

## 2024 Fall Conference at The Ashore Resort Ocean City, Maryland

#### **COMAR 26.10 – Summary of New Oil Control Program Regulations**

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September 20, 2024

#### **BIOGRAPHY**

- 22+ years of design, compliance, inspections, testing, and site investigation and remediation experience for impacts to soil, groundwater and soil vapor.
- Comprehensive fuel system expertise, including:
- Inspection and assessment of existing UST and AST systems
- Tank system permitting and compliance
- AST/UST integrity testing
- Investigation and remediation of fuel-related impacts, including design and implementation of UST and AST closure or removal
- Design and specification of new fuel tank systems ranging from 300 to 40,000 gallons in multiple jurisdictions
- Design and specification of upgrades and repairs to existing tank systems



#### **ABSTRACT**

#### COMAR 26.10 – Summary of New Oil Control Program Regulations

List brief overview of presentation in bulletized format

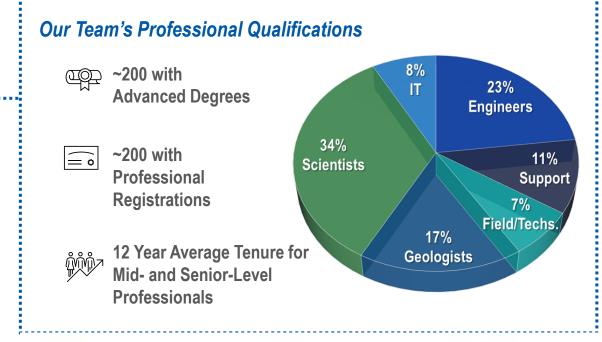
- Changes to COMAR 26.10 will be outlined with regards to aboveground and underground fuel storage tanks at county facilities in Maryland. Substantive changes impacted every existing chapter and introduced three new ones. Areas to be discussed include inspection, testing, release detection, operations and maintenance, and new reporting requirements. The presentation will also outline associated deadlines and recommended actions that county facility managers should take proactively to address changed regulatory requirements
- 1.0 PDH

Integration of Engineering, Science, and Technology

Our Team's Professional Qualifications

EA Engineering, Science, and Technology, Inc., PBC

- 50+ years in business
- 700+ staff in 27 nationwide offices
- 100% employee-owned Public Benefit Corporation
- \$240M annual revenue
- ~1,700 projects executed annually
- 575+ clients served annually
- 80% of business is from repeat clients













# EA's Fuel Storage Tank Compliance Services

- Oil Storage Compliance Consulting
- Compliance audits, SPCC and FRP development, permitting support
- Fuel System Testing
- Fuel System Inspections
- MDE Third-Party UST Inspections, STI SP001 Certified AST Inspections
- Fuel System Design Services
- Fuel System Construction Support
- UST/AST Removal
- Leaking UST and Oil Spill Remediation Services
- sEAmless Configurable Compliance Portal for EHS&S Management









#### **AGENDA**

- Oil Storage at County Facilities
- Compliance Requirements for Oil Storage Facilities
- New State Requirements for Oil Storage Facilities
  - UST Related Requirements
  - AST Related Requirements
  - Other Changes to COMAR 26.10

## OIL STORAGE

at County Facilities



## Typical Oil Storage at County Facilities

- Motor Vehicle Fleet Fuel Tanks Underground and Aboveground
- Backup Fuel for Emergency Generators and Boiler Systems
  - **Transformers**



## Fuel Systems at County Facilities

**Underground Storage Tanks (USTs)** 







**Aboveground Storage Tanks (ASTs)** 







## Fuel Systems at County Facilities

**Generator Sub-Base Tanks** 





**Day Tanks** 







## Fuel Systems at County Facilities

Oil-Filled Operational Equipment (OFOE)







**Portable Containers** 





## COMPLIANCE

Requirements for Oil Storage Facilities

## Codes and Industry Standards

## Industry codes and standards have been developed to meet regulatory requirements.

Developing Organizations for these codes and standards include:

- API American Petroleum Institute
- ASTM International formerly American Society for Testing
- NACE International (formerly the National Association of Corrosion Engineers)
- NFPA National Fire Protection Association
- NLPA National Leak Prevention Association
- PEI Petroleum Equipment Institute
- STI Steel Tank Institute
- UL Underwriters Laboratories Inc.















