NJDEP
Bureau of UST Compliance & Enforcement
Bureau of UST
Krista Frey, Secretary – (609) 633-1205
Mail Code 09-03, PO Box 420
Trenton, NJ 08625-0420

Northern Region
Bergen, Essex, Hudson, Morris, Passaic, Sussex, Warren, Hunterdon
Somerset and Union

Kevin Marlowe, Supervisor (609) 439-9589
Auradis Brooks (609) 462-5649
Jessica Gellatly (609) 789-7445
Mallory May (609) 954-5158
Seth Moore (609) 815-0534
David Norville (609) 477-4265

Southern Region
Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer,
Monmouth, Middlesex, Ocean, Salem

Michael Hollis, Acting Supervisor (609) 477-0945
Gregory Davis (609) 439-9414
Jenna DiNuzzo (609) 672-1309
Jennifer Lenik (609) 672-1809
Kristina LeNoir (609) 221-3306
Lorraine Norville (609) 477-4263
Janelle Pierson (609) 672-1327
Association of State and Territorial Solid Waste Management Officials

Mike Hollis – Member
  – UST Task Force

Greg Davis – Member
  – Emerging Fuels Task Force
New Regulations

- NJDEP website
  - http://www.nj.gov/dep/rules/njac7_14b
- EPA OUST website
  - http://www.epa.gov/oust/
EPA Guidance Documents

- Musts for UST’s
- Straight talk on Tanks: Release Detection For Underground Storage Tanks And Piping
- Operation and Maintenance of UST’s
- Field Constructed Tanks
- Airport Hydrant Systems
- Underground Storage Tank System Compatibility: An Overview of the Federal Regulations
UST Inspection

- Registration
- Insurance
- Release Detection Monitoring
- Cathodic Protection
- Spill Prevention
- Overfill Prevention
- Air Permitting/Compliance
Facility must have a Current and Accurate Registration

- Effective Dates
- Current Owner & Operator
- Current AB operator
- Correct number & size of USTs
- Correct substances stored
The Department of Environmental Protection hereby grants this registration to operate and maintain the Underground Storage Tank System(s) described below in accordance with the laws and regulations of the State of New Jersey. This registration is revocable with due cause and is subject to the limitations, terms and conditions pursuant to N.J.A.C. 7:14B.

<table>
<thead>
<tr>
<th>Facility ID:</th>
<th>Facility Contact (Operator):</th>
<th>Approval Date:</th>
<th>Expiration Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>012345</td>
<td>Joseph Smith (201) 555-1234</td>
<td>01/24/2008</td>
<td>12/31/2010</td>
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<tr>
<td>Registration Activity ID:</td>
<td></td>
<td>Total Number of Tanks:</td>
<td>Total Capacity (Gallons):</td>
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<tr>
<td>UST070001</td>
<td></td>
<td>3</td>
<td>26000</td>
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Facility Address:
JOE'S GARAGE
444 MAIN ST
ANYWHERE, NJ 02854

Owner:
JOSEPH SMITH
444 MAIN ST
ANYWHERE NJ, 02854

Approved Tanks and Products Stored:

<table>
<thead>
<tr>
<th>TANK No.</th>
<th>TANK CAPACITY</th>
<th>TANK CONTENTS</th>
</tr>
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<tbody>
<tr>
<td>5175</td>
<td>8000</td>
<td>Unleaded Gasoline</td>
</tr>
<tr>
<td>5176</td>
<td>8000</td>
<td>Light Diesel Fuel (No. 1-D)</td>
</tr>
<tr>
<td>5177</td>
<td>10000</td>
<td>Unleaded Gasoline</td>
</tr>
</tbody>
</table>

This Registration Must Be Available for Inspection at the Facility AT ALL TIMES
New Registration Requirements

The facility owner shall notify the Department, in writing, at least 30 days prior to the sale or transfer of all or any portion of the facility, and shall provide the following:

- 1. Contact information of the current facility owner;
- 2. Contact information of the prospective facility owner;
- 3. The underground storage tank facility ID number;
- 4. The address of the facility;
- 5. The extent of the ownership to be sold or transferred;
- 6. A date of sale or transfer, if available. They should send information via email (not using FCQ) to our email address at: srpustregistration@dep.nj.gov
Registration Renewal

