in contact with the soil shall be upgraded with secondary containment, unless:

(a) A structural evaluation is performed in accordance with API 570, as specified in "U" (2)(b), of Table AST, and results of the structural evaluation indicate that the bulk product piping has remaining useful life; or

(b) The integral piping conveys high viscosity regulated substances, that are exempt from secondary containment in accordance with Rule 62-761.500(4)(e) 4., F.A.C.; or

(c) The integral piping is protected from corrosion and is tested annually in accordance with ASME B31.4, API 1110, or an equivalent method approved by the Department in accordance with Rule 62-761.850, F.A.C. This piping shall have secondary containment by January 1, 2010, in accordance with "U" of Table AST.

(3) Initial internal and external inspections, examinations, and tests for each tank shall be performed in accordance with API Standard 653, and an appropriate reinspection interval for each tank shall be established in accordance with API Standard 653. If any deficiency is discovered during the inspections, the person performing the evaluation of the tank in accordance with API 653 must verify that the tank is ready for service before the storage tank is put back into service. This verification must be documented in the internal inspection records. Future tests for each tank shall be performed in accordance with the inspection interval established in accordance with API 653 (1996). Baseline inspections already conducted according to the API Standard 653 (1991) will be accepted.

(4) As an alternative to installing secondary containment underneath an AST Category-A or Category-B storage tank, the interior bottom of the tank and at least 18 inches up the sides may be internally lined in accordance with API RP 652. Secondary containment must nonetheless be installed in the dike field area and be continuously bonded to the perimeter of the tank foundation.

U =

(1) All internally lined single bottom storage tanks, with the exception of tanks exempt under Rule 62-761.500(3)(c)1., F.A.C., shall be upgraded with secondary containment.

(2) All AST Category-A bulk product piping in contact with the soil, except for piping exempt from secondary containment requirements under Rule 62-761.500(4)(e)4. F.A.C., shall be:

(a) Upgraded with secondary containment in accordance with Rule 62-761.500(1)(e), F.A.C.; or

(b) Instead of being upgraded with secondary containment, be evaluated for structural integrity by:

1. Establishing and maintaining the piping inspection intervals in accordance with API 570, Section 4-2, by January 1, 2000;
2. Determining the remaining life of the system in accordance with API 570, Section 5.0, by January 1, 2000. If the determination indicates that the piping:
 - a. Must be repaired, then the piping shall be repaired within three months of the determination in accordance with API 570 and Rule 62-761.700, F.A.C.;
 - b. Is leaking, then the piping must be immediately taken out of operation. If the piping cannot be repaired, it must be closed or upgraded with secondary containment within one year of the determination;
 - c. Is not leaking, but has corroded to a point where it no longer has structural integrity, then the piping shall be closed, or upgraded with secondary containment by January 1, 2000; or
 - d. Has remaining useful life, then the piping shall be closed or upgraded with secondary containment when the API 570 inspection and remaining life determination data indicates that closure or replacement is necessary.
3. Providing a certification by a professional engineer registered in the State of Florida that the evaluation meets the above criteria.

V =

- (1) Secondary containment for cut and cover or concrete storage tanks.
- (2) Spill containment in accordance with Rule 62-761.500(1)(c), F.A.C.
- (3) Dispenser liners for shop-fabricated tanks in accordance with Rule 62-761.500(3)(e), F.A.C.
- (4) Secondary containment in accordance with Rule 62-761.500(1)(e) and (3)(c), F.A.C., for dike field areas of facilities with shop-fabricated tanks having dike field area secondary containment that is constructed of concrete or installed with synthetic liners not meeting these requirements.

W =

- (1) Secondary containment in accordance with Rule 62-761.500(1)(e) and (3)(c), F.A.C., for dike field areas of facilities with field-erected tanks having dike field area secondary containment that is constructed of concrete or installed with synthetic liners not meeting these requirements.
- (2) Secondary containment for small diameter piping extending over surface waters.
- (3) Secondary containment for small diameter petroleum contact water piping in contact with the soil.

X = Deadline to determine integrity of single wall bulk product piping with an API 570 structural integrity evaluation in accordance with the option for Category-A systems in "U" of Table AST.

Specific Authority 376.303 FS. Law Implemented 376.303-376.3072 FS. History--New 12-10-90, Amended 5-4-92, Formerly 17-761.510, Amended 9-30-96, 07-13-98.

62-761.520 Performance Standards for Other Existing Petroleum and Petroleum Product Storage Tank Systems (Non-Vehicular Fuels). (Repealed)

Specific Authority 376.303, FS.

Law Implemented 376.303, FS.

History -- New 12-10-90, Amended 5-4-92, Formerly 17-761.520, Repealed 9-30-96.

62-761.550 Performance Standards for New Hazardous Substance Storage Tank Systems. (Repealed)

Specific Authority 376.303, FS.

Law Implemented 376.303, FS.

History -- New 12-10-90, Formerly 17-761.550, Repealed 9-30-96.

62-761.560 Performance Standards for Existing Hazardous Substance Storage Tank Systems. (Repealed)

Specific Authority 376.303, FS.

Law Implemented 376.303, FS.

History -- New 12-10-90, Formerly 17-761.560, Repealed 9-30-96.

62-761.600 Release Detection Standards.

(1) General.

(a) Storage tank systems shall have a method, or combination of methods, of release detection that:

1. Can detect a new release from any portion of the storage tank system;
2. Is installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for operability to ensure that the device is functioning as designed; and
3. Meets the applicable performance standards in Rule 62-761.640, F.A.C.

All manufacturer's instructions, and the performance claims and their manner of determination described in writing by the equipment manufacturer or installer shall be retained for as long as the storage tank system is used.

(b) A release detection response level shall be described in writing for each method or combination of methods of release detection used for a storage tank system.

(c) A release detection method shall be established and provided for all storage tank systems upon installation.

(d) Except as otherwise specified in Rule 62-761.600-640, F.A.C., the release detection method or combination of methods used at a facility shall be performed at

least once a month, but not exceeding 35 days, to determine if a release from the storage tank system has occurred.

(e) At least once a month, but not exceeding 35 days, any storage tank and component of a storage tank that can be inspected visually shall be visually inspected in accordance with Rule 62-761.640(2)(e), F.A.C. A visual inspection is not required for any system component that has a continuous or monthly electronic release detection sensor. Continuous electronic leak detection devices shall be inspected for proper operation on a monthly basis. Inspection may consist of visual observation or remote verification of proper operation.

(f) A site suitability determination shall be performed for UST systems by December 31, 1998, and January 1, 2000 for AST systems, in accordance with Rule 62-761.640(2)(a)-(d), F.A.C., for storage tank systems using groundwater or vapor monitoring wells for release detection. If the site suitability determination indicates that on-site conditions are unsuitable for external monitoring, another method of release detection must be used.

(g) Vapor monitoring plans shall be performed by December 31, 1998, for UST systems and by January 1, 2000, for AST systems, in accordance with Rule 62-761.640(2)(d), F.A.C., for storage tank systems using vapor monitoring for release detection.

(h) Any component of a storage tank system with secondary containment shall have an interstitial monitoring method meeting the requirements of Rule 62-761.640(3)(a), F.A.C.

(i) Pressurized piping, excluding bulk product piping, shall be equipped with a line leak detector that meets the standards of Rule 62-761.640(3)(d)1., F.A.C. Gravity piping systems are exempt from this requirement.

(j) Any storage tank system not provided with a method, or combination of methods, of release detection in accordance with this section, shall be closed in accordance with Rule 62-761.800(3), F.A.C., by the date upon which release detection is to be provided.

(k) Groundwater and vapor monitoring wells meeting the standards for external monitoring specified in Rule 62-761.640(2)(a) - (d), F.A.C., that are no longer used for release detection, shall be closed in accordance with Rule 62-532.500(4), F.A.C., by December 31, 2010. Wells not meeting these standards shall be closed in accordance with Rule 62-532.500(4), F.A.C., by December 31, 1998, unless the wells are:

1. Used for contamination assessment purposes as specified in Rule 62-761.600(2)(d), F.A.C.; or
 2. Required by rules adopted by a County government in accordance with Chapter 376.317, F.S.
- (2) Underground storage tank systems.

(a) By December 10, 1990, vehicular fuel petroleum storage tank systems of greater than 550 gallons capacity shall be provided with release detection. Release detection for all other storage tank and integral piping systems in contact with the soil shall be provided by December 31 of the year shown in Table RD.

TABLE RD

| Year Storage Tank System Installed | Year Release Detection Required | | | |
|------------------------------------|---------------------------------|------|------|------|
| | 1990 | 1991 | 1992 | 1993 |
| Before 1970 or unknown | P/RD | | | |
| 1970 - 1974 | P | RD | | |
| 1975 - 1979 | P | | RD | |
| 1980 - 1990 | P | | | RD |

P= Installation of Release Detection for Pressurized Piping.

RD = Installation of Release Detection for Tanks and Suction Piping.

(b) Effective December 31 of the applicable year specified under the schedule in Table RD, any groundwater monitoring plan or spill prevention control and countermeasure plan implemented before December 22, 1990, shall be capable of detecting the leak rate or quantity specified in Rule 62-761.640(1)(a), F.A.C.

(c) UST systems that store fuel solely for use by emergency power generators are not required to comply with the release detection standards of Rule 62-761.600 through 62-761.640, F.A.C.

(d) Monitoring wells shall meet the standards of Rule 62-761.640(2), F.A.C., by December 31, 1998. Wells that do not meet these standards shall be closed in accordance with Rule 62-532.500(4), F.A.C., by December 31, 1998, unless the wells are required by a rule that was adopted by a County government in accordance with Chapter 376.317, F.S. However, if a monitoring well is used solely for the purpose of monitoring petroleum contamination in accordance with Chapter 62-770, F.A.C., the well does not have to be closed until the completion of the site rehabilitation pursuant to Chapter 62-770, F.A.C. Covers of leak detection monitoring wells redesignated as site

Effective 7-13-98

assessment wells by the facility owner or operator shall be colored black with a white circle within the black background. The diameter of the white circle shall be approximately one half the diameter of the manhole cover, or approximately four inches.

(3) Aboveground storage tank systems.

(a) The following methods of release detection that were implemented before March 12, 1991, shall be capable of detecting the leak rate or quantity specified in Rule 62-761.640(1)(a), F.A.C., by December 31, 1999:

1. Any groundwater monitoring plan that meets the requirements of Rule 62-528.700, F.A.C.; or

2. Any Spill Prevention Control and Countermeasure plan as required by 40 C.F.R. Section 112.

(b) All monitoring wells used for release detection shall meet the standards in Rule 62-761.640(2), F.A.C., by January 1, 2000, or be properly closed in accordance with Rule 62-532.500(4), F.A.C.

(c) Release detection for field-erected storage tanks with secondary containment beneath the tank shall comply with API Standard 650, Appendix I.

(d) Storage tanks upgraded with internal lining shall, by the completion of the installation of the internal lining, be provided with a method of release detection that meets the standards in Rule 62-761.640(2), F.A.C.

