

## Petroleum and Chemical Bulk Storage

Presented by:  
Division of Environmental Remediation  
Bureau of Spill Prevention and Response

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## Petroleum and Chemical Bulk Storage

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

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

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## Petroleum and Chemical Bulk Storage

### **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

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## Petroleum and Chemical Bulk Storage

### **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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## Petroleum and Chemical Bulk Storage

### 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

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## 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.

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## Alternative Fuels and Bulk Storage Programs

### 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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## Petroleum and Chemical Bulk Storage

### 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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## Petroleum and Chemical Bulk Storage

### 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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## Petroleum and Chemical Bulk Storage

MONITORING WELL			
STATUS	WELL	WELL	WELL
Unmonitored	Unmonitored	Low level	High level
High grade	+	U	+
Medium grade	+	U	+
Low grade	+	U	+
ALCOHOL-ENRICHED FUEL		BODENIT	
HHS		HHS	
VOLUME		VOLUME	
CONCENTRATION ON MONITORING WELL		VOLUME	
VOLUME		VOLUME	




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## Petroleum and Chemical Bulk Storage

### Underground Storage Tanks

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## Petroleum and Chemical Bulk Storage

### Underground Storage Tanks

Heavily regulated by NYS DEC, NYSDOS, USEPA



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## Petroleum and Chemical Bulk Storage

### 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

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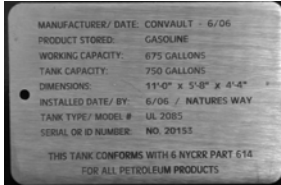
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## Petroleum and Chemical Bulk Storage

### Underground Tank Construction

12. UST systems installed after 12/86 must have

- As-built plans
- Part 614 labels



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## Petroleum and Chemical Bulk Storage

### 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)

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## Petroleum and Chemical Bulk Storage

### 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

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## Petroleum and Chemical Bulk Storage

### Aboveground Storage Tanks

Regulated by NYSDEC, NYSDOS, USEPA



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## Petroleum and Chemical Bulk Storage

### 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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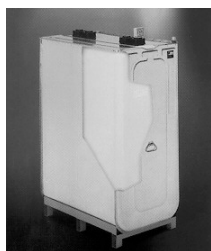
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## Petroleum and Chemical Bulk Storage

### 18. Aboveground Tank Construction



Welded steel UL 58 / 142



Plastics UL 2258

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## Petroleum and Chemical Bulk Storage

### 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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## Petroleum and Chemical Bulk Storage

### Aboveground Tank Construction

21. Secondary Containment is required for:  
Case 1 - All AST's > 10,000 gallons.



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## Petroleum and Chemical Bulk Storage

### Fully Compliant AST



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## Petroleum and Chemical Bulk Storage

### Non-compliant AST's




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## Alternative Fuels and Bulk Storage Programs

### petroleum equipment module

Alternative Fuels (AF) equipment Compatibility Guide.  
Equipment by Fuel  
Select a fuel to view the list of compatible items:

- E15  
Gasoline with 15% ethanol
- E25  
Gasoline with 25% ethanol
- E85  
Gasoline with 85% ethanol
- E100  
Pure ethanol
- B7  
Biodiesel with up to 7% biodiesel
- B20  
Biodiesel with up to 20% biodiesel
- B100  
Pure biodiesel



- 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>

This resource was compiled by the manufacturer. PEI is not responsible for accuracy of listing or the suitability of equipment for use with the listed fuel.

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Energy Transfer Group

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## Petroleum and Chemical Bulk Storage

### 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

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**Petroleum and Chemical Bulk Storage**  
Compliance Inspections - Enforcement

Following the inspection, the violations are listed on a "Notice of Violation" ("NOV").