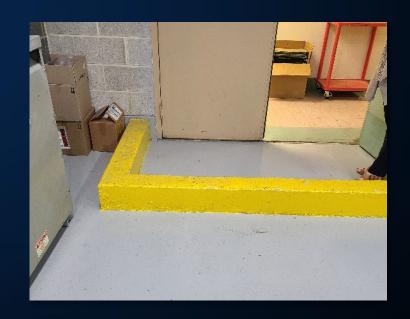
### Compliance Requirements - Federal



#### **Aboveground Oil Storage Requirements**

Spill Prevention, Control, and Countermeasure (SPCC) Rule

- Title 40, Code of Federal Regulations, Part 112 ("SPCC Rule")
- Required for facilities that store more than 1,320 gallons of oil in aboveground storage tanks/containers.
- Requires facilities to develop, maintain, and implement an oil spill prevention plan, called an SPCC Plan.
- Other SPCC requirements include:
  - Secondary containment
  - Security measures
  - Inspections and recordkeeping
  - Employee training



### Compliance Requirements - Federal



#### **Underground Oil Storage Requirements**

U.S. Code, Title 42, Chapter 82, Subchapter IX

Law that gives the EPA the authority to regulate USTs.



#### Energy Policy Act of 2005

- Includes provisions regarding inspections, operator training, delivery prohibition, secondary containment and financial responsibility, and cleanup of releases that contain oxygenated fuel additives.
  - Operator Training (Class A, B and C) is required for all facilities that own or operate USTs.
- Class A and B operators must be trained and certified through an MDE-approved training program.
- Class C operators may be trained through an MDE-approved course or through a Class A or Class B operator on-site.

### Compliance Requirements - Federal



## Underground Oil Storage Requirements (cont'd)

## Technical Standards and Corrective Action Requirements for USTs [40 CFR Part 280]

 Revised in 2015 to strengthen 1988 regulations by increasing emphasis on properly operating and maintaining UST equipment



Maryland incorporated the new federal regulations on June 13, 2022.

#### Approval of State UST Programs [40 CFR Part 281]

State UST programs approved by EPA can operate in lieu of the federal program.



In Maryland, the MDE Oil Control Program oversees the State UST program.



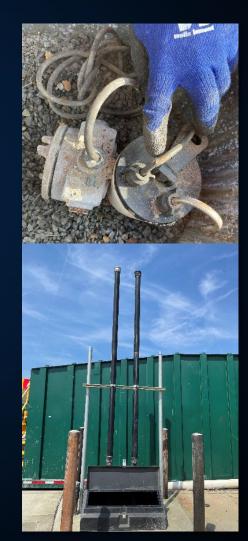
## Compliance Requirements - Maryland



## Code of Maryland Regulations (COMAR) 26.10

#### **Underground Storage Tank Requirements**

- Registration
  - All regulated USTs must be registered with MDE.
- Installation, Removal, and Repair
  - Must use a Maryland certified UST system technician or remover.
- Monitoring, Testing, Operations and Maintenance (O&M)
  - Certain testing/inspections must be conducted by Maryland certified UST system inspector or technician or an industry certified tester.
- Operator Training
  - Class A and B operators must be trained and certified through an MDE-approved training program.



## Compliance Requirements - Maryland



#### Code of Maryland Regulations (COMAR) 26.10

#### Aboveground Storage Tanks Requirements

- Facilities with oil storage >10,000 gallons or used oil storage >1,000 gallons must obtain an Individual Oil Operations Permit (OOP) from MDE.
  - Must provide documentation that facility has an up-to-date SPCC Plan.
- Facility that has greater than 2,500 gallons of aggregate oil storage capacity in AST systems must obtain a General Oil Operations Permit.
  - Must register all ASTS
  - ➤ Not required for facilities with an OOP.
- Many new AST requirements following revision to COMAR 26.10 effective June 13, 2022.
  - Will review in the next section