(e) AST integral piping in contact with the soil shall be provided with a method, or combination of methods, of release detection. Integral piping in contact with the soil having secondary containment shall have interstitial monitoring, and single-walled integral piping in contact with the soil shall have release detection meeting the requirements of Rule 62-761.610(4), F.A.C.

(f) Facilities using a Spill Prevention Control and Countermeasure plan as required by 40 C.F.R. Section 112, for release detection, or a groundwater monitoring plan meeting the requirements of Rule 62-528.700, F.A.C., for release detection, shall meet the release detection requirements of Rule 62-761.610, F.A.C., by December 31, 1999.

(g) ASTs containing high viscosity regulated substances are exempt from all release detection requirements except for visual inspections pursuant to Rule 62-761.640(2)(e), F.A.C.

Specific Authority 376.303, FS.

Law Implemented 376.303, 376.3072, FS.

History -- New 12-10-90, Formerly 17-761.600, Amended 7-13-98.

62-761.610 Release Detection Methods.

(1) General.

(a) Category-A and Category-B systems. Release detection methods shall be one of the methods specified in this section, and shall meet the performance standards contained in Rule 62-761.640, F.A.C.

(b) Category-C systems. Release detection methods shall be either interstitial or visual monitoring of secondary containment in accordance with Rule 62-761.640, F.A.C. Small diameter pressurized piping shall have a line leak detector in accordance with Rule 62-761.640(3)(d)1., F.A.C. A breach of integrity test shall be performed every five years for Category-C storage tank systems with closed interstitial spaces, unless the test is a continuous test.

(2) Underground storage tank systems. Category-A and Category-B USTs shall be equipped with one or more of the following release detection systems:

(a) An interstitial monitoring system between the walls of a double-walled tank;

(b) Interstitial monitoring involving a single monitoring well or vapor detector located within a liner that meets the standards in Rule 62-761.500(1)(e), F.A.C., provided the well or detector is placed at the low point of the liner so that collected liquids will drain to the monitoring point;

(c) A continuously operating release detection system placed around a tank in an excavation or in the secondary containment in accordance with the manufacturer's requirements;

(d) A network of groundwater or vapor monitoring wells installed or verified in accordance with Rule 62-761.640(2)(a) - (d), F.A.C., as applicable;

(e) Automatic tank gauge systems.

1. An automatic tank gauge system with a tightness test of the storage tank every three years; or

2. A continuous automatic tank gauge system;

(f) A statistical inventory reconciliation system with a tightness test of the storage tank every three years;

(g) Manual tank gauging shall be performed as specified in Table MTG in Rule 62-761.640(3)(c), F.A.C., for tanks of 550 gallons or less nominal capacity, and for tanks 551-1000 gallons with known diameters of 48 or 64 inches;

(h) Manual tank gauging may be used for tanks of 551 to 2000 gallons nominal capacity provided that a tank tightness test is performed:

1. Every 12 months for tanks not protected from corrosion by June 30, 1992;

or

2. Every five years for tanks installed with corrosion protection, or for tanks upgraded with corrosion protection by June 30, 1992. However, this method is only available for the first 10 years after:

a. A tank is upgraded with cathodic protection;

b. A single-walled corrosion-protected tank is installed; or

c. Until December 22, 1998, whichever is later;

(i) An annual tank test in conjunction with inventory control performed in accordance with Rule 62-761.640, F.A.C. This method can only be used until:

1. Ten years after the date of installation of a single-walled corrosion protected tank;
2. Ten years after the tank is upgraded with corrosion protection or internal lining; or
3. December 22, 1998, whichever is later.

(3) Aboveground storage tank systems.

(a) Tanks. Category-A and Category-B ASTs shall be equipped with one or more of the following release detection systems:

1. Tanks with secondary containment shall have an interstitial monitoring system:
 - a. Between the walls of a double-walled tank;
 - b. In the interstice between the tank and any liner used for secondary containment;
 - c. Between the tank bottom and the secondary containment for double-bottomed tanks;
2. Tanks without secondary containment or that are exempt from secondary containment shall have a visual inspection performed in accordance with Rule 62-761.610(3)(b), F.A.C.
3. Tanks with internal lining and cut and cover tanks shall have a method of release detection that meets the requirements of Rule 62-761.640(2), F.A.C.

(b) Visual inspections of tank systems. A visual inspection of the exterior of each tank, the aboveground integral piping system, the secondary containment within the dike field area (if applicable), the dike field area, and any other storage system components shall be conducted and documented at least once a month, but not exceeding 35 days.

(4) Integral piping.

(a) Small diameter piping in contact with the soil. Single-walled piping that is in contact with soil shall be equipped with one of the following release detection systems:

1. Suction or gravity piping shall have:
 - a. An annual line tightness test; or
 - b. An external monthly monitoring or release detection method meeting the requirements of Rule 62-761.640(2), F.A.C., if designed to detect a discharge from any portion of the integral piping.
 2. By December 31, 1998, pressurized piping shall have:
 - a. Mechanical line leak detectors meeting the requirements of Rule 62-761.640(3)(d), F.A.C., and either an annual line tightness test, or an external release detection method meeting the requirements of Rule 62-761.640(2)(a)-(d), F.A.C.; or
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- b. Electronic line leak detectors meeting the requirements of Rule 62-761.640(1)(a), F.A.C.
3. Exemptions. Release detection is not required for piping associated with:
- a. Suction pumps, provided that a single check valve is installed directly below the suction pump, and the piping is sloped so that the contents of the pipe will drain back to the tank if the suction is broken. Written verification shall be provided by a certified contractor that no other check valves exist between the dispenser and the tank, and that the above criteria are met. Any subsequent modification of the piping which involves disconnection shall be recertified by a Certified Contractor that these conditions are still being met; and
- b. Manifold piping systems.
- (b) Small diameter piping not in contact with the soil, or that is exempt from secondary containment. These systems shall be visually inspected in accordance with Rule 62-761.610(3)(b), F.A.C.
- (c) Small diameter piping with secondary containment that is in contact with the soil. Double-walled piping, or single-walled piping with secondary containment shall be equipped with the following release detection systems:
1. Interstitial monitoring;
2. A method of testing for a breach of integrity that meets the requirements of Rule 62-761.640(3)(a)2., F.A.C., for Category-C systems, as applicable; and
3. A line leak detector that restricts or shuts off flow or a continuously operating interstitial monitoring device that meets the requirements of Rule 62-761.640(3)(d)1.e., F.A.C., for pressurized piping connected to a UST, by December 31, 1998.
- (d) Bulk product and hydrant piping.
1. Single-walled piping in contact with the soil:
- a. Shall be pressure tested annually in accordance with Rule 62-761.640(3)(e), F.A.C.; or
- b. Instead of annual testing, a monthly release detection system meeting the requirements of Rule 62-761.640(2) F.A.C., may be installed.
2. Piping not in contact with the soil, or that is exempt from secondary containment, shall be visually inspected in accordance with Rule 62-761.610(3)(b), F.A.C.
3. Piping with secondary containment that is in contact with the soil, such as double-walled piping or single-walled piping with secondary containment, shall be equipped with the following release detection systems:
- a. Interstitial monitoring; and, if applicable,
- b. For Category-C systems, a method of testing for a breach of integrity that meets the requirements of Rule 62-761.640(3)(a)2., F.A.C., for piping with closed interstitial spaces.
- Specific Authority 376.303, FS.
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Effective 7-13-98

Law Implemented 376.303, FS.

History -- New 12-10-90, Formerly 17-761.610, Amended 9-30-96, 7-13-98.

Effective 7-13-98

62-761.620 Release Detection Standards for Other Existing Regulated Substance Storage Tanks. (Repealed)

Specific Authority 376.303, FS.

Law Implemented 376.303, FS.

History -- New 12-10-90, Formerly 17-761.620, Repealed 9-30-96.

62-761.630 Release Detection Standards for Integral Piping. (Repealed)

Specific Authority 376.303, FS.

Law Implemented 376.303, FS.

History -- New 12-10-90, Formerly 17-761.630, Repealed 9-30-96.

62-761.640 Performance Standards for Release Detection Methods.

(1) General. Methods of release detection shall:

(a) Be capable of detecting a release of 0.2 gallons per hour or 150 gallons within 30 days with a probability of detection of 0.95, and a probability of false alarm of 0.05, with the exception of:

1. Tightness testing requirements in Rule 62-761.640(3)(c)4. and (3)(d)2., F.A.C.;

2. Visual inspections in Rule 62-761.640(2)(e), F.A.C.;

3. Groundwater or vapor monitoring in Rule 62-761.640(2), F.A.C.; and

4. Manual tank gauging in Rule 62-761.640(3)(c)1., F.A.C.

(b) With the exception of bailers and monitoring wells, be approved in accordance with Rule 62-761.850(2), F.A.C.

(c) Have a release detection response level described in writing for each method or combination of methods.

(2) External release detection methods.

(a) Well construction standards.

1. Monitoring well requirements. Monitoring wells shall be constructed and installed by a licensed water well contractor when required by Chapter 62-531, F.A.C.

Monitoring wells shall:

a. Be a minimum of two inches in interior diameter;

b. Be slotted from the bottom to two feet below ground surface;

c. Have a minimum slot size of 0.010 inch;

d. Be backfilled with clean sand or a gravel filter pack to prevent blockage of the slots;

e. Be constructed of at least schedule 40 PVC without any joints, or of another corrosion protected material;

