Installations in Florida
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Start of Rule Revisions

- 12/10/1990 – separate UST Rule with phased future dates to upgrade system components “by year range of install.”

- By 12/31/2009 – all single wall systems to be upgraded or closed
  - 90 day extension in Rule (provided facility has construction permit or signed contract)
  - Option to place system out-of-service
  - Legislated extension to September 2011 provided facility has a Consent Order with the DEP and remains in-compliance.
The Process

- No construction plan review is required by DEP
  - Local Programs may perform review.
  - Pinellas has a County Construction Licensing Board & the 24 individual cities/towns may issue permits.
  - We issue a “Proviso Letter” – no fee
  - DEP requires registration & the equipment must be listed on the “Equipment Approval” website.
The following is a list of manufacturers of approved storage tank system equipment. The list contains equipment that has been approved after December 10, 1990, and does not include equipment approved under Chapter 17-61, F.A.C. The Florida Department of Environmental Protection does not specifically endorse any particular manufacturer nor is it responsible for any failure or malfunction of the product or equipment.

For corrections or questions about the list, please e-mail Farid Moghadam at farid.moghadam@dep.state.fl.us or call 850/245-8848. The list is as follows:

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The Contractor

- UST systems require use of Pollutant Storage System Contractor (PSSC).
- However, DEP does not regulate the contractor.
- Division of Business & Professional Regulation licenses the PSSC.
Trends

- Remove 3 or 4 USTs and install 1 or 2 multi-compartmented tanks.
- Blend for mid-grade at the dispenser.
- Install internal secondary containment “liner.”
- Remove USTs and install new in same location. Pipe upgrade occurs later in system sequence.
Facility/Tank Population

- 2008-2009 Statewide UST data: 9,841 facilities with 26,132 tanks.

- Pinellas has 774 facilities (AST/UST)
Installation 1

Visits:

- When the tank arrives, to observe any required integrity testing. With USTs the installation instructions are usually laminated onto the side of the tank.
- Observe the excavated box, tie-down, ballast, and start of backfill.
- Observe completed backfill.
- Observe air pressure/soap testing of primary line.
- Observe air pressure/soap testing of secondary line.
Installation 2

- Observe 3-hour hydrostatic test of sumps.
- Observe integrity test of spill containment units. (vacuum or hydrostatic)
- Following receipt of printed copies of tank & line tightness tests and function test of LLD we will perform a final inspection. Expect to observe shear valve anchoring, and a function test of any electronic sensors.
- Inspection mailed to owner/operator.
Why you visit the facility when the tank arrives on-site.
ID#9806522

damaged 15K UST

twall

LIFT HERE
ID#9806522
16K UST
kwall
Backfill Condition

- Clean, washed sand
- Pearock or Crushed Rock
  - #89 Stone
- Whatever is available
89 Stone with or without shell?
TANK TYPES
Total Containment
Permatank
Highland TITAN
Former Southeast Tank

- Original manufacturer of Permatank and Titan (based in Tampa).
- Permatank was equipped with Permatel – a combination of vacuum and liquid sensor. DEP FL approved vacuum as a tightness test equivalent based on Ken Wilcox 3rd party data.
- Inspectors have issues with inability of the facility to function test the sensors – cannot be removed from the tank. Titan may have a Permatel unit too.
Modern Welding Glasteel II
Metal Products Co (MPC)
Plasteel & Elutron
Eurotank
STAGE II VAPOR RETURN - CONNECT TO EURO-TANK BALANCE SYSTEM.

CANOPY FOOTER BY CANOPY MANUFACTURER

BACKFILL PER MANUFACTURER’S REQUIREMENTS USE CLEAN (HOMOGENOUS) BACK FILL

12” BACKFILL FOOTER

A FINAL INSPECTION BY OUR DEPARTMENT IS REQUIRED TO DOCUMENT THE PROPER INSTALLATION OF THE COMPONENTS OF THE POLLUTANT STORAGE SYSTEM.
Petro-First
XERXES
Containment Solutions
Petrofuse
Phoenix (Parabeam)
In-Situ (Tank-in-Tank)
PIPE
Guardian (Ameron + Welded Steel)
Smith Red Thread II A
Ameron Dualoy 3000
“L” Red 3/2
“L” Green 3/2
LCX
MCX
Bondstrand

Flexible (FLX)
FLEX PIPE IDENTIFICATION GUIDE

- APT Poly-Tech – double-walled, “clamshell” fittings used.
- ENVIRON GeoFlex – double-walled, 3 types of fittings used.
- OPW Pisces SP – single-walled, swivel-type nut fitting.
- OPW Pisces CP-RB – double-walled, swivel-type nut fitting.
- OPW Pisces CP-DW – double-walled, swivel-type nut fitting.
- Total Containment Enviroflex – single-walled, 2nd-generation, produced 95-98.
- Total Containment Enviroflex – single-walled, 2nd & 3rd-generation, prod. >98.
- Total Containment Omniflex – double-walled, sec. jacket over Enviroflex.
- Total Containment Omniflex – double-walled, sec. jacket over Enviroflex.
- Western Fiberglass Co-flex – double-walled, swivel or clamp fittings.
Total Containment (TCI)

- Pipe Jacket
- Enviroflex
  - Yellow
  - White, Bone, Blue
  - Marine (Black)
- Omniflex
  - Blue/White
  - Blue/Blue
Environ

- Swage
- Coaxial
- Version 2 – striped
- Purchase by OPW
  - Gray striped
  - Blue striped
  - The Loop System
OPW

- Pisces CP Blue/Black
- Pisces CP Fuscia/Black
- Loop System
Western Fiberglass
Omega Flex
Petrofuse
Brugg
APT

- Version 1
- Version 2
PetroTechnik (UPP)
Dispenser Sumps

- Unit Liner
- TCI
- Petroleum Containment
- Bravo
- OPW
- Environ
Transition Sumps

- APT
- OPW
Tank/Pipe Sumps

- Mated to Tank
- Free-Standing
- Not Required – Provide a Means of Release Detection
Spill Containment

- **OPW (1.5-inch nut)**
  - 500 Series
  - 700 Series
  - 7111ss Series
  - 1C-3100 The Edge
- **Emco Wheaton**
  - A1004-210S
- **Fairfield (1.25-inch nut)**
- **Bravo (Hess facilities)**
Flexible Connector
A Little Glue is a Good Thing
GW location

- From “near surface” to greater than 70 feet.
  - Sheet pile and dewater
    - Use of mobile stripper
  - Just dig
Facility #1
METAL PRODUCTS COMPANY
Facility #2
15,000
8-18-09
VAC-24
UL-489156
10' x 25'9"
6,000 → 16'1"

4,000 ← 10'9½"
Facility #3
Facility #4
15,000
D 8,000
2 7,000
VAC. 4'
UL # R-234156
Q-23-09
Facility #6
Facility #7
Facility #8
Facility #9
Other
Thoughts

- Owner/Operators rarely visit construction site.
- Select low bid.
- Contractor is key.