## **NEW STATE**

Requirements for Oil Storage Facilities



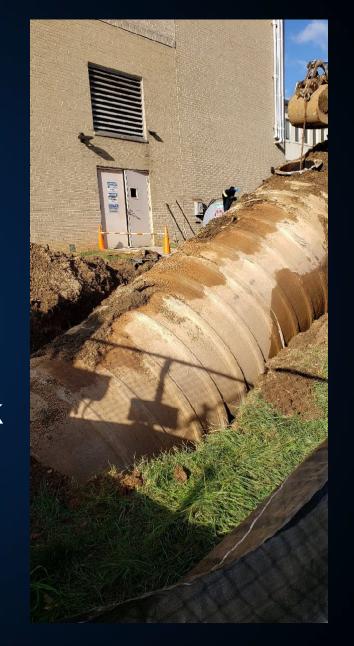
### Regulatory Process Overview

- Full repeal and replacement of COMAR 26.10 to modernize Maryland's oil pollution control and storage tank management regulations
  - Old Title: Oil Pollution and Tank Management
  - New Title: Oil Pollution Control and Storage Tank Management
- Substantive changes made to most existing chapters
- Three (3) new chapters added:
  - Chapter 12: UST Systems with Field-Constructed Tanks and Airport Hydrant Fuel Distribution Systems
  - Chapter 17: Shop-Fabricated ASTs
  - Chapter 18: Field-Erected ASTs
- June 13, 2022: Effective date of new regulations
  - Generally, the regulations provide a 2-year period for owners/operators to bring existing ASTs into compliance, unless another time period is determined by MDE.



## Overview of Changes

- Updates State UST regulations to be consistent with federal regulations
- Removes obsolete language and incorporate updated versions of industry codes of practices and standards
- Amends definition and requirements for high-risk oil storage facilities
- Establishes annual financial responsibility reporting requirements for UST system owners



## Overview of Changes

- Establishes a new AST system registration requirement
- Establishes new AST regulatory provisions
- Establishes permitting and construction standards for marinas with motor fuel dispensing systems
- Establishes new minimum requirements for residential heating oil tanks
- Establishes new minimum requirements for motor fuel dispensing facilities
- Establishes new release reporting requirements



## MDE Regulation Changes for ASTs

- There was no definition of "aboveground storage tank" included in the previous regulations.
- Under the new regulations, an AST is defined as a storage tank that:
  - Currently stores or previously stored oil\*
  - Has a storage capacity of greater than 250 gallons;
  - Designed to operate at ~atmospheric pressure
  - Is constructed more than 90% above (excluding piping)
  - May be installed in an underground vault, a basement, or a sub-surface building.

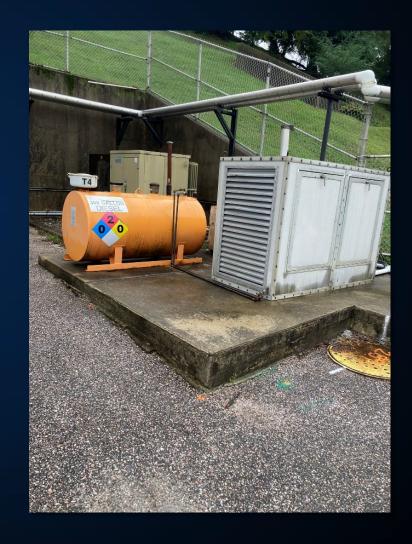


<sup>\*</sup> COMAR defines "oil" to be petroleum-based and excludes edible oils

### MDE Regulation Changes for ASTs

#### Oil Discharge Reporting Requirements

- Under the previous regulations, a person responsible for the discharge was required to submit a written report to MDE for all oil discharges.
- Under the new regulations, a person responsible for the discharge must report the occurrence if:
  - 5 gallons or more of oil was spilled, released, or discharged;
  - Oil (any quantity) was discharged to waters of the State; or
  - The person is directed by MDE to report



## MDE Regulation Changes for ASTs

#### **Motor Fuel Dispensing Facilities**

- A "motor fuel dispensing facility" was not defined under the previous regulations.
- Under the new regulations, a "motor fuel dispensing facility" is defined as "an oil storage facility where motor fuels are stored and dispensed from fixed equipment into the fuel tanks of motor vehicles, vessels, or into approved containers, including all equipment used in connection therewith."
  - Include facilities where fuel is only dispensed to facility-owned vehicles and equipment.
  - Incorporates facility-specific requirements from the 2021 edition of NFPA 30A

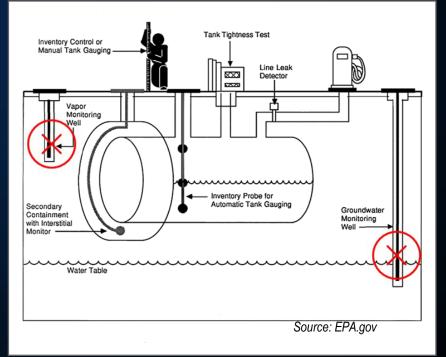


### New Release Detection Requirements

Requirement: All emergency generator (EG) USTs must maintain an approved method of release detection (RD).