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- f. Be grouted into the borehole from the surface to the top of the filter pack plug with neat cement grout or other equivalent materials. Grouting shall not extend below the top of the well slotting. Bentonite slurry grouts shall not be used;
- g. Unless the monitoring well has an extended exterior casing, be equipped with a minimum six inch diameter manhole designed to prevent water intrusion with a one inch minimum grade increase above the surrounding surface. The well opening shall extend at least one inch above the bottom of the manhole;
- h. Be equipped with a watertight cap. The well shall be kept locked or secured to prevent tampering at all times except when the monitoring well is being sampled or maintained. Monitoring wells shall be marked in accordance with API RP 1615;
- i. Extend no deeper than 20 feet below ground surface. If such a depth penetrates a confining layer below the excavation, the monitoring well shall extend no deeper than to within six inches of the confining layer. Any well that penetrates a confining layer shall immediately be properly abandoned in accordance with Rule 62-532.500, F.A.C.; and
- j. If installed within a secondary containment liner system, extend no deeper than six inches from the liner.
2. Groundwater monitoring wells shall:
 - a. Extend at least five feet below the normal groundwater surface level; and
 - b. Be properly developed by the licensed water well contractor before the initial sampling.
 3. Vapor monitoring wells shall meet the requirements specified in DEP's "Guidelines for Vapor Monitoring."
 4. Electronic sensors, probes, or fiber-optic systems shall be tested at least annually to verify that they operate in accordance with the Department's approval given pursuant to Rule 62-761.850(2), F.A.C.
 5. Groundwater and vapor monitoring wells using the placement of sensors or probes in vertical, horizontal, or directionally-drilled wells shall be designed and installed in accordance with the equipment approval for that system granted in Rule 62-761.850(2), F.A.C.
- (b) Site suitability determinations.
1. A site suitability determination shall be performed for each facility using groundwater or vapor monitoring. The site suitability determination shall be performed in accordance with DEP's "Guidelines for Site Suitability Determinations for External Monitoring" by a Professional Geologist registered in the State of Florida. If the site is not suitable for external monitoring, another method of release detection must be used.
 2. The following facilities having Category-A and Category-B USTs and ASTs that use external monitoring are not required to perform site suitability determinations:
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- a. Facilities located in counties having rules more stringent than the Department as specified in Chapter 376.317, F.S.
 - b. Facilities with monitoring wells located in the tank excavation, provided that a demonstration can be made that the excavation contains sand or gravel backfill, and the wells were properly constructed and installed within the backfill.
 - (c) Groundwater monitoring.
 1. The regulated substance shall be immiscible in water and have a specific gravity of less than one.
 2. Groundwater monitoring shall not be used for release detection after free product or a sheen is discovered in a monitoring well, unless:
 - a. A Site Rehabilitation Completion Order has been issued by the Department following the remediation of the free product or sheen, and there is no longer any free product in the monitoring well; or
 - b. Free product or sheen is not present and has not been observed in the well within the previous thirty (30) months, as demonstrated by records of at least six (6) monthly ground water monitoring sampling events, and within the previous two years, the system has been tested tight with tank and line piping tests or another internal method of release detection performed in accordance with Rule 62-761.640(3), F.A.C.
 3. Another method of release detection specified in Rule 62-761.610, F.A.C., other than groundwater monitoring, shall be used when:
 - a. There is less than one foot of groundwater present in the well; or
 - b. The groundwater level is above the slotted portion of the well.
 4. Records. The following information shall be maintained in accordance with the recordkeeping requirements of this chapter:
 - a. Date of sampling;
 - b. Depth of well;
 - c. Depth to groundwater;
 - d. Any presence of odor of stored regulated substances; and
 - e. Any sheen or free product found.
 - (d) Vapor monitoring.
 1. Vapor monitoring can only be used to monitor regulated substances that are sufficiently volatile to be detected in soils or groundwater by vapor monitoring equipment.
 2. The measurement of vapors in a vapor monitoring well shall not be rendered inoperative by groundwater, rainfall, soil moisture or other known interferences so that a discharge could go undetected for more than 30 days.
 3. Sampling equipment shall be capable of detecting:
 - a. A vapor concentration of 500 parts per million total petroleum hydrocarbons, as measured by a flame ionization detector, for storage tank systems containing gasoline or equivalent petroleum substances;

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- b. A vapor concentration of 50 parts per million total petroleum hydrocarbons, as measured by a flame ionization detector, for storage tank systems containing kerosene, diesel or equivalent petroleum substances;
 - c. Vapor concentrations of hazardous substances or their constituents that would indicate a release; or
 - d. Vapor concentrations of tracer compounds used for release detection.
4. Vapor monitoring shall not be used for release detection if existing contamination interferes with the ability to detect a new release.
5. The vapor monitoring plan shall be developed and performed in accordance with DEP's "Guidelines for Vapor Monitoring." The plan shall include a description of monitoring wells or probes, the method of sampling, the establishment of a release detection response level and the data management procedures. Facilities with monitoring wells located in the tank excavation do not have to meet the requirements for DEP's "Guidelines for Site-Suitability Determinations for External Monitoring," provided that a demonstration can be made that the excavation contains sand or gravel backfill, and the wells were properly constructed and installed within the backfill.
- (e) Visual inspections. Any visual inspection of the storage tank system or its secondary containment that reveals signs of corrosion, cracks, structural damage, leakage, or other similar problems shall be noted. Repairs shall be made in accordance with the requirements of Rule 62-761.700, F.A.C.
- (3) Internal release detection methods.
- (a) Interstitial monitoring for UST and AST systems.
 - 1. Interstitial monitoring for double-walled tanks, double-walled integral piping, dispenser liners, piping sumps, and other secondary containment systems, shall be designed and constructed to allow monitoring of the space between the primary and secondary containment. One or more of the following methods of interstitial monitoring shall be used:
 - a. Manual sampling of, or visual monitoring for, liquids;
 - b. Continuous electronic sensing equipment;
 - c. Hydrostatic monitoring systems; or
 - d. Vacuum monitoring.
 - 2. Breach of integrity tests for Category-C systems. A test shall be performed for a breach of integrity of the interstice for double-walled USTs, double-bottomed ASTs, and for double-walled integral piping that is in contact with the soil and that is connected to ASTs or USTs. Double-walled shop-fabricated ASTs, piping sumps, and dispenser liners are not required to perform a breach of integrity test. The test shall be performed to determine the integrity of the inner and outer wall, is required only for tanks and integral piping with closed interstices, and does not apply to open-interstice systems with liners. The test shall be performed at the time of installation, and every five years from the date of installation, unless the test is a continuous test. If a
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UST is totally submerged in groundwater, monthly monitoring of the interstice for the presence of water shall be conducted. The breach of integrity test may be performed by using at least one of the following methods:

- a. A continuous hydrostatic system approved by the Department in accordance with Rule 62-761.850(2), F.A.C.;
 - b. A continuous vacuum system, pursuant to Rule 62-761.640(3)(a), F.A.C., that is approved by the Department in accordance with Rule 62-761.850(2), F.A.C.;
 - c. Testing of the interstice for liquid tightness in accordance with manufacturer's installation instructions; or
 - d. Another method in accordance with Rule 62-761.850(2), F.A.C.
3. Vacuum monitoring of the interstice shall meet the following requirements:
- a. Liquid-filled gauges and air-filled gauges shall be calibrated in accordance with the National Institute of Standards and Technology. The gauges shall be operational at all times.
 - b. Vacuum monitoring may be used as a continuous method of release detection provided that the vacuum system is equipped with an audible or visual alarm. The alarm shall indicate when the minimum vacuum level allowed is reached as provided in the equipment approval granted in accordance Rule 62-761.850(2), F.A.C.
 - c. Vacuum readings shall be recorded monthly. Upon discovery of any significant vacuum level decrease, or any loss of vacuum exceeding 20% of the initial level, or any loss in excess of the levels established in the test protocols provided in the third party certification for the test method, the tank manufacturer shall be contacted and the vacuum refreshed in accordance with the storage tank system's equipment approval in Rule 62-761.850(2), F.A.C. If the loss of vacuum persists, an investigation shall be initiated and an incident reported in accordance with Rule 62-761.450(2), F.A.C. The source of the loss shall be repaired in accordance with Rule 62-761.700, F.A.C.
4. Interstitial monitoring for storage tanks and integral piping equipped with liners shall be designed and constructed to allow monitoring of the space between the primary and secondary containment and shall:
- a. Be capable of detecting a release through the inner wall into the interstice;
 - b. Be constructed and installed so that groundwater, rainfall, or soil moisture will not render the testing or sampling method used inoperative; and
 - c. Be equipped with an external release detection method meeting the standards of Rule 62-761.640(2)(a)-(d), F.A.C., except for the groundwater level and excavation zone assessment requirements; or
 - d. Be visually inspected in accordance with Rule 62-761.640 (2)(e), F.A.C.;
- or
- e. Be equipped with a monitoring device approved in accordance with Rule 62-761.850(2), F.A.C., installed at the monitoring point within the liner.
- (b) Inventory control.

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1. General.
 - a. Inventory control shall be maintained for each single-walled tank that contains vehicular fuel.
 - b. Storage tank systems that are elevated above the soil or that have secondary containment are exempt from inventory control requirements. ASTs that rest on an impervious surface are also exempt.
 2. Inventory control for USTs and shop-fabricated ASTs shall be performed and recorded in accordance with API RP 1621, as applicable. Manifolder tanks may be treated as a single tank for the purposes of inventory control. Inventory control shall be performed in the following manner:
 - a. Volume measurements for product inputs, withdrawals, and the amount remaining in each tank shall be recorded each operating day;
 - b. Measurements of product levels shall be recorded to the nearest one-eighth of an inch;
 - c. Product inputs shall be reconciled with delivery receipts by measurement of the tank product volume before and after delivery;
 - d. Product dispensed shall be metered as required by Chapters 525 and 531, F.S., and in accordance with the standards established by the Florida Department of Agriculture and Consumer Services in Chapter 5F-2, F.A.C.;
 - e. The measurement of water level in the bottom of the tank shall be made at least once a week to the nearest one-eighth of an inch; and
 - f. The significant loss or gain of product shall be calculated for each month.
 3. Inventory control requirements for USTs. Water fluctuations exceeding one inch not attributed to deliveries shall be investigated in the following manner:
 - a. The accessible parts of the storage system shall be inspected for damage or openings;
 - b. Release detection systems shall be checked for signs of a discharge; and
 - c. If, within a week, the investigation does not reveal the source of the water fluctuation, the entire storage tank system shall be tested in accordance with Rule 62-761.640(3), F.A.C.
 4. Inventory control requirements for field-erected ASTs.
 - a. Bulk product facilities may use product inventory control for multiple tanks provided that a demonstration of equivalent protection is made in accordance with Rule 62-761.850(1), F.A.C.
 - b. Inventory measurements for field-erected systems, manifolded systems, and non-manifolded systems with a capacity of 30,000 gallons or greater shall be reconciled to detect the presence of a significant loss or gain. The equipment and method used shall be capable of accurately measuring the level or volume of product over the full range of the tank's usable storage capacity, to the nearest one fourth of an inch.
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5. Investigation procedures for significant loss or gain. An investigation shall be initiated immediately to determine the source of a significant loss or gain. The entire storage tank system, excluding the vent, but including piping connections and remote fill lines, shall be tested or inspected to determine if the system is product tight. The investigation shall continue until the source has been found, using the following investigative procedure:

a. Inventory records shall be checked for errors in arithmetic, data recording, and measurement;

b. If the significant loss or gain is not reconcilable or cannot be affirmatively demonstrated to be the result of theft, the accessible parts of the storage system shall be checked for damage or leaks;

c. Release detection systems shall be checked for signs of a discharge;

d. Calibration of the inventory measuring system and dispensing system shall be verified;

e. If the investigation does not reveal the source of the significant loss or gain within one week for USTs, and two weeks for ASTs, or if the Department or County determines that it is necessary to investigate based on evidence that the significant loss or gain could result in potential harm to the environment, the storage tank system shall be tested in accordance with the manufacturer's guidelines, if applicable, and Rule 62-761.640(3) and (4), F.A.C.; and

f. If a discharge is discovered, the leaking or defective component of the storage tank system shall be repaired in accordance with Rule 62-761.700, F.A.C. If the storage tank system cannot be repaired, it shall be closed in accordance with Rule 62-761.800(3), F.A.C.