Expiration dates by county

Paperwork submitted to DEP 60 days prior to expiration

Renewals must include:
  - R&B Questionnaire
  - ENTIRE insurance policy
  - Renewal fee

New Jersey Underground Storage Tank Facility Certification Questionnaire
www.nj.gov/dep/srp/forms/ust
Changes to Registration Renewals

- Previous registration valid 3 years ($150); new registrations valid for 1 year ($50).
- AB operator information
- Contractor certification required before new installation or out-of-service tanks are put into service
- BOTH the owner and operator must sign!
Submit an FCQ (and insurance) if:

- 30 days prior to:
  - New installation into service
  - Greater than 10% ethanol or greater than 20% biodiesel
  - Out-Of-Service to In-Use status

- Within 7 days:
  - Tanking a tank out-of-service

- Within 30 days:
  - Change in Owner or Operator
  - After the addition, removal, or replacement of the facility’s designated Class A or Class B operator
New Rule Changes

- Emergency generator USTs are no longer exempt from Release Detection requirements

- Prior to beginning any closure activities on an underground storage tank system the tank must be registered

- The Department will not approve any application unless all fee requirements related to investigation, closure and remediation of an underground storage tank system pursuant to the Administrative Requirements for the Remediation of Contaminated Sites, N.J.A.C. 7:26C-4
New Rule Changes

- The owner and operator of an underground storage tank system that has secondary containment may request that the underground storage tank system remain out-of-service for a period of more than 12 months

- 14 day notification must be made by the owner or operator at least 14 calendar days prior to the installation, closure, substantial modification or decommissioning of Stage 2 vapor systems

- Contractor certification is required including documentation that the system is properly designed and capable of being put into service in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory or in accordance with the manufacturer's instructions
  - New UST systems
  - When placing a out-of-service tank into service
Facility must have a Current and Accurate Insurance Policy

- Can be held by the owner or operator
- Effective dates
- Correct number, size and installation dates for all USTs
- Most municipalities are self-insured or are part of the state joint insurance plan
Release Detection Monitoring (tanks)
General ATG Requirements

- Must PASS leak test at least every 30 days.
- Can detect a 0.2 gph leak.
- Must be a valid, passing test. (50% or greater volume & 2-4 hours downtime)
- If the station is open 24/7 or if tanks are manifolded, a CSLD or SCALD chip may be needed to pass a periodic test.
  - For manifolded tanks, other option would be to manually shut off the siphon.
- Must measure for water monthly.
- 95% probability of finding a leak and 5% of a false alarm.
- Is third party approved for the application.
- Must have maintenance performed per Manufacturer specifications – annual certification.
Continuous Interstitial Monitoring

- Double walled tanks only
- Annular Sensors-certified annually
- Location commonly depends on construction of the tank
- Sensors connect to an ATG panel
- **Mandatory for double wall USTs that:**
  - installed since September 4, 1990
  - installed prior to 1990, but using continuous interstitial as of Jan. 16, 2018.
Facility must have Sensors Normal

No Alarms

Print liquid status reports
- Incon: print Regulatory Report
- Veeder Root: function to “liquid status”; print
Problems in the Field
Release Detection Monitoring
(Lines)
Pressurized Piping

- Line Leak Detector (annual test)
- Lines Tightness Test (annual test - single wall piping)
- Interstitial (monthly or continuous - double wall piping)
Line Leak Detectors

- 3.0 gph leak rate
- Tested annually

- PLLD – more than just a 3.0
  - 0.2 gph monthly monitoring
  - 0.1 gph monthly (does not meet the requirements for an annual line test)
Line Tightness Test

- 0.1 gph leak rate
- Tested annually

- Does not count for primary leak detection on lines which are required to do Continuous Interstitial – will be backup only.
Interstitial Monitoring

- Double wall piping only
- Product tight secondary containment
- Any test boots MUST be loose or open
- Sensors fixed to the bottom of the sump
- Mandatory for lines that:
  - installed since Sept. 4, 1990 – OR-
  - Was using interstitial on Jan. 16, 2018

- Sump integrity test by Oct. 13, 2018; 3 year test
Huh?
It Ain’t Kool-Aid!
Sump Testing

- Includes all sumps and dispenser pans for sites using interstitial monitoring

- 1st round of testing by Oct. 13, 2018
- 3 year test

- Must isolate sumps from the lines; test boots must be installed and closed during test
- Test to 4 inches above the highest penetration of the sump

- Low level testing is permitted, provided the site is equipped with and maintaining positive shutdown
Sump testing is not required only when the sump is double walled AND continuously monitored by pressure, vacuum or liquid.