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**Petroleum and Chemical Bulk Storage**  
Compliance Inspections - Enforcement  
 Letter format NOV (by DEC Spills)




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**Petroleum and Chemical Bulk Storage**  
Compliance Inspections - Enforcement  
 Appearance ticket (by an ECO)




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## Petroleum and Chemical Bulk Storage 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

NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Home » Regulations and Enforcement » Guidance and Policy Documents » Enforcement Policies » DEE-22: Petroleum Bulk Storage Inspection Enforcement Policy - Penalty Schedule

**DEE-22: Petroleum Bulk Storage Inspection Enforcement Policy - Penalty Schedule**

**PBS PENALTY SCHEDULE**

#	NYCRR	Violation	Penalty Range	Average Penalty
1	(612.2)	Failure to register	\$500 - 5,000	\$1,000
2	(612.2)(e)	Failure to display certificate	100	100
3	(612.2)	Registration not current and valid	100 - 1,000	1,000
4	(613.3b)(4) (614.5)(i)	Monitoring wells at facility are not marked	500	500
5	(613.9)(b)	Tanks not permanently closed	500 - 5,000 per tank	2,000 per tank
6	(613.9)(a)	Temporarily out of service	250 - 1,000 per tank	500 per tank
7	(613.8)	Unreported spill <small>*May also be subject to Navigation Law</small>	500	500

Page Applies To:  
All Regions

PDF Help:  
For assistance with PDF's on this page, please call 518-402-9509

Contact for this Page:  
Regional Enforcement Coordination  
EC2 Broadway, 14th Floor  
Albany, NY 12233  
5500  
518-402-9509

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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.

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## Petroleum and Chemical Bulk Storage

### 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

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## Petroleum and Chemical Bulk Storage

### 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

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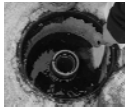
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## Petroleum and Chemical Bulk Storage

### 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



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## Petroleum and Chemical Bulk Storage

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



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## Petroleum and Chemical Bulk Storage

Accidents and Spills happen ...

- Fires / Explosions - Control with absorbents



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## Petroleum and Chemical Bulk Storage

Accidents and Spills happen ...

Ignoring the underground utility markings ...



10-inch diameter gasoline pipeline

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## Petroleum and Chemical Bulk Storage

### Accidents and Spills happen ...

- Solid chemical / fertilizer spills
- Product reclaimed using sweepers



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## Petroleum and Chemical Bulk Storage

### Other Federal Requirements ...

**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.
- USEPA definition of oil includes Lube Oils, Gasoline, Distillate Fuels, Fuel Oils, Mineral Oil, Vegetable Oils, Hydraulic Oils, Asphalt products, and Related Materials

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## Petroleum and Chemical Bulk Storage

### 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](http://www.dec.ny.gov)

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
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# Petroleum and Chemical Bulk Storage Resources: www.dec.ny.gov




**DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

New York State Department of Environmental Conservation
[Search all of NY Gov](#)

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- Cultural Activities
- Animals, Plants, Aquatic Life
- Chemical and Pollution Control
- Conservation
- Air
- Noise
- Environmental Cleanup & Remediation
- Chemical and Petroleum Storage**
- Waste Management
- Recycling and Recycling Programs
- Fish Management
- Marijuana
- Water
- Wilderness
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## Chemical and Pollution Control

Chemical and pollution control is at the core of the New York State Department of Environmental Conservation's (DEC) mission, to protect and enhance the quality of our natural resources and our environment. Through the promotion of environmentally sound uses of products, air, land, water, and wildlife resources, and the enforcement of environmental cleanup and monitoring programs, and effective laws and regulations, DEC addresses chemicals and pesticides, environmental cleanup and monitoring programs, and effective laws and regulations, DEC addresses chemicals and pesticides and wetlands of the people of New York.

### Help for Businesses

- Help for Businesses has information for businesses and organizations that need help complying with environmental laws and regulations.
- Permits discusses how to file a permit and provides the necessary forms.
- Write to contact with questions about permits


### Air Pollution

There are many different sources that contribute to air pollution, which negatively affect public health and the environment. DEC carries out both the state and federal air pollution control and monitoring programs, which help control emissions of pollutants as well as measure and monitor ambient pollutant levels.

- Airtest Air Quality Monitoring - program to track air quality, measures air pollutants at more than 80 sites across the state, using continuous and/or manual instrumentation
- Air Program Forms and Instructions - forms for Facility Registration, Facility Permits, Emission Reduction Credit, Budget Trading Programs, and others available for download

#### Important Links

- [Environmental Permits](#)
- [Wetland Study](#)
- [Noise Lawmaking](#)
- [DEC's Website](#)
- [NY Green Great Lakes Theme](#)
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DEC  
New York State

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Petroleum and Chemical Bulk Storage

Questions?

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