(c) Underground storage tanks.

1. Manual tank gauging. Manual tank gauging for tanks of 2000 gallons or less containing regulated substances shall meet the following requirements:

a. Tank liquid level measurements shall be taken weekly at the beginning and ending of a period between 36 hours and 58 hours in accordance with Table MTG, during which no liquid is added to or removed from the tank;

b. Level measurements shall be based on an average of two consecutive stick readings taken at both the beginning and ending of the period; and

c. The equipment used shall be capable of measuring the level of product over the full range of the tank's height to the nearest one-eighth of an inch.

d. Readings exceeding the standards described in Table MTG shall be investigated in accordance with Rule 62-761.820, F.A.C.

TABLE MTG

| Nominal tank capacity | Minimum duration of test | Weekly standard (one test) | Monthly standard (average of four tests) |
|---|--------------------------|----------------------------|--|
| 550 gallons or less | 36 hours | 10 gallons | 5 gallons |
| 551-1,000 gallons (Tank diameter is less than or equal to 64") | 44 hours | 9 gallons | 4 gallons |
| 551-1,000 gallons (Tank diameter is less than or equal to 48") | 58 hours | 12 gallons | 6 gallons |
| 551-1,000 gallons (Tank diameter unknown) | 36 hours | 13 gallons | 7 gallons |
| 1,001-2,000 gallons | 36 hours | 26 gallons | 13 gallons |

2. Automatic tank gauge systems.

a. Automatic tank gauge systems that do not analyze data in a continuous manner shall be placed in a test mode at least once every 30 days.

b. Automatic tank gauge systems that continuously analyze the data collected by the system shall be operated in continuous test mode at all times and shall provide test results daily.

3. Statistical Inventory Reconciliation (SIR). SIR shall be conducted according to the following requirements:

a. Data submitted for SIR analysis must be gathered in accordance with the requirements of Rule 62-761.640(3)(b)1.a.-e., F.A.C.;

b. Results of each monthly analyses must include the calculated results from the data set for leak threshold, the minimum detectable leak rate, the calculated leak rate, and a determination of whether the result of the test was "Pass," "Fail," or "Inconclusive." For the purposes of this section, the "leak threshold" is defined as the specific leak threshold of the SIR method approved in accordance with Rule 62-761.850(2), F.A.C., to meet the release detection level specified in Rule 62-761.640(1)(a), F.A.C.;

Effective 7-13-98

c. "Pass" means that the calculated leak rate for the data set is less than the leak threshold and the minimum detectable leak rate is less than or equal to the certified performance standard (0.2 gph);

d. "Fail" means that the calculated leak rate for the data set is equal to or greater than the leak threshold;

e. "Inconclusive" means that the minimum detectable leak rate exceeds the certified performance standard (0.2 gph) and the calculated leak rate is less than the leak threshold. If for any other reason the test result is not a "pass" or "fail," the result is "inconclusive";

f. An Incident Notification Form shall be submitted to the County when a monthly SIR report of "Fail" is received;

g. An Incident Notification Form shall be submitted to the County after the receipt of two consecutive monthly SIR reports of "Inconclusive." An investigation shall be performed in accordance with the Incident Response requirements specified in Rule 62-761.820, F.A.C. However, if at the end of the fourteen day investigation period provided in Rule 62-761.820(1), F.A.C., the SIR data from the previous month is still inconclusive, a tightness test of the system shall be performed;

h. A data set shall consist of at least one month of valid data gathered over a time period not exceeding 35 days. A minimum of 20 data points over this 35 day period shall be used to calculate the leak rate unless the vendor of the SIR system approved under Rule 62-761.850(2), F.A.C., has provided a third party determination that a lesser number of data points is capable of detecting a release of 0.2 gph or 150 gallons within 30 days with a probability of detection of 0.95 and a probability of false alarm of 0.05; and

i. Results of monthly evaluations shall be recorded on Form 62-761.900(8), F.A.C., or on another similar form that provides the same information. These forms shall be kept as records in accordance with Rule 62-761.710, F.A.C.

4. Tightness testing.

a. Tightness testing for all tanks shall be capable of detecting a 0.1 gph leak rate with a probability of detection of 0.95 and a probability of false alarm of 0.05 from any portion of the tank. Tightness testing shall account for the effects of thermal expansion or contraction of the regulated substance, vapor pockets, tank deformation, evaporation or condensation, and the location of the water table.

b. If any volumetric tank tightness test is conducted at a level lower than the overfill protection device set point, a non-volumetric test shall also be used to test the ullage portion of the tank. When volumetric tests are conducted, there must be a minimum pressure differential of plus or minus one psig (pounds per square inch gauge), measured at the bottom of the tank, between the product hydrostatic pressure inside the tank and the hydrostatic pressure due to the external water table. When using this method, positive field verification of the depth of the water table must be performed, and the minimum liquid level of product in the tank shall be at least 30% of

tank capacity, provided that the third party evaluation for the test method verifies detection capability at this level. If the water table depth cannot be verified, the minimum liquid level for volumetric tank testing shall be 65% of tank capacity.

c. Tank and line tightness testing shall be performed in accordance with Chapter 4 of NFPA 329.

d. Overfill protection and spill containment devices shall be inspected before a tightness test is performed to ensure that these devices do not interfere with the test, and after the test to ensure that the devices are operating properly.

(d) Small diameter integral piping in contact with the soil.

1. Line leak detectors for USTs. Line leak detectors shall:

a. Be capable of detecting a discharge of 3.0 gph with a probability of detection of 0.95 and a probability of false alarm of 0.05 at a line pressure of 10 psi within one hour;

b. Have an annual test of the operation of the leak detector conducted in accordance with the manufacturer's requirements by an individual certified or trained by the manufacturer to determine whether the device is functioning as designed. Remote testing of the leak detector can be performed by the manufacturer if the remote test is approved under Rule 62-761.850(2), F.A.C.;

c. Restrict flow within one hour if designed with mechanical flow restriction;

d. When a discharge of 3.0 gph is detected, shut off power to the pump if designed with automatic electronic shutoff. When in test mode, line leak detectors with automatic electronic shutoff shall also be able to detect a discharge of 0.2 gph at a line pressure of 150% of operating pressure, or an equivalent leak rate, with a probability of detection within a one month period of at least 0.95 and a probability of false alarm of no more than 0.05. When a discharge of 0.2 gph is detected, the leak detector shall provide audible or visual alarms that can be clearly heard or seen by the operator of the facility, or if monitored remotely on a real time basis, the alarm condition must be immediately transmitted from the remote location to the facility operator; and

e. Instead of using a line leak detector as a method of release detection for pressurized small diameter piping associated with double-walled integral piping, a continuously operating interstitial monitoring device can be used. Continuously operating interstitial monitoring devices shall be capable of detecting a release of 10 gallons within one hour and shutting off the pump.

2. Tightness testing. Tightness testing for pressurized piping in contact with the soil shall be capable of detecting a 0.1 gallon per hour leak rate at one and one-half times the operating pressure with a probability of detection of 0.95 and a probability of false alarm of 0.05.

(e) Bulk product piping.

1. An annual test shall be performed of single-walled bulk product piping in contact with the soil. Prior to testing the piping system, a leak tightness evaluation of all exposed components shall be performed through visual inspection, or by another

method approved by the Department in accordance with Rule 62-761.850, F.A.C. The evaluation shall be verified and recorded. One of the following methods shall be used for the annual test:

- a. An bulk product piping test method approved in accordance with Rule 62-761.850(2), F.A.C.;
 - b. An API RP 1110 hydrostatic test; or
 - c. An ASME B31.4 hydrostatic test.
2. Double-walled bulk product and hydrant piping, and other bulk product piping equipped with secondary containment shall have methods of release detection and testing for a breach of integrity that meet the requirements of Rule 62-761.640(3)(a)2. or 4., F.A.C., as applicable.
 3. Records of all test results shall be maintained in accordance with the Appendix-Test Records of API RP 1110, or Chapter VI of ASME B31.4, as applicable, pursuant to Rule 62-761.710(1), F.A.C.

Specific Authority 376.303 FS. Law Implemented 376.303 FS.
History--New 12-10-90, Formerly 17-761.640, Amended
9-30-96, 7-13-98.

62-761.680 Tightness Testing. (Repealed)

Specific Authority 376.303, FS.
Law Implemented 376.303, FS.
History -- New 12-10-90, Formerly 17-761.680, Repealed 9-30-96.

62-761.700 Repairs, Operation, and Maintenance of Storage Tank Systems.

- (1) General.
- (a) Repairs.
 1. Repairs shall be performed if any component of a storage tank system is discovered to have:
 - a. Discharged or contributed to the discharge of a regulated substance;
 - b. A release of regulated substances or AST water bottoms into secondary containment;
 - c. The presence of groundwater in the interstice of a double-walled UST or pipe; or
 - d. An operational or structural problem that could potentially result in a discharge or release.
 2. If repairs are required for any component or part of a storage tank system, and the nature of the repair activities or the condition of the component or part of the system requiring a repair may result in a release, and the component or part cannot be

Effective 7-13-98

otherwise isolated from the system, the storage tank system shall be taken out of operation until the tank has been repaired or replaced. The restrictions against storage tank system operation shall not apply if the system contains heating oil or other fuels used solely for the generation of electricity where the removal of the storage system from service would result in the shut down of electrical generating units serviced by the system.

3. Repairs shall be made:

a. In a manner that will prevent discharges from structural failure or corrosion for the remaining operational life of the storage tank system;

b. In accordance with manufacturer's specifications, NFPA Standard 30 or other applicable reference standards; and

c. To restore the structural integrity of the storage tank system.

4. Repaired components shall be tightness tested, pressure tested, or tested for a breach of integrity, as applicable, before being placed back into service.

5. Repairs to fiberglass reinforced plastic tanks and steel tanks coated with a fiberglass reinforced plastic composite shall be made by an authorized representative of the tank manufacturer or its successor, or in accordance with Rule 62-761.500(2), F.A.C.

6. Piping that is damaged or that has caused a discharge of a regulated substance shall be replaced or repaired. Pipe sections and fittings may be repaired in accordance with applicable standards in Rule 62-761.500(4), F.A.C. Replacement of additional lengths of piping in contact with the soil are exempt from the requirements for secondary containment, provided that:

a. The piping system does not have, or will not have to install, secondary containment until the deadlines established in Rule 62-761.510, F.A.C.; and

b. The length of replacement or additional piping is less than 25% of the total length of the existing integral piping for the individual tank, or 100 feet, whichever is less.

(b) Cathodic protection.

1. Cathodic protection systems shall be installed, operated and maintained to provide continuous corrosion protection to the metal components of those portions of the tank and integral piping in contact with the soil.