Dry interstitial sumps require testing.
Sump Test Failures

- Repairs must be made within 30 days of test failure
- Longer than 30 days is at the discretion of DEP on a case by case basis
European Suction Piping

- Check valve only at dispenser – product drains back to tank in case of failure
- No additional RDM required
Check valve at the dispenser and top of the tank — product remains in line when not in use

Additional RDM required:
Interstitial if piping installed since 1990
3 year tightness OR interstitial if piping installed before 1990
Corrosion Protection
CP Testing requirements

- Sacrificial & Impressed Current
- >= .850 VDC Passing test results
- Required Test 1 X 3 years
- 6 month test required after CP upgrade / repairs

- Impressed system – 60 day rectifier log
Spill Prevention
Spill Prevention

- Clean and Dry – No Liquid
- 3 year integrity test
- Inspect for HOLEs

- Take failing / damaged equipment out of service immediately!
Not Spill Prevention
Three year spill prevention equipment testing

To make sure the spill bucket will hold drips and small spills when the delivery hose is disconnected from the fill pipe.

- Double-walled spill buckets are not required to meet the testing requirement, provided they are monitored with pressure, vacuum or liquid.
- Applies to new installations after October 13, 2015
- Applies October 13, 2018 for UST systems installed on or before effective date of rule
Overfill Protection
Overfill Prevention Options

❖ Gravity or Pressurized Deliveries
1. High level alarm: Device must be active at 90% - annual certification
2. Pressure Rated Flow Restrictor (61F-stop): Device must be set to shut off when tank is 95% full – 3 year certification

❖ Gravity Deliveries only
1. Automatic Shutoff (Flapper Valve): Device must be set to shut off when tank is 95% full – 3 year certification
2. Ball Float Valve / Flow Restrictor: Device must be set to slow down flow when tank is 90% full – 3 year certification.
Most Common Overfill

- **High level alarm** - located so that device is audible and visible to delivery driver

- **Flapper Valve** - never store stick in drop tube
  - Can cause an overfill
  - Can damage overfill device
BALL FLOAT / FLOW RESTICTOR

Should not be used for suction systems, systems with remote fills or systems that receive deliveries under pressure

◆ NO REPAIRS MUST REPLACE with alternate method!
(as of Oct. 13, 2015 per 40 CFR 280.20)
New Operation and Maintenance Requirements

- **Three year overfill prevention equipment inspections - flapper shutoffs and ball floats**
- **Annual certification – high level**
  - Inspect to make sure overfill operates as intended
    - Applies to new installations after October 13, 2015
    - Applies October 13, 2018 for UST systems installed on or before effective date of rule
Release Response Plan

The owner or operator shall prepare, and update as necessary to reflect changes to the facility and to regulations governing response plans, a release response plan which includes the following information:

1. Site Name & Address
2. Owner/Operator Name & Phone Numbers
3. AB operator Name & Phone Number
4. Emergency telephone numbers: local police, fire, EMS, health dept. and NJDEP Hotline 1-877-WARN DEP (877-927-6337)
5. Contractor Name & Phone Number
6. LSRP Name & Phone Number
7. List of procedures to be followed in the event of a leak or discharge of a hazardous substance

*The owner or operator shall ensure that the release response plan is available for on site inspection.

*Any release response plan that is required by and is in compliance with the New Jersey Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq., and the Discharges of Petroleum and Other Hazardous Substances Rules, N.J.A.C. 7:1E, shall suffice for this requirement.
UST Compliance Points
Contact UST Enforcement at 609-943-3019 for more information

- Registration - Current and Accurate
- Insurance - Current and Accurate Policy
- Release Detection Monitoring

- For Tanks
  - Functional and Passing Method of Release Detection
  - 0.2 passing and or Interstitial Sensors Normal/No Alarms

- For Pressurized Lines
  - Functional and Passing Method of Release Detection
  - Mechanical Line Leak Detectors– Annual Passing Test
  - Pressure Monitoring Lines - .2 GPH monthly test = Pass
  - Annual Line Tightness Test
  - Interstitial Monitoring
    - Test Boots Loose /Sensors mounted in correct position
    - Sump must be free of liquid
    - 3 year sump test

- Suction Piping – What type do you have?
  - American requires either monthly monitoring OR a 3-year test.