- RD requirements for EG USTs installed prior to March 2008 previously deferred.
  - Precision testing required at 15 years and every 5 years thereafter
- Examples of RD: Automatic tank gauging (ATG), manual tank gauging, interstitial monitoring, precision tightness testing.
  - Groundwater monitoring and vapor monitoring are no longer approved methods of RD.

**Implementation Deadline: October 13, 2022** 



### New AST Registration Requirements

Requirement: Facilities with >2,500 gallons of aboveground oil storage must register all AST systems.

- Aggregate storage includes only oil tanks >250 gallons in capacity.
- Facilities with an existing OOP do not need to re-register ASTs.
- Not required for AST systems that store oil for less than six consecutive months.
- Must maintain a copy of the AST system registration at the facility.
- Must submit a written notice to MDE 30 days before placing an AST system out-of-service, returning to in-service, or permanently closing/removing the tank from the site.
- Oil deliveries prohibited to AST systems that are not registered.

#### **Implementation Deadline:**

- Register new AST systems within 30 days of installation
- Register an existing AST system not later than December 13, 2023

Fact Sheet on AST Registration is available on MDE's website: <a href="https://mde.maryland.gov/programs/land/oilcontrol/pages/factsheetspublications.aspx">https://mde.maryland.gov/programs/land/oilcontrol/pages/factsheetspublications.aspx</a>

## New AST Registration Requirements

MARYLAND DEPARTMENT OF THE ENVIRONMENT Land and Materials Administration Oil Control Program 1800 Washington Boulevard Suite 620 Baltimore Maryland 21230-1719 (410) 537-3442 800-633-6101 x3442 410-537-3092 (fax) www.mdc.maryland.gov  ABOVEGROUND STORAGE TANK (AST) SYSTEM REGISTRATION FORM	continued) MDE OCP Fac. ID		F SYSTEM REGISTRATION FORM (continued) MDE OCP Fac. ID  REGISTRATION CERTIFICATION
MDE OCP Facility ID (if known):  MDE Use Only Al Number:		ontinued) MDE OCP Fac. ID	s hereby made to the State of Maryland, Department of the Environment, Land and Materials in for the aboveground storage tank system(s) listed above. I hereby acknowledge and
Type of Registration (mark one):  New Amended Closure	Zip Code County	y that is storing oil and that is greater than 250 gallons. <sup>1</sup>	ividual Oil Operations Permit under Code of Maryland wrage facility and registered AST systems storing oil are Oil Operations Permit by Rule. I certify, under penalty amiliar with the information submitted in this registration
Is this an Owner Name Change? YesNo Maryland Department of the Environment Oil Control Program 1800 Washington Boulevard, Suite 620	pn-Military Office Space	s used as bio-diesel), diesel exhaust fluid (DEF), propane, natural gas, antifreeze,	ccurate, and complete. I understand that the inclusion of lusion of required information in this registration, may we complaint seeking civil penalties in accordance with
Number of AS1 systems at facility:  OR -  AST.Registration@maryland.gov	e / Ambulance Petroleum Distributor Railroad Residential tablishment Retail		stated Code of Maryland, and may include the suspension urther understand that failure to notify the Department of e, is a violation of Environment Article §§ 4-401 through
L OWNERSHIP INFORMATION AST System Owner Name:	mment State Government Trucking / Transport Utilities		also subject me to an administrative complaint and civil
If the AST System Owner is a business entity, is the entity registered Yes No with the Maryland Department of Assessments and Taxation?  Street Address:	☐ On-site consumptive use ☐ Storage		Date:
City. State Tin Code. County	ricants, etc.)    Other (specify):  SYSTEM(S)		
Owner Contact Person and Job Title:  Telephone Number:Fax:	if same as AST System Owner from Section I.		of fit for reuse)
Email:  Mailing Address (if different from above):	Fax:		my faine statement, representation, or certification herein is subject il monetury penalties, pursuant to \$4-417 of the Environment Article
City State Zip Code County	Fax:		eral Provisions Article § 4-501  e General Provisions Article of the Maryland Code. The cended to be used in processing your registration. Failure
Date: November 2023 Page I of 5 TTY Users 800-735-2258	Zip Code County	Page 3 of 5	in your registration not being processed. You have the e Maryland Department of the Environment (MDE) is a c Information Act. This form may be made available on ect to inspection or copying, in whole or in part, by the rotected by federal or State law.
Date: November 2023 TTY Users 800-735-2258	Page 2 of 5	Date:	November 2023 Page 5 of 5