2. Inspection and testing requirements.

a. General. Storage tank systems equipped with any type of cathodic protection must be inspected and tested by a Corrosion Professional or a Cathodic Protection Tester within six months of installation or repair and at least every year thereafter in accordance with the criteria contained in NACE International RP-0169-96, RP-0193-93, and RP-0285-95, as applicable. Factory-installed (galvanic) cathodic protection systems may be tested every three years.

b. Impressed current systems. Storage tank systems with impressed current systems shall be inspected at intervals not exceeding two months. All sources of

impressed current shall be inspected. Evidence of proper functioning shall be current output, normal power consumption, a signal indicating normal operation, or satisfactory electrical state of the protected structure. Impressed current systems that are inoperative for a cumulative period exceeding 1440 hours shall be assessed by a Corrosion Professional to ensure that the storage tank system is structurally sound, free of corrosion holes, and operating in accordance with the design criteria.

c. Sacrificial anode systems. Storage tank systems with sacrificial anodes shall either have permanent test stations for soil-to-structure potential measurements or use temporary field test stations for annual testing in accordance with Rule 62-761.700(1)(b)2.a., F.A.C.

3. Storage tank systems with cathodic protection systems that cannot achieve or maintain protection levels in accordance with the design criteria shall:

- a. Be repaired in accordance with Rule 62-761.700(1)(b)2.a., F.A.C., or
- b. Be placed out-of-service in accordance with Rule 62-761.800(2), F.A.C.

4. Records of the continuous operation of impressed current systems and all cathodic protection inspection and testing activities shall be maintained in accordance with Rule 62-761.700(1)(b), F.A.C.

(c) Operation and maintenance.

1. Spill containment devices, dispenser liners, and piping sumps shall be maintained to provide access for monthly examination and water removal as necessary. Water collected in spill containment devices, or in piping sumps and dispenser liners that is above the opening of the integral piping connection, or any regulated substances collected in these storage tank system components shall be removed and be either reused or properly disposed of.

2. Owners or operators shall ensure that the volume available in the tank is greater than the volume of regulated substances to be transferred to the tank before the transfer is made and shall ensure that any transfer is repeatedly monitored to prevent overfilling and spilling.

3. All release detection devices shall be tested annually to ensure proper operation. The test shall be conducted according to manufacturer's specifications, and shall include, at a minimum, a determination of whether the device operates as designed.

4. Petroleum contact water from storage tank systems shall be managed in accordance with Chapter 62-740, F.A.C.

5. Exterior Coatings may be maintained in accordance with SSPC PA-1.

6. Regardless of the method of release detection used, inventory control shall be performed for USTs and ASTs containing vehicular fuel that do not have secondary containment. One of the following methods of inventory control shall be used:

- a. Inventory control in accordance with Rule 62-761.640(3)(b), F.A.C.;

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- b. Statistical inventory reconciliation in accordance with Rule 62-761.640(3)(c)3., F.A.C.;
- c. Automatic tank gauging in accordance with Rule 62-761.640(3)(c)2., F.A.C.; or
- d. Manual tank gauging in accordance with Rule 62-761.640(3)(c)1., F.A.C.
- (2) Underground storage tank systems.
- (a) Single-walled storage tank systems that have been upgraded with cathodic protection or internally lined before June 30, 1992, may be repaired in accordance with this section until the storage tank system is upgraded with secondary containment in accordance with Rule 62-761.510, F.A.C. Storage tank systems with secondary containment may be repaired in accordance with this section at any time during the operational life of the storage tank system.
- (b) Tanks shall be tightness tested before being placed back in service, unless another testing method has been approved in accordance with Rule 62-761.850(2), F.A.C. Small diameter piping shall be tightness tested before being placed back into service whenever dispensers connected to that piping are replaced or whenever the piping has been disconnected and then reconnected.
- (c) Tanks may be repaired with internal lining if:
1. The internal lining is installed in accordance with API RP 1631, and documentation is available from the installer that demonstrates these requirements have been met; and
2. Within 10 years after the installation of internal lining, and every five years thereafter, the internally lined tank is:
- a. Inspected internally in accordance with NLP 631, Chapter B, and found to be structurally sound with the internal lining still performing in accordance with original design specifications, or repaired to original design specifications in accordance with API RP 1631. If the tank fails to meet these criteria, the owner or operator shall close the storage tank system in accordance with Rule 62-761.800(3), F.A.C.; or
- b. Evaluated in accordance with ASTM Designation ES40-94, and determined by a Corrosion Professional to be suitable for the installation of cathodic protection. If a determination is made that the system is suitable, cathodic protection shall be designed by a Corrosion Professional, installed by a Certified Contractor, and operated in accordance with Rule 62-761.500, F.A.C. If the system is determined to be unsuitable, it shall be closed in accordance with Rule 62-761.800(3), F.A.C.; and
- c. Tightness tested in accordance with Rule 62-761.640(3), F.A.C., before the tank is placed back into service and every five years after installation of the internal lining.
- (d) Tanks may be repaired with internal lining and cathodic protection if:
1. The internal lining is installed in accordance with API RP 1631;
2. The cathodic protection system meets the requirements of Rule 62-761.500(1)(a)2.b.-d., F.A.C.; and
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Effective 7-13-98

3. A tightness test that meets the requirements of Rule 62-761.640(3), F.A.C., is performed before the tank is placed back into service and every five years after installation of the internal lining.

(e) UST Category-A tanks that were upgraded with internal lining or cathodic protection, or both, shall be internally inspected or tightness tested, as applicable, in accordance with Rule 62-761.700(2)(c)2., F.A.C.

(3) Aboveground storage tank systems.

(a) Stormwater management for secondary containment systems.

1. The removal or release of stormwater from a facility should be performed in accordance with all applicable Department rules (for example, Chapter 62-25, F.A.C., Regulation of Stormwater Discharge). Owners and operators are advised that other federal, state, or local requirements may apply to these activities.

2. Accumulated stormwater shall:

a. Be drawn off within one week after a rainfall event unless another frequency is allowed by the facility's stormwater discharge permit or by another instrument, such as a Spill Prevention Control Countermeasure Plan or a Department permit; and

b. Not be discharged without treatment if it has a visible sheen.

3. If gravity drain pipes are used to remove water from the dike field areas, all valves shall be kept closed except when the operator is in the process of draining water.

(b) API 653 inspections. Field-erected tanks shall be evaluated and the re-testing frequency established and implemented in accordance with API Standard 653. AST Category-B and Category-C tanks shall be evaluated at the time of installation. Initial examinations for AST Category-A and Category-B tanks shall be completed by December 31, 1999. Evaluations shall be certified by a professional engineer registered in the State of Florida, or approved by an API 653 inspector. Non-destructive testing shall be performed by qualified personnel as specified in API 653 and API 650. All field-erected tanks shall be repaired in accordance with API Standard 653.

(c) Testing for piping in contact with soil.

1. Small diameter piping shall be tightness tested before being placed back into service whenever dispensers connected to that piping are replaced or whenever the piping has been disconnected and then reconnected.

2. Hydrant piping and bulk product piping shall be pressure tested in accordance with Rule 62-761.640(3)(e), F.A.C., before being placed back into service.

(d) Bulk product piping extending over surface water shall:

1. Be tested annually in accordance with Title 33, Part 156.170, Code of Federal Regulation; and

2. Be maintained and operated in accordance with Title 33, Part 154, as applicable.

(e) Secondary containment systems shall be repaired as necessary to maintain product tightness and containment volume of the system, including sealing cracks in concrete, repairing punctures, and maintaining containment walls. If the storage tank secondary containment system has a crack, puncture, or other defect that compromises the system's product tightness, the system shall be repaired in accordance with Rule 62-761.500(1)(e), F.A.C.

(f) Overfill protection shall be performed in accordance with API RP 2350 and NFPA 30, Section 2-10, for each field-erected AST that receives fuel by mainline pipeline or marine vessels.

Specific Authority 376.303 FS. Law Implemented 376.303 FS.

History--New 3-12-91, Formerly 17-761.700, Amended 9-30-96, 7-13-98.

62-761.710 Recordkeeping.

(1) All records shall be dated, maintained in permanent form, and available for inspection by the Department or County. If records are not kept at the facility, they shall be made available at the facility or another agreed upon location upon five working days notice. Site access to the facility shall be provided for compliance inspections conducted at reasonable times.

(2) Records of the following are required to be kept for two years:

(a) Measurements and reconciliations of inventory, as applicable;

(b) Repair, operation, and maintenance records;

(c) Release detection results, including electronic test results, regardless of the frequency, and monthly visual inspections performed in accordance with Rule 62-761.640(2)(e), F.A.C. The presence of a regulated substance's odor, sheen, or free product shall be recorded for each sampling event;

(d) Release detection response level descriptions;

(e) A copy of all test data and results gathered during tightness tests, pressure tests, and breach of integrity tests, and the name and type of the test approved under Rule 62-761.850, F.A.C.;

(f) Certification of Financial Responsibility on Form 62-761.900(3);

(g) Records of types of fuels stored per tank; and

(h) The repair or replacement of gaskets, valve packings, valves, flanges, and connection/disconnection fittings for bulk product piping if the repair or replacement is performed in response to a discharge or loss of regulated substances.

(3) Records of the following, generated after July 13, 1998, shall be maintained for the life of the storage tank system:

(a) Results of internal inspections and non-destructive testing;

(b) Any performance claims for release detection equipment described in writing by the equipment manufacturer or installer;

- (c) Records of storage tank system installations, replacements, and upgrades;
- (d) Records of installation, maintenance, inspections, and testing of cathodic protection systems in accordance with NACE standards;
- (e) Site suitability determinations in accordance with Rule 62-761.640(2), F.A.C.;
- (f) Vapor monitoring plans and all records kept pursuant to the plan;
- (g) Closure assessment reports if the location continues as a facility; and
- (h) Verification from a Certified Contractor of the existence of a single check valve beneath the suction pump for suction piping systems.

Specific Authority 376.303, 376.322, FS.

Law Implemented 376.303, 376.322, FS.

History -- New 12-10-90, Formerly 17-761.710, Amended 9-30-96, 7-13-98.

62-761.720 Inventory Requirements. (Repealed)

Specific Authority 376.303, FS.

Law Implemented: 376.303, FS.

History -- New 12-10-90, Formerly 17-761.720, Repeal 9-30-96.

62-761.730 Operating Requirements for Cathodic Protection. (Repealed)

Specific Authority 376.303, FS.

Law Implemented 376.303, FS.

History -- New 12-10-90, Formerly 17-761.730, Repeal 9-30-96.

62-761.740 Certified Contractors. (Repealed)

Specific Authority 376.303, FS.

Law Implemented 376.303, FS.

History -- New 12-10-90, Formerly 17-761.740, Repeal 9-30-96.

62-761.800 Out-of-Service and Closure Requirements.

