Petroleum and Chemical Bulk Storage

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Spills are prevented from occurring via Petroleum and Chemical / Hazardous Bulk Storage Regulations

• Registration
• Handling and storage
• Design standards for new installations

Applicable Petroleum Bulk Storage Regulations:

• Part 610: Certification of On-shore Major Facilities (MOSF > 400,000 gallons)
• Part 611: Environmental Priorities and Procedures in Petroleum Cleanup and Removal
• Part 612: Registration of Petroleum Storage Facilities
• Part 613: Handling and Storage of Petroleum
• Part 614: Standards for New and Substantially Modified Petroleum Storage Facilities
Applicable Chemical Bulk Storage Regulations:
- **Part 595**: Releases of Hazardous Substances
- **Part 596**: Hazardous Substances Bulk Storage Regulations
- **Part 597**: List of Hazardous Substances
- **Part 598**: Handling and Storage of Hazardous Substances
- **Part 599**: Standards for New or Substantially Modified Hazardous Substance Storage Facilities

*Windshield washer fluid, antifreeze, fertilizer, and industrial or commercial chemical tanks?*

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**Petroleum and Chemical Bulk Storage**

**Should the Facility be registered?**

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**Petroleum and Chemical Bulk Storage**

**Petroleum Registration Requirements**

Registration is required for Facilities with petroleum:
- In stationary tanks (“non-mobile”)
- More than 1,100 gallons of AST storage
- More than 110 gallons of UST storage
- Used oil tanks of ANY size
- On one or more contiguous tax parcels under common ownership.
- Exclusions (unless at a site that otherwise is a Facility):
  - Heating oil tanks used on premises, < 1,101 gallons
  - Farm or residential, non-retail fuel tanks, < 1,101 gallons
  - Asphalt (however asphaltic emulsions are included)

Petroleum:
- Crude oil and any fraction thereof
- Synthetic oils (lubricating, dielectric, insulating, hydraulic and cutting)
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Chemical / Hazardous Registration Requirements

Registration is required for Facilities with chemicals:

- Containing at least 1% mixture of a substance listed in Part 597
- In containers storing more than 1,000 kilograms (2,200 pounds) for a period greater than 90 days
- In stationary tanks ("non-mobile")
  - ASTs with a tank size 185 gallons or larger
  - USTs of any size

Alternative Fuels and Bulk Storage Programs

**BIODIESEL**

- Biodiesel at 100% concentration (B100) does not contain petroleum, and is not currently regulated under PBS / MOSF.
- Diesel with any biodiesel component is regulated under PBS / MOSF as diesel with an extender.
- PBS Product Code 2710 or 2711, not 0008.

**ETHANOL**

- Ethanol at 100% concentration (undenatured) does not contain petroleum, and is not currently regulated under PBS / MOSF. It is regulated by ATFE due to the alcohol content.
- Ethanol denatured with methanol is regulated under CBS as methanol with an extender.
- Ethanol denatured with gasoline is regulated under PBS as gasoline with an extender
- PBS Product Code 2712, not 0009.
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Requirements for all Registered Facilities

1. Facility Registration Certificate posted?
2. Registration Information Current and Correct?
3. Monitoring wells / observation points marked and secured?
4. Dispenser sumps been maintained?
5. Shear valves installed and operable?
6. Tanks permanently closed properly?
7. Tanks temporarily closed properly?
8. Any “spills” observed?
9. Tank top sumps been maintained?
10. Fill port catch basins been maintained?
11. Fill ports color coded?

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Requirements for all Registered Facilities

8. Unreported Spills? Were any unreported spills observed during the inspection (also include suspected releases from leak detection equipment and uninvestigated inventory discrepancies)?
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Underground Storage Tanks

Underground Tank Construction

12. UST systems installed after 12/86 must have
   • Secondary containment on tank, piping, and dispensers
   • Leak monitoring for tank and piping
   • Corrosion resistant tank and piping
   • Spill Prevention and Overfill Prevention
   • Ability to monitor inventory

Heavily regulated by NYS DEC, NYSDOS, USEPA
12. UST systems installed after 12/86 must have

- As-built plans
- Part 614 labels

Underground Tank Operations

- Daily Inventory Monitoring
- Weekly Leak Monitoring for Tanks
- 10-day Inventory Reconciliation
- Monthly Verification of Operability
- Monthly Leak Monitoring for Lines
- Annual tests for:
  - Cathodic Protection for steel tanks and lines
  - Pressurized Line Leak Detectors
- 5-Year tightness testing (should not apply to systems installed after 12/86)