New MDE Aboveground Storage Tank System Registration Form (November 2023)

## Out-of-Service and Permanent Closure of ASTs

**Requirement:** AST systems must be placed out-of-service or properly closed.

#### **Out-of-Service**

- Provide 30 days written notification to MDE.
- Follow steps outlined in COMAR 26.10.17.13 to place AST system out-of-service.

#### **Permanent Closure**

- Provide 30 days written notification to MDE.
- Provide MDE with a written sampling plan to identify contamination from the AST system.
- Take the AST system out-of-service in accordance with PEI RP 1700.
- Conduct site investigation (sampling).
- Within 30 days of closure, submit notification amending the facility's AST registration or Permit.
- Within 45 days of closure, submit an AST Closure Report to MDE.

New Overfill Prevention Requirements - Inspections

Requirement: Inspect and conduct a functional test to make sure overfill prevention equipment operates as intended.

#### **Implementation Schedule:**

- By June 13, 2023 (unless an inspection and functional test was conducted before June 13, 2022).
- •At least every 3 years after the most recent inspection and functional test was conducted.



Overfill Prevention Valve





High Level Alarm connected to ATG

## New Overfill Prevention Requirements – Ball Floats

Requirement: Flow restrictors overfill devices in vent lines (ball floats) are no longer permitted as new or replacement overfill prevention equipment

- Design flaws and operability issues.
- Can cause severe damage to the UST systems if a overfill occurs.

#### **Implementation Deadline:**

◆Effective date: June 13, 2022



## New Requirement for Containment Sump Testing

Requirement: Schedule for containment sump testing revised from every 5 years to every 3 years.

 Double-walled sumps with periodic interstitial monitoring are exempt from this requirement.

#### Implementation Schedule:

- Within 5 years of the most recent test if conducted before 13 June 2022.
- At least every 3 years after any most recent test, thereafter.



Under Dispenser Containment Sump



Submersible Turbine Pump Containment Sump

### New Containment Sump Requirements

## Requirement: Under Dispenser Containment (UDC)

 Required when a new dispenser and equipment needed to connect the dispenser to the UST system is replaced, even if not a new UST installation.

Must install containment sump sensors when installing, upgrading, or replacing piping on or after the effective date

Not required for vent riser containment sump.

**Implementation Deadline:** June 13, 2024



**UDC Sump** 



**UDC Sump Sensor** 

New Oil Contamination Reporting Requirements

Requirement: New reporting practices for reporting evidence of oil contamination during property assessment activities.

- Must report evidence of a spill, release, or discharge discovered during an environmental assessment conducted as part of a due diligence investigation.
  - Immediately, but not later than 2 hours after detecting free product; or
  - Within 48 hours for lab data at or above a relevant cleanup standard or action level





# New Financial Responsibility Reporting Requirements

#### Requirements:

- UST system owners must provide evidence of a valid financial responsibility (FR) to MDE annually by electronic format.
- Specific UST information must be included on insurance endorsements & certificates.
- The owner must be listed on the FR document as the insured or as an additional insured. Must exactly match the information on the MDE Facility Registration.
  - Owner must submit a Notification for Underground Storage Tanks/Certificate of Insurance to amend registration or insurance certificate if the information does not match.

#### Implementation Deadline:

 Submit no later than 90 days of the initiation of coverage or the anniversary date of existing coverage

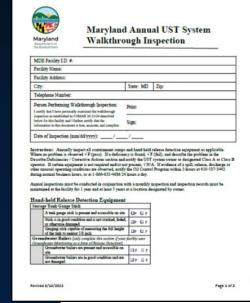
## New Walkthrough Inspection Requirements

Requirement: UST owners must perform monthly and annual walkthrough inspections.