(1) Temporary out-of-service. Field-erected storage tank systems taken temporarily out-of-service shall:

(a) Continue to operate and maintain corrosion protection in accordance with Rule 62-761.700(1)(b), F.A.C.;

(b) If the tank system has an external release detection method, perform release detection monthly in accordance with applicable provisions of Rule 62-761.600-640, F.A.C.; and

-
- (c) Leave venting systems open and functioning.
 - (2) Out-of-service storage tank systems.
 - (a) General.
 - 1. Storage tank systems that are taken out-of-service, as defined in Rule 62-761.200(54), F.A.C., shall:
 - a. Continue to operate and maintain corrosion protection in accordance with Rule 62-761.700(1)(b), F.A.C.;
 - b. Perform external release detection for sites without contamination, as applicable, every six months in accordance with provisions of Rule 62-761.640(2), F.A.C.;
 - c. Leave vent lines open and functioning;
 - d. Empty the system and cap or secure all lines, pumps, manways, and ancillary equipment, as applicable; and
 - e. Secure or close off the system to outside access.
 - 2. If the storage tank system is required to be upgraded during the time that it is out-of-service, it shall be upgraded or replaced in accordance with this chapter before it is returned to service.
 - 3. Systems with secondary containment installed and operated in accordance with this chapter may remain in a continuous out-of-service status for ten years. After this period, the system shall be returned to service or closed in accordance with Rule 62-761.800(3), F.A.C.
 - 4. Tightness, pressure, or other tests shall be performed in accordance with Rule 62-761.640(3), F.A.C., as applicable, on any systems being returned to service.
 - (b) Underground storage tank systems.
 - 1. Before being returned to service, the following tests shall be performed in accordance with Rule 62-761.640(3), F.A.C., for systems that are taken out-of-service for more than 180 days:
 - a. A tightness test for single-walled systems; or
 - b. A breach of integrity test for double-walled Category-C systems.
 - 2. Single-walled systems that are taken out-of-service shall not be kept out-of-service longer than two years for corrosion-protected systems or one year for unprotected bare steel systems. After the end of these time periods, the systems shall either be upgraded or permanently closed.
 - (c) Aboveground storage tank systems.
 - 1. Systems without secondary containment shall not remain in a continuous out-of-service status for more than five years. Before the expiration of this five year time period, any remaining product and sludges shall be removed, and a closure assessment shall be performed in accordance with Rule 62-761.800(4), F.A.C. for:
 - a. AST Category-A and Category-B systems, regardless of when taken out-of-service, by December 31, 1999; or
 - b. Systems taken out-of-service after July 13, 1998.

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2. Out-of-service tanks that are returned to service shall be:
 - a. Inspected and evaluated in accordance with Rule 62-761.500(3)(b)1., F.A.C., for shop-fabricated tanks; or
 - b. Structurally evaluated in accordance with API Standard 653 for field-erected tanks, unless the system has been out-of-service for less than six months.
 3. Field-erected tanks changing the type of product stored within the tank shall comply with API Standard 653, Section 2.2.4.
 - (3) Closure of storage tank systems.
 - (a) General.
 1. Closure of storage tank systems shall be performed by:
 - a. Removing all liquids and accumulated sludges;
 - b. Disconnecting and capping, or removing, all integral piping. Manways shall be secured to prevent access;
 - c. Closing the storage tank system in accordance with Rule 62-761.800(3)(b)-(c), F.A.C., as applicable; and
 - d. Conducting a closure assessment in accordance with Rule 62-761.800(4), F.A.C.
 2. After closure, storage tank systems may be used to store materials or substances other than regulated substances in accordance with all applicable Department reference standards, (for example, API 1604). Owners and operators are advised that other federal, state, or local requirements may apply to these activities.
 3. Monitoring wells associated with closed systems that are not being used for release detection or site assessment purposes shall be closed in accordance with Rule 62-761.600(1)(k), F.A.C.
 - (b) Underground storage tank systems.
 1. Unmaintained systems shall be permanently closed within 90 days of discovery.
 2. System removal, closure in-place, and disposal shall be performed:
 - a. In accordance with API RP 1604 and NFPA 30; and
 - b. By a Certified Contractor if the system is removed from the ground, unless it is closed in place by filling it with a solid inert material of sufficient density to prevent a structural collapse of the closed system.
 - (c) Aboveground storage tank systems.
 1. Unmaintained systems shall be permanently closed within 90 days of discovery.
 2. The tank shall be rendered free of pollutant vapors at the time of closure to prevent hazardous explosive conditions, and maintained to prevent future explosive conditions.
 3. The tank shall be protected from flotation in accordance with NFPA 30, Section 2-6.
 - (4) Closure assessment of storage tank systems.

(a) At time of closure, replacement, installation of secondary containment, or change in service from a regulated substance to a non-regulated substance, an assessment shall be performed to determine if a discharge from the system or system components has occurred

1. If a Site Rehabilitation Completion Order (SRCO) or a Monitoring Only Plan (MOP) Approval Order has been issued by the Department for a contaminated area of a site, a closure assessment shall be performed for any subsequent storage tank system removal, replacement, or installation of secondary containment.

2. Tanks, pipes, or other system components in contact with soil at any site are subject to closure assessment requirements.

(b) A closure assessment is not required for:

1. Sites with documented contamination requiring a site assessment in accordance with Chapter 62-770, F.A.C., including those that are eligible for the Early Detection Incentive Program (EDI), the Florida Petroleum Liability and Restoration Insurance Program (FPLRIP), and the Petroleum Cleanup Participation Program (PCPP), pursuant to Sections 376.3071 and 376.3072, F.S. Nevertheless, documentation of procedures followed and results obtained during closure shall be reported in a Limited Closure Summary Report, Form 62-761.900(8), F.A.C., and in accordance with Section A of DEP's "Storage Tank System Closure Assessment Requirements";

2. Systems initially installed with secondary containment, provided that no unexplained positive response of an interstitial release detection device or method occurred during the operational life of the system, or the secondary containment passed a breach of integrity test prior to closure;

3. Systems upgraded with secondary containment that have closed interstitial spaces, where a closure assessment was performed prior to installation of secondary containment, provided that the secondary containment passed a breach of integrity test in accordance with Rule 62-761.640(3)(a), F.A.C.;

4. Double-walled shop-fabricated aboveground tanks; and

5. Aboveground systems with storage capacities less than 1,100 gallons that are upgrading with secondary containment, and that are elevated from and not in contact with the soil. Instead of performing a closure assessment, a visual inspection may be performed of the system and the ground surface underneath it for signs of a discharge. Written certification shall be provided to the County within 10 days after installation of the secondary containment, documenting that there has been no discharge.

(c) Closure assessment sampling and analysis shall be conducted according to DEP's "Storage Tank System Closure Assessment Requirements."

(d) A closure assessment report shall be submitted to the County within 60 days of completion of any of the activities listed in Rule 62-761.800(4)(a), F.A.C. The report shall include sample types, sample locations and measurement methods, a site

map, methods of maintaining quality assurance and quality control, and any analytical results obtained during the assessment in accordance with DEP's "Storage Tank System Closure Assessment Requirements."

(e) Persons are advised that contaminated soil excavated, disposed of, or stockpiled on site during the closure of a storage tank system is regulated by Chapter 62-770, F.A.C.

Specific Authority 376.303, FS.

Law Implemented 376.303, FS.

History -- New 12-10-90, Formerly 17-761.800, Amended 9-30-96, 7-13-98.

62-761.820 Incident and Discharge Response.

(1) Incident response.

(a) If an incident occurs at a facility, actions shall be taken promptly to investigate the incident to determine if a discharge has occurred. Notification of the incident shall be sent to the County on Form 62-761.900(6). A discharge shall be reported in accordance with Rule 62-761.450(3), F.A.C., if one is discovered during the incident investigation.

(b) If the investigation indicates that the incident was not a discharge, a written confirmation and explanation shall be submitted to the County. Test results or reports, which support the findings, shall be maintained on site as records.

(c) The investigation shall be completed within two weeks of the date of discovery of the incident. At the end of this time period, either a discharge report form or a written confirmation and explanation that the release was not a discharge shall be submitted to the County.

(d) Any spill or loss of regulated substance into secondary containment shall be removed within three days of discovery.

(2) Discharge response.

(a) If a discharge of a regulated substance occurs at a facility, actions shall be taken immediately to contain, remove, and abate the discharge under all applicable Department rules (for example, Chapter 62-770, F.A.C., Petroleum Contamination Site Cleanup Criteria). Owners and operators are advised that other federal, state, or local requirements may apply to these activities. If the contamination present is subject to the provisions of Chapter 62-770, F.A.C., corrective action, including free product recovery, shall be performed in accordance with that chapter.

(b) When evidence of a discharge from a storage tank system is discovered and reported in accordance with Rule 62-761.450(3), F.A.C., the following actions shall be taken:

1. If the source or cause of the discharge is unknown, the discharge shall be investigated in accordance with NFPA 329, Chapters 3 and 5;

Effective 7-13-98

2. The regulated substance shall be removed from the system as necessary to prevent further discharge to the environment. Notice of the need to take the system out-of-service on an emergency basis shall be made to the County in accordance with Rule 62-761.450(1), F.A.C.;

3. Fire, explosion, and vapor hazards shall be identified and mitigated; and

4. The system shall be repaired in accordance with Rule 62-761.700, F.A.C. If the system cannot be repaired, it shall be closed in accordance with Rule 62-761.800(3), F.A.C.

(c) The system shall be tested if the Department or County determines that:

1. There has been a failure to comply with the release detection requirements of Rules 62-761.600-640, F.A.C.;

2. A release detection device, well, or method indicates that a discharge of a regulated substance has occurred, and the discharge was not previously reported; or

3. Groundwater contamination that is not associated with previously known contamination is present in the vicinity of the system and the system is likely to be a source of the contamination.

(d) Within three days of the discovery of a discharge, the following steps shall be initiated:

1. A test on the system in accordance with Rule 62-761.640(3), F.A.C., if the test is necessary to confirm a discharge; and

2. If found to be leaking, placement of the system out-of-service in accordance with Rule 62-761.800(2), F.A.C., until repaired, replaced or closed.

(e) Contaminated soil excavated, disposed of, or stockpiled on site during the closure of a storage tank system shall be managed in accordance with Chapter 62-770, F.A.C.

Specific Authority 376.303, FS.

Law Implemented 376.303, FS.

History -- New 12-10-90, Formerly 17-761.820, Amended 9-30-96, 7-13-98.

62-761.840 Locally Administered Programs. (Repealed)

Specific Authority 376.303, FS.

Law Implemented 376.303, FS.

New 12-19-90, Formerly 17-761.840, Amended 9-30-96.

62-761.850 Alternative Requirements and Equipment Approvals.

(1) Alternative requirements.

(a) Any person subject to the provisions of this chapter may request in writing a determination by the Secretary or the Secretary's designee that any requirement of

This chapter shall not apply to a regulated storage tank system at a facility, and shall request approval of alternate procedures or requirements.