Underground Tanks - NEW Requirements

- Operator Training
  - 3 levels of training – Primary responsibility, daily responsibility, and all employees
  - Must include an evaluation of knowledge
  - Single time unless tank is in non-compliance at time of inspection or as specified by regulation
  - To be completed by …

- Delivery Prohibition (Red Tag)
  - Illegal to deliver or accept delivery into tank identified by State or EPA as ineligible
Aboveground Storage Tanks
Regulated by NYSDEC, NYSDOS, USEPA

18. Aboveground Tank Construction
- Adequate surface coating (paint),
- Cathodic Protection for bottom if in contact with soil,
- Impermeable barrier under tank, and
- Ability to monitor for leaks beneath tank.

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Welded steel UL 58 / 142
Plastics UL 2258
Aboveground Tank Operations

- Monthly Inspections (by Owner / Operator)
- Ten-Year Inspections (by certified 3rd party)
- smaller tanks are usually exempted
- Gauge
- Labeling
- Secondary Containment Dike Valve closed and locked

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- Fully Compliant AST

Secondary Containment is required for:

Case 1 - All AST’s > 10,000 gallons.
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Non-compliant ASTs

Alternative Fuels and Bulk Storage Programs

- All system components need to be verified for compatibility. Certain first generation fiberglass products and certain metal products are not compatible. PEI lists compatible and incompatible products.

http://resource.pei.org/altfuels/guide.asp

Compliance Inspections

Compliance inspections verify preventative measures, as prescribed in the Regulations, are employed correctly by the Operator and Owner to:

- Prevent releases from occurring
- Ensure the regulated entity is aware if releases are occurring
- Report spills or suspected releases
Following the inspection, the violations are listed on a "Notice of Violation" ("NOV").

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Compliance Inspections - Enforcement

Letter format NOV (by DEC Spills)

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Compliance Inspections - Enforcement
Appearance ticket (by an ECO)
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Compliance Inspections - Enforcement

- Penalties are assessed pursuant to DEE-22:
  Petroleum Bulk Storage Inspection
  Enforcement Policy

- [www.dec.ny.gov/regulations/25240.html](http://www.dec.ny.gov/regulations/25240.html)

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Petroleum and Chemical Bulk Storage
Compliance Inspections - Enforcement

- Penalties may be adjusted for aggravating / mitigating factors.

- If Owner chooses not to sign Consent Order offered, the case is “Noticed for Hearing” and the case is settled in Court.
Accidents and Spills happen …

• “Spill” or “spillage” means any escape of petroleum from the ordinary containers employed in the normal course of storage, transfer, processing or use [6 NYCRR 612.1(c)(24)].

• Does not require a release into the ground or water

• No violation under the PBS Regulations for a release, only for a failure to report a release

Accidents and Spills happen …

Per ECL 17-1001, petroleum spills must be reported to the DEC SPILL HOTLINE (800-457-7362) unless they meet ALL of the following criteria:

– The spill is known to be less than 5 gallons (petroleum) or less than the RQ (chemical / hazardous); AND
– The spill is contained and under the control of the spiller; AND
– The spill has not and will not reach the State’s water or any land; AND
– The spill is cleaned up within 2 hours of discovery

Accidents and Spills happen …

EXAMPLES OF SPILLS …

• Product in sumps or containment
• Product spills at or near dispensers
• Inventory discrepancies noted in 10-day reconciliation
Accidents and Spills happen ...

MORE EXAMPLES OF SPILLS ...

• Product found in a monitoring well or u-tube
• Tank overfills
• Tank test failures
• Any other petroleum release or suspected petroleum release

Accidents and Spills happen ...

Fires / Explosions - Control with absorbents

Accidents and Spills happen ...

Ignoring the underground utility markings ...

10-inch diameter gasoline pipeline
Accidents and Spills happen …

- Solid chemical / fertilizer spills
- Product reclaimed using sweepers

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Spill Prevention, Control, and Countermeasure (SPCC) Plan is required if:

- AST Oil Storage Equals or exceeds 1,320 gallons
- UST Oil Storage Equals or exceeds 42,000 gallons
- USEPA includes containers 55 gallons and larger.

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Resources

- Contact the bulk storage representative in the DEC Region where the Facility is located.

- Bulk Storage Help Line: 518-402-9543 or 518-402-9553

- www.dec.ny.gov
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Resources: [www.dec.ny.gov](http://www.dec.ny.gov)

**Questions?**

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