- Corrosion Protection
  - Required Test 1 X 3 years
  - >-.850 Passing test results
  - 60 day rectifier inspection (If applicable)
  - Proof of Tank Construction– UL1746 Compliant

- Spill Prevention (Spill Buckets)
  - Clean and Dry – No Liquid
  - Inspect for HOLES
  - 3 year test

- Overfill Prevention
  - Present and Functional
  - Contractor overfill certification

- Monthly Containment Device Inspection Log

- Air Permit Issues
  - Current and Accurate Air Permit
  - Check all Stage 1 and 2 hardware
  - Ensure all required testing is completed and passing

- Release Response Plan

- DEP HOTLINE – 1-877-927-6337
Operator Training
(Every site must have an A/B operator trained by Oct. 13, 2018)
http://www.cpe.rutgers.edu/brochures/intros/ust-AB.html
Operator Training
(by October 13, 2018)

1. Take DEP class and pass ICC test
2. Provide AB documentation from reciprocity accepted state
3. Hire an individual who has passed an AB program in one of the above criteria's

- Owners must designate and ensure 3 classes of operators are trained
- Recordkeeping is required for as long as the operator is designated at the facility
- Retraining is required for Class A and B operators at facilities determined to be out of compliance
WALKTHROUGH INSPECTIONS

- Beginning no later than October 13, 2018

- Conducting a walkthrough inspection, at a minimum and as appropriate to the facility, as follows:
  - 30 day inspection
  - annual inspection
30 DAY WALKTHROUGH INSPECTIONS

• Open and visually inspect:
  – Spill prevention equipment
    • (document interstitial monitoring if applicable)
  – Fill pipe
    – Anywhere WITHOUT containment; dispensers, STPs, piping sumps

• Check and record monthly release detection monitoring

**Any water/debris should be removed immediately and disposed of properly.**
Annual Inspection

• Open and visually check for leaks, damage, leaks from interstitial areas, remove water/debris (and dispose of properly) from:
  – STP containment sumps
  – Piping containment sumps
  – Dispenser cabinets
• Trigger high level alarm
• Check devices such as tank gauge sticks or ground water bailers for operability and serviceability
• Verify all annual testing
Compatibility

- **Notification** - Owners and operators must notify the implementing agency at least 30 days before switching to a regulated substance containing greater than 10 percent ethanol, 20 percent biodiesel, or any other regulated substance identified by the implementing agency.

- **Demonstration of compatibility** – Owners and operators must demonstrate compatibility of the UST system through a nationally recognized testing lab listing or manufacturer approval of UST equipment or components, or use an alternative option identified by the implementing agency that is no less protective than demonstrating compatibility of the UST system.

- **Recordkeeping** - Owners and operators must maintain records for as long as the biofuel blend is stored to demonstrate compliance.
Contractor Certification

- Installation
- Closure
- CP - tester/specialist
- Tank Testing
  - (includes line and monitoring systems)

Now using ICC test centers
  (no ICC test for CP category)

Eliminated the Sub-Surface Classification
Contractor Certification

A NJ certified contractor is not required for:

- Dispenser replacement/calibration
- Vapor recovery testing
Contractor Enforcement

- Firm certifications are only valid if the firm has a full time employee who has a valid individual license and is designated as a certifying officer.
- All work which requires a certified contractor must be done by or under the direct onsite supervision of a certified individual who is a full time employee of the same firm.
Contractor Reviews & Inspections

Onsite Inspection:
- Individual wallet card for onsite certified individual
- If no certified individual is onsite, stop work
- Penalties will be issued for uncertified work to the contractors

Office Review:
- New applications
- Certifying Officers for Firm Certifications
14-Day Notification

- Email to 14dayUSTnotice@dep.nj.gov
- Installation, Closure, Sub-Modification work, Stage 2 decommissioning and air testing.