(b) The request shall set forth at a minimum the following information:

1. The specific storage tank system or facility for which an exception is sought;
 2. The specific provisions of Chapter 62-761, F.A.C., from which an exception is sought;
 3. The basis for the exception;
 4. The alternative procedure or requirement for which approval is sought;
 5. Documentation that demonstrates that the alternative procedure or requirement provides an equivalent or greater degree of protection for the lands, surface waters or groundwaters of the State as the established requirement; and
 6. Documentation that demonstrates that the alternative procedure or requirement is at least as effective as the established procedure or requirement.
7. If an alternate procedure or requirement is not able to be sought under 5. or 6., then documentation that demonstrates that the specific provisions of this Chapter from which the exception is sought imposes regulatory costs on the regulated entity that could be reduced through approval of a less costly regulatory alternative or requirement that provides a substantially equivalent degree of protection for the lands, surface waters, or groundwaters of the State as the established requirement.

(c) Within 60 days of the receipt of a request for approval of an alternative procedure or requirement, the Department shall approve the request or notify the responsible party in writing that the request does not demonstrate that the requirements of Rule 62-761.850(1), F.A.C., are met.

(d) The Secretary or the Secretary's designee shall specify by order each alternative procedure or requirement approved for an individual storage tank system or facility in accordance with this rule or shall issue an order denying the request for such approval. The Department's order shall be agency action, reviewable in accordance with Section 120.569 and 120.57, F.S.

(e) The provisions of this rule do not preclude the use of any other applicable relief provisions.

(2) Equipment approvals.

(a) Storage tank system equipment used in the State of Florida must have the approval of the Department before installation or use, with the exception of:

1. Dispensers, dispenser islands, nozzles, and hoses;
2. Monitoring well bailers;
3. Manhole and fillbox covers;
4. Valves;
5. Cathodic protection test stations;
6. Metallic bulk product piping;

(b) "Containment and integrity plan" or "CIP" means a document designed, created, and maintained at a facility, which shall be considered a public record and made available pursuant to the provisions of Chapter 119, F.S. The CIP establishes procedures for the inspection and maintenance program for tanks storing mineral acids at that facility. The inspection and maintenance program shall be designed for the chemical and physical characteristics of the specific mineral acid stored, and for the specific materials of construction of the tank. The CIP shall be designed to ensure control of the specific mineral acid for the expected lifetime of the tank.

(c) "Discharge" includes, but is not limited to, any spilling, leaking, seeping, pouring, misapplying, emitting, emptying, or dumping of any mineral acid which occurs and which affects lands and the surface and ground waters of the state.

(d) "Discovery" means, as related to a discharge, initial detection of mineral acids in ground water or surface water, or the initial detection of soil contamination, resulting from the discharge of mineral acids in quantities greater than the amounts reportable in Rule 62-761.890, F.A.C.

(e) "Existing storage tank" means a tank that was installed on or before January 7, 1992. Installation is considered to have begun if:

1. The owner or operator has obtained, or has applied for, all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank; and

2. Either a continuous on-site physical construction or installation program has begun or the owner or operator has entered into contractual obligations which cannot be canceled or modified without substantial economic loss.

(f) "Facility" means any non-residential location or part thereof containing an aboveground tank or tanks that contain specified mineral acids that have an individual storage capacity greater than 110 gallons.

(g) "Flow-through process tank" means an aboveground tank that contains hazardous substances or specified mineral acids and that forms an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of materials during the operation of the process. Flow-through process tanks include, but are not limited to, seal tanks, vapor recovery units, surge tanks, blend tanks, feed tanks, check and delay tanks, batch tanks, oil-water separators, or tanks in which mechanical, physical, or chemical change of a material is accomplished.

(h) "Inspection and maintenance plan" means a plan that establishes the procedures used to prevent releases of mineral acids.

(i) "Liner" means an artificially constructed material of sufficient thickness, density, and composition that will contain the discharge of any specified mineral acid from an aboveground tank until such time as the mineral acid can be neutralized and/or removed. The liner shall prevent any escape of specified mineral acids or accumulated liquid to the soil, surface water, or groundwater (except through secondary containment as provided in Rule 62-761.890(1)(p), F.A.C.).

(j) "Mineral acids" means hydrobromic acid (HBr), hydrochloric acid (HCl), hydrofluoric acid (HF), phosphoric acid (H₃PO₄), and sulfuric acid (H₂SO₄), including those five acids in solution, if at least 20% by weight of the solution is one of the five listed acids.

(k) "New tank" means a tank that was installed after January 7, 1992.

(l) "Non-residential" means that the tank is not used at a private dwelling.

(m) "Operator" means any person operating a facility, whether by lease, contract, or other form of agreement.

(n) "Owner" means any person owning an aboveground tank subject to Sections 376.320-376.326, F.S.

(o) "Permitted wastewater treatment system" means a facility to which the Department has issued a permit to treat wastewater and release the treated product into the environment.

(p) "Secondary containment" means a system that is used for release prevention, and may include one or more of the following devices:

1. A double-walled tank;
2. An external liner; or
3. A system or structure constructed such that accidental releases from a tank would be collected by a drainage system within the system or structure and routed to a permitted wastewater treatment system, plant recirculating process system, or alternative containment system approved by the Department in accordance with Rule 62-761.850, F.A.C.

(q) "Stationary" means a tank or tanks not meant for multiple site use or that remain in one location at the facility site for a period of 180 days or longer.

(r) "Tank" means an aboveground stationary device that is constructed primarily of non-earthen materials (e.g., concrete, metal, plastic, glass) that provides structural support and is designed primarily to contain mineral acids. Connected piping from the tank to and including the nearest cutoff valve shall be considered part of the tank for purposes of this definition. "Tank" does not include flow-through process tanks.

(s) "Upgrade" means the replacement of a tank or the installation of secondary containment.

(2) Applicability.

(a) The requirements of this rule apply to owners and operators of a facility with an aboveground storage tank with a storage capacity of more than 110 gallons that contains mineral acids.

(b) The following systems are exempt from the requirements of this rule:

1. Any mobile or skid tank that is moved at least every 180 days;
2. Any tank containing mineral acids that are less than 20% by weight of the solution;
3. Any tank of 110 gallons or less capacity that contains mineral acids;
4. Any flow-through process tank; and

5. Any tank containing mineral acids that are regulated as hazardous wastes under Subtitle C of the Resource Conservation and Recovery Act.

(3) Registration.

(a) The owner of any tank containing mineral acids shall register the tank with the Department on Form 62-761.900(2).

(b) A completed registration form shall be submitted to the Department by July 1, 1992, or no later than 30 days after mineral acids are put into a new storage tank.

(c) Each facility shall receive a registration placard upon payment of all applicable fees. The placard shall be available for inspection by the Department and filed with records maintained in accordance with Rule 62-761.890, F.A.C.

(4) Registration fees.

(a) Registration fees are due from the owner or operator for all registered tanks as indicated in this subsection.

(b) Registration fee schedule.

1. Within 30 days after receipt of notification by the Department, the following fees shall be submitted:

a. \$50.00 per tank for each initial registration;

b. \$25.00 per tank for annual renewal of tanks with capacities of 125,000 gallons or less; and

c. One dollar per every 5,000 gallons of storage capacity, per tank, for annual renewal of tanks with capacities of greater than 125,000 gallons.

2. Total annual registration fees for renewals shall not exceed \$2,500.00 per facility.

(5) Notification.

(a) The Department shall be notified of the following items on Form 62-761.900(2):

1. The date and method of closure, at least 30 days before closure of a tank;

2. Any change in ownership of a tank, no later than 30 days after ownership has been transferred. The notice of change of ownership shall be provided by the transferor. The notice shall include a copy of the bill of sale or a letter of acceptance by the new owner;

3. Upgrading of a tank, at least 10 days before upgrading occurs, except for emergency replacements of tanks or connected piping required by an actual or anticipated discharge. Notification of emergency replacement shall be provided within 10 days after the emergency replacement.

4. Any change in registration form information, including any change in the identity of the material being stored.

(b) The Department shall be notified of the certification of the CIP or the secondary containment system on Form 62-761.890(1) within 10 days of the completion

of the form. The Containment and Integrity Plan Certification Form shall be signed by a professional engineer registered in the State of Florida.

(c) Within three working days of discovery, the Department shall be notified of any release into a secondary containment system of a mineral acid in excess of 110 gallons, or the reportable quantity in effect on July 1, 1991, under the Comprehensive Environmental Response Compensation and Liability Act of 1980, whichever is greater.

(6) Reporting of discharges. Within 24 hours of discovery, or before the close of the next business day, Form 62-761.900(1) shall be used to report any discharge exceeding:

- (a) 100 pounds of hydrobromic or hydrofluoric acid;
- (b) 1000 pounds of sulfuric acid; or
- (c) 5000 pounds of hydrochloric or phosphoric acid.
- (7) Performance standards for mineral acid tanks.

(a) General.

1. Existing mineral acid storage facilities that were in operation after January 1, 1992, shall have either a CIP or secondary containment.

2. New or replacement mineral acid tanks installed after July 1, 1992, shall have secondary containment.

(b) Containment and Integrity Plans. The CIP shall include procedures and requirements to minimize the risk of spills, releases, and discharges from tanks. The CIP shall be reviewed and updated at least every two years by a professional engineer registered in the State of Florida. The CIP shall be made available for inspection by the Department, and shall address:

- 1. An inspection and maintenance program detailing:
 - a. The qualifications of the person providing the inspection;
 - b. The inspection and routine maintenance procedures;
 - c. Schedules used to evaluate and maintain the integrity of the tank, and secondary containment (if applicable);
 - d. Release detection procedures; and
 - e. Frequency of inspections and proper response to inspection findings.
- 2. Materials of construction for each tank and compatibility of the mineral acid with the construction materials;
- 3. Secondary containment of tanks, if applicable;
- 4. Location of surface water bodies near the tank and the potential for discharges to enter the surface water body or to move off-site;
- 5. Discharge response procedures for containment and abatement;
- 6. Cleanup procedures; and
- 7. For tanks without secondary containment, the CIP shall also address:
 - a. Procedures and equipment for treating spill wastes;
 - b. Procedures for disposing of spill wastes;

c. Containment and diversionary structures to prevent discharges from entering the nearby surface water bodies or moving off-site; and

d. A demonstration of corrosion protection of the tank if the tanks are in contact with the soil.

(c) Containment and Integrity Plan alternatives. In place of the CIP, a certification may be provided to the Department by a professional engineer registered in the State of Florida that:

1. No mineral acid tank at the facility is in direct contact with the ground; and

2. A secondary containment system has been placed under and around each tank, and sealed to its supports. Secondary containment shall be either:

a. Designed and built to contain in excess of 110% of the capacity of the largest tank within the containment; or

b. Equipped with a drainage system routed to a permitted wastewater treatment system that is capable of containing any accidental release from the tank.

(d) Secondary containment. Tanks installed after July 1, 1992, shall have secondary containment and meet the requirements of this section before the tank is placed into active service. Liners used for secondary containment that are installed after July 13, 1998 shall meet the requirements of Rule 62-761.500(1)(e)1.-3., F.A.C.