MDE has developed monthly and annual inspection forms

#### Implementation Deadline:

 To be begin 90 days after regulation is in effect: September 13, 2022



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## Other MDE Regulation Changes for UST Facilities

- High Risk Underground Oil Storage Facility
  - Total underground storage of 80,000 gallons or greater (not including onsite consumptive use heating oil) and one or more single walled UST or product piping
  - High throughput facilities
    - Combined monthly throughput of 750,000 gallons averaged over rolling 12-month period or
    - 1,000,000 gals or more throughput in a single month
- Throughput to be assessed as part of Third-Party Inspection (TPI)



## Shop Fabricated ASTs (COMAR 26.10.17)

#### New Requirements For:

- Construction standards
- ASTs, piping, venting
- Secondary containment
- Spill and overfill prevention
- Release detection
- Corrosion protection

- Inspection requirements
- Out of Service and Closure
- Recordkeeping

# New AST System Construction and Operation Standards

Requirement: Shop-fabricated and fielderected ASTs are subject to new performance standards for construction, O&M, inspection, testing, temporarily and permanently closure.

#### Implementation Deadline:

- Existing ASTs have 2 years to come into compliance or another time period approved by MDE
- No later than June 13, 2024



## New AST System Construction and Operation Standards

- New performance standards for shopfabricated ASTs
  - Tanks must be constructed to an industry standard, including a UL, STI or API standard (e.g., UL-142 or UL-2085)
- New performance standards for aboveground piping
  - Aboveground piping systems (including appurtenances) can not be constructed with:
    - Low melting point materials (e.g., aluminum, copper, or brass)
    - Materials that soften on fire exposure (e.g., plastics) or
    - Non-ductile materials (e.g., cast iron)



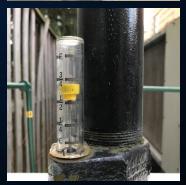


## New Overfill Prevention Requirements for ASTs

- Must have written procedures, follow certain basic procedures, and gauge AST before filling
- Shop-fabricated ASTs must be equipped with a tank gauge or other equivalent monitoring device
  - Directly visible during transfer operations
  - Accurately measures the level or quantity of oil
  - Independent of any overfill prevention equipment
  - Maintained in good working order



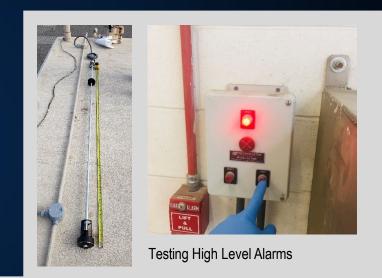




## New Overfill Prevention Requirements for ASTs

Shop-fabricated ASTs using overfill prevention equipment

- Must perform monthly inspections and O&M
- Must perform annual functionality testing



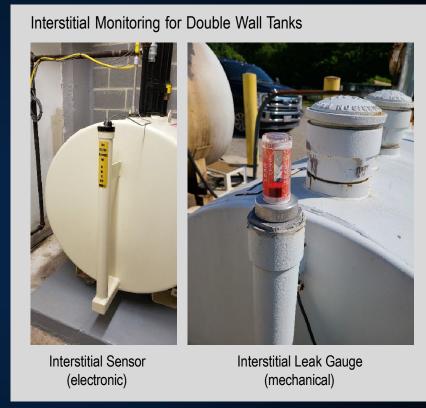


Inspection and functionality test of overfill prevention valves



## New AST System Construction and Operation Standards Interstitial Monitoring for Double Construction and Interstitute Construction a

- New release detection requirements for shop-fabricated ASTs
  - ASTs must have release detection to detect a spill, release, or discharge from the AST system.
  - One or more methods
    - Visual inspection of the AST system
    - Continuous electronic release detection system
    - Continuous mechanical release detection system
  - If mechanical or electronic, install, calibrate, operate, and maintain per manufacturer



## New AST System Construction and Operation Standards

- New Venting Requirements
  - Normal and emergency venting must meet certain construction requirements
    - UL 142 "Standard for Safety, Steel Aboveground Tanks for Flammable and Combustible Liquids"

or

 API Standard 2000 "Venting Atmospheric and Lowpressure Storage Tanks"; and the normal venting requirements listed in NFPA 30 "Flammable and Combustible Liquids Code"





#### Summary

#### Oil Storage at County Facilities

 Must maintain fuel oil storage for emergency standby power and to sustain normal day-to-day operations.

#### Facilities storing fuel oil are subject to local, state and federal requirements.

- New state requirements for oil storage facilities in Maryland
- A full repeal of COMAR 26.10 and comprehensive replacement went effective as of June 13, 2022.

#### QUESTIONS?

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