- 14 days before routine work
- Within 14 days of emergency work

- Post decommissioning tests 14-days after
- Within 72 hours of an vapor test fail
What goes in the notice?

- The name, address, and registration number of the facility
- The name and contact information for the owner and operator
- The name and contact information of the certified individual and business conducting work
- The date on which the work is scheduled to begin
- Type of work to be done
NEW AIR RULE

(This rule includes ASTs as well)
Stage 1 only Sites

- Stage 1 testing is now required on previously exempt Stage 1 only sites

- Annual testing – PV Valve and Static Pressure Performance
  - Torque test if swivel adapters are installed
Vapor Testing

- **Stage 1 (annual test)**
  - Pressure Decay
  - PVV
  - Torque test (installations after 12/23/17 or by 12/23/24 for existing)

- **Stage 2 (3 year test)**
  - Dynamic Backpressure
  - Air/Liquid Ration (vac. assist only)

- **Post Decommissioning Tests**
  - Pressure Decay
  - PVV
  - Tie-Tank
Phase 1 EVR

- EVR P/V valve now required at installed for new construction and for existing sites by 12/23/18.
- Full EVR system (mix and match) now required at install for new construction and for existing sites by 12/23/24.
- Torque test (annual).
- Single point systems are exempt from the torque test.
14 Day Notification

• Annual vapor recovery testing

• Stage 2 Decommissioning – before and after

• Within 72 hours of vapor test fail
Stage 2 Decommissioning

- System not compatible with ORVR (Vac-Assist without permeator or compatible nozzles) – MUST decommission by 12/23/20.

- Balanced systems or Vac-Assist with permeator must either:
  - Maintain current systems or decommission
Decommissioning Contractors

- Work completed by a NJ UST contractor certified in installation or closure
- Must be performed according to PEI RP300-09 – including testing procedures
- 14 day notification to NJDEP prior to and after completion (include Pressure Decay, PV Valve, Tie Tank test results and RP300 checklist)
14 Days After Decommissioning
What goes in the notification

- Site name and address, PI#, name and contact information for the owner and operator
- The name and contact information of the certified individual and business who conducted the decommissioning
- The date on which the decommissioning was conducted and a decommissioning checklist in accordance with PEI/RP300-09, or a checklist that may be amended by the Department as applicable.
Post Decommissioning

- New hoses must be CARB certified low permeation hoses

- New nozzles must be “Enhanced Conventional” aka ECO nozzles once equipment has CARB approval

- Tank tie test – one time test after decommissioning

- Pressure Decay, PV Valve annually.

- Dynamic Backpressure and Air to Liquid testing is NOT required.
Investigation Of Corrosion-Influencing Factors In Underground Storage Tanks With Diesel Service

U.S. Environmental Protection Agency
Office of Underground Storage Tanks
EPA 510-R-16-001
https://www.epa.gov/ust/investigation-corrosion-influencing-factors-underground-storage-tanks-diesel-service
July 2016
<table>
<thead>
<tr>
<th>Affected Equipment</th>
<th>Operational Malfunction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dispenser fuel filters</td>
<td>Clogging and requiring more frequent replacement</td>
</tr>
<tr>
<td>Seals, gaskets, O-ring</td>
<td>Deterioration</td>
</tr>
<tr>
<td>STP and pump components</td>
<td>Replacement/column pipe wear/motor problems</td>
</tr>
<tr>
<td>Tanks</td>
<td>Rusting and leaking (includes tanks on vehicles)</td>
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<tr>
<td>Meters</td>
<td>Premature failure</td>
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<tr>
<td>Line leak detectors</td>
<td>Damaged or broken</td>
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<tr>
<td>Automatic nozzle shutoff</td>
<td>Failure/shorter lifespan</td>
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<td>Tank probes</td>
<td>Malfunctioning</td>
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<tr>
<td>Check valves</td>
<td>Not seating</td>
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<td>Shear valves</td>
<td>Not sealing/failing tests</td>
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<tr>
<td>Hose swivels</td>
<td>Failing prematurely</td>
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<td>Dispenser</td>
<td>Leaks/failure/premature replacement</td>
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<td>Solenoid valves</td>
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<td>Corrosion</td>
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<td>Pipes</td>
<td>Failure</td>
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