(e) Certification. A professional engineer registered in the State of Florida shall certify that:

1. The tanks covered by the CIP for that facility have been inspected and maintained in accordance with the CIP and that the integrity and containment of the tanks has not been compromised. For purposes of this certification, maintenance will be presumed to have been performed if the professional engineer verifies that records demonstrating compliance with this subsection are available, complete, and indicate proper maintenance; or

2. The tank or tanks have secondary containment in accordance with this subsection.

(8) Recordkeeping. Copies of the following shall be maintained and made available for inspection by the Department at reasonable times:

(a) The Containment and Integrity Plan; or

(b) The certification of secondary containment.

(9) Discharge response.

(a) When evidence of a discharge from a tank is discovered and reported in accordance with Rule 62-761.890(6), F.A.C., the owner or operator shall:

1. Remove as much of the mineral acid from the tank as necessary to prevent further discharge;

2. Repair the tank in accordance with original design specifications; and

3. If the storage tank cannot be repaired, all mineral acid shall be removed from the tank and the tank shall be permanently closed.

(b) Any owner or operator of a facility discharging mineral acids shall immediately undertake to contain, remove, neutralize, or otherwise abate the discharge.

(10) Forms. Copies of forms may be obtained by writing to the Administrator, Storage Tank Regulation Section, Florida Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. The following forms shall be used for mineral acid tanks:

- (a) Discharge Report Form 62-761.900(1), July 13, 1998.
- (b) Storage Tank Facility Registration Form 62-761.900(2), July 13, 1998.
- (c) Containment and Integrity Plan Certification Form 62-761.890(1), July 13, 1998.

Specific Authority 376.322(3), 403.087, FS. Law Implemented 376.324, 376.325, 403.087, FS. History—New 7-13-98.

62-761.900 Storage Tank Forms.

The forms used by the Department in the Storage Tank System Program are adopted and incorporated by reference in this section. The forms are listed by rule number, which is also the form number, and with the subject title and effective date. Copies of forms may be obtained by writing to the Administrator, Storage Tank Regulation Section, Division of Waste Management, Florida Department of Environmental Protection, 2600 Blair Stone Road, M.S. 4525, Tallahassee, Florida 32399-2400.

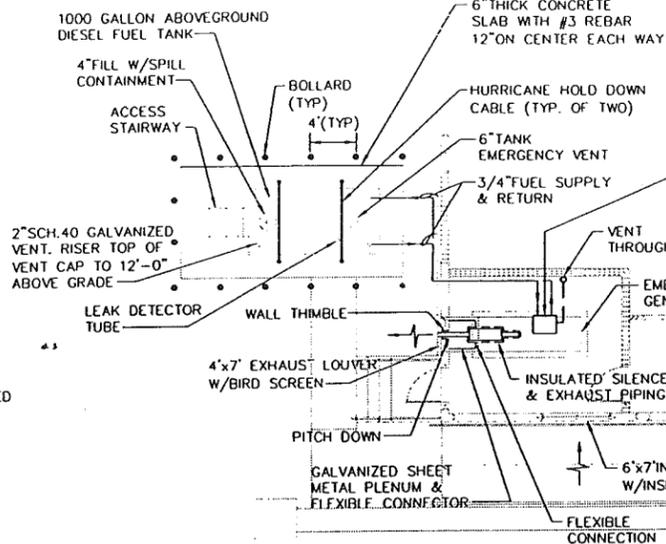
- (1) Discharge Report Form, July 13, 1998.
- (2) Storage Tank Facility Registration Form, July 13, 1998.
- (3) Certification of Financial Responsibility, July 13, 1998.
- (4) Alternative Requirement or Procedure Form, July 13, 1998.
- (5) Underground Storage Tank Installation and Removal Form for Certified Contractors, July 13, 1998.
- (6) Incident Notification Form, July 13, 1998.
- (7) Monthly Statistical Inventory Reconciliation (SIR) Report, July 13, 1998.
- (8) Limited Closure Summary Report Form, July 13, 1998.

Specific Authority 376.303 FS. Law Implemented 376.303 FS.

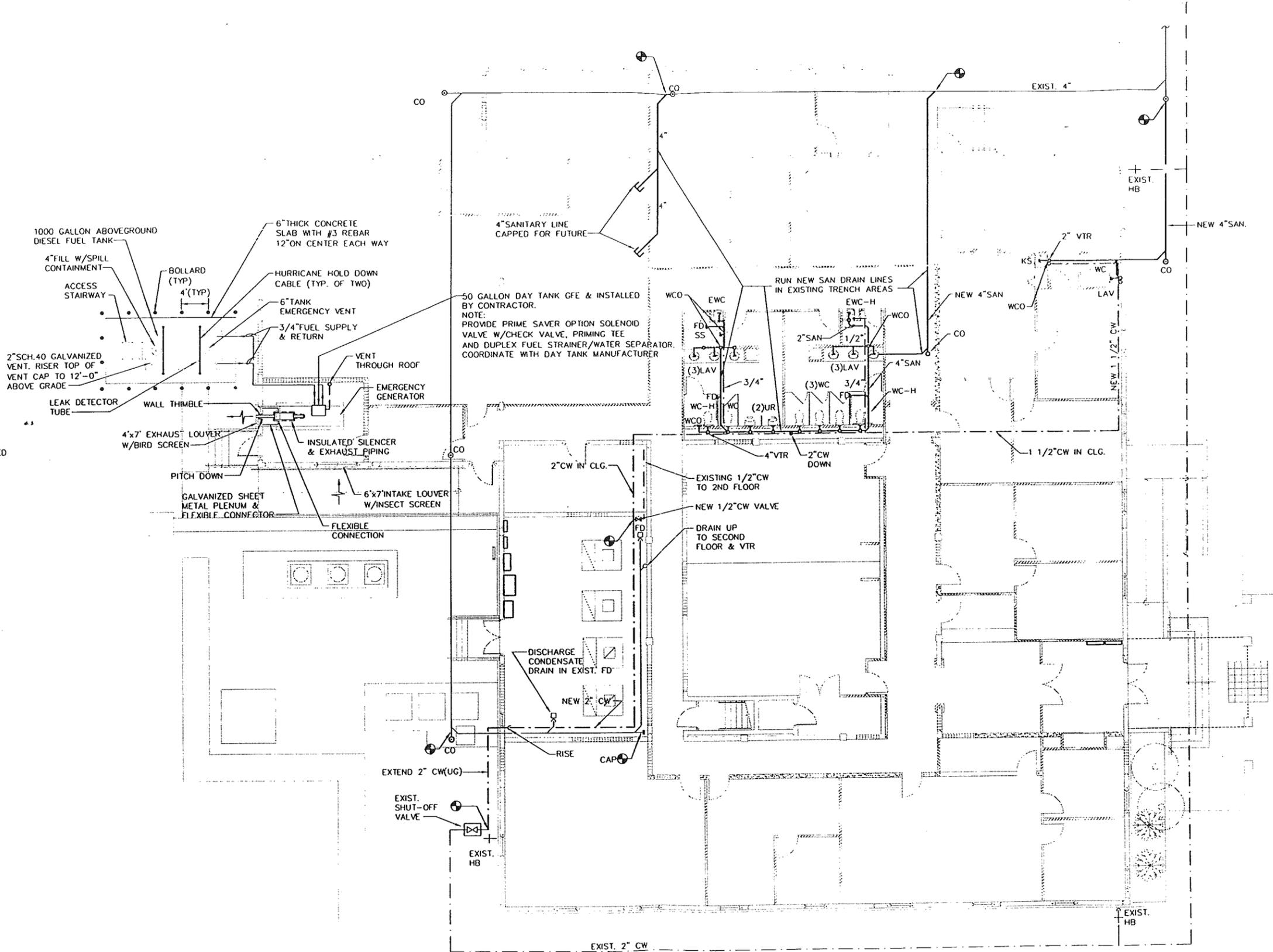
History: New--12-10-90, Formerly 17-761.900, Amended 9-30-96, 7-13-98.

PLUMBING LEGEND

| SYMBOL | DESCRIPTION |
|--------|---|
| --- | EXISTING SANITARY PIPE. |
| --- | EXISTING POTABLE COLD WATER PIPE. |
| --- | EXISTING POTABLE HOT WATER PIPE. |
| --- | SANITARY PIPE. |
| --- | VENT PIPE. |
| --- | POTABLE COLD WATER PIPE. |
| --- | POTABLE HOT WATER PIPE. |
| --- | GATE VALVE. |
| --- | CHECK VALVE. |
| --- | "P" TRAP. |
| CO | CLEAN-OUT. |
| WCO | WALL CLEAN-OUT. |
| --- | AIR CHAMBER. |
| --- | VENT THRU ROOF. |
| --- | HOSE BIBB W/ VACUUM BREAKER & SHUT-OFF VALVE. |
| --- | CONNECT TO EXISTING |
| CLG | CEILING |
| CO | CLEAN-OUT |
| COOC | CLEAN-OUT ON GRADE |
| CW | COLD DOMESTIC WATER |
| EWC-H | ELECTRIC WATER COOLER HANDICAPPED |
| EWC | ELECTRIC WATER COOLER |
| FD | FLOOR DRAIN |
| HB | HOSE BIBB |
| KS | KITCHEN SINK |
| LAV | LAVATORY |
| SAN | SANITARY |
| SS | SERVICE SINK |
| --- | URINAL |
| VT. | VENT THRU ROOF |
| WC | WATER CLOSET |
| WC-H | WATER CLOSET HANDICAPPED |
| WCO | WALL CLEAN-OUT |



50 GALLON DAY TANK GFE & INSTALLED BY CONTRACTOR.
 NOTE: PROVIDE PRIME SAVER OPTION SOLENOID VALVE W/CHECK VALVE, PRIMING TEE AND DUPLEX FUEL STRAINER/WATER SEPARATOR. COORDINATE WITH DAY TANK MANUFACTURER



PLUMBING FLOOR PLAN
 SCALE: 1/16" = 1'-0"



FINAL- BID SET

P-1

THIS DRAWING SUPERSEDES DRAWING NO. 17/18/0

PBSI
 ARCHITECTURE-ENGINEERING-PLANNING
 POST, BUCKLEY, SCHLIH & JERNIGAN

| DESIGN | ARCH | ELEC | MECH | PLUMB |
|----------|------------|-----------|----------|-------|
| PROJECT | ARCH | ELEC | MECH | PLUMB |
| DRAWN BY | CHECKED | STRUCK | MECH | ER |
| | SUPERSEDED | IN CHARGE | APPROVED | |

DEPARTMENT OF THE NAVY
 NAVAL AIR STATION - KEY WEST, FLORIDA
 TASK:
REPAIRS- ALTERATIONS TO BLDG. A-324
BOCA CHICA NAVAL AIR STATION
PLUMBING FLOOR PLAN

CODE IDENT. NO. 80091
 DRAWING SIZE: 11X17
 SCALE: AS SHOWN
 CAT. CODE:
 CONTRACT NO.
 N62467-95-D-2833
 SPEC. NO.06-9502833
 NAVFAC DRAWING NO.
5336199
 SHEET 19